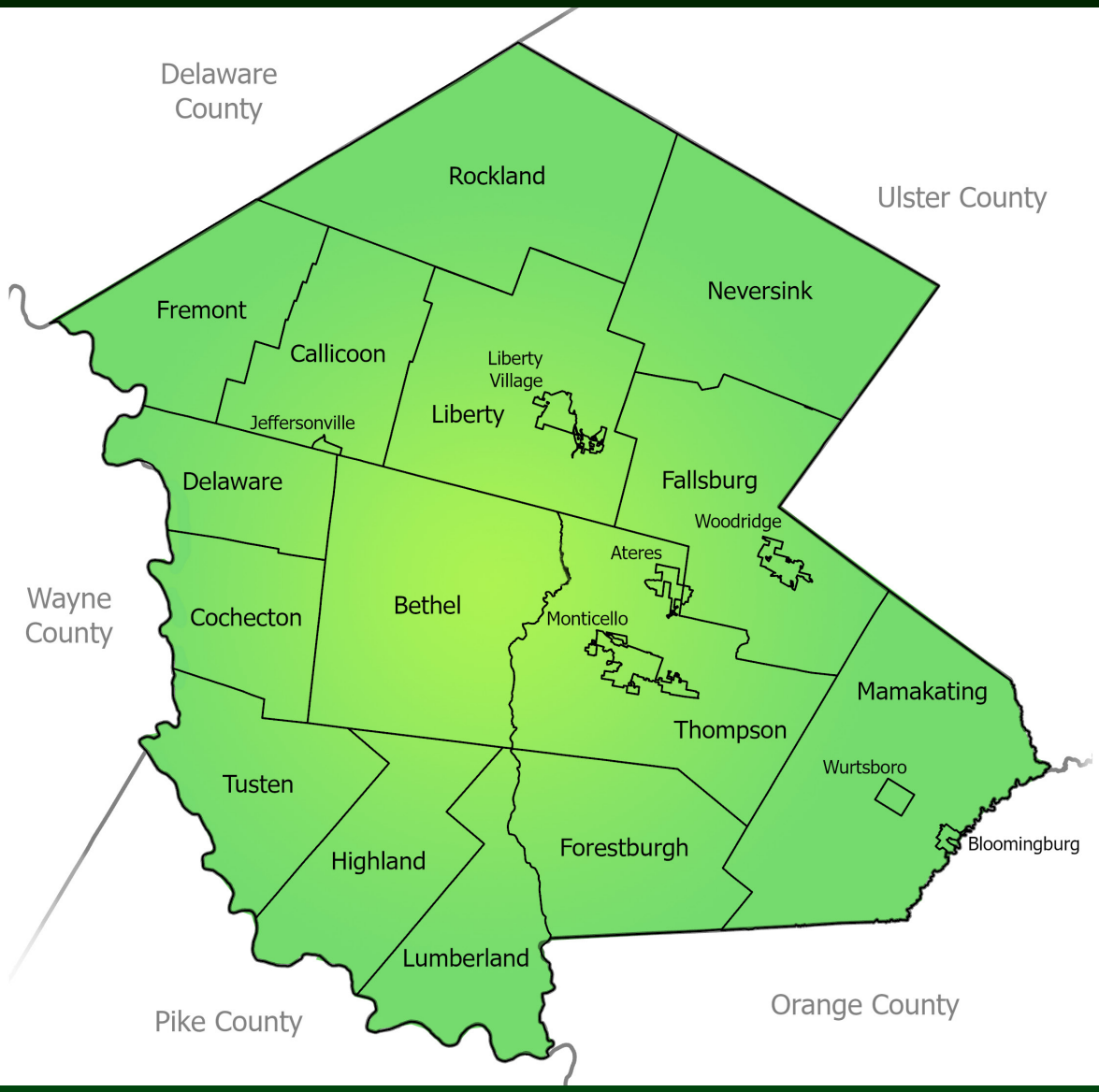
# Sullivan County Assessment of Potable & Wastewater Infrastructure

**VOLUME II**

# Sullivan County





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*Volumes I and II are part of a larger report.*
*The full Sullivan County Assessment of Potable and Wastewater Infrastructure Report may be requested from the Sullivan County Division of Planning, Community Development and Environmental Management*

# 1. ABOUT THIS DOCUMENT

In 2025, the Sullivan County Division of Planning, Community Development, and Environmental Management (DPEM) undertook, with the support of Delaware Engineering, DPC, a project to assess water supply and wastewater management infrastructure throughout the County.

As part of that project, known as the Countywide Assessment of Potable and Wastewater Infrastructure (CAPWI), water and sewer infrastructure serving residents and businesses in each of the County's twenty-two municipalities was surveyed, inventoried, and evaluated. This document details the results of this effort and presents the information in a series of Community Reports. The CAPWI Volume 1 Report reflects the information developed within this Volume 2 Report through a series of recommended actions aimed at supporting water and sewer service county-wide, and advanced by the County.

## 1.1 Using this Document

The information is structured around inventory and evaluation of each community's water supply and wastewater management infrastructure. While emphasis is placed on municipally owned systems, the report surveys and documents other centralized and regulated decentralized water and sewer systems in the Community. Individual on-site facilities are beyond the scope of this report, though it is noted where in the County these systems are exclusively relied on. Mapping showing service areas and other key information accompanies the report. Sources and methods are also described.

The information in this volume is, in general, not at a level of detail or intended to provide analysis of system or component capacity, be used in the design of specific capital projects, provide detailed system mapping, assess or recommend specific operational techniques or strategies, or other similar activities requiring development of precise technical information and detailed engineering assessment. Instead, this volume provides an inventory and planning-level evaluation of these systems in support of policy and programmatic needs and decision making.

The Countywide Water and Sewer Evaluation and Recommendations report can be viewed by visiting the following website from DPEM.
https://www.sullivanny.gov/Departments/PlanningEnvironmental/PlansandStudies/CAPWI

Individual Community Profile reports have also been prepared as part of the CAPWI project and are intended to be standalone documents that can be used by a variety of audiences,

including municipal leaders and officials, residents, and businesses, seeking basic information about water and sewer service in the municipality.

Finally, many of the terms used have specific meanings and are further elaborated upon in a Glossary attached to this report. Terms appearing in the Glossary are denoted in underline throughout the document, and in the electronic version, you may click these terms to be taken directly to where that term appears in the Glossary.

## 1.2 Understanding the Data: Public vs. Private Infrastructure

As stated previously, the primary focus of this report is inventorying municipally owned water and sewer systems in Sullivan County. However, the community profile reports also provide limited information on privately-owned systems where relevant and publicly available. In order to understand the data presented, the reader must first have a basic understanding of the regulatory framework governing the operation of different types of water and sewer systems in New York State.

Regardless of ownership, there are two regulatory agencies that are primarily responsible for issuing permits and approvals for drinking water and wastewater systems – the New York State Department of Health (NYSDOH) and the New York State Department of Environmental Conservation (NYSDEC).

### 1.2.1 Public Water Systems (NYSDOH)

In Sullivan County, the NYSDOH is the agency responsible for regulating public water systems. This includes water systems owned and operated by a municipality, as well as privately-owned water supply companies, and even hospitals, gas stations, and other facilities with private wells. When it comes to water systems, public means that these systems serve the public at large – not the form of ownership.

In general, water systems regulated by NYSDOH as public water systems are classified as either community water systems or non-community water systems (see Glossary for more information). The data contained in this report is limited to community water systems**,** whether publicly or privately owned. Information about non-community water systems (including those that service transient seasonal populations like camps and bungalow colonies) is included, where available, but is not further detailed.

### 1.2.2 Wastewater Treatment Facilities (NYSDEC)

New York State's wastewater discharge regulations are administered by the NYSDEC through the State Pollutant Discharge Elimination System (SPDES) program, which requires

permits for any facility that is designed to treat and discharge wastewater. That includes sewage treatment plants that discharge effluent directly to a surface waterbody (like a nearby lake or stream) as well as facilities that discharge wastewater into the ground (like septic systems and sand filters).

No SPDES permit is required for a facility designed to treat less than 1,000 GPD, and Minor SPDES projects (those with wastewater discharges of less than 10,000 GPD) are typically covered by a NYSDEC General Permit (GP-0-25-002). Only wastewater treatment facilities that don't fall into one of those two categories (Major SPDES projects) are detailed in this report. Those include centralized systems (e.g., Publicly Owned Treatment Works), regulated decentralized systems (e.g., "package plants"), and commercial-sized septic systems that discharge to groundwater. Like water systems, wastewater treatment facilities can be publicly or privately owned.

Although the SPDES program is involved in the centralized wastewater systems with which the CAPWI effort is primarily concerned, the City of New York and DRBC each regulate in parallel wastewater facilities within their respective geographies. Of further note is that residential systems handling less than 1,000 GPD are regulated by NYSDOH.

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# 2. GLOSSARY OF TERMS

## 2.1 Action Level (AL)

The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

## 2.2 Annual Water Quality Report (AWQR)

The Annual Water Quality Report is required by federal law and NYS regulation and is designed to provide consumers with information on the quality of the water delivered by their public water system. Systems serving fewer than 1,000 service connections are required to report information on the water source and water treatment, the levels of any detected contaminants, and compliance with drinking water rules, plus general educational information. The report also includes an explanation of the size of the population served by the system, which also typically includes the number of service connections. These reports are available at municipal offices and on municipal websites for public consumption.

## 2.3 Centralized System (Water or Sewer)

Centralized systems, which can be water supply or wastewater management, refer to infrastructure that is, typically but not exclusively, municipally owned and which is characterized by extensive distribution and conveyance networks serving large areas. Water supply and wastewater management are provided at typically larger-scale facilities. These systems are highly regulated. This infrastructure consists of both collection and conveyance, as well as treatment.

## 2.4 Decentralized System (Water or Sewer)

These systems are characterized by smaller numbers of connections and with water supply and wastewater treatment works provided closer to the users or source of demand. This term includes individual on-site water supply wells and septic systems serving single users, but also encompasses systems serving multiple connections that are regulated similarly to centralized systems.

## 2.5 Collection and Conveyance System

The sanitary sewer collection and conveyance system refers to the elements of the sewer system that enable wastewater to flow from points where it's generated to the point(s) where it's treated. In this report, the system begins at the point of connection to individual users and consists, generally, of pipes, manholes, pump stations, forcemains, and upstream wastewater storage (flow attenuation).

## 2.6 Community Water System (CWS)

A public water system (i.e., one that serves 15 or more service connections used by year-round residents or regularly serves at least 25 year-round residents - see definition in this document) that supplies water to the same population year-round. Examples of community water systems include municipally owned (cities, towns, or villages) public water supplies, public water authorities, or privately-owned water suppliers such as homeowner associations, apartment complexes, and mobile home parks that maintain their own drinking water system. See also the discussion in this Glossary of non-community water systems.

Community water system information, where available, is presented in tabular format. The following table provides an explanation of the meaning of the various values contained in each of the fields.

| Water System | Service Area | SDWA # | Population | Connections |
|---|---|---|---|---|
| *[Name of water system]* | *[The Primary type of area that is served by the* public water system*: MHP =* mobile *home park]; HOA = Home-owners association;* Residential = Residential area; etc.] | *[Safe Drinking Water Information System (SDWIS) ID number]* | *[The reported population that is served by the system in SDWIS reporting.]* | *[The reported number of service connections within a system in SDWIS reporting.]* |

## 2.7 Deferred Maintenance

In this report, deferred maintenance refers to the postponement of essential upkeep, repairs, or replacements for public facilities, infrastructure, or equipment. These typically minor items will become delayed to the point where they end up impacting performance and reliability, becoming far more costly to rectify. Small maintenance over many years is

more sustainable than waiting for an issue to happen, such as a water main break due to an unrepaired detected leak, or continuing to operate with undersized or obsolete equipment instead of upgrading to something that will save time and money over the long run.

### 2.8 Delaware River Basin (DRB) and Delaware River Basin Boundary

The area of drainage into the Delaware River and its tributaries, including Delaware Bay, is regulated by the DRBC. Its size is approximately 13,500 sq. miles and includes land in four states.

### 2.9 Delaware River Basin Commission (DRBC)

The Delaware River Basin Commission is the regional body created in 1961 by the Delaware River Basin Compact signed among the states of Delaware, New Jersey, Pennsylvania, and New York with the force of law to oversee managing the Delaware River system across state boundaries. Among other regulatory programs, DRBC addresses projects in the basin that withdraw from or discharge to the basin's waters over certain thresholds. The threshold for water withdrawals is taking water from ground or surface water, or diversion, or transfer in or out of the Basin, when the daily average gross withdrawal during any 30 consecutive-day period exceeds 100,000 gallons. The threshold for discharges is those over 50,000 GPD during any consecutive 30-day period from wastewater treatment facilities or the importation or exportation of wastewater.

### 2.10 Delaware River Basin Commission (DRBC) Docket

The record of decision made by DRBC, pursuant to its authority under the 1961 Compact, relating to an application for a permit, including those relating to regulated water withdrawals and discharges. Dockets contain information about water and sewer systems and permitted withdrawal and discharge thresholds.

### 2.11 Distressed Communities

As per the Empire State Development Corporation and NYS Climate Act, distressed or disadvantaged communities are those that bear the burden of negative public health effects, environmental pollution, and climate change impacts that possess population decline, economic hardships, high unemployment, and high concentrations of low to moderate-income households.

## 2.12 Disinfection Byproducts (DBPs)

DBPs are substances produced when chlorine, used for disinfection of water, reacts with organic materials in the water. The formation of DBPs is usually a greater concern for water systems that use surface water, such as rivers, lakes, and streams, as their source, as these sources are more likely to contain organic materials necessary for these reactions.

Total trihalomethanes (TTHM) are volatile regulated disinfection DBPs that can pose significant cancer, organ, and reproductive risks. They include chloroform, bromodichloromethane, dibromochloromethane, and bromoform.

Total haloacetic acids (THAA) are regulated disinfection DBPs that can pose cancer and developmental health risks. They include monochloroacetic, dichloroacetic, trichloroacetic, monobromoacetic, and dibromoacetic acids.

## 2.13 Equivalent Dwelling Unit (EDU)

An EDU is a measurement for water usage that standardizes all users into units based on the demand of one single-family dwelling unit. EDUs are used by utility providers to calculate service charges associated with the probable demand for each user.

## 2.14 New York State Environmental Facilities Corporation (EFC)

EFC is a NYS public benefit corporation that assists communities and certain businesses throughout New York State to undertake critical water quality infrastructure projects by providing access to low-cost capital, grants, and expert technical assistance. As such, EFC plays a significant role in capital projects undertaken by NYS municipalities. A primary goal is to ensure that these projects remain affordable while safeguarding essential water resources. EFC develops and advances financing strategies to maximize the funding that can be made available, aiding compliance with Federal and State requirements, and promoting green infrastructure practices. In implementing these programs, EFC partners with NYSDEC and NYSDOH on wastewater and drinking water supply projects, respectively.

EFC allocates state and federal funds to participating entities in the form of grants and loans. Major programs include the Clean Water State Revolving Fund (CWSRF), which is oriented toward sanitary sewer and wastewater infrastructure projects, and the Drinking Water State Revolving Fund (DWSRF), which is oriented toward water supply infrastructure projects. These funds “revolve” as borrowers pay their loans back, with payments in turn used to finance new projects; EFC also uses revenue bonds to increase available capital.

Other programs include the engineering planning grants (EPG) program, which provides support to fund the engineering reports required to apply to EFC for financial assistance. EFC provides financial assistance in the form of subsidized loans and grants, such as through the WIIA program created under the 2015 Water Infrastructure Improvement Act.

### 2.15 Environmental Protection Agency (EPA)

The Environmental Protection Agency (EPA) protects human health and the environment by developing and enforcing regulations, conducting research, providing education, and issuing grants. EPA sets and enforces national standards and federal environmental laws, and cleans up contaminated sites. EPA is ultimately responsible for oversight of key laws affecting both water supply and wastewater management, including the National Pollutant Discharge Elimination System (NPDES); oversight of states, local governments, and water suppliers to enforce the standards under the Safe Drinking Water Act; and regulation of solid and hazardous waste. Importantly, EPA also administers critical funding sources supporting investment in drinking water and clean water (wastewater management) infrastructure.

### 2.16 Gallons per Day (GPD)

Gallons per day is a unit of measurement that defines the rate of volume flow, or use, for a liquid, such as water, over a 24-hour period. GPD is often used as a measurement of, e.g., the quantity of water consumed by a user or the amount of wastewater generated over the course of a day.

### 2.17 Gallons per Minute (GPM)

Gallons per minute is a unit of measurement for flow rate, indicating the volume of a liquid that passes a specific point in one minute. GPM is often used to indicate, e.g., the capacity of a water well.

### 2.18 Individual On-Site Facilities or Systems (Water or Sewer)

As used in this report, individual facilities (or systems) are a subtype of decentralized infrastructure serving a single user, most commonly via on-site water supply wells and septic systems. These wells and septic systems are mainly regulated under building codes, the NYS sanitary code (administered by NYSDOH), and NYSDEC (i.e., with respect to water well drilling and licensing of well drillers). However, these systems may also be regulated

similarly to centralized systems, depending on capacities and types of uses or users served (see Regulated Decentralized Systems).

### 2.19 Inflow and Infiltration (I&I)

Inflow is when storm water enters the sanitary sewer system (e.g., from a sump pump or roof leader), while infiltration is when groundwater seeps into the system (e.g., due to high groundwater and defects or cracks in pipes and manholes). Both are problems for wastewater treatment, as this "clean" water adds unnecessary volume to the system, which can overload treatment plants or reduce capacity in elements of the conveyance system, such as pipes or pump stations.

### 2.20 Influent (WWTP)

Influent flow refers to the incoming wastewater that enters a wastewater treatment plant. It is measured at a point prior to the wastewater entering any portion of the treatment process.

### 2.21 Maximum Contaminant Level (MCL)

MCL is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the Maximum Contaminant Level Goal (MCLG) as possible. MCLG is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety. MCLs are required to be reported on a water system's AWQR.

### 2.22 Methyl Tert-Butyl Ether (MTBE)

Methyl tert-butyl ether is a chemical historically used as a gasoline additive. It is a type of volatile organic compound (VOC) that can contaminate groundwater by evaporating easily and dissolving in water.

### 2.23 Million Gallons per Day (MGPD)

Million gallons per day is a unit of measurement that defines the rate of volume flow, or use, for a liquid, such as water, over a 24-hour period, reported in increments of 1 million gallons. MGPD is often used as a measurement of water produced by a source or wastewater treated at a WWTP over the course of a day.

### 2.24 Municipal System (water or sewer)

This is the term used throughout the report to denote ownership by a municipal corporation, such as a village or town, of a centralized water supply or wastewater management system.

### 2.25 New York State Department of Health (NYSDOH)

NYSDOH is responsible for administering the rules and regulations governing both water supply and wastewater management. Under regulatory power delegated by USEPA, NYSDOH regulates public water systems, including community water systems, in NYS. NYSDOH also regulates certain wastewater management systems under an agreement with the New York State Department of Environmental Conservation (NYSDEC); NYSDOH-regulated systems typically include residential septic systems and other wastewater facilities with a flow of less than 1,000 GPD.

### 2.26 Non-Community Water System

According to NYSDOH, a non-community water system is a public water system (i.e., a water system with at least 5 service connections or that regularly serves an average of at least 25 people daily for at least 60 days out of the year) that serves the public but does not generally serve the same people year-round. There are two types of non-community water systems: transient and non-transient non-community water systems.

- Transient Non-community Water System – A transient non-community water system is a non-community water system that serves different people for more than six months out of the year. Rest stops, parks, convenience stores, and restaurants with their own water supplies are examples of transient non-community water systems. In Sullivan County, summer camps that maintain their own water systems are also examples of transient non-community water systems.
- Non-transient Non-community Water System – A non-transient non-community water system is a non-community water system that serves the same people more than six months per year, but not year-round. Schools, colleges, hospitals, and factories with their own water supplies are examples of non-transient non-community water systems.

Non-community water systems are regulated by NYSDOH as public water systems (see public water system discussion in this Glossary). For purposes of this report, these systems are discussed where information is available.

### 2.27 NYC Watershed Boundary

The NYC Watershed Boundary encompasses the NYC watershed, defined as the land area contributing surface water to the New York City water supply. Activities within the NYC watershed are subject to the City of New York's Rules and Regulations for the Protection of Contamination, Degradation, and Pollution of the New York City Water Supply and its Sources. This includes wastewater management systems, such as individual on-site septic systems and wastewater treatment plants.

### 2.28 NYSDEC Water Withdrawal Permit

Any water withdrawal system with the capacity to withdraw 100,000 gallons per day (GPD) (also referred to as "threshold volume") or more of surface water, groundwater, or a combination thereof requires registration with, permitting from, and reporting to NYSDEC, pursuant to Part 601 of the New York Compilation of Codes, Rules, and Regulations (NYCRR).

### 2.29 Other System (water or sewer)

This is the term used throughout the report to denote ownership by a non-municipal entity, such as a mobile home park, industrial campus, or homeowner’s association, of a centralized water supply or wastewater management system.

### 2.30 Per- and polyfluoroalkyl substances (PFAS)

According to the EPA, PFAS are widely used, long-lasting chemicals, components of which break down very slowly over time. Because of their widespread use and persistence in the environment, many PFAS are found in the blood of people and animals all over the world and are present at low levels in a variety of food products and in the environment. PFAS are found in water, air, fish, and soil at locations across the nation and the globe. Scientific studies have shown that exposure to some PFAS in the environment may be linked to harmful health effects in humans and animals. There are thousands of PFAS chemicals, of which are found in many different consumer, commercial, and industrial products. Questions remain in terms of how to better detect these compounds, the extent of human exposure, the magnitude of human and environmental harm, and how to manage these chemicals. Under recent rulemaking, the EPA will regulate five PFAS individually. They are PFOA, PFOS, PFNA, PFHxS, and HFPO-DA. EPA will regulate four PFAS as a mixture: PFHxS, PFNA, HFPO-DA, and PFBS.

### 2.31 Public Service Commission (PSC) Docket

A PSC docket is a file for a specific case or proceeding containing official documents, hearing transcripts, and public comments related to the regulation of utility companies, such as those for electric, gas, and water services. Certain privately owned centralized sewer systems and water supply systems are regulated by PSC pursuant to the NYS Transportation Corporations law. In general, sanitary conveyance and treatment systems serving more than one service connection (NYSDEC SPDES Permit regulations (6 NYCRR 750-1.6(f)) and water supply systems -- except municipally-owned systems - selling, furnishing, and distributing water for domestic, commercial and public purposes (Art. 4-B of the NYS Public Service Law) are regulated by PSC with respect to rates, charges, and other aspects of utility operations.

### 2.32 Public Water System

Pursuant to federal and NYS regulations, a public water system is defined as one that provides water for human consumption through pipes or other constructed conveyances to at least 15 service connections or serves an average of at least 25 people for at least 60 days a year. A public water system may be publicly or privately owned.

### 2.33 Ragging

As used in this report, "ragging" refers to the accumulation and entanglement of fibrous, non-biodegradable debris in and around the impellers of wastewater treatment pumps, including, but not limited to, wet wipes, rags, hair, and plastics. This phenomenon creates rope-like bundles that obstruct flow, reduce efficiency, and cause costly maintenance issues.

### 2.34 Regulated Decentralized System (Water Supply or Wastewater Management)

A regulated decentralized system is a subcategory of decentralized infrastructure that is regulated similarly to centralized systems. Regarding water supply, this term includes a public water system, as defined by NYSDOH in regulation, that typically is privately owned but may also include systems owned by municipalities. It encompasses centralized and certain decentralized water supply systems, but also other public water systems, such as those serving restaurants. In addition to NYSDOH, these systems may also be regulated by NYSDEC and DRBC (for water withdrawals). Regarding wastewater management, these systems may discharge to surface water or groundwater and require SPDES permits (i.e.,

capacity to discharge 1,000 gpd or more). Depending on their location, these systems may also be regulated by DRBC and/or NYCDEP.

### 2.35 Rotating Biological Contactors (RBC)

An RBC is a fixed-film treatment process used in the secondary treatment of wastewater. It consists of a series of closely spaced, parallel discs mounted on a rotating shaft, which is supported just above the surface of the wastewater. Microorganisms grow on the surface of the discs, where biological degradation of pollutants takes place prior to discharge into the environment.

### 2.36 Service Area

As used in the report, service area refers to the geography within which users may be served by centralized water or sewer systems.

### 2.37 Special District (e.g., water district or sewer district)

A special district refers to the special-purpose government vehicle that towns and counties in NYS are authorized to create for the purpose of providing a service. In this report, special district generally refers to the authority for NYS towns to create water districts and sewer districts pursuant to NYS Town Law Article 12 and Article 12-a. A special district has three discrete elements: The legal requirements governing formation and operation, the taxation and administration by which a town provides water or sewer service, and the engineering and design of the infrastructure supporting the provision of these services. NYS General Municipal Law Art. 17-a also provides for the consolidation of water and sewer districts. In NYS, villages do not have the authority to create special districts and instead provide water and sewer service pursuant to Articles 11 and 14 of the NYS Village Law, respectively.

### 2.38 State Pollutant Discharge Elimination System (SPDES)

SPDES is the permit program in NYS that addresses water pollution by regulating point sources that discharge pollutants to waters of the United States. NYSDEC administers the program under authority created in 1972 by the Clean Water Act, known as the NPDES permit program. Under NPDES, state governments are authorized by the EPA to perform many permitting, administrative, and enforcement aspects of the program. In this report, SPDES and associated NYSDEC permitting refer to the outlet or discharge pipe (referred to as a "point source") that discharges sanitary wastewater into the surface waters or ground

waters of the state, and constructing or operating a disposal system such as a sewage treatment plant.

### 2.39 State Pollutant Discharge Elimination System (SPDES) Permit "Administrative" or "SAPA" Renewal

SAPA renewal (or continuation; also called "administrative renewal") is the process by which certain SPDES permits may be issued without a full technical review by NYSDEC. It typically occurs on a 5-year cycle, based on the date of permit issuance. Authority for SAPA renewals lies in NYS's State Administrative Review Act (SAPA). Provided a SPDES permittee makes a timely application to NYSDEC for renewal of an existing SPDES permit, NYSDEC may authorize, administratively, that permittee to continue to operate their regulated discharge. This continuation is typically permitted under the terms and conditions of the prior SPDES permit. It is important to note that SAPA renewal can result in situations where a SPDES permit, after several SAPA renewal cycles, may get out of alignment with applicable standards, and compliance with contemporary standards can ultimately require capital investment.

### 2.40 State Pollutant Discharge Elimination System (SPDES) Environmental Benefit Permit Strategy (EBPS)

"Also known in NYS regulation as a Modification Priority Ranking System, EBPS is the system that establishes procedures to manage State Pollutant Discharge Elimination System (SPDES) permit renewal applications in a manner that prioritizes permits based upon their potential or actual impact to the environment. Under this system, SPDES permit holders are assigned a score and rank that then determines the order in which NYSDEC staff carry out a full technical review to determine whether a permit needs modification. Facilities are assigned a score for applicable priority ranking factors, each of which is then multiplied by a value according to assessed potential impacts to water quality. A longevity factor is applied based on the permit type and time since full technical review (long form permit application). These scores are added together, and a rank is assigned. The higher the EBPS Permit Priority Score, the higher the priority that permit has for full technical review and modification initiated by NYSDEC."

### 2.41 State Pollutant Discharge Elimination System (SPDES) Permit Full Technical Review

Full technical review is the process by which NYSDEC reviews applications for SPDES permits. It is in contrast to SAPA renewal. Full technical review may be initiated by NYSDEC or may be initiated due to a permittee's request to modify their existing permit (e.g., to

increase the flow of a WWTP). Reviews are performed based upon potential water quality impact or major changes to the facility's flow and wastewater treatment system. The process involves determining whether new effluent limits and other permit requirements, such as best management practices or a compliance schedule, are needed.

### 2.42 Submersible Chopper Pumps

This type of pump is a centrifugal pump designed for liquid submersion, which is equipped with a cutting system that "chops" up all incoming solids prior to pumping to minimize clogging within a wastewater system.

### 2.43 Sullivan County Partnership

Officially "The Sullivan County Partnership for Economic Development", is a private not-for-profit corporation that serves as the one-stop resource for business development in the County. The Partnership is a team that works to find the most advantageous and cost-effective locations for the expansion of industry and supports small business development by providing guidance and technical assistance through a variety of financing options.

### 2.44 Trickling Filters

A trickling filter is a step in pollutant removal at a wastewater treatment facility that uses microorganisms to remove organic matter by distributing it over a fixed bed of porous sediment.

### 2.45 Variable Frequency Drive (VFD)

A variable frequency drive (VFD) is an electronic device that controls the speed of an AC motor by adjusting the frequency and voltage of the power supplied to it. VFDs are energy efficient when demand on a motor or system varies, as VFD output can be varied based on demand or load. This is in contrast to across-the-line drives, which operate at full voltage and cannot be varied.

### 2.46 Wastewater Treatment Plant (WWTP)

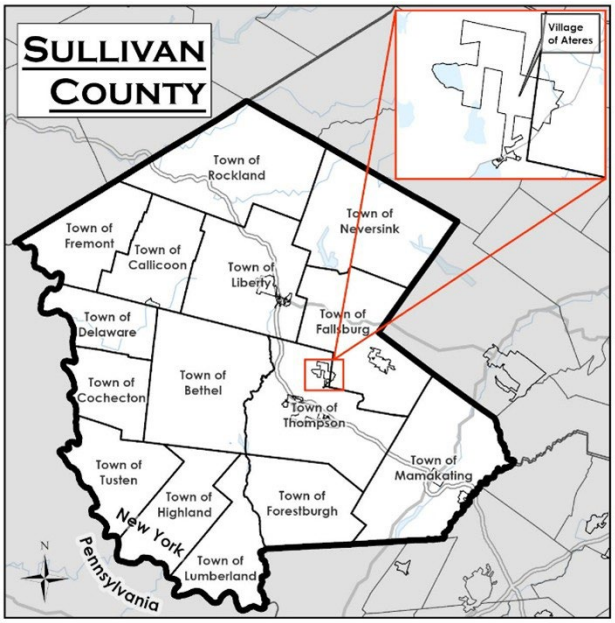
A wastewater treatment plant is the location at which pollutants are removed from wastewater collected, and is a critical element of a wastewater management system. WWTPs typically involve several processes. Preliminary treatment is the measurement, screening, and removal of inorganic material (grit). Primary treatment is a physical settling process that removes larger solids (e.g., in a settling tank or clarifier). Secondary treatment

is a biological process in which dissolved solids are converted by microorganisms into a cellular or biological mass that can be later removed (e.g., in a secondary clarifier). Tertiary or advanced treatment involves disinfection (e.g., chlorine or UV light) as well as nutrient, additional solids, or biochemical oxygen demand (BOD) removal.

### 2.47 Water Distribution System

Water distribution system refers to the system elements that convey water from the source of supply to individual user connections. It includes infrastructure like pipes (water mains), valves, treatment facilities, storage tanks, and booster stations. Hydrants may be connected to the distribution system and serve water supply functions, such as flushing of mains, but hydrants also serve as part of fire suppression systems.

# 1. VILLAGE OF ATERES




## 1.1 Municipal Overview

The Village of Ateres was officially incorporated in 2024 from 128 parcels of land between the Towns of Fallsburg and Thompson and is the newest municipality in New York State. It is located within the eastern-central portion of Sullivan County between the Hamlets of South Fallsburg, Kiamesha Lake, Harris, and Hurleyville, and includes portions of Kiamesha, Baileys, and Anawana Lakes. The Village's 925 acres are split, with 133 acres in the Town of Fallsburg and 792 acres in the Town of Thompson. Currently, the primary areas of settlement are located along NYS Route 42 and at the intersection of Barnes Boulevard and Gibber Road, where the Viznitz Hasidic community was originally sited. The Village developed around the lands and buildings of the former Gibber Hotel. The population was 834 as of 2024 and is poised to grow substantially over the next decade. The Village supplies water treatment, water distribution, sewer collection, and sewer treatment services through a mix of public and private systems. The Village lies entirely within the DRBC boundary and entirely outside the NYC watershed boundary.

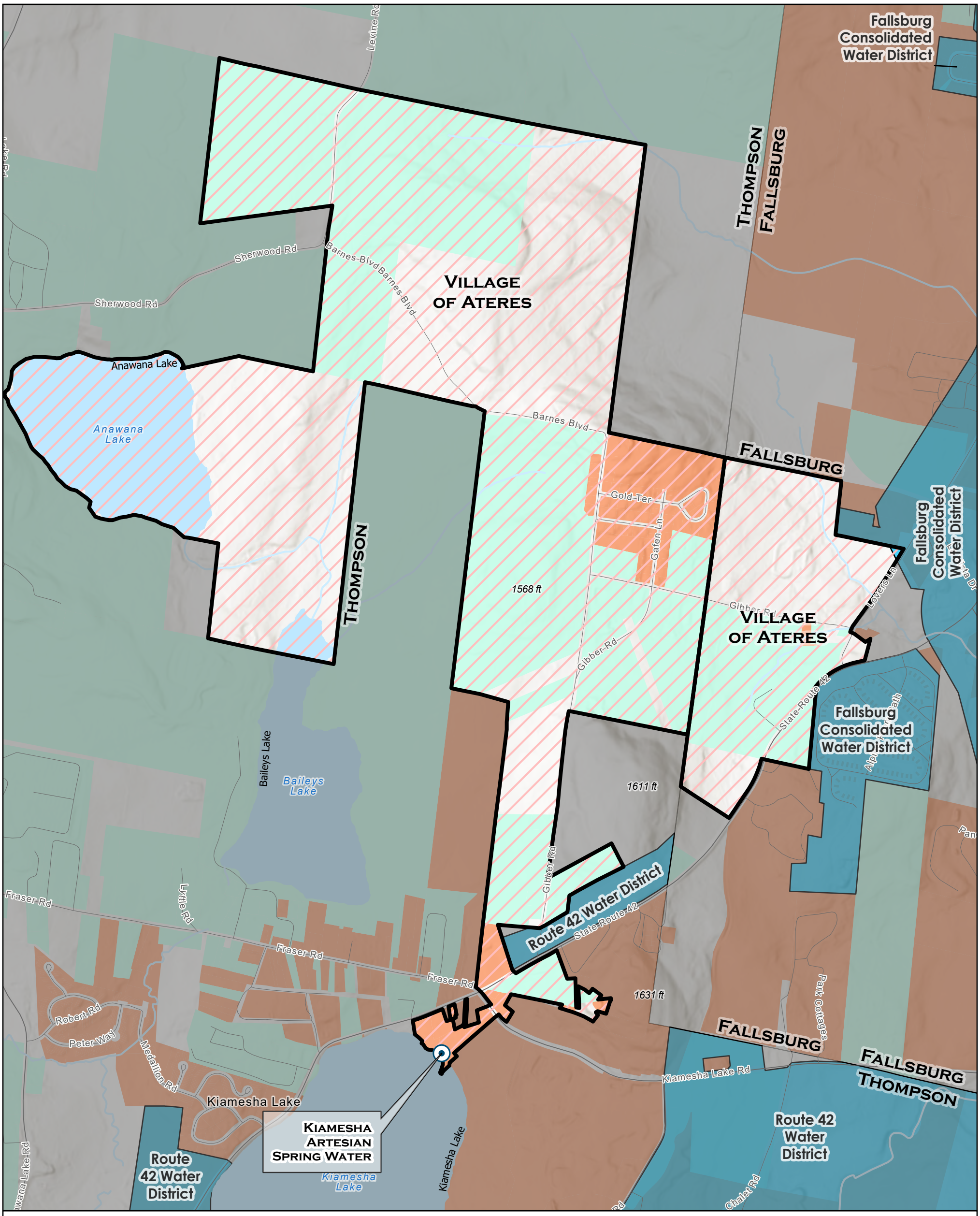
## 1.2 Water Supply and Distribution Inventory & Evaluation

### 1.2.1 Municipal Systems

As of this writing, the Village does not own or operate any centralized water systems.

### 1.2.2 Other Systems

The Village is exclusively supplied with water by the Kiamesha Artisan Spring Water Company, Inc. (KASWC), which is privately owned. Except for the KASWC, according to information reviewed for this report, no regulated community water systems or water users requiring a NYSDEC water withdrawal permit exist in the Village. Therefore, although privately owned, KASWC is discussed in a higher level of detail in this section as compared to other privately owned systems in the County evaluated as part of this effort.




# Village of Ateres Water Facilities Map

## Sullivan County, New York

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

0 0.1 0.2 0.4 0.6 0.8 Miles

N

- Village Water Service Area
- Municipal Water Service Areas
- Centralized or Regulated Decentralized Service
- Individual On-Site Systems
- Delaware River Basin (Entire Village)
- NYC Watershed (Entirely Outside)
- Other Municipalities
- Stream
- Waterbody

#### *1.2.2.1 System Components Inventory and Overview*

The Village's water supply is the Kiamesha Artisan Spring, and this water supply source and the distribution system are presently owned and operated by the KASWC. The well at the filtration plant is reported to have been developed prior to 1900. The WTP was constructed in 1962, and the original storage tank dates to the 1960s (with a newer tank built in 1989). The plant remains little changed since 1999, following DOH-directed improvements.

*Table 1. Kiamesha Artesian Spring Water Company Water withdrawal permit information*

| Water System | Component | Max Rate (GPD) | Average Daily w/d | Peak Day w/d | NYSDEC Permitted w/d | DRBC Permitted w/d |
|---|---|---|---|---|---|---|
| **Kiamesha Artesian Spring Water Co.** | Filter Plant Well | 129,600 | 128,619 | 132,000 | 550,000 | 730,000 |
| | Frasier Road Well | 98,000 | | | | |
| | Kiamesha Lake | 274,000 | | | | |

KASWC is a privately-owned company that produces and supplies potable water to an estimated 450+ residential and commercial users (including the approximately 200 located in the Town of Thompson's Route 42 Water District) along Route 42 and west of the Kiamesha Lake. According to water withdrawal reporting and DRBC docket information, the system has a permitted withdrawal of 550,000 GPD.

Water is drawn almost exclusively from a well reported to be between 80-ft and 110-ft deep at the filter plant at the north end of the lake. This well, known as the Filter Plant Well, according to DRBC docket information, has a permitted withdrawal of about 132,000 GPD. The well includes a surface outlet in a heated enclosure that also houses the meter. The water drawn from the well is pumped into an atmospheric storage tank and then into the distribution system.

A second well, the Fraser Road Well, is located on Frasier Road. The well is permitted to take about 98,000 GPD. The well was drilled, tested, and permits issued, but no further work has been completed to develop the well or connect it to the system. To utilize this water source, a pump and sealed pit-less unit would need to be installed, a disinfection system constructed, and a connector line extended to the water mains.

In addition to the wells, KASWC is permitted to draw about 274,000 GPD of water from Kiamesha Lake; however, water from the lake requires filtration (in conformance with the

Enhanced Surface Water Treatment Rule II). The method of filtration for Kiamesha Lake water (as reported by the Operator in 2012) was a single-stage sand filter, which may not meet the standards applied by NYSDOH. As a result, the use of the filtration equipment has been discontinued, and the plant is reportedly inoperable at this time. Therefore, the Kiamesha Lake source is unavailable to meet system demands.

Raw water is disinfected using liquid chlorine and pumped into the distribution system. Water storage is provided by two steel tanks with a combined capacity of 1.4 MG. The storage tanks are located north of CR 109, across from the old Concord Hotel site on land reportedly owned by KASWC and accessed through easements. They are approximately 1580 ft in elevation and provide a pressure of 70 to 80 psi at the water plant. The 440,000-gallon tank roof has buckled across its entire width, a condition that reportedly occurred due to wet, heavy snow and rain. The partially collapsed roof renders this tank unreliable and undesirable for service.

The operator's report submitted to the DOH states that the system has approximately 5 miles of water main for which the KASWC provides maintenance; however, based on the reported extent of the service area, the water mains owned by the KASWC may be much more extensive. Due to the age of the original KASWC system, much of the watermain is a flush-joint bolted cast iron pipe. The operator reports that the mains do leak, and breaks are reported, which require boil water orders due to low water pressure and/or conduct of repairs. Given the age of many of the mains, the amount of water lost, and the frequency of breaks, are expected to increase over time.

Over the past several years, KASWC has been cited for numerous health and safety violations by NYSDOH, and boil water notices are a common occurrence. In late 2024, a group of investors filed a petition with the Public Service Commission (PSC) to approve the transfer of 51% of the company's stock to ensure its continued operation. PSC approved the transfer in October 2025. The water drawn from the Filter Plant Well meets routine water quality standards in accordance with NYSDOH regulations.

In a comment letter to the PSC, the NYSDOH expressed concerns about the magnitude of the work that would be needed to bring the system into compliance.

Finally, based on information available, no additional regulated private water systems appear to be situated within the Village.

#### *1.2.2.2 Recent/Future Upgrades*

According to PSC docket information, the system operated by the KASWC is presently not in compliance with NYSDOH directives. Projects identified as necessary are anticipated to

cost approximately 3.3 million dollars and are intended to bring KASWC's existing water supply system into compliance with NYSDOH requirements. For more detailed information, see the Town of Thompson report, Route 42 Water District section.

The Village plans to invest an estimated $35 M into the upgrades and expansion of the water distribution system. The Village intends to work to secure grants and loans, draw extension plans, and conduct a water treatment pilot study. The buildout of the water system in the Village will continue throughout the Village boundary over the next few decades. The municipality is planning for an expansion from 200,000 GPD to 1,000,000 GPD. This buildout will include substantial extensions of the water mains to reach the largely undeveloped lands of the new Village. Approximately 15% of the land area has currently been developed, leaving roughly 800 acres of potential development area.

#### *1.2.2.3 Finances and Administration*

As part of the data collection process, information about system finances for the KASWC and budgeting was researched from publicly available sources. This information, where available, was used in order to develop an understanding of key metrics, including revenues and trends, expenses and trends, rate structure, revenues versus expenditures, debt service, and reserves.

Analysis of available financial information against the following metrics is as follows.

- Revenues and trends – Revenue appears to be derived exclusively from metered water sales and monthly minimum service charges. According to IRS filings, revenues between 2021 and 2023 varied by as much as 22%. Between 2021 and 2023, it appears that unpaid water bills may have been between 12% to 16% as a proportion of total revenues recorded.
- Expenses and trends – Cost of water includes chemicals and energy, and between 2021 and 2023 was about 9%-10% of expenditures. Over that same period, compensation of personnel was about 18%-20%. Overhead costs ranged from 52% to 81% between 2022 and 2023, with the increase mainly due to grounds maintenance expenses.
- Rate structure – Rates are governed by PSC regulation and appear to have been in place since the early 1990s. Rates are based on water use with a minimum monthly charge that varies by the size of the meter.
- Revenue versus expenditures – Revenues appear to have exceeded costs in 2021 and 2022 but were less than costs by about 13% in 2023.

- Debt service – IRS filings show debt service is about 15% of expenditures.
- Reserves – Until the mid-2010's, KASWC was approved by PSC for the establishment of a $15,000 escrow account for "extraordinary expenses," but has since eliminated this fund.
- Water use law – KASWC is a private water supply company and does not have the authority to adopt legislation.

### 1.2.3 Challenges and Opportunities

According to recent PSC docket information, there are substantial improvements that will need to be undertaken for the water system to be brought into compliance with NYSDOH directives and to commence the use of surface water sources. Also, according to these PSC filings, a new ownership group has acquired KASWC, and this represents an opportunity with respect to the needed improvements and corrective actions necessary to address documented compliance and infrastructure issues with the water supply facilities.

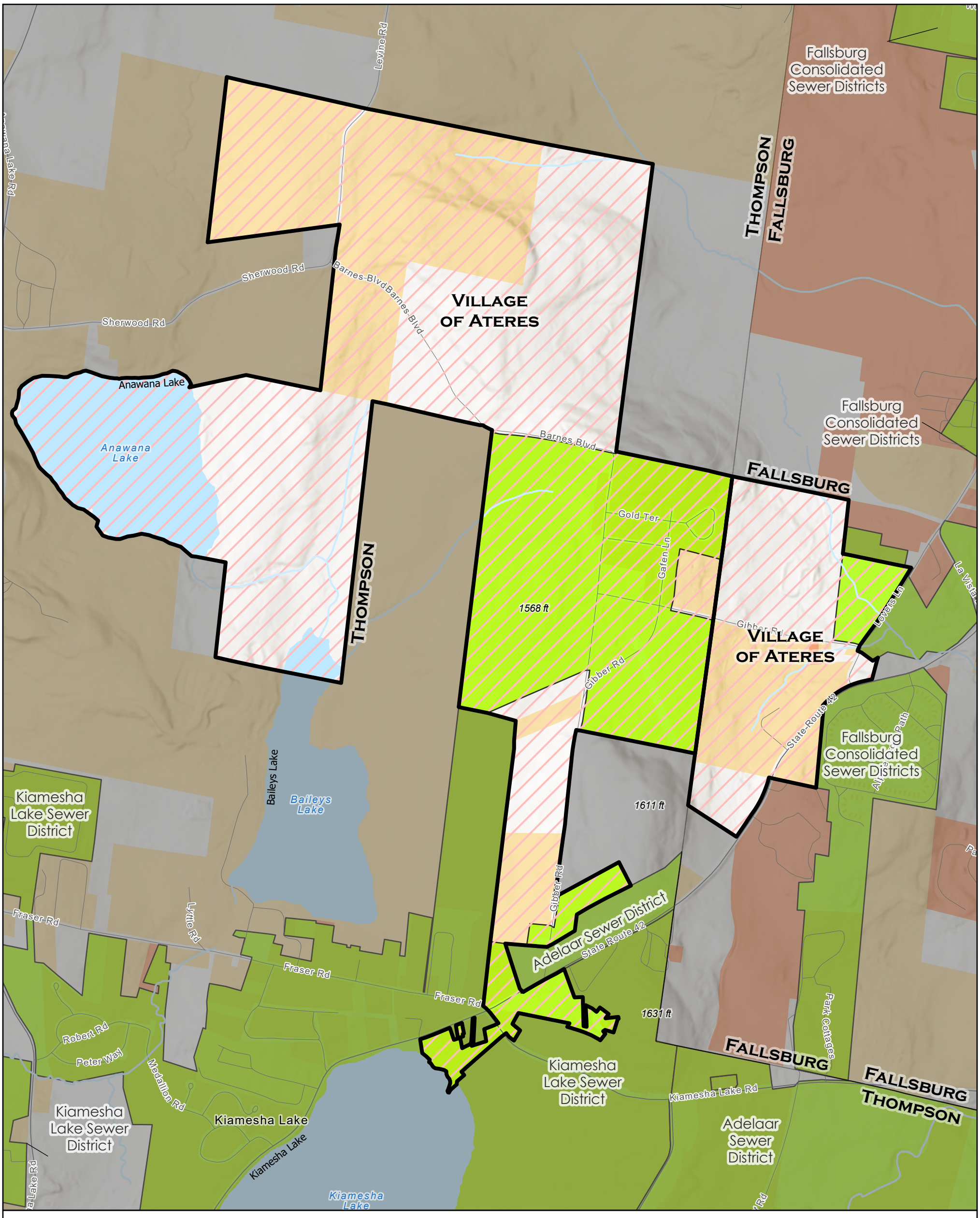
Anticipated growth of the Village population and further development within the Village boundaries present an opportunity to proactively plan for the installation of a water supply system able to serve this growth, and to create a framework for orderly, efficient creation and expansion of this service, including identified needed upgrades.

As noted above, KASWC supplies users in the Town of Thompson Route 42 water district. With the creation of the Village, modifications to the Town of Thompson's water district are likely necessary, given special district requirements under NYS Town and Village law. Given proximity and operational parameters, it may be possible to interconnect the Town of Thompson and, therefore, the Village system with the Village of Monticello water supply system. In general, such interconnections provide greater resiliency, including in the event of an emergency, and can, depending on system characteristics, provide hydraulic and other system-level benefits.

## 1.3 Sanitary Sewer and Wastewater Treatment Inventory & Evaluation

### 1.3.1 Municipal Systems

The Village is presently provided sewer service by the Town of Thompson, primarily by the system serving the municipal system encompassed by the Kiamesha Lake Sewer District. Ninety-four of the 136 parcels in the Village are included within the Town of Thompson's sewer district boundary, while one is included within the Town of Fallsburg's consolidated sewer district.




# Village of Ateres Wastewater Facilities Map

## Sullivan County, New York

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

0 0.1 0.2 0.4 0.6 0.8 Miles

N

- Village Wastewater Service Areas
- Municipal Sewer Service Areas
- Centralized or Regulated Decentralized Service
- Individual On-Site Systems
- Delaware River Basin (Entire Village)
- NYC Watershed (Entirely Outside)
- Other Municipalities
- Stream
- Waterbody

#### *1.3.1.1 System Components Inventory and Overview*

The Kiamesha Lake Sewer District currently serves the area surrounding Kiamesha Lake, including the Route 42 commercial district. It also serves several residential developments, such as Harris Woods on Old Liberty Road, and Forest Park Estates and Parkside Estates on Anawana Lake Road.

Wastewater is collected through a 7-mile network of district-owned piping and three sanitary sewer pump stations. Minor I&I has been documented. The system collects and conveys wastewater to the Kiamesha Lake WWTP. The WWTP is currently operating at approximately 25% of its permitted capacity. The plant is generally in good condition, but has incurred SPDES permit violations that, according to officials, can be traced to aging equipment. For more information, see the Town of Thompson report: Consolidated Kiamesha Sewer District section.

#### *1.3.1.2 Recent/Future Upgrades*

The Town of Thompson is planning a comprehensive upgrade project at the Kiamesha Lake WWTP that includes installation of new UV disinfection equipment and an aerobic digester to reduce the Town's reliance on landfills for sludge disposal is in the final stages of design and permitting. As of this report, approximately $20.4 M in state and federal grants have been secured for the project.

Separately, the Village is investing an estimated $25 M into upgrades and expansion of the sewer collection system. The Village intends to work to secure grants and loans, drawing extension plans, and starting the planning process for the construction of a new 1,000,000 GPD WWTP. The buildout of the sewer system in the Village will continue throughout the Village boundary over the next few decades. The Village is planning for future needed capacity of 1,000,000 GPD. This buildout will include substantial extensions of the sewer mains to reach the largely undeveloped lands of the new Village.

#### *1.3.1.3 Finances and Administration*

The Village does not presently operate a municipal sewer system and, therefore, no financial information was reviewed as part of this effort.

### 1.3.2 Other Systems

According to information reviewed for this report, no regulated decentralized sewer systems or other wastewater treatment systems requiring a SPDES are currently operating in the Village.

### 1.3.3 Challenges and Opportunities

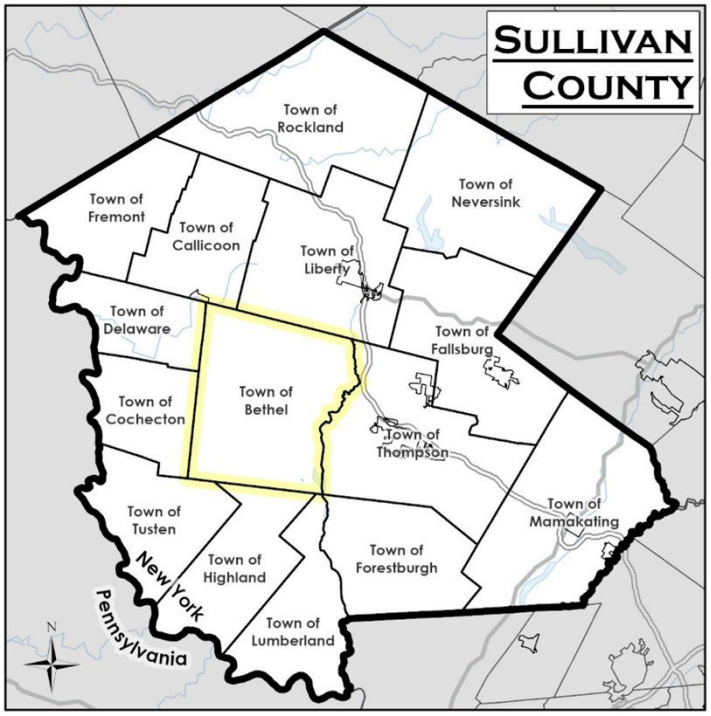
Anticipated growth of the Village population and further development within the Village boundaries present an opportunity to proactively plan for the implementation of a sewer system to serve this growth and to create a framework for orderly, efficient creation and expansion of this service. Based on operational parameters of the existing sewer service provided by the Town of Thompson, capacity may be available in the WWTP to accommodate additional flow.

## 1.4 Methodology and Sources

In preparing this report, publicly available data were collected and reviewed, along with any additional documentation supplied by a municipal representative, county office, or other authoritative sources. In addition, the project team contacted and interviewed key individuals who have specialized knowledge of their local systems. The following is a list of sources consulted.

- June 2-23, 2025, Written and Verbal Correspondence with Fusco Engineering & Land Surveying, PC – Alfred A. Fusco, Jr., P.E.
- DRBC docket NO. D-1990-068 CP-4
- Kiamesha Artesian Spring Water Company 2024 Water Withdrawal Report (WWR0000853)
- Kiamesha Artesian Spring Water Company District 2022 Annual Water Quality Report (AWQR) (NY5203344)
- December 9, 2024 Joint Petition [to PSC] for Approval, Pursuant To Section 89-H Of New York Public Service Law Of The Purchase Of 51% Of Kiamesha Artesian Spring Water Company's Issued And Outstanding Common Stock

# 2. TOWN OF BETHEL



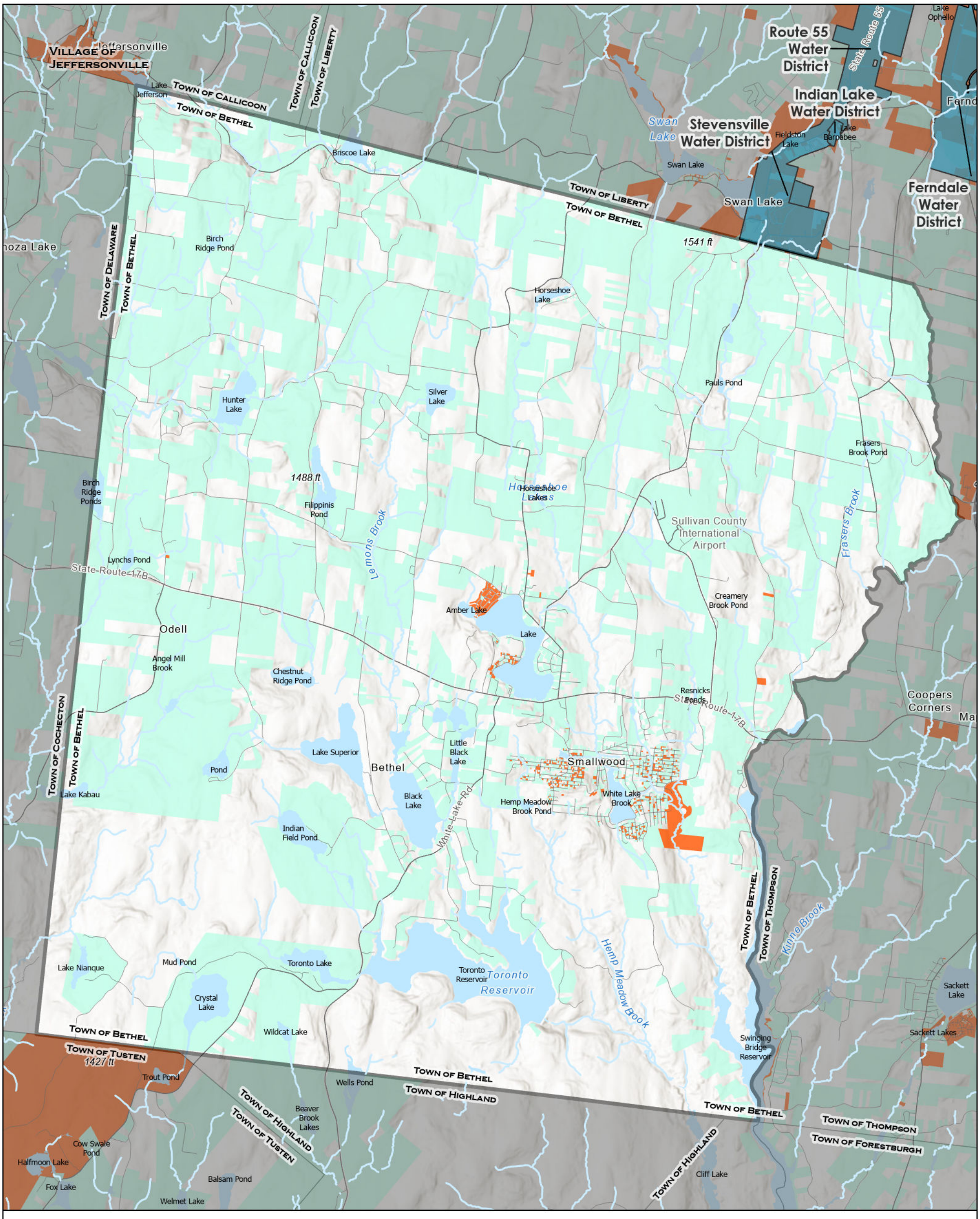

## 2.1 Municipal Overview

The Town of Bethel, located in central Sullivan County, west of the Mongaup River, is comprised of rolling hills and valleys with camps and bungalow colonies on numerous small lakes surrounding the Sullivan County Airport, Bethel Woods Center for the Arts (Bethel Woods), and the hamlets of Mongaup Valley, Smallwood, White Lake, Kauneonga Lake, and Bethel. The hamlets of Odell, Brisco, Hurd Settlement, Bushville, and Black Lake are smaller localities throughout the rural portions of the Town. Development is centered along Swan Lake Road and White Lake Road (NYS Route 55), and along County Road 117 (NYS Route 17B) around Kauneonga/White Lake. Summer camps and Bethel Woods are the primary economic activities within the Town of Bethel. In this town of 4,105 people (2020 Decennial Census), there is one municipal water system in the Town, and one sanitary sewer system exists serving two sewer districts. The Town lies entirely within the DRBC boundary and entirely outside the NYC watershed boundary.

## 2.2 Water Supply and Distribution Inventory & Evaluation

### 2.2.1 Municipal Systems

The former private water works corporation, JD Water Company, which historically operated the system serving the Hamlet of Smallwood, is in the process of transfer to the Town. According to the PSC docket, on May 30, 2024, JD Water Holding CO, LLC and JD Water Company, Inc. (jointly JD Water or Company) and the Town filed a joint petition requesting PSC approval to transfer the Company's real property and water supply assets to the Town. On October 17, 2025, PSC approved the transfer of JD Water's real property and water supply assets to the Town. A closing will be scheduled sometime before January 31, 2026. This system provides seasonal water service to approximately 400 users within the Smallwood Census Designated Place (CDP).




# Town of Bethel Water Facilities Map

## Sullivan County, New York

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

0 0.5 1 2 3 4 Miles

N

- Municipal Water Service Areas
- Centralized or Regulated Decentralized Service
- Individual On-Site Systems
- Delaware River Basin (Entire Village)
- NYC Watershed (Entirely Outside)
- Town Boundary
- Other Municipalities
- Stream
- Waterbody

#### *2.2.1.1 System Components Inventory and Overview*

There are two (2) wells associated with the facility, labeled as the golf course well and the lake shore well. The facility's average withdrawal is 3,000 GPD and reports a peak withdrawal of 6,000 GPD. No permitted maximum for the individual wells or the facility was provided. The distribution system consists of 47.5 miles of water main. The system is currently unable to provide water year-round, as much of it is above ground and could freeze in colder months.

*Table 2. Town of Bethel water withdrawal permit information*

| Water System | Component | Max Rate (GPD) | Average Daily w/d | Peak Day w/d | NYSDEC Permitted w/d | DRBC Permitted w/d |
|---|---|---|---|---|---|---|
| **Bethel - JD Water Co.** | Golf Course Well | | 3,000 | 6,000 | <100,000 | <100,000 |
| | Lake Shore Well | | | | | |

#### *2.2.1.2 Recent/Future Upgrades*

With the purchase of the system, the Town has applied for funding through a Water Infrastructure Improvement (WIIA) grant for upgrades to the equipment and facilities.

#### *2.2.1.3 Finances and Administration*

As part of the data collection process, information about system finances for JD Water and budgeting was researched from publicly available sources. This information, where available, was used in order to develop an understanding of key metrics, including revenues and trends, expenses and trends, rate structure, revenues versus expenditures, debt service, and reserves.

Analysis of available financial information against the following metrics is as follows.

- Revenues and trends – Revenue appears mainly to be derived from metered water sales. JD Water is also authorized to impose a surcharge to fund an escrow account. According to the required annual reporting by JD Water to PSC, revenues since 2019 varied between 0% and 5%.
- Expenses and trends – According to JD Water's 2024 annual report filed with PSC, water production, transmission, and distribution, and administrative expenses were 16%, 22%, and 62% of expenditures, respectively.

- Rate structure – Rates are governed by PSC regulation and, according to the PSC Docket, have been in place since 2009. Rates consist of flat rate charges based on the following categories of water service use: hose connection only, large pool and hose, dwelling, or dwelling and hose.
- Revenue versus expenditures – Revenues exceeded costs in 2019, 2021, and 2022, but were short of expenditures by 5% in 2024.
- Debt service – According to the PSC Docket, JD Water, the system presently carries a debt payment (mortgage) that amounts to about 1% of its expenditures.
- Reserves – JD Water was approved by PSC for the establishment of an escrow account, funded by the aforementioned surcharge. The 2024 Annual Report to PSD showed a balance of about 3% of expenditures.
- Water use law – JD Water is a private water supply company and does not have the authority to adopt legislation.

### 2.2.2 Other Systems

Most residents of the Town are served by privately-owned individual on-site wells. Based on information available, several regulated private public water systems appear to be situated within the Village, including the community water systems listed in Table 3.

*Table 3. Town of Bethel regulated community water systems*

| Water System | Service Area | SDWA # | Population | Connections |
|---|---|---|---|---|
| BETHEL SENIOR CITIZEN HOUSING | MHP | NY5230115 | 40 | N/A |
| BETHEL WATER CO. INC | | NY5203320 | 177 | 180 |

Three private regulated decentralized water systems provide either water service or are regulated public water supply systems. The Britman Manufactured Housing Park and Mineral Springs Apartments water system serves a population of approximately 66 people. Review of annual water quality report information shows that this system has recently been out of conformance with coliform and arsenic standards. A portion of the Hudson Valley Foie Gras water system is located in Bethel and serves approximately 120 people. Review of annual water quality report information shows that this system has recently been out of conformance with coliform standards. Finally, public records also indicate that the

Beechwood Club, on the west side of White/Kauneonga Lake, provides water service to its member properties, the extent of which is approximately a few dozen housing units.

*Table 4. Town of Bethel private water system NYSDEC water withdrawal permit information*

| Water System | Component | Max Rate (GPD) | Average Daily w/d | Peak Day w/d | NYSDEC Permitted w/d | DRBC Permitted w/d |
|---|---|---|---|---|---|---|
| **Bethel Water Company** | Well #1 | 135,000 | 66,654 | 21,600 | 135,000 | |
| | Well #2 | 135,000 | | | | |
| | Well #3 | 135,000 | | | | |

Bethel Water Company provides water service to 180 properties associated with the White Lake Homes Association. There are three wells associated with the facility, each with a maximum rate of 135,000 GPD. The facility's average withdrawal is 2,200 GPD, and it had a maximum withdrawal of 21,600 GPD for the year. The facility is permitted for a maximum withdrawal of 135,000 GPD.

### 2.2.3 Challenges and Opportunities

As is present in many of the centralized water systems throughout the County, the water systems in the Town are small and, therefore, funding O&M and capital is a challenge.

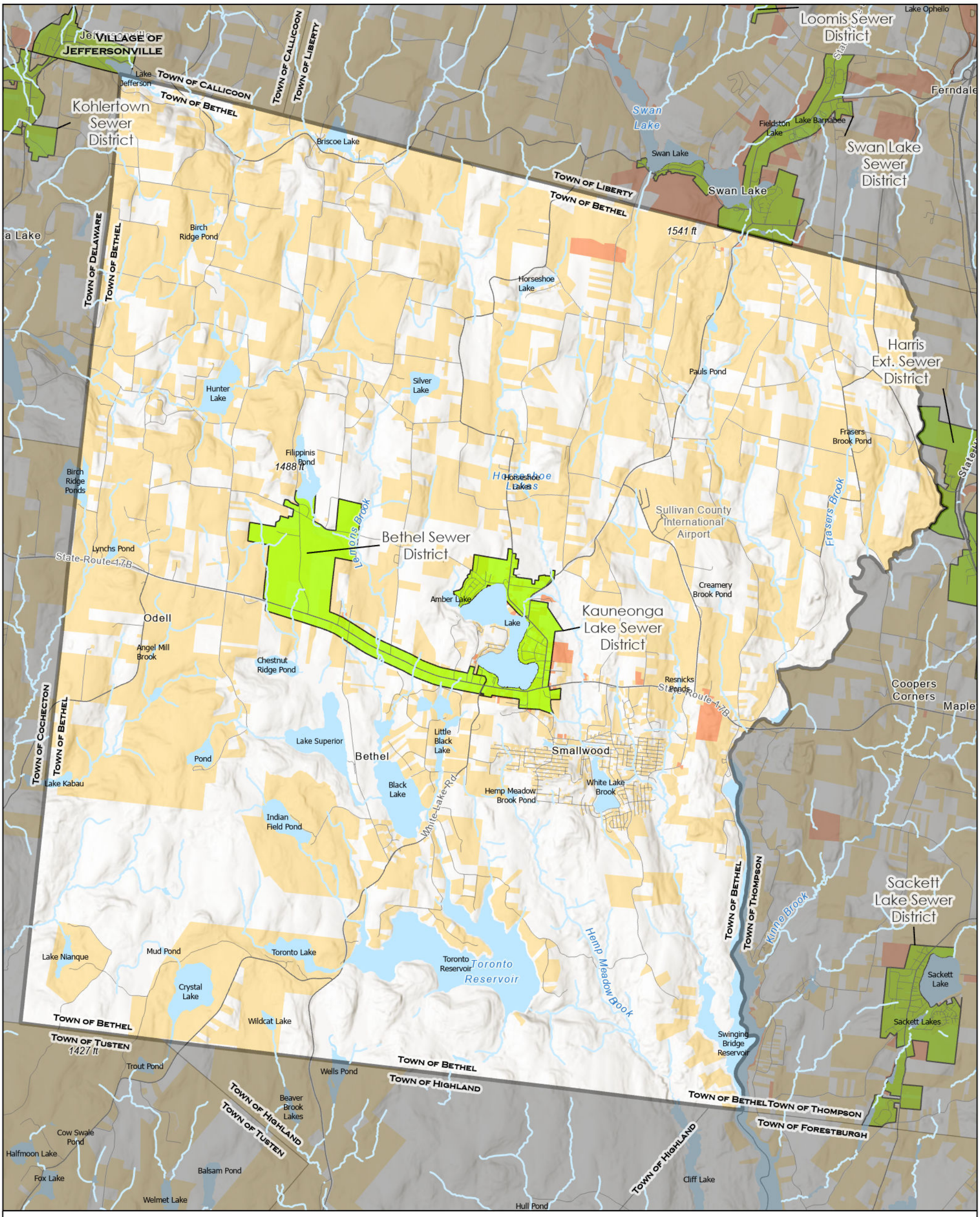
## 2.3 Sanitary Sewer and Wastewater Treatment Inventory & Evaluation

### 2.3.1 Municipal Systems

A municipal sewer system serves the hamlets of White Lake, Bethel, and Kauneonga Lake, and accounts for the demands from Bethel Woods Center for the Arts, which hosts an amphitheater, performing arts center, and museum. The Town provides sewer service via two sewer districts, the Kauneonga Lake Consolidated Sewer District and the Kauneonga Lake Route 17B Sewer District Extension.

#### *2.3.1.1 System Components Inventory and Overview*

The majority of the Kauneonga Lake collection system was constructed in the 1940s and provides wastewater services to the Hamlets of Kauneonga Lake, White Lake, and Bethel, along with all properties associated with Bethel Woods.




# Town of Bethel Wastewater Facilities Map

## Sullivan County, New York

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

0 0.5 1 2 3 4 Miles

N

- Municipal Sewer Service Areas
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With respect to the Kauneonga Lake Sewer District WWTP, the SPDES permit was last issued on August 1st, 2009, and was up for renewal in July of 2025. The WWTP uses two aeration lagoons to provide biological treatment for up to 0.6 MGD of sewage. The floating aerators provide both the oxygen required for the biological process as well as the mixing of the lagoons. The WWTP discharges into White Lake Brook, a Class B stream.

While no violations have been recorded at this time, this facility received a rank of 74 and a score of 90, according to NYSDEC's EBPS. The score components are based on the age of the existing SPDES permit and the time since the facility last submitted a long-form permit application, together with required comprehensive effluent sampling. In general, the higher the EBPS rank, the more likely it is that the permit for this facility will undergo a full technical review by NYSDEC in the near future. The Town's municipal WWTP SPDES permit was administratively renewed in September 2025, and the new permit expiration date is 8/31/2030.

#### *2.3.1.2 Recent/Future Upgrades*

The Town has undertaken a major overhaul of the collection and treatment infrastructure of the Kauneonga Lake system. With respect to treatment, key project components included implementing a maximum capacity of 0.6 MGD and addressing limits to permitted discharge (Primary Effluent Limits).

The Town implemented the project in two phases. First, construction of a new septage receiving station to supplement the Town's wastewater plant's organic processes and update the plant to optimal working conditions. And second, portions of the treatment process facilities underwent significant maintenance. The aerators were replaced, the basin was drained, all solids were removed, and the liner was inspected and repaired as needed. Completion of these phases extends the operational capacity of the basin for another 20 years. This project appears to have been completed in 2019.

The Town has also focused on the collection system itself. As part of a third phase, the Town undertook relining 11,300 feet of pipe, repairing 53 concrete block manholes, and replacing 58 shoreline pipe laterals from residences to the collector pipes. A final phase involved replacing 4,352 feet of northern interceptor pipes, repairing or replacing 9 manholes, and replacing 21 lateral pipes. The project appears to have been authorized for bidding in 2021 and has been completed.

#### *2.3.1.3 Finances and Administration*

As part of the data collection process, information about system finances and budgeting was requested, including revenues, expenses, rates, debt service, and reserves, in order to develop an understanding of key financial metrics. Local codes governing system

administration and use were also reviewed, where publicly available. This information, where available, was used in order to develop an understanding of key metrics, including revenues and trends, expenses and trends, rate structure, revenues versus expenditures, debt service, and reserves.

Analysis of information available at the time of writing against the following metrics is as follows.

- Revenues and trends – Revenue derived from sewer charges, pursuant to the Town's sewer use law, must be credited to a special fund known as the "Sewer Service Charge Fund." The Sewer Service Charge Fund is aimed at generating adequate annual revenues to pay costs of annual operation and maintenance, including replacement and costs associated with debt retirement of bonded capital associated with financing the treatment works, which the sewer use law designates to be paid by the sewer user charge system.
- Rate structure – The Town uses a benefit-based rate system. All properties within the Kauneonga Lake District are unmetered and are billed on a flat user rate according to the EDU schedule. EDUs are assigned to users connected in accordance with the Town's sewer use law in accordance with a schedule of use types. (All other uses not appearing in the table must be assessed EDUs based upon the installation of a meter or by recommendations of a licensed engineer.) In addition, rates differ according to whether the connection serves a seasonal or year-round use, with a roughly 20% higher charge to year-round connections. Rates also differ by about 20% between the two sewer districts.
- Sewer use law – The sewer use law is in Chapter 257 of the Town code.

### 2.3.2 Other Systems

There are at least four SPDES permits involving existing or proposed privately-owned regulated decentralized sewer systems.

A system operated by Camp Machne Nuchem, Inc. provides sewer collection and treatment services to the camp. It is permitted to discharge a maximum of 10,050 GPD into Miller Brook. The treatment facility consists of a 20,000-gallon septic tank, 3 sand filter beds, 2 chlorination tanks, and an aerated outfall.

The Bethel Landfill Sewer Treatment Plant facility is designed to treat leachate from the landfill. Located on Old White Lake Turnpike near its intersection with NYS Route 55. Permitted maximum flow discharge of 35,000 GPD into groundwater through a leach field.

A SPDES permit has been issued to Swan in Swan Lake Sewage-Works Corp. for a surface discharge to the West Branch Mongaup River, a class B(T) waterbody of up to 201,000 GPD. The facility is intended to serve a residential development.

SPDES permits are pending for the following: Ygs Torah Center for a surface discharge. Lee Cole Road Village for a groundwater discharge of 15,510 GPD.

### 2.3.3 Challenges and Opportunities

As is present in many of the centralized sewer systems throughout the County, funding O&M and capital, in a sustainable way, can be a challenge, where costs are spread over relatively smaller numbers of users.

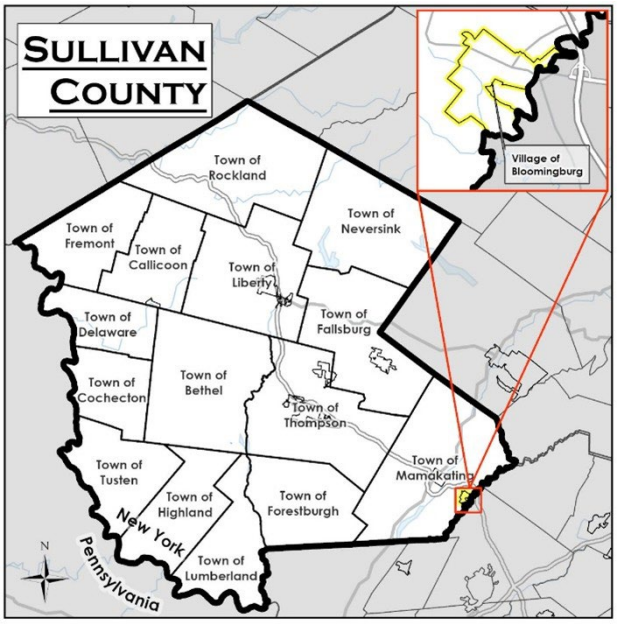
## 2.4 Methodology and Sources

In preparing this report, publicly available data were collected and reviewed, along with any additional documentation supplied by a municipal representative, county office, or other authoritative sources. In addition, the project team contacted and interviewed key individuals who have specialized knowledge of their local systems. The following is a list of sources consulted.

- Kauneonga Lake 2009 State Pollutant Discharge Elimination System (SPDES) Permit Modification (NY0095001)
- Kauneonga Lake STP 2020 SPDES Permit Renewal (NY0095001)
- Kauneonga Lake STP 2025 SPDES Permit Renewal (NY0095001)
- Bethel Water Company NYS DEC 2024 Water Withdrawal Report (WWP0000122)
- JD Water Company NYS DEC 2024 Water Withdrawal Report (WWP0000826)
- Bethel Landfill STP SPDES Permit Report (NY0264679)
- Bethel Town Code
- Bethel Town Budget (2025)
- Sewer Line Specs (2024)
- Sewer Service Charges (1990)
- Sewer Rates Table (2021)
- Memo from Town Engineer (2025)

- Assigned Equivalent Dwelling Units Table (2013)
- NYSDEC Environmental Benefit Permit Strategy (EBPS) 2025 Rankings
- NYSDEC Department Application Review Tracking (DART) system (accessed October 2025)
- EPA Community water system Detailed Facility Report: Bethel Water Co. Inc.
- EPA Community water system Detailed Facility Report: Britman MHP – Mineral Springs Apartments
- JC Water Co. Inc. 2023 Annual Water Works Corporation Report
- JC Water Company, Inc. Notice to Customers about Sale (12-8-2024)

# 3. VILLAGE OF BLOOMINGBURG




## 3.1 Municipal Overview

The Village of Bloomingburg is located in the southeastern portion of the Town of Mamakating near its border with Orange County and centered at the confluence of NYS Route 17K, Orange County Route 76, and Sullivan County Routes 61 and 171. The Village's 442 acres contain a population of 1,032, as estimated by the 2020 Decennial Census. Commercial activity consists primarily of 1 & 2-story buildings with light commercial occupancies including restaurants and cafes, retail, offices, medical facilities, religious facilities, and government buildings. No large-scale employers or businesses exist within the Village boundaries. Major developments are underway and/or planned for conversion to year-round occupancy of formerly seasonal camps and dwelling units. The Town lies entirely outside the DRBC boundary and entirely outside the NYC watershed boundary.

## 3.2 Water Supply and Distribution Inventory & Evaluation

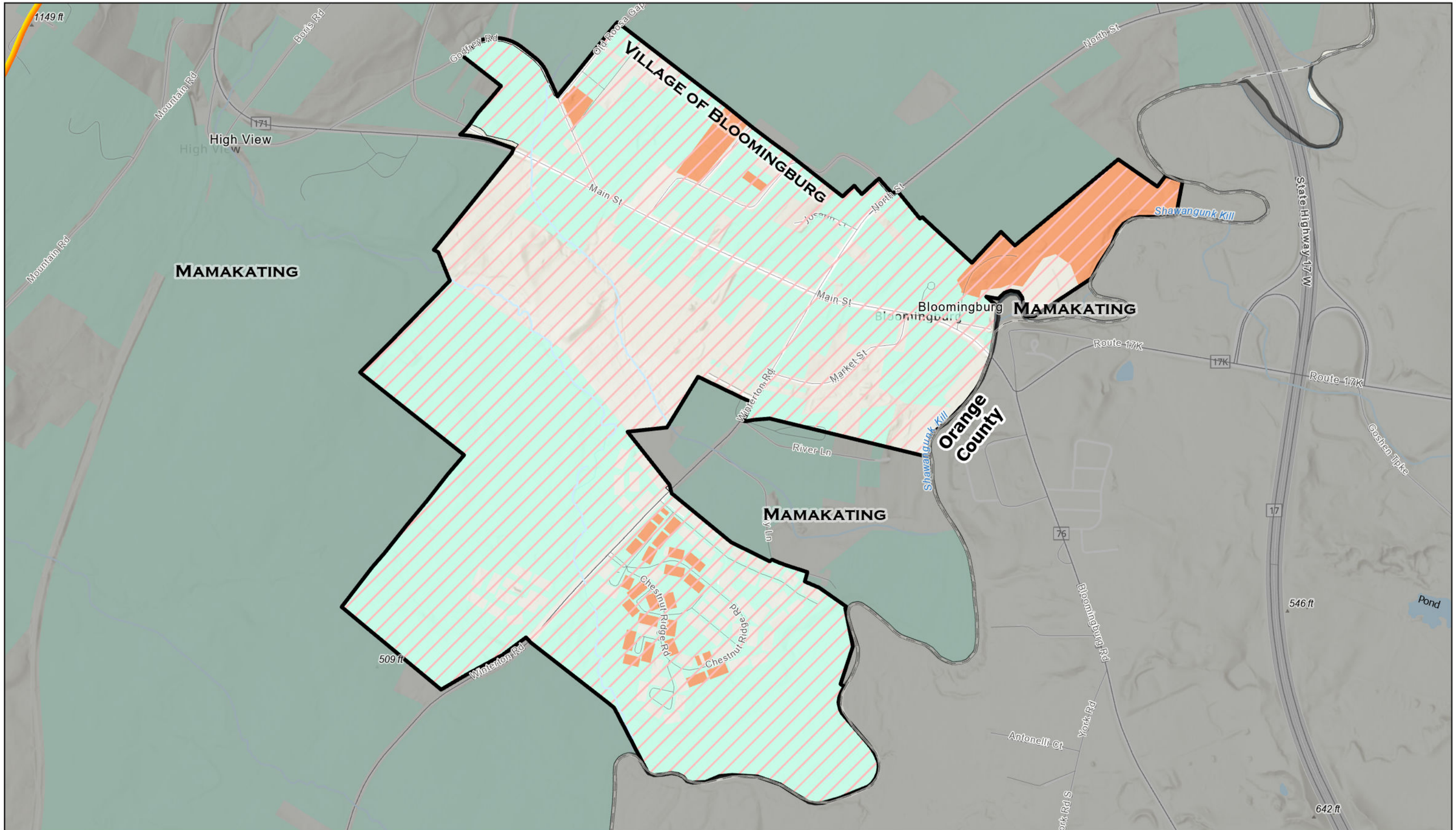
### 3.2.1 Municipal Systems

As of this writing, no centralized municipal water systems exist in the Village.

### 3.2.2 Other Systems

Based on information available, one regulated community water system appears to be situated within the Village. This system has a water withdrawal capacity requiring a NYSDEC water withdrawal permit.

The Chestnut Ridge residential development has a private regulated decentralized water system consisting of three wells, of which one serves as emergency backup, designed to provide water to 296 townhouse units. A 2008 analysis indicated that the well field may have a yield of 396,000 GPD, which exceeds current demand. A 233,100-gallon, 33' x 36' water storage tank was built in 2010 and provides fire flow.




# Village of Bloomingburg Water Facilities Map

## Sullivan County, New York

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

- Village Water Service Area
- Municipal Water Service Areas
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- NYC Watershed (Entirely Outside)
- Other Municipalities
- Stream
- Waterbody

0 0.1 0.2 0.4 0.6 0.8 Miles

N

*Table 5. Village of Bloomingburg water withdrawal permit information (all figures in GPD)*

| Water System | Component | Max Rate (GPD) | Average Daily w/d | Peak Day w/d | NYSDEC Permitted w/d | DRBC Permitted w/d |
|---|---|---|---|---|---|---|
| **Bloomingburg - Sullivan Farms II Chestnut Ridge** | Well #2 | 87,840 | 42,636 | 189,300 | 112,320 | |
| | Well #9 | 72,000 | | | | |
| | Well X | 129,600 | | | | |

### 3.2.3 Challenges and Opportunities

Given the anticipated changes in land uses and population size, Village officials indicated that they are exploring acquiring and operating a Village-owned centralized water system. Among the options being considered is the acquisition of the Chestnut Ridge system. One challenge is providing allocation of water supply in order to accommodate future planned or approved development intended to be connected to this system, as well as longer-term anticipated needs. The system itself has also been identified as requiring certain investments.

For example, the system currently relies primarily on Well 1 to produce water, and the remaining wells have shown the need for additional treatment due to high levels of metals. In addition, the system would need improvements in order to overcome hydraulic constraints created by elevation differences in order to reach the planned service area. The anticipated demand over the next several decades and potential for this system's existing well field to be unable to meet that demand has also spurred a search for additional sources of supply, including via excess capacity at Amber Light Mobile Home Park and potential wellfields on vacant lands.

The Village, providing centralized water supply service, also provides an opportunity to create an alternative source of supply for those in the Village relying on individual on-site wells, some of which have a documented history of bacterial contamination.

## 3.3 Sanitary Sewer and Wastewater Treatment Inventory & Evaluation

### 3.3.1 Municipal Systems

#### *3.3.1.1 System Components Inventory and Overview*

The Bloomingburg Sewer Collection System spans the entirety of the Village. The system is split into two sections due to the integration of the Chestnut Ridge Development, which

has increased flow through the system and at the WWTP since 2022. Flows through the plant do increase during wet weather, indicating the presence of I&I.

The current sequencing batch reactor wastewater treatment plant was constructed approximately ten years ago and replaced the former WWTP in order to increase permitted flow due primarily to planned land development then occurring that would exceed the Village's then permitted WWTP capacity of 70,000 GPD. The WWTP discharges to the Shawangunk Kill, with a limit of 325,000 GPD. About 90% of flows to WWTP are generated by residential users. No large industrial sources have been identified or are expected to be located within the Village.

The WWTP has had a recent history of SPDES permit compliance challenges due to issues with the bar screen at the plant. In 2024, the screen failed, causing wastewater to overflow into receiving waters. According to news reports, plant operators pointed to wipes improperly flushed as having caused the bar screen to fail, which in turn fouled other parts of the treatment processes and plant equipment.

According to NYSDEC's EBPS, this facility received a rank of 93 and a score of 64. The score components are based on the age of the existing SPDES permit and time since the last time the facility submitted a long-form permit application, together with required comprehensive effluent sampling. Other factors include specific effluent limits and public input regarding plant operations and deficiencies. In general, the higher the EBPS rank, the more likely it is that the permit for this facility will undergo a full technical review by NYSDEC in the near future. The SPDES permit was administratively renewed in May of 2025, and the new permit expiration date is April 30, 2030.

The collection system consists of approximately 4 miles of sewer mains serving 619 parcels for roughly 1,000 people. The sewer service area is coterminous with the municipal boundary, and the Village does not currently provide sewer service to outside users. The Village presently contracts with a private operator to run the collection and treatment system.

#### *3.3.1.2 Recent/Future Upgrades*

As noted, the WWTP was replaced, and its capacity substantially increased as part of a mid-2010s upgrade. The new WWTP is also more efficient and provides better treatment capability than the prior plant's sand filtration system. The WWTP was designed to treat wastewater to contemporary permit standards. In May 2025, the Village Board approved a $260,000 project to make upgrades to the WWTP bar screen to address SPDES permit compliance items.

# Village of Bloomingburg Wastewater Facilities Map

Sullivan County, New York

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

0 0.1 0.2 0.4 0.6 0.8 Miles

N

- Village Wastewater Service Areas
- Municipal Sewer Service Areas
- Centralized or Regulated Decentralized Service
- Individual On-Site Systems
- Delaware River Basin (Entire Village)
- NYC Watershed (Entirely Outside)
- Other Municipalities
- Stream
- Waterbody

#### *3.3.1.3 Finances and Administration*

As part of the data collection process, information about system finances and budgeting was requested and researched from publicly available sources; local codes governing system administration and use were also reviewed, where publicly available. This information, where available, was used in order to develop an understanding of key metrics, including: revenues and trends, expenses and trends, rate structure, revenues versus expenditures, debt service, and reserves.

Analysis of available financial information against the following metrics is as follows.

- Revenues and trends – For the 2024-2025 fiscal year, the Village increased its overall appropriations for the sewer fund by $69,000 to $450,391. Revenues are raised via a system of sewer rents charged to connected or permitted properties. The sewer rent in the Village is computed each year by dividing the bond indebtedness by the total assessed real property land valuation, and then further dividing the sewer budget by the total sewer points in the Village. The Village has also enacted a sewer fund contribution development fee, which applies to land developments resulting in the addition of 50 or more GPD.
- Expenses and trends - The largest increase was primarily due to increased maintenance and sludge removal at the treatment plant, which increased by $46,000. The operation and maintenance of the four pump stations account for the next highest infrastructure cost at $60,000. Sewer appropriations represent about 44% of the total appropriations for the Village.
- Rate structure – The Village imposes sewer rents according to a schedule of points for users of the system, with the base unit being a single-family unit. The highest rate listed in the schedule is for “any other type of excessive user,” which is defined as 2.75 points plus one point for each additional 400 gallons.
- Revenue versus expenditures – Needed revenue is raised according to the sewer rent law.
- Debt service - The Village allocates about 5% of sewer appropriations for debt service.
- Reserves – The Village provides for a $50,000 contingency in the sewer fund budget.
- Sewer use law – Local Law No. 5 of the year 2025 is the Village sewer use law.

### 3.3.2 Other Systems

No private regulated decentralized sewer systems are present within the Village of Bloomingburg.

### 3.3.3 Challenges and Opportunities

As EBPS rankings show, the Village WWTP SPDES permit ranks in the middle of the NYSDEC Region 3 list, primarily due to the age of the permit since its most recent comprehensive review. A comprehensive permit review process can result in modifications to effluent limits or other conditions, leading to the need for capital or other expenditures. In general, the higher the EBPS rank, the more likely it is that the permit for this facility will undergo a full technical review by NYSDEC in the near future.

Contemporary WWTP operations involve addressing improper flushing of materials by users, including wipes and other items, which can cause issues when entering wastewater management facilities, including pump stations and WWTP. This is a widespread challenge facing operators, including the Village, and retrofits and other solutions can be costly to implement. In addition, the increased material removed from the wastewater stream also requires disposal, which, in turn, increases the costs of labor, equipment, and disposal.

Accommodating future planned or approved development intended to be connected to this system, as well as longer-term anticipated needs, are the primary challenges. With growth, demand for interconnection will likely follow. Partnering with the Town of Mamakating on sewer infrastructure expansion and the development of the Town service area presents an opportunity to increase efficiencies and system sustainability by increasing the user base and making it possible to share resources needed to provide the service.

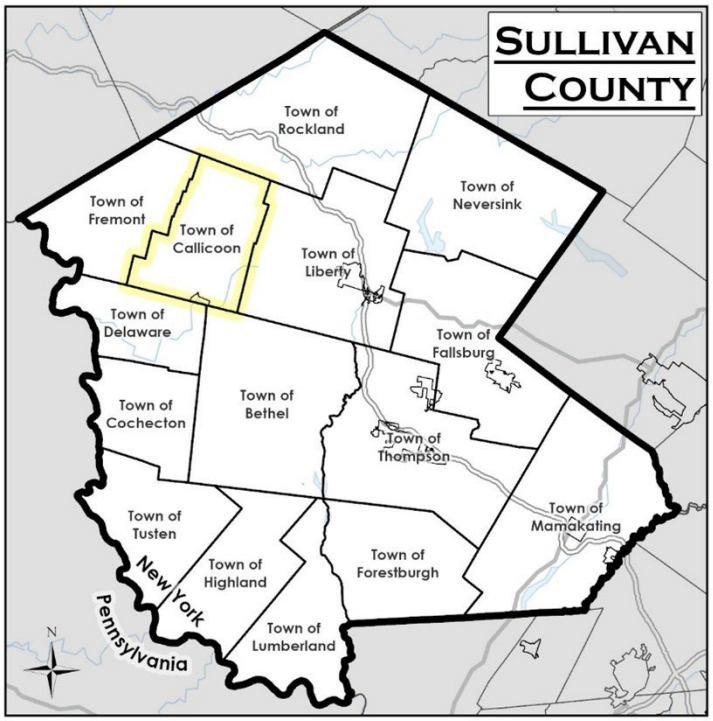
## 3.4 Methodology and Sources

In preparing this report, publicly available data were collected and reviewed, along with any additional documentation supplied by a municipal representative, county office, or other authoritative sources. In addition, the project team contacted and interviewed key individuals who have specialized knowledge of their local systems. The following is a list of sources consulted.

- Wastewater Facility Operation Reports: April 2022 – February 2025
- WWTP Design Engineering Report (January 2009)

- Process Plans for WWTP (August 2012)
- Construction Plans for WWTP (November 2012)
- Comprehensive Water Study (October 2021)
- Hydrogeologic Assessment (February 2025)
- 2024-2025 General Fund Budget
- Bloomingburg Sewer Treatment Plant 2015 SPDES Permit (NY0208426)
- Bloomingburg Sewer Treatment Plant 2025 SPDES Permit Renewal (NY0208426)
- Sullivan Farms II NYS DEC Water Withdrawal Report (WWR0002019)
- Investigation by Leggette, Brashears & Graham, Inc. (2008)
- EPA Community water system Detailed Facility Report: Whitlock Farms Treatment Facility
- NYSDEC Environmental Benefit Permit Strategy (EBPS) 2025 Rankings

# 4. TOWN OF CALLICOON




## 4.1 Municipal Overview

The Town of Callicoon, located in northwest Sullivan County, is comprised of woodland tracts and small farms interspersed around the charming hamlets of Youngsville, North Branch, Shandelee Lake, and Callicoon Centers, along with the Village of Jeffersonville at its southern border. The Town's population is just under 3,000 (2020 Decennial Census). The only municipal system run by the Town of Callicoon is the Youngsville Water Distribution District. The Village of Jeffersonville provides water service to properties within the Town containing the transmission line from the well field. The only property in the Town connected to the Village sewer system is the Sullivan West School District property. The Town lies entirely within the DRBC boundary but entirely outside the NYC watershed boundary.

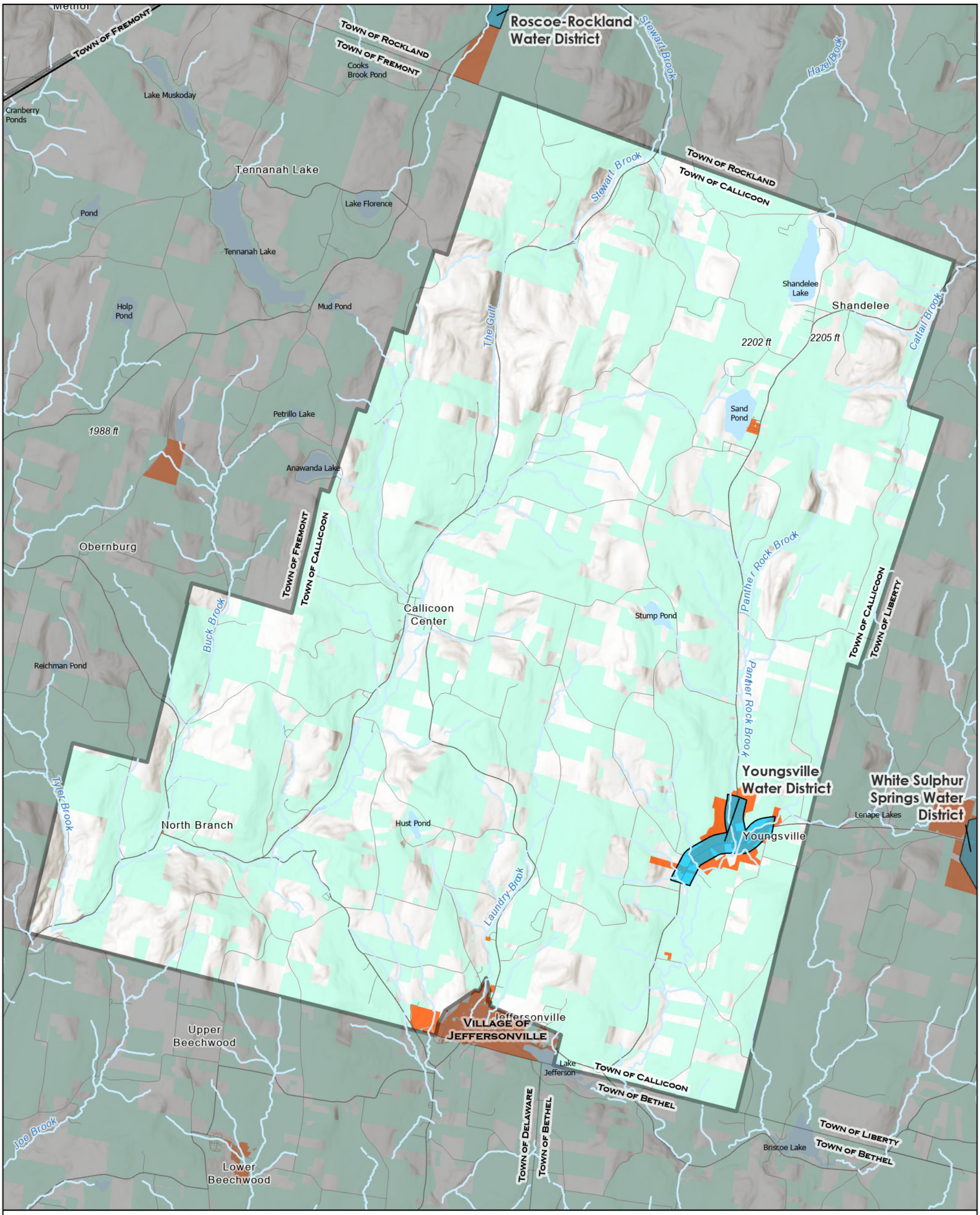
## 4.2 Water Supply and Distribution Inventory & Evaluation

### 4.2.1 Municipal Systems

The Town owns and operates a centralized water system serving the Youngsville Water District.

#### *4.2.1.1 System Components Inventory and Overview*

The Youngsville water district covers an area of about 175 acres and provides water to approximately 320 users through 133 service connections. While the system can be supplied by a reservoir, it is reserved for emergency use only, and since the summer of 2009, the water source has been supplied from drilled wells. The Town presently contracts with a private water/sewer operator and part-time system mechanic.




# Town of Callicoon Water Facilities Map

## Sullivan County, New York

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

0 0.5 1 2 3 4 Miles

N

- Municipal Water Service Areas
- Centralized or Regulated Decentralized Service
- Individual On-Site Systems
- Delaware River Basin (Entire Village)
- NYC Watershed (Entirely Outside)
- Town Boundary
- Other Municipalities
- Stream
- Waterbody

The Youngsville water system includes two groundwater well sources located on a one-acre parcel owned by the Town, a pump/treatment facility that provides filtration and chemical disinfection, ±10,000 lineal feet of transmission and distribution mains, and a 125,000-gallon reinforced concrete finished water storage tank. One well serves as a variable "peaker" source and is used when demand exceeds the capacity of the primary well.

*Table 6. Town of Callicoon water withdrawal permit information (all figures in GPD)*

| Water System | Component | Max Rate (GPD) | Average Daily w/d | Peak Day w/d | NYSDEC Permitted w/d | DRBC Permitted w/d |
|---|---|---|---|---|---|---|
| **Callicoon - Youngsville** | Well #1 | | 33,132 | | <100,000 | <100,000 |
| | Well #2 | | | | | |
| | Reservoir | | | | | |

According to the 2022 AWQR, no violations were reported. The Town reported, as a precaution, the detection of levels not exceeding MCLs for lead. As is the case with other water supply systems, lead has historically been detected, which is likely due to corrosion of household plumbing systems within the property serviced. Elevated levels of lead are likely caused by plumbing within a user's water system and beyond the point of interconnection with the public water distribution system.

According to the EPA, the lead 9is a measure of the effectiveness of the corrosion control treatment in water systems. The action level is not a standard for establishing a safe level of lead in a home. To check if corrosion control is working, EPA requires water systems to test for lead at the tap in certain homes, including those with lead service lines. Systems compare sample results from homes to the EPA's action level of 0.015 mg/L (15 ppb). If 10 percent of the samples from these homes have water concentrations that are greater than the action level, then the system must perform actions such as public education and lead service line replacement. The treatment technique regulation for lead (referred to as the Lead and Copper Rule) requires water systems to control the corrosivity of the water.

In addition, the Town reported detection of coliform bacteria; however, after carrying out the required follow-up, the Town reported that this was likely due to plumbing changes where the samples were taken and did not report any other detection of this contaminant.

#### *4.2.1.2 Recent/Future Upgrades*

The Town has undertaken a number of recent capital improvements. All residential meters on the system have been upgraded and are integrated with the Town's billing software to

better monitor the system and billing. A backflow protection program has been instituted, and devices have been installed at locations where needed.

One recent upgrade involved installing a new VFD on the pump at the second existing well (Well #2). The Town has also upgraded or replaced portions of the water distribution system. One project addressed a waterline stream crossing by boring below the stream bed. A total of almost 7,000 lf of 6" and 8" mains along NYS Route 52 and Palmer and Tremper Roads have been replaced. In addition, a number of hydrants and valves on the system have also been installed. As well, 88 service lines have been upgraded to include corporation valves, ¾" K copper service lines, and curb valves.

The Town replaced the existing, roughly 90-year-old concrete tank with a glass-lined steel tank located on the same lot and in the same footprint of the , with project completion date of October 2025. The tank included an integrated mixing and automated pump control system.

The recent capital improvements to the water system have been funded with CDBG grant funding, which requires only a minimal local match. An income survey of water district users in 2019 showed that the water systems improvements are CDBG-eligible.

#### *4.2.1.3 Finances and Administration*

As part of the data collection process, information about system finances and budgeting was requested and researched from publicly available sources; local codes governing system administration and use were also reviewed, where publicly available. This information, where available, was used in order to develop an understanding of key metrics, including revenues and trends, expenses and trends, rate structure, revenues versus expenditures, debt service, and reserves.

Analysis of available financial information against the following metrics is as follows.

- Revenues and trends – Metered water sales generate the majority of water revenues, though about 18% of revenues are generated by unmetered sales, with the figure itself remaining consistent since 2023.
- Expenses and trends – About two-thirds of expenses relate to the operation of the water system, and between 2023 and 2024, this line increased about 40% due to an increase in contractual expenses. The 2024 and 2025 adopted budgets saw essentially no change in appropriations. Water appropriations are about 2% of the Town's total appropriation.

- Rate structure – Most users are billed based on metered water use; however, unmetered water sales have a different rate structure.
- Revenue versus expenditures – Actual revenues exceeded expenditures in 2023 by about 35%.
- Debt service – As of 2025, the budget does not include payment of principal or interest.
- Reserves – The budget does not include a capital or other reserve line.
- Water use law – The Town has a water use law, which is Chapter 79 of the Town code.

### 4.2.2 Other Systems

NYSDEC water withdrawal permitting information suggests that there may be a bulk water loading facility permitted in the Town, though, according to the most recent report reviewed, it may not be in operation.

Based on information available, one regulated community water system appears to be situated within the Town (Table 7).

*Table 7. Town of Callicoon regulated community water systems*

| Water System | Service Area | SDWA # | Population | Connections |
|---|---|---|---|---|
| BRITMAN MHP-MINERAL SPRINGS APT | MHP | NY5201442 | 66 | 22 |

### 4.2.3 Challenges and Opportunities

Officials indicate that there have been discussions on the feasibility of interconnection with a water system operated by the adjoining Town of Liberty to provide redundancy and revenue to Callicoon and additional water security to Liberty. The water system serving the Youngsville area is approximately one mile from a system serving the White Sulfur Springs area in the Town of Liberty.

## 4.3 Sanitary Sewer and Wastewater Treatment Inventory & Evaluation

The Town of Callicoon does not currently provide public sewer service. The only municipal centralized sewer system within the Town is situated within the Village of Jeffersonville.

### 4.3.1 Other Systems

There are at least two SPDES permits involving existing or proposed privately-owned regulated decentralized sewer systems in the Town. One is a permit renewal associated with Shandelee Property Co., LLC, to operate a wastewater facility at Arnold House involving 4,400 GPD discharged to Panther Rock Brook, a C(T) stream. The second is a new permit application submitted by Shandelee Lake, LLC for a facility known as Shandelee Lake LLC involving 430 GPD discharge to groundwater.

### 4.3.2 Challenges and Opportunities

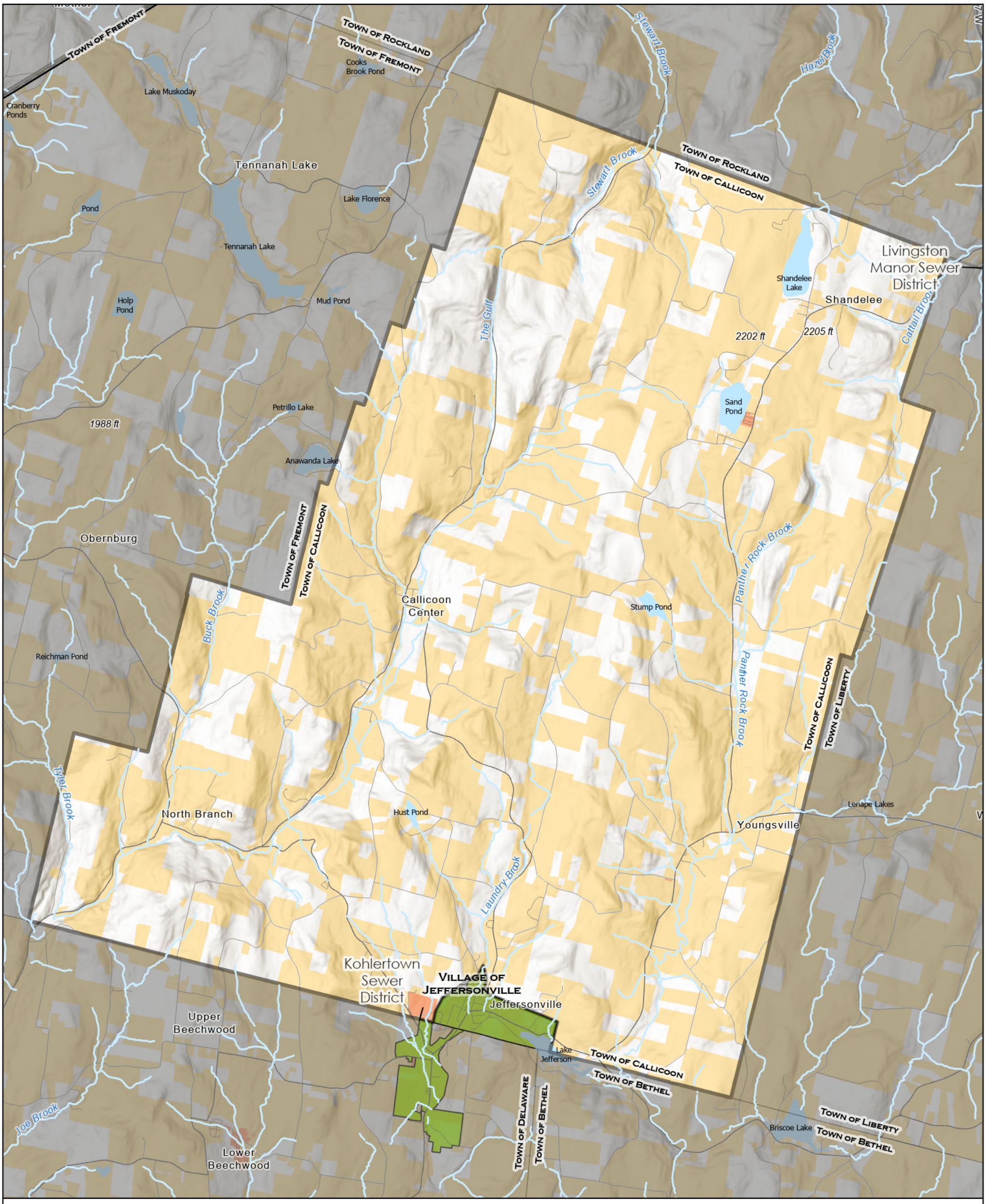
As the Town's 2013 Comprehensive Plan notes: "If current development patterns continue, the greatest impact on our water resources and the environment generally will come from waste and sewage disposal… At the present time, privately owned septic systems are the only means of sewage disposal in town, but in the future, public sewer systems may be necessary if our hamlets become more densely populated." The plan cites lack of sewer infrastructure as making "much of the town unsuitable for new industrial uses, limiting development opportunities in that sector."

In addition, the Plan notes that "Many existing homes in town were built on sites that are difficult for septic system disposal and were built before the New York State Sanitation Code was created." Contemporary septic design and permit requirements address these issues where new construction or replacement is required, though these systems can be costly for individual users.

## 4.4 Methodology and Sources

In preparing this report, publicly available data were collected and reviewed, along with any additional documentation supplied by a municipal representative, county office, or other authoritative sources. In addition, the project team contacted and interviewed key individuals who have specialized knowledge of their local systems. The following is a list of sources consulted.

- Water Treatment Facility Drawing sets of the water treatment facility (1995)




# Town of Callicoon Wastewater Facilities Map

## Sullivan County, New York

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

0 0.5 1 2 3 4 Miles

N

- Municipal Sewer Service Areas
- Centralized or Regulated Decentralized Service
- Individual On-Site Systems
- Delaware River Basin (Entire Village)
- NYC Watershed (Entirely Outside)
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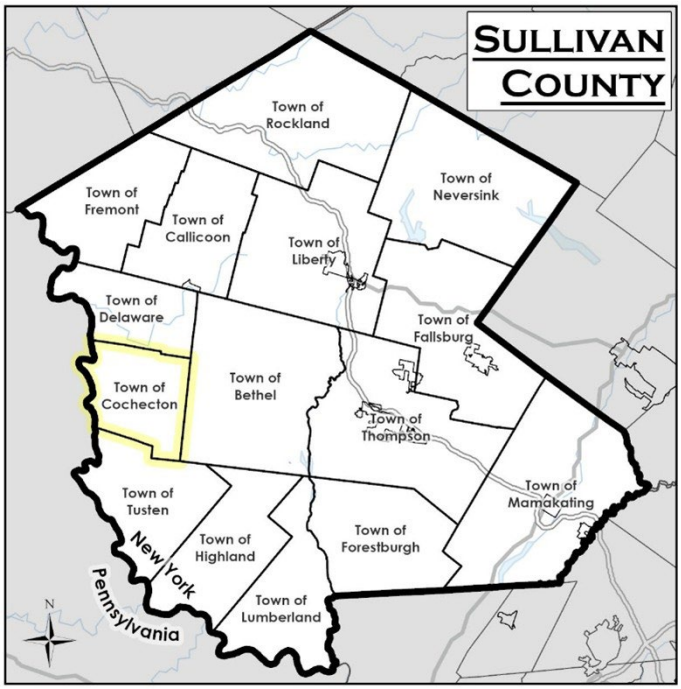
- Waterbody

- Water Distribution System Drawing sets of the water distribution system (1979)
- Water District Improvement Project Report (2001)
- Callicoon Town Code
- Individual Usage History Report
- Youngsville Annual Water Quality Report (AWQR) 2022 (NY5203349)
- NYSDEC Department Application Review Tracking (DART) System (accessed October 2025)
- EPA Community water system Detailed Facility Report: Jeffersonville Village Well 3 & 4 Treatment Plant
- Catskill Springs, LLC 2023 NYS DEC Water Withdrawal Report (WWR0002116)

# 5. TOWN OF COCHECTON




## 5.1 Municipal Overview

The Town of Cochecton, located in western Sullivan County along the Delaware River, is dominated by forested land and small farms with mid-density development centered on Lake Huntington and the river. The Town borders Bethel to the east, Delaware to the north, and Tusten to the south. The primary hamlets are Cochecton, Cochecton Center, Tylertown, Fosterdale, East Cochecton, Skinner's Falls, and Lake Huntington. At the decennial census of 2020, the Town had an estimated population of 1,448. No centralized municipal water system or private regulated decentralized water system is located within Cochecton. One centralized municipal sewer system is located within the Town; no private regulated decentralized sewer systems are located within the Town. The Town lies entirely within the DRBC boundary but entirely outside the NYC watershed boundary.

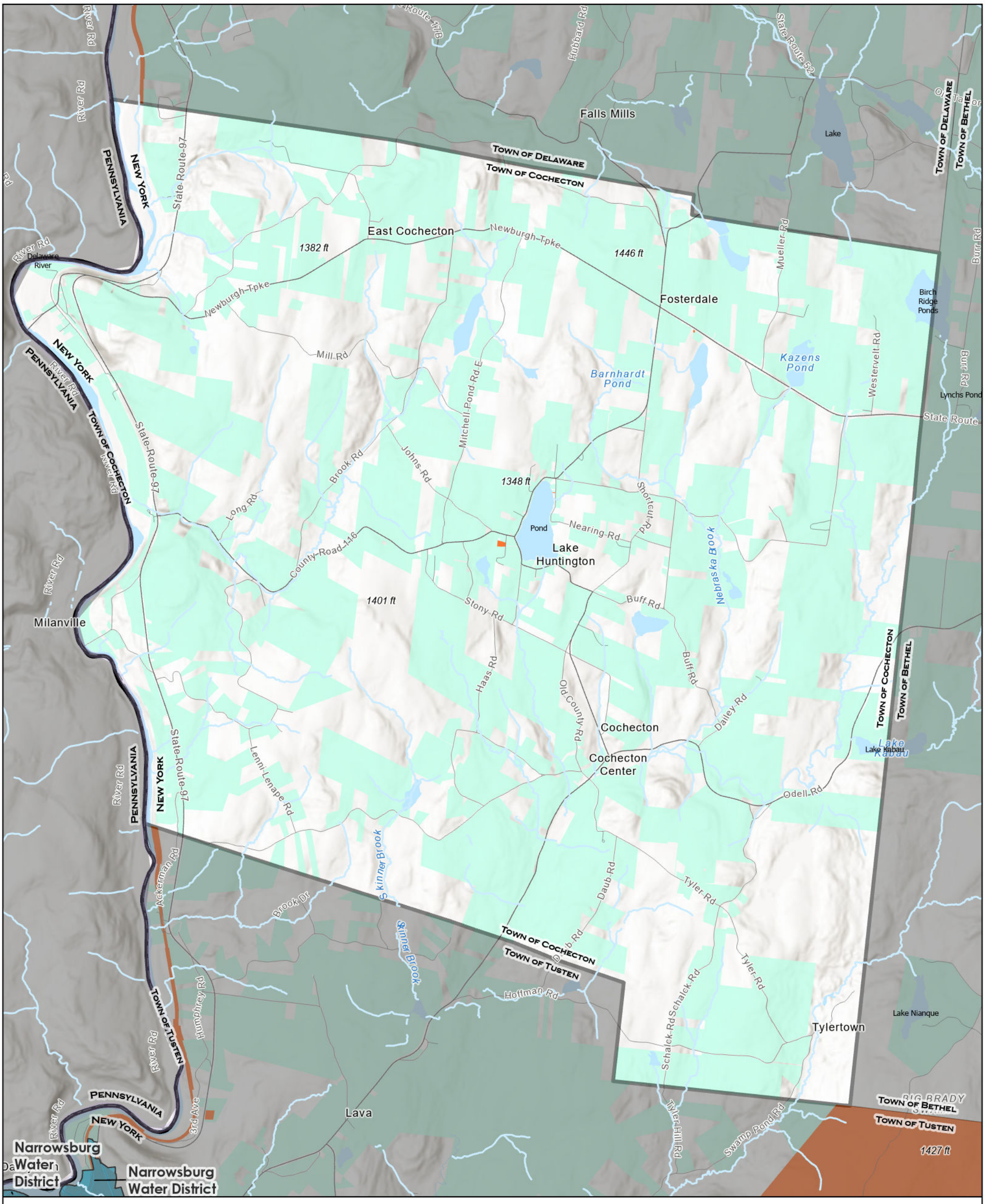
## 5.2 Water Supply and Distribution Inventory & Evaluation

The Town does not currently have a centralized water system, and no private regulated decentralized water systems are located within the Town's boundaries. No facilities requiring a NYSDEC water withdrawal permit exist in the Town. Water supply in the Town is provided by individual on-site facilities.

### 5.2.1 Challenges and Opportunities

The provision of centralized public water supplies for potable purposes and firefighting can be a significant public benefit and contribute to quality of life if the provision of such a service can be conducted cost-effectively and sustainably.

With residents relying on individual on-site facilities, the challenges and opportunities associated with these facilities are highly site-specific and beyond the scope of this report. In general, localized conditions, any regulatory requirements (e.g., well separation




# Town of Cochecton Water Facilities Map

## Sullivan County, New York

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

0 0.25 0.5 1 1.5 2 Miles

N

- Municipal Water Service Areas
- Centralized or Regulated Decentralized Service
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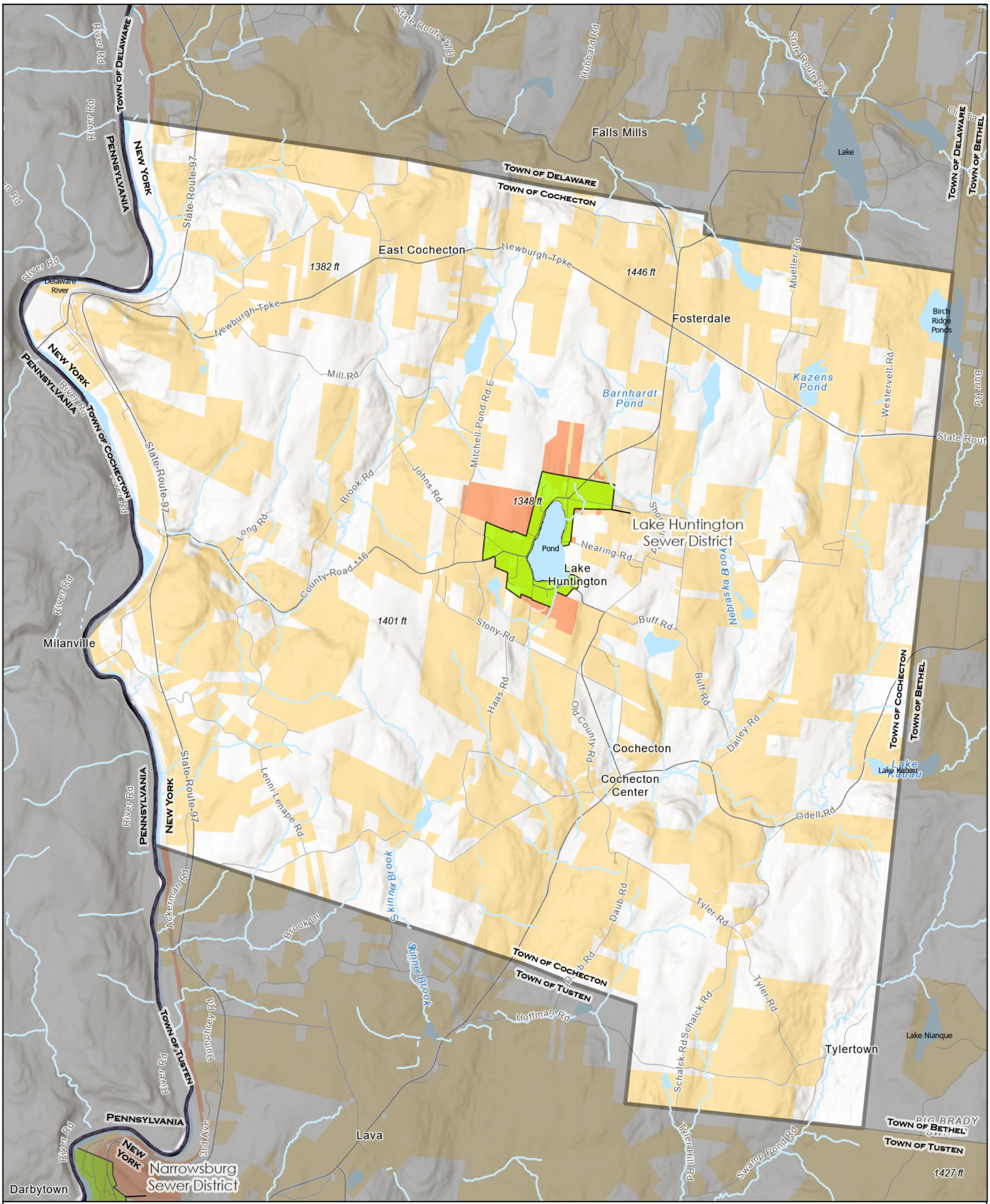


# Town of Cochecton Wastewater Facilities Map

## Sullivan County, New York

N

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

0 0.25 0.5 1 1.5 2 Miles

- Municipal Sewer Service Areas
- Centralized or Regulated Decentralized Service
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- Delaware River Basin (Entire Village)
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distances and setbacks, which vary by type of use, regulatory classification, potential on-site sources of contamination, water withdrawal capacity, etc.), and private decision-making. In addition, financing centralized infrastructure can be challenging due to relatively smaller numbers of potential users to be connected.

## 5.3 Sanitary Sewer and Wastewater Treatment Inventory & Evaluation

### 5.3.1 Municipal Systems

Lake Huntington is the only location with centralized municipal sewer service and consists of 171.12 acres with 191 parcels surrounding the lake. Nonresidential users within the district include Sullivan West High School, Lake Huntington Summer Community, County Fountain Supplies Inc., Lakeview Laundromat, Town Hall, and the Delaware Valley Opera Center. The district's current users include 97 residential, 14 commercial, 11 community/public service, and 73 vacant properties.

#### *5.3.1.1 System Components Inventory and Overview*

The WWTP is located 0.25 miles south of the district at 44 Olsen Road. The most recent SPDES Permit was not available for review; however, a renewal letter from 10/27/2022 shows the facility to be permitted until 9/30/2027. The WWTP has a permit discharge rate of 210,000 GPD into a tributary of the Ten Mile River as receiving waters.

According to NYSDEC's EBPS, this facility received a rank of 112 and a score of 39. The score components are based on the age of the existing SPDES permit and time since the last time the facility submitted a long-form permit application, together with required comprehensive effluent sampling. In general, the higher the EBPS rank, the more likely it is that the permit for this facility will undergo a full technical review by NYSDEC in the near future. The EBPS rank, coupled with the fact that the Town lies within the DRBC boundary, combine to make full technical review more likely when it expires in 2027. In addition, any new effluent limits may include nutrient removal.

The original collection system was installed in the mid-1930s and consisted of tiled sewer mains. Over 50% of the system received an upgrade in the early 1990s to 10" PVC mains. Additionally, 20 manholes were installed within the upgraded locations.

#### *5.3.1.2 Recent/Future Upgrades*

A new town hall and firehouse were built within the last few years. This required the first major extension of the district and associated sewer infrastructure west along County Route 116 and Smales Road, encompassing twelve additional parcels. Officials have also

identified the need to address I&I and make investments in the WWTP to extend its useful life.

#### *5.3.1.3 Finances and Administration*

As part of the data collection process, information about system finances and budgeting was requested and researched from publicly available sources; local codes governing system administration and use were also reviewed, where publicly available. This information, where available, was used in order to develop an understanding of key metrics, including revenues and trends, expenses and trends, rate structure, revenues versus expenditures, debt service, and reserves.

Analysis of available financial information against the following metrics is as follows.

- Revenues and trends – Revenues are raised according to the EDU formula, with a smaller amount raised for capital reserves. The budget reflects a line for a payment from the school district, representing about 13% of revenues.
- Expenses and trends – Sewer appropriations were $120,852 in 2025, or about 5% of total appropriations. The majority of appropriations relate to operations, at about 75% of the budget. Within that category, contractual expenses increased about 14% between 2024 and 2025.
- Rate structure – The Town rate structure is based on EDUs. Users are charged according to a rate schedule, the basis of which is a single-family dwelling unit. According to the Town code, "The extent of actual use has no effect on such determination." Additional annual surcharges are provided for swimming pools. The number of EDUs is about 285 as of 2025, and appropriations are divided by EDUs to create the per EDU rate. The budget reflects a line for a payment from the school district, representing about 13% of revenues. In addition to user fees, in-district properties are assessed costs of the capital reserve fund according to assessed valuation.
- Revenue versus expenditures – While actual revenues were unavailable, revenues (user fees and capital) have equaled appropriations in the five years of budget info reviewed.
- Debt service – It appears that the Town currently does not carry any debt. Although a certain amount of debt was paid off to the general fund in 2024, the Town correspondingly increased the capital reserve fund.

- Reserves – Capital costs – reserve and, until recently, debt service – account for about 16% of appropriations. Since 2020, the Town has put nearly 10% of appropriations toward a reserve fund.
- Sewer use law – Chapter 190 of the Town code is the sewer use law. Article II of that law establishes requirements for sewer rents.

### 5.3.2 Other Systems

Based on data available for review, no private centralized sewer systems are currently operating within the Town of Cochecton.

### 5.3.3 Challenges and Opportunities

The age of the Town's system presents certain challenges. As noted, I&I into the collection system is a major contributing factor to issues with the treatment facility during larger rain events (greater than 3.5 inches). Improvements to these conditions are a significant priority of the Town. In addition, the treatment facility is the original four-bed sand filtration unit in need of upgrading and bed replacement.

As EBPS rankings show, the Town's WWTP SPDES permit ranks in the 75$^{th}$ percentile of the NYSDEC Region 3 list, primarily due to the age of the permit since its most recent comprehensive review. A comprehensive permit review process can result in modifications to effluent limits or other conditions, leading to the need for capital or other expenditures. In general, the higher the EBPS rank, the more likely it is that the permit for this facility will undergo a full technical review by NYSDEC in the near future. As noted above, nutrient limits are a possible addition to the new permit. The Town's existing WWTP uses a sand filter, and nutrient removal will likely require added capital investment to bring its treatment processes into compliance with such limits.

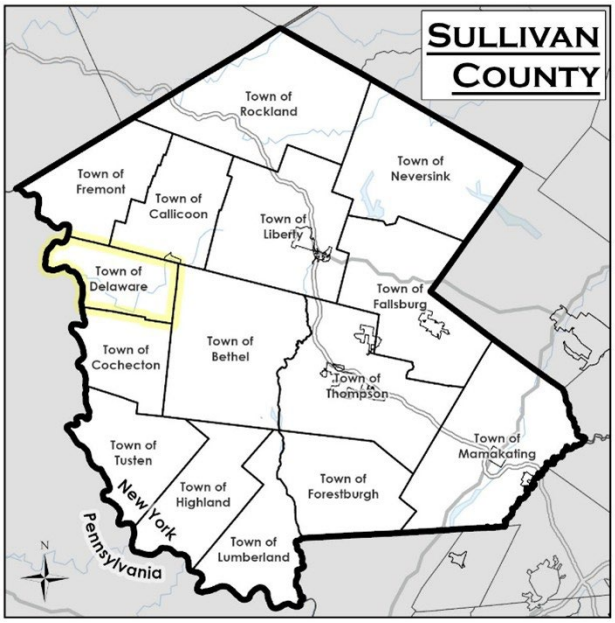
## 5.4 Methodology and Sources

In preparing this report, publicly available data were collected and reviewed, along with any additional documentation supplied by a municipal representative, county office, or other authoritative sources. In addition, the project team contacted and interviewed key individuals who have specialized knowledge of their local systems. The following is a list of sources consulted.

- Cochecton Town Budget (2025)
- Lake Huntington Sewer District Drawing Set

- Lake Huntington STP Drawing Set
- Lake Huntington Sewer District Map
- DRBC Wastewater Discharge Docket Number D-2015-009 CP-1
- Callanan Fosterdale Site 2023 NYS DEC Water Withdrawal Report (WWR0000201)
- Lake Huntington Sewer District 2022 SPDES Permit Renewal (NY0030694)
- NYSDEC Environmental Benefit Permit Strategy (EBPS) 2025 Rankings
- Lake Huntington Sewer District 2022 SPDES Permit Renewal (NY0030694)

# 6. TOWN OF DELAWARE




## 6.1 Municipal Overview

The Town of Delaware is in western Sullivan County, situated along the Delaware River and the East and North Branches of the Callicoon Creek. Delaware is a community of small farms, wooded hills, and quaint waters amongst the historic Hamlets of Callicoon, Kohlertown, Hortonville, and Kenoza Lake. The Town borders the Towns of Fremont and Callicoon to the north, Bethel to the east, and Cochecton to the south; it also borders the Village of Jeffersonville at its northeast corner. At the decennial census of 2020, the Town had an estimated population of 2,203. The Hamlet of Callicoon is a substantial commercial center, while Hortonville, Kohlertown, and Kenoza Lake are primarily residential. The Villa Roma Resort is an additional highly developed location to the west of Kohlertown that provides private utility services for its affiliated properties.

Three centralized municipal utility systems exist within the Town, in the areas served by the Callicoon Water District, Callicoon Sewer District, and Kohlertown Sewer District. The Delaware Valley Job Corps Center is located in the Hamlet of Callicoon, on the site of a former seminary. The Job Corps is a career technical training center administered by the US Department of Labor (USDOL). It is connected to the Town of Delaware's water and sewer systems. Job Corps contributes approximately half of the daily flow to the WWTP. The Town has an agreement in place with the USDOL to provide sewer service for the campus.

The Town lies entirely within the DRBC boundary but entirely outside the NYC watershed boundary.

## 6.2 Water Supply and Distribution Inventory & Evaluation

### 6.2.1 Municipal Systems

In 2017, the Town of Delaware established a new 397-acre water district in the hamlet of Callicoon. The hamlet is served by a community water system that was previously privately owned and operated by the Callicoon Water Company. The water system serves approximately 172 users on 167 domestic and commercial service connections.

# Town of Delaware Water Facilities Map

## Sullivan County, New York

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

- Municipal Water Service Areas
- Centralized or Regulated Decentralized Service
- Individual On-Site Systems
- Delaware River Basin (Entire Village)
- NYC Watershed (Entirely Outside)
- Town Boundary
- Other Municipalities
- Stream
- Waterbody

0 0.5 1 2 3 4 Miles

N

#### *6.2.1.1 System Components Inventory and Overview*

The Callicoon Water System consists of two wells, two springs, one 250,000-gallon covered reservoir, one 8,000-gallon elevated storage tank, and approximately 3.1 miles of ductile and cast-iron service mains. The earliest part of the system dates to 1914 when Mitchell Spring was developed, and the distribution pipes were installed for St. Joseph's Seminary. The majority of the system was installed between 1957 and 1967 when the system was expanded throughout the center of the Hamlet and west to Del Vue Terrace.

According to the Town's 2018 AWQR, nitrates were detected in levels that likely exceeded the MCL. Nitrate in drinking water at levels above 10 mg/l is a health risk for infants of less than six months of age. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. It should be noted that the Town is in the process of a capital project that will address the issues underlying these reported exceedances (see Recent/Future Upgrades, below). Elevated levels of lead and copper are likely caused by plumbing within a user's water system and beyond the point of interconnection with the public water distribution system.

According to the EPA, the lead 9 is a measure of the effectiveness of the corrosion control treatment in water systems. The action level is not a standard for establishing a safe level of lead in a home. To check if corrosion control is working, EPA requires water systems to test for lead at the tap in certain homes, including those with lead service lines. Systems compare sample results from homes to the EPA's action level of 0.015 mg/L (15 ppb). If 10 percent of the samples from these homes have water concentrations that are greater than the action level, then the system must perform actions such as public education and lead service line replacement. The treatment technique regulation for lead (referred to as the Lead and Copper Rule) requires water systems to control the corrosivity of the water.

*Table 8. Town of Delaware water withdrawal permit information (all figures in GPD)*

| Water System | Component | Max Rate (GPD) | Average Daily w/d | Peak Day w/d | NYSDEC Permitted w/d | DRBC Permitted w/d |
|---|---|---|---|---|---|---|
| **Delaware - Callicoon** | Well #1 | 237,600 | 115,041 | 170,000 | 290,880 | 237,600 |
| | Well #2 | n/a | | | | |

#### *6.2.1.2 Recent/Future Upgrades*

Following the purchase of the water system, the Town carried out an engineering evaluation of the water system and prepared a Preliminary Engineering Report (PER) to identify system deficiencies, needs, upgrade options, and costs to bring the system into regulatory compliance, and to seek funding. The water system improvements that were approved for funding under the 2017 PER and subsequent amendments included:

- Replacement of ± 7,150 feet of water distribution lines;
- Installation of water meters at all properties;
- Construct a new 600sf well house;
- Furnish and install backup generator;
- Land acquisition for new well field;
- Establishment of new wells;
- Connection of new wells to treatment building;
- Decommissioning of Well #1; and
- Demolition and replacement of the water tank.

In October 2019, NYSDOH inspected the water system and identified a number of deficiencies that needed to be addressed. Many of the deficiencies identified in the sanitary survey had a direct impact on the proposed upgrade project. The water system upgrades were approved in 2017, and implemented from 2024 to 2025, funded through an EFC grant. The upgrade consisted of two new wells, a water treatment facility, replacement of the elevated water storage tank on Delvue Road, and the replacement of approximately 5,000 linear feet of water main. The prior water sources were decommissioned and are no longer in service. Additionally, water meters were installed for all services, as required by the DRBC.

#### *6.2.1.3 Finances and Administration*

As part of the data collection process, information about system finances and budgeting was requested and researched from publicly available sources; local codes governing system administration and use were also reviewed, where publicly available. This information, where available, was used in order to develop an understanding of key metrics, including revenues and trends, expenses and trends, rate structure, revenues versus expenditures, debt service, and reserves.

Analysis of available financial information against the following metrics is as follows

- Rate structure – O&M charges are based on metered water usage. The Town charges capital costs on an EDU basis, with one EDU assigned based upon a single-family dwelling using water, with the assumption of typical use of 165 gallons per day. Where a connection lacks a meter, O&M charges are based on EDUs.
- Water use law – The Town's water use law is found at Chapter 210 of the Town's code.

Detailed budget and other information were unavailable for review at the time of writing with respect to expenses and trends, revenues versus expenditures, debt service, and reserves.

### 6.2.2 Other Systems

In addition to private, individual on-site water supply facilities, there are two privately-owned regulated decentralized systems with a capacity large enough to require a NYSDEC water withdrawal permit. Based on information available, one regulated private public water system appears to be situated within the Town, which also operates a regulated water withdrawal (Table 9).

Callanan Industries, Inc.'s Fosterdale mining site possesses a water withdrawal permit for up to 1,872,000 GPD from two on-site ponds. Annual records show that these sources have not been in use since 2015, with no water withdrawn through 2023. In 2015, an average of 212,640 GPD was withdrawn, with a maximum of 1,602,000 GPD.

The Villa Roma Resort and Conference Center operates a regulated water withdrawal in order to provide water to its facility. The resort has 236 timeshare units, a 140-room hotel, a conference center, five restaurants, seven lounges, a golf course, a ski and tubing hill, a bowling alley, a day spa, a pool complex, a fitness center, horseback riding, go-kart speedway, tennis courts, a basketball court, a playground, an arcade, and bumper boats. The water system consists of two sources of supply: Main Pump House 15 has a maximum rate of 600 GPM, while Main Pump House 11 has a maximum rate of 300 GPM. According to the 2023 AWQR, there were no reported violations or exceedances based on contaminant testing.

*Table 9. Villa Roma Resort water withdrawal permit information*

| Water System | Component | Max Rate (GPD) | Average Daily w/d | Peak Day w/d | NYSDEC Permitted w/d | DRBC Permitted w/d |
|---|---|---|---|---|---|---|
| Villa Roma Resort | Well #2 | 11,520 | 7,000 | 150,000 | 1,000,000 | 396,000 |
| | Well #4 | 108,000 | | | | |
| | Well #6 | 28,800 | | | | |
| | Well #7 | 93,600 | | | | |
| | Well #8 | 144,000 | | | | |
| | Well #9 | 100,800 | | | | |
| | Well #10 | 14,400 | | | | |
| | Well #12 | 30,240 | | | | |
| | Well #13 | 8,640 | | | | |
| | Pond #1 | 850,000 | | | | |
| | Pond #2 | 350,000 | | | | |

### 6.2.3 Challenges and Opportunities

In order to implement projects addressing the engineering and compliance inspections, the Town secured a 0% interest loan from NYSEFC, representing an opportunity to reduce costs to users. The Town has completed portions of the upgrades identified above and is in the process of developing a new groundwater source. These capital improvements present an opportunity to modernize the system and address historical deficiencies stemming from the historical water supply sources.

Whether the DOL Job Corps facility will continue to operate represents a challenge. Recently, a federal judge issued preliminary injunctions in June preventing its closure, but this uncertainty carries with it financial vulnerability to both the Town's water and sewer districts, as there are certain fixed costs associated with running the water system and the sewer plant, and the loss of one major user can mean substantial losses in revenue or create other issues, such as operationally in terms of reduced throughput through these systems where they are designed for greater capacity.

## 6.3 Sanitary Sewer and Wastewater Treatment Inventory & Evaluation

### 6.3.1 Municipal Systems

The Town owns and operates two centralized sewer systems, known as Callicoon and Kohlertown.

#### *6.3.1.1 System Components Inventory and Overview*

##### *6.3.1.1.1 Callicoon*

The Callicoon system involves service to the 286-acre Sewer District #2 serving the Hamlet of Callicoon's approximately 170 residents through 133 service connections. The collection and conveyance system consists of approximately 3.5 miles of gravity and force sewer mains, 87 manholes, and three pump stations. The existing WWTP is located on Viaduct Road and has an outfall on Callicoon Creek, a tributary of the Delaware River. The facility is located within the floodplain and has sustained damage during multiple flood events. The WWTP maximum permitted flow of 120,000 GPD. The average daily flow for the WWTP facility for the range of data available was 41,000 GPD, and the annual average peak day flow was 67,000 GPD.

The WWTP is a package-style plant, where two steel tanks receive flow and provide the majority of the treatment for the received wastewater. Chambers and mechanical components route flow through the tanks to provide the removal of BOD and total suspended solids. Treated wastewater is then pumped from the tanks through an ultraviolet disinfection unit and discharged to the Callicoon Creek. An administrative building between the two tanks houses an office, a restroom, a lab, an electrical component room, and a room for the blowers, which provide aeration in the steel process tanks. Sludge, which is collected in the clarifier section of the process tanks, is pumped to a covered drying bed where it is dewatered. Water drains through underdrains beneath the bed and is pumped back to the process tanks. Dried sludge is stripped off the top of the beds with a skid steer and loaded into dump trucks for disposal at a landfill.

The SPEDES permit was just renewed in November of this year and is effective through 2030. The renewed permit now includes monitoring for phosphorus and nitrogen, which may signal that nutrient removal at some point in the future will be required.

According to NYSDEC's EBPS, this facility received a rank of 258 and a score of 99. The score components are based on the age of the existing SPDES permit and time since the last time the facility submitted a long-form permit application, together with required comprehensive effluent sampling. In general, the higher the EBPS rank, the more likely it is that the permit for this facility will undergo a full technical review by NYSDEC in the near future.

##### *6.3.1.1.2 Kohlertown*

The Kohlertown system involves service to the 292-acre Kohlertown Sewer District (SD #1), the infrastructure for which was developed in 1983 and is located directly south of the Village of Jeffersonville. The collection and conveyance system consists of approximately 1

# Town of Delaware Wastewater Facilities Map

## Sullivan County, New York

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

Municipal Sewer Service Areas
Centralized or Regulated Decentralized Service
Individual On-Site Systems

Delaware River Basin (Entire Village)
NYC Watershed (Entirely Outside)
Town Boundary

Other Municipalities
Stream
Waterbody

0 0.5 1 2 3 4 Miles

N

mile of 8" sewer main and 25 manholes, and the Jeffersonville WWTP. The system serves 114 parcels located primarily along NYS Route 52 between the Village boundary and the WWTP located off of Sickmiller Road. The service area also includes residential properties on Creekside Drive, Beechwood Road, and Sickmiller Road. Of the 114 connections, 73 are residential; 15, commercial; and 3, public entities.

#### *6.3.1.2 Recent/Future Upgrades*

##### *6.3.1.2.1 Callicoon*

In 2021, the Town secured a $2.0 M grant to construct a new WWTP at a new site located approximately 0.5 miles from the existing one, at the southern end of Creamery Road, though the future of this project is uncertain.

##### *6.3.1.2.2 Kohlertown*

According to officials, no recent or future upgrades are planned for the collection system. However, refer to the Village of Jeffersonville, Recent/Future Upgrades section for more information on planned WWTP upgrades

#### *6.3.1.3 Finances and Administration*

As part of the data collection process, information about system finances and budgeting was requested and researched from publicly available sources; local codes governing system administration and use were also reviewed, where publicly available. This information, where available, was used in order to develop an understanding of key metrics, including revenues and trends, expenses and trends, rate structure, revenues versus expenditures, debt service, and reserves.

Analysis of available financial information against the following metrics is as follows.

- Rate structure - The Town's sewer use law is found at Chapter 173 of the Town's code and is based on a per-unit schedule. The base unit is a single-family dwelling. Units are assigned in equal measure for both O&M and capital charges. Annually, the number of EDUs per district is used with the appropriations needed to determine the per-unit rate.
- Debt service – The Town presently has $ 18,599.60 in debt service annually, which is split 13% to Kohlertown and 87% to Callicoon districts.
- Sewer use law - The Town's sewer use law is found at Chapter 173 of the Town's code.

Detailed budget and other information were unavailable for review at the time of writing with respect to expenses and trends, revenues versus expenditures, and reserves.

### 6.3.2 Other Systems

One SPDES permit for a privately-owned regulated decentralized wastewater facility has been issued in the Town. The permit has been issued to Bnos Rochel to reauthorize a lapsed permit for an existing discharge of 22,500 gallons per day of treated sanitary wastewater to a tributary of East Branch Callicoon Creek, Class C(T), from a tertiary treatment plant located off of Swiss Hill Road. The facility is a residential summer camp.

### 6.3.3 Challenges and Opportunities

According to information reviewed for this report, the existing Callicoon WWTP cannot meet contemporary nutrient removal requirements anticipated to be placed on any discharge to Callicoon Creek. These new permit limits constitute an important challenge to the existing WWTP, and as such, the Town must develop plans to be able to meet these limits, which will likely require capital investment.

As the Town lies within the DRBC boundary, any SPDES permit nutrient removal requirements will need to be implemented in concert with DRBC. The recently renewed SPDES permit requires nutrient monitoring; unless major upgrades to the current facility that require permit modifications are contemplated, the Town has time until 2030, when the current permit expires, to plan to address potential nutrient removal requirements.

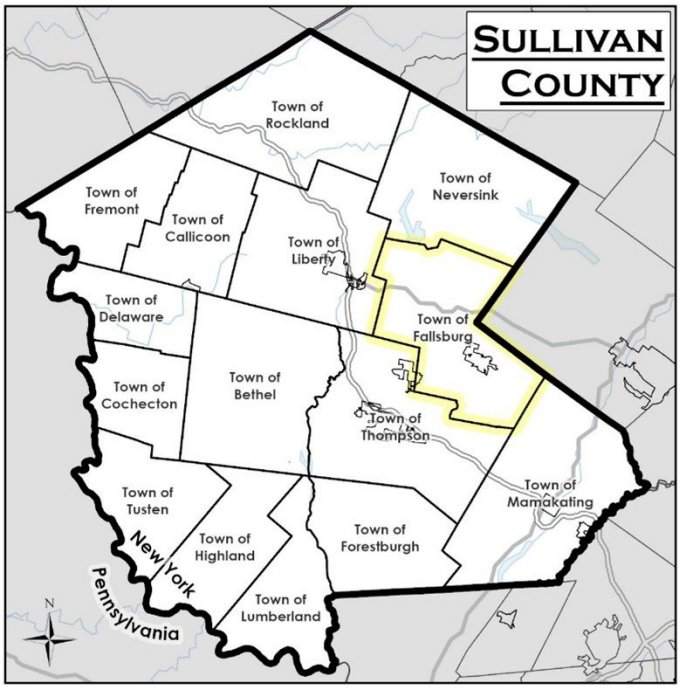
## 6.4 Methodology and Sources

In preparing this report, publicly available data were collected and reviewed, along with any additional documentation supplied by a municipal representative, county office, or other authoritative sources. In addition, the project team contacted and interviewed key individuals who have specialized knowledge of their local systems. The following is a list of sources consulted.

- WWTP Facility Operations Flow Data (2012-2023)
- Sewer District 2 Drawing (1990)
- Callicoon WWTP Preliminary Engineering Report (2020)
- Callicoon Water System Annual Water Quality Report (AWQR) 2018 (NY5203321)
- Sewer Main Inventory
- Callicoon Sewer Collection System Drawing Set (1988)
- Callicoon Water System Improvements Engineering Report (2017)

- Kohlertown Sewer Collection System Drawing Set (1983)
- DRBC Water Supply Docket Number D-2011-012 CP-2 (Callicoon)
- DRBC Water Supply Docket Number D-2014-020-1 (Villa Roma)
- DRBC Wastewater Discharge Docket Number D-1988-007-2 (Villa Roma)
- Jeffersonville Village STP 2018 SPDES Permit (NY0109029)
- EPA Detailed Facility Report: Jeffersonville Village Well 3 & 4 Treatment Plant
- Callicoon Water Co., Inc. 2018 Water Quality Report (PWS 5203321)
- Callicoon 2024 Water District Withdrawal Report (WWR0000203)

# 7. TOWN OF FALLSBURG




## 7.1 Municipal Overview

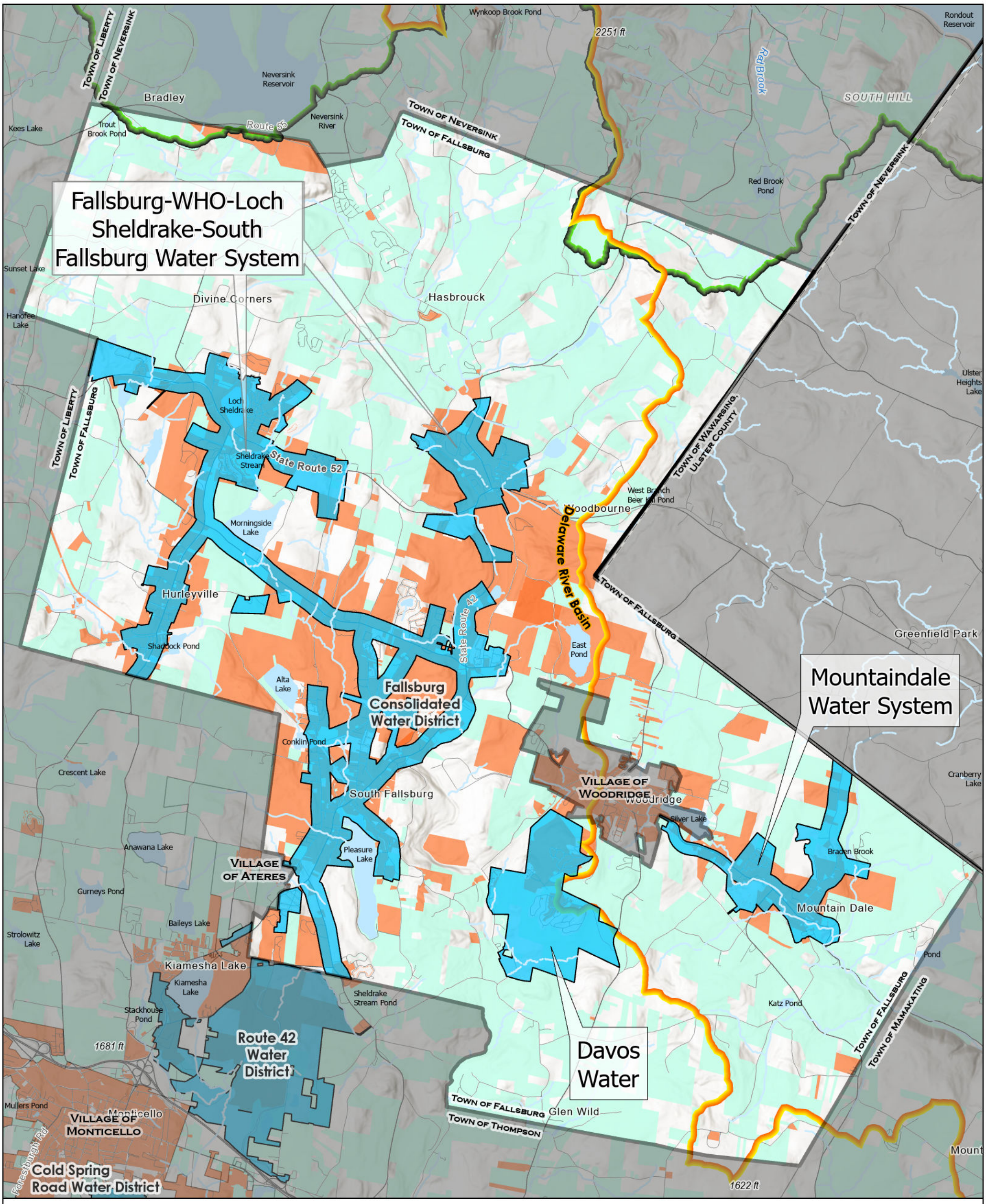
The Town of Fallsburg, located in east-central Sullivan County, comprises approximately 79 square miles of rolling hills, woodland tracts, and small lakes interspersed around the primary hamlets of Loch Sheldrake, South Fallsburg, Woodbourne, Hurleyville, Mountaindale, Glen Wild, Hasbrouck, Divine Corners, and Old Falls. The Village of Woodridge is entirely within the Town's boundary, and the eastern portion of the Village of Ateres is within Fallsburg. The Town's development is centered along NYS Routes 42 and 52 and County Routes 52, 54, 57, 58, and 104. The Town's population was 14,192 at the 2020 Decennial Census.

Two small portions of the Town lie within the NYC watershed boundary, consisting of approximately 2.3 square miles surrounding Ulster Heights Road in the northeast, and approximately 0.5 square miles in the vicinity of Lindholm Road in the northwest. Additionally, 74% of the Town is within the DRBC watershed boundary. All of the Mountaindale sewer service area and portions of the areas serviced by the Village of Woodridge fall outside the DRBC area.

## 7.2 Water Supply and Distribution Inventory & Evaluation

### 7.2.1 Municipal Systems

The Town provides water service via three separate water systems and their associated distribution infrastructure: Davos-Riverside, Mountaindale, and Fallsburg-WHO-LS-SF. The latter consists of four interconnected service areas covering the hamlets of Woodbourne, Hurleyville, Old Falls (WHO), Loch Sheldrake (LS), and South Fallsburg (SF). Total permitted withdrawal from all wells in the water system totals 5,674,600 GPD. The Town's system draws raw water from 22 of the 27 unconsolidated or bedrock wells. The Fallsburg Water




# Town of Fallsburg Water Facilities Map

## Sullivan County, New York

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

0 0.5 1 2 3 4 Miles

N

- Municipal Water Service Areas
- Centralized or Regulated Decentralized Service
- Individual On-Site Systems
- Delaware River Basin
- NYC Watershed
- Town Boundary
- Other Municipalities
- Stream
- Waterbody

District was created from the consolidation of the Hurleyville, Loch Sheldrake, Fallsburg, South Fallsburg, Woodbourne, Mountaindale, and Davos water districts.

#### *7.2.1.1 System Components Inventory and Overview*

The Town of Fallsburg maintains 11 storage tanks, 3 pump stations, and a network of 58.3 miles of water main serving 21,101 people through 5,939 service connections. In 2023, average daily demand across the three water systems was 1,760,971. Overall, the Town has seven well fields and a total of 27 wells.

The WHO-LS-SF water system, while comprised of several independent sources of supply, is the only system of the three noted above that is interconnected. Water is routinely moved between the three service areas during periods of high demand, particularly in the summertime. Although the WHO-LS-SF distribution system is interconnected, not all wells can supply all portions of the Town's system due to hydraulic conditions.

*Table 10. Town of Fallsburg water withdrawal permit information (all figures in GPD)*

| Water System | Component | Max Rate (GPD) | Average Daily w/d | Peak Day w/d | NYSDEC Permitted w/d | DRBC Permitted w/d |
|---|---|---|---|---|---|---|
| **Fallsburg - Davos Riverside** | Davos Well #1 | 80,640 | 66,654 | 116,000 | 521,000 | |
| | Davos Well #2 | 86,400 | | | | |
| | Davos Well #3 | 108,000 | | | | |
| | Riverside Well #1 | 66,240 | | | | |
| | Riverside Well #2 | 80,640 | | | | |
| | Riverside Well #3 | 331,200 | | | | |
| **Fallsburg - Mountaindale** | Well #1 | 178,560 | 67,317 | 227,000 | 244,000 | |
| | Well #2 | 172,800 | | | | |
| **Fallsburg - WHO LS SF** | Fallsburg #1A | 360,000 | 1,627,000 | 3,756,000 | 4,573,000 | 4,885,806 |
| | Fallsburg #1B | 227,520 | | | | |
| | Fallsburg #2A | 360,000 | | | | |
| | Fallsburg #3 | 576,000 | | | | |
| | Fallsburg #4 | 288,000 | | | | |
| | Fallsburg #5 | 288,000 | | | | |
| | Fallsburg #6 | 288,000 | | | | |
| | Fallsburg #7 | 1,008,000 | | | | |
| | Fallsburg #8 | 491,040 | | | | |

| Water System | Component | Max Rate (GPD) | Average Daily w/d | Peak Day w/d | NYSDEC Permitted w/d | DRBC Permitted w/d |
|---|---|---|---|---|---|---|
| | Woodbourne #1A | 288,000 | | | | |
| | Woodbourne #2 | 432,000 | | | | |
| | Woodbourne #3 | 583,200 | | | | |
| | Sheldrake #1A | 100,800 | | | | |
| | Sheldrake #1 | 288,000 | | | | |
| | Sheldrake #2 | 288,000 | | | | |
| | Sheldrake #3 | 583,200 | | | | |
| | Hurleyville #1 | 288,000 | | | | |
| | Hurleyville #2 | 288,000 | | | | |
| | Hurleyville #2A | 216,000 | | | | |

The Davos-Riverside system is permitted to withdraw about 750,000 GPD. As reported in 2024, 100% of the above system was metered at an average age per meter of six years for 1,050 people through 422 service connections. As reported, the Davos-Riverside system involves a 4.4-mile water main network.

The Mountaindale system is permitted to withdraw a maximum of 244 GPM (about 350,000 GPD). As reported in 2024, 100% of the above system was metered at an average age per meter of six years for 873 people through 400 service connections. As reported, the Mountaindale system involves a 4.4-mile water main network. According to the 2024 AWQR, the Town reported no violations or exceedances based on contaminant testing.

The Fallsburg-WHO-LS-SF system is permitted to withdraw a maximum of 4,573,000 GPD. As reported in 2024, 100% of the above system was metered at an average age per meter of six years for 19,178 people through 5,117 service connections. As reported, this system consists of a 49.5-mile water main network.

According to its 2024 AWQR for the Davos-Riverside system, the Town reported elevated levels of copper in excess of the MCL were detected, though it did not report a violation of water quality standards. The report indicates that the Town, in 2024, intended to make adjustments to its treatment of water, in accordance with regulatory guidelines, and increase sampling. The major source of copper in drinking water is corrosion of household

plumbing, faucets, and water fixtures. Copper is a naturally occurring metal found in rock, soil, water, and sediment, and is essential to human health in small amounts.

In addition, the Town reported one violation of water quality standards in the WHO-LS-SF due to the detection of PFOA (a subset of PFAS). These chemicals are widespread in the environment, having been used in industrial applications and in consumer goods. Under recent enactment by the EPA of new rules, public water systems have five years (by 2029) to implement solutions that reduce these PFAS if monitoring shows that drinking water levels exceed these MCLs. Public water systems have until 2029 to implement solutions to reduce PFAS in drinking water, which violates one or more of these MCLs in their drinking water and must provide notification to the public of the violation.

#### *7.2.1.2 Recent/Future Upgrades*

The Town has a program of planned improvements, consisting of a number of projects. In 2023, the Town Board approved the expansion of its water storage in order to increase water capacity by 60%. Two new storage tanks will be integrated into Fallsburg's water distribution system through a multi-phased effort. The upgraded/replaced Old Falls Water Tank went online earlier this year.

In addition, the following upgrades to the water system are also planned:

- Water Line Replacement, Brickman Road, West
- Water Line Replacement, NYS Route 42, North
- Water Line Replacement, County Route 52, East
- Water Line Replacement, Neversink Bridge Crossing
- LaVista Drive Booster Pump Station
- Hurleyville Water Treatment System
- Davos and Riverside Well House Renovations
- Davos Water Storage Tank
- New Groundwater Source Development

The water line replacement at the "Neversink Bridge Crossing," listed above, is being done in conjunction with a NYSDOT bridge replacement project that is underway and expected to be completed next year (2026). The NYS Route 42 North Water Line Replacement Project is a top priority because the water mains are not only aging, but they are undersized to meet the demand. Increasing the diameter of the water main is intended to help improve

the hydraulics of the system and allow the Town to more efficiently move water between hamlets in the WHO-LS-SF service area in response to shifting demands.

#### *7.2.1.3 Finances and Administration*

As part of the data collection process, information about system finances and budgeting was requested and researched from publicly available sources; local codes governing system administration and use were also reviewed, where publicly available. This information, where available, was used in order to develop an understanding of key metrics, including revenues and trends, expenses and trends, rate structure, revenues versus expenditures, debt service, and reserves.

Analysis of available financial information against the following metrics is as follows.

- Revenues and trends – Revenues are primarily captured through special assessments levied on benefited properties within the consolidated water district and metered sales, accounting for about 97% of all anticipated water district revenue in the 2026 budget. Historically, the Town has realized additional revenues from Water Development fees, interest/earnings, water meter sales, and NYS Dept. of Corrections.
- Expenses and trends – The 2026 appropriation is $2.89 M, or about 10% of total appropriations. Capital improvements, equipment repair, and equipment replacement amount to $546,000, or just under 20% of the total 2025 budget. The additional 80% of the budget accounts for relatively finite operational and administrative costs. In 2024, about $3.0 M in capital expenditures was realized, up from about $750,000 the prior year. The 2026 budget includes $150,000 in capital expenditures. The contractual line under water operations has increased threefold since 2024.
- Rate structure – Water rates are charged pursuant to Chapter 135 of the Town code and the district requirements. Rates are based on metered usage. Outside-district users are charged about 2.5 times the in-district rate. Additional fees are set by resolution of the Town Board for operational costs, such as seasonal water meter commissioning and decommissioning. Chapter 135 provides for an automatic 2% annual increase unless modified by resolution of the Town Board, following a public hearing. Additional charges are levied based on assessed value in the district, pursuant to the annual Town budget.

- Revenue versus expenditures – In 2023, revenues exceeded expenses by about 20%. The following year, revenues were less than expenses by about 50%, due primarily to the aforementioned capital costs incurred by the district.
- Debt service – The 2026 budget provides for about 6% of total appropriations allocated to debt service.
- Reserves – The 2026 budget does not include a capital reserve line.
- Water use law – The water use law is Chapter 299 of the Town code.

### 7.2.2 Other Systems

Four additional users exist in the Town with capacity requiring a NYSDEC water withdrawal permit. These include: Camp Ohr Shalom, Lochmor Golf Course, Tarry Brae Golf Course, and the Woodbourne Correctional Facility. In addition, there are several private centralized water systems.

Based on information available, there are several regulated private community water systems in the Town (Table 11).

*Table 11. Town of Fallsburg regulated community water systems*

| Water System | Service Area | SDWA # | Population | Connections |
|---|---|---|---|---|
| DISANTO MOBILE HOME PARK | MHP | NY5214753 | 70 | 22 |
| FOXCROFT VILLAGE | MHP | NY5201344 | 800 | 327 |
| HASBROUCK ESTATES MHP | MHP | NY5221877 | 66 | 22 |
| SULLIVAN CORRECTIONAL FACILITY | Institution | NY5220234 | 915 | 1 |
| SUNRISE MOBILE PARK LLC | MHP | NY5220961 | 100 | 28 |
| THE ORCHARDS | Residential | NY5230226 | 332 | 83 |
| WOODBOURNE CORRECTIONAL FACILITY | Residential | NY5203012 | 997 | 13 |
| RAL-HAL / VENETIAN VILLAS | Residential | NY5230245 | 300 | 47 |

### 7.2.3 Challenges and Opportunities

Seasonality of demand is a challenge, with some portions of the system experiencing peak seasonal demand of three times that of off-peak months.

Given the sustained development pressures within the Town, a Capacity Analysis was conducted in 2023 by the Town's engineer to quantify the potential demands on the water

system. That analysis showed that although the Town may have sufficient permitted capacity to meet current and projected future demands, available pumping capacity and the hydraulic limitations of the water distribution system are constraints. It is unclear the extent to which the existing system of transmission and distribution mains has the capacity to convey additional water even if additional production were to occur, and an opportunity lies in further investigation of system hydraulics.

## 7.3 Sanitary Sewer and Wastewater Treatment Inventory & Evaluation

### 7.3.1 Municipal Systems

The Town provides municipal sewer service and has established the Consolidated Sewer Collection District, which includes the South Fallsburg, Loch Sheldrake, and Mountaindale wastewater treatment facilities. In 1989, the Town of Fallsburg consolidated four sewer districts into the current Consolidated Sewer District. These districts were Mountaindale, Davos, South Fallsburg, and Loch Sheldrake.

#### *7.3.1.1 System Components Inventory and Overview*

The Town provides sewer service with a system consisting of three wastewater treatment plants (South Fallsburg, Loch Sheldrake, and Mountaindale WWTP) and associated conveyance infrastructure, including 25 pump stations, 19 grinder pumps, and approximately 34 miles of sewer mains. The former Davos District sends its wastewater to the Village of Woodridge WWTP.

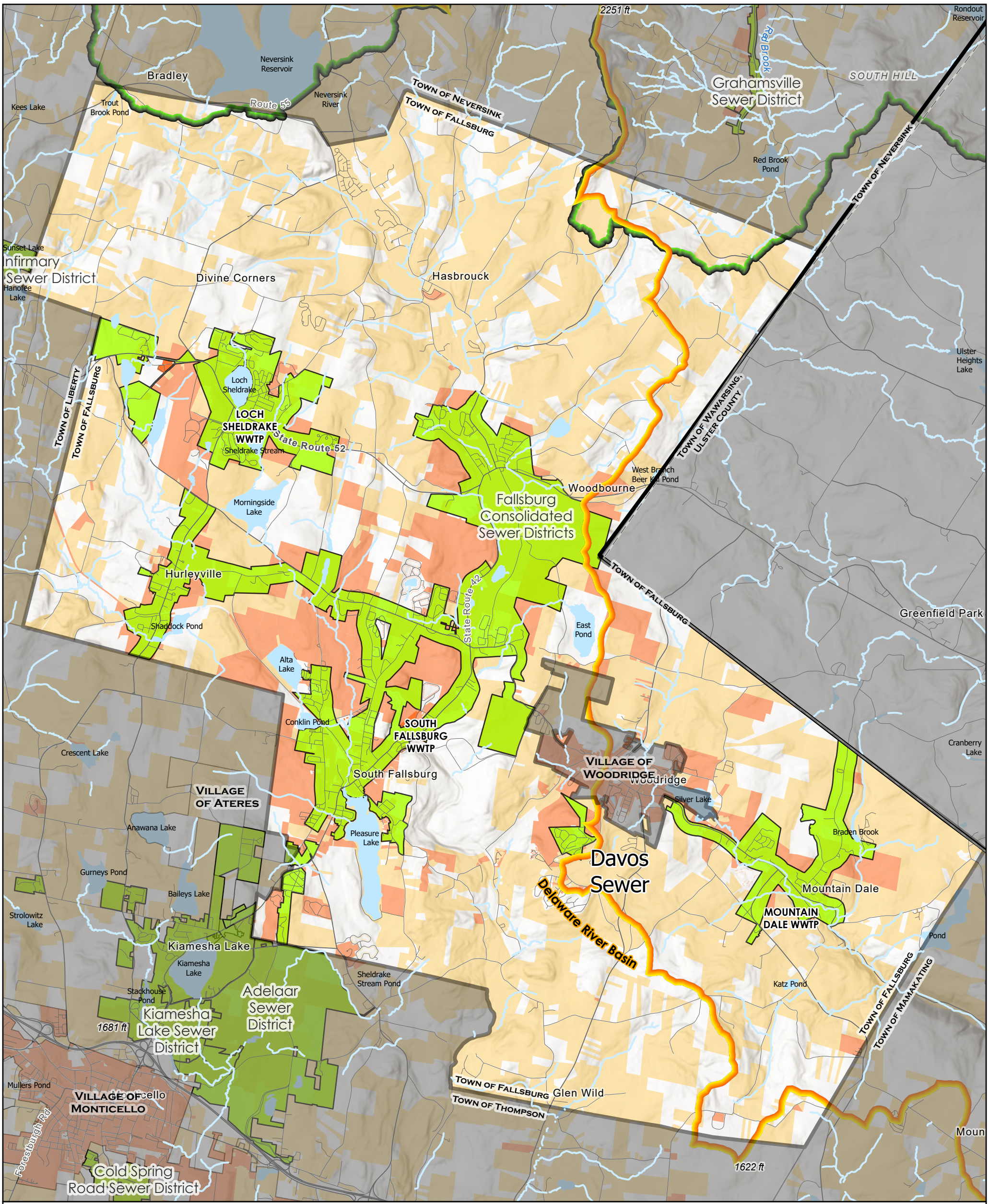
##### *7.3.1.1.1 South Fallsburg WWTP*

The South Fallsburg WWTP accommodates the majority of the Town's wastewater treatment, serving the Hamlet of Woodbourne and two adjacent state prison complexes (collectively, the Woodbourne sewer service area). It also receives flow from the Hamlet of Fallsburg, the Hamlet of Hurleyville, and the Hamlet of South Fallsburg.

The South Fallsburg WWTP is permitted to discharge into the Neversink River with a limit of 3.3 MGD and has an average flow and design flow of 3.26 MGD. In spring, fall, and winter, the system treats less than 2.0 MGD; however, it experiences seasonal (summer) peaks that can exceed permitted flow. NYSDEC recently issued an updated SPDES permit that would permit the Town to treat up to 4.5 MGD after a comprehensive plant upgrade is completed (see Recent/Future Upgrades)

# Town of Fallsburg Wastewater Facilities Map

## Sullivan County, New York




Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

0 0.5 1 2 3 4 Miles

N

- Municipal Sewer Service Areas
- Centralized or Regulated Decentralized Service
- Individual On-Site Systems
- Delaware River Basin
- NYC Watershed
- Town Boundary
- Other Municipalities
- Stream
- Waterbody

According to NYSDEC's EBPS, this facility received a rank of 372 and a score of 35. The score components are based on the age of the existing SPDES permit and time since the last time the facility submitted a long-form permit application, together with required comprehensive effluent sampling. In general, the higher the EBPS rank, the more likely it is that the permit for this facility will undergo a full technical review by NYSDEC in the near future.

*7.3.1.1.2 Loch Sheldrake WWTP and Conveyance System*

The Loch Sheldrake WWTP treats wastewater from the Hamlet of Loch Sheldrake and the Inner Circle development near the Town of Liberty boundary within an area of 2.15 square miles. The WWTP was constructed in 1938 and upgraded in the mid-1980s to a design flow capacity of 0.7 MGD. The plant discharges into the Sheldrake Stream.

According to NYSDEC's EBPS, this facility received a rank of 331 and a score of 62. The score components are based on the age of the existing SPDES permit and time since the last time the facility submitted a long-form permit application, together with required comprehensive effluent sampling. In general, the higher the EBPS rank, the more likely it is that the permit for this facility will undergo a full technical review by NYSDEC in the near future.

Between 2009 and 2016, the plant was further upgraded to address effluent limits, headworks equipment, sludge processing equipment, and components of the anaerobic digester and other process equipment and components. Additionally, sanitary and storm sewers were improved to reduce peak flows, and the plant was expanded and upgraded to meet new permit limits at a higher flow. The New Hope Pump Station's (1032 State Route 52) pumps were replaced with Submersible Chopper Pumps. It is understood that I&I during wet weather events impacts this system.

*7.3.1.1.3 Mountaindale WWTP and Conveyance System*

The Mountaindale WWTP serves the Hamlet of Mountaindale and users located between the Village of Woodridge, at Mountaindale Road, and the county line at Post Hill Road. It operates seasonally, from May 1st to November 30th, using an overland flow system for wastewater treatment. The facility has undergone no major upgrades since its installation in 1985. Also, while the WWTP was built in 1985, it was built using technology that, for the time, had been eclipsed, and it is a lagoon system, which has certain limitations in terms of treatment capacity.

The Mountaindale WWTP is the only WWTP in the Town that discharges into waters that are part of the Hudson River Basin, and is not situated within the Delaware River Basin, resulting in a different regulatory structure with respect to effluent limits. The WWTP

discharges to Sandburg Creek and currently holds a permit to treat up to 0.180 MGD. The WWTP has been operational for 40+ years, whereas violations and operational difficulties have necessitated upgrades. Key treatment components are deteriorating or have surpassed their intended lifespan. The EPA issued a Notice of Significant Non-Compliance (SNC) on 4/11/24 due to exceedances of the effluent limit between May and October of 2023.

According to NYSDEC's EBPS, the Mountaindale WWTP facility received a rank of 272 and a score of 86. The score components are based on the age of the existing SPDES permit and time since the last time the facility submitted a long-form permit application, together with required comprehensive effluent sampling. In general, the higher the EBPS rank, the more likely it is that the permit for this facility will undergo a full technical review by NYSDEC in the near future.

In addition, with the Hamlet of Mountaindale experiencing growth from new developments, the WWTP lacks additional capacity for the summer months, as it is presently running near its capacity and exceeds its allowed limits during the summer. In 2023, a sewer area capacity study was performed, including a build-out analysis, of the Mountaindale service area. This study explored the existing sewer service area as well as the full build-out potential of surrounding vacant lands. The vacant parcel analysis found that up to 224 new housing units could be built if all vacant acreage were used, contributing a potential 147,000 GPD.

In terms of the collection system, the existing pump station has reached the end of its useful life and requires upgrades to continue to operate at its current capacity. Much of the WWTP processes and equipment lack redundancy, which is required by current regulatory standards. An I&I study was performed in 2018 for the Hamlet of Mountaindale, and it was found to be minimal.

Additional I&I studies were performed for the Davos system (connected to the Village of Woodridge WWTP) and the Community Park system (located within Mountaindale). The Davos system was shown to have I&I that contributes significantly during wet weather events.

Wastewater from Davos is treated at the Woodridge WWTP through some kind of agreement with the Town that is decades old. As noted in the Village of Woodridge chapter (§ 21.3.1.1 System Components Inventory and Overview)the system's capacity is also a concern, and redirecting flow from Davos to another location for treatment is a desired option. One of the alternatives being considered is whether that flow can be directed to the Mountaindale WWTP instead.

#### *7.3.1.1.4 Avon WWTP*

This facility is owned by the Town and has an inactive but renewed SPDES permit through March 31, 2030. This permit initially became effective on May 1, 2004, and was last modified in 2008. The permit allows for a monthly average flow of 79,000 GPD of discharge from its WWTP into the Neversink River, a Class B trout stream. The plant has not been in operation for nearly 20 years.

According to NYSDEC's EBPS, this facility received a rank of 7 and a score of 278. The score components are based on the age of the existing SPDES permit and time since the last time the facility submitted a long-form permit application, together with required comprehensive effluent sampling. In general, the higher the EBPS rank, the more likely it is that the permit for this facility will undergo a full technical review by NYSDEC in the near future.

### *7.3.1.2 Recent/Future Upgrades*

This section outlines recently completed and planned upgrades.

#### *7.3.1.2.1 South Fallsburg WWTP*

The South Fallsburg WWTP was constructed with trickling filters in the late 1960s, was expanded to include rotating biological contactors (RBCs) in the early 1980s, and received several upgrades to keep the facility running beyond its useful life. The facility is slated to be upgraded for a treatment capacity of 4.5 MGD seasonal flow at an estimated cost of $110 M. Improvements associated with this upgrade include modifications to the buildings, electrical service updates, and new process equipment. The process technology allows for future expansion to 6.00 MGD. The cost to increase from 4.5 MGD to 6.0 MGD is expected to be less than the other planned improvements, at approximately $15-$20 M, based on 2025 construction costs.

The primary components of the upgrades include the expansion and construction of additional basins and buildings to improve filtration and increase treatment capacity; the installation of additional filtration components within the basins and buildings; the replacement of pumps; the construction of a second pipeline; the installation of additional bulbs for the Ultraviolet system; and the expansion of chemical storage. The Town Board has signed off on the design plan and approved a $110 M bond resolution. The project was approved for a $10 M WQIP grant in 2024 and has qualified for up to $25 M in hardship (0%) financing from NYSEFC, and up to $25 M in subsidized financing from NYSEFC.

#### *7.3.1.2.2 Mountaindale*

The Mountaindale Pump Station experiences significant ragging during the high July/August flows, causing, on occasion, surcharges of the station due to clogged pumps. A temporary

bypass pumping system was installed at this station during July and August of 2023, and it was recommended that a permanent bypass system be installed in 2024. The design and permitting of permanent upgrades to this station to eliminate the ragging is complete. The next step is securing bids for these upgrades and completing the construction. The construction timeline will be approximately 1 year from the execution of contracts. In addition, the Town received an Engineering Planning Grant (from NYSEFC) to study the Mountaindale WWTP and recommend a comprehensive series of upgrades, which will likely include a change in the treatment process to accommodate nutrient removal.

#### *7.3.1.3 Finances and Administration*

As part of the data collection process, information about system finances and budgeting was requested and researched from publicly available sources; local codes governing system administration and use were also reviewed, where publicly available. This information, where available, was used in order to develop an understanding of key metrics, including revenues and trends, expenses and trends, rate structure, revenues versus expenditures, debt service, and reserves.

Analysis of available financial information against the following metrics is as follows.

- Revenues and trends – Revenues are primarily captured through special assessments levied on benefited properties within the district and sewer rents, accounting for 99% of all anticipated sewer district revenue. Sewer development fees and interest/earnings make up other sources of revenue.
- Expenses and trends – The 2026 budget provides for total appropriations of $5.43 M, which is about 19% of the Town budget. The 2025 Town Budget includes about $5 M for total district expenses, with about 30% of this budget allocated to capital costs (debt service and reserve) and the remainder allocated to operational and administrative costs.
- Rate structure – Sewer rents are charged based on 80% of metered water usage, pursuant to Chapter 230 of the Town code. The balance of O&M and debt service costs is paid through an additional property tax assessed to system users based on the number of units assigned to the property. Unit count is assigned based on use for each residential, commercial, institutional, and industrial user. Unit counts for vacant land are assessed at either a rate based on road frontage (1 unit for each 25 ft.) or, for larger lots, total acreage. In addition to the unit charges based on property use, all improved property is also assessed based on road frontage at the same rate as vacant land. Rates are to be set by the Town Board by resolution. Industrial users

may be charged additional fees, pursuant to the resolution of the Town Board. Capital impact fees are assessed pursuant to Art. III of the sewer use law.

- Revenue versus expenditures – Actual figures from 2023 and 2024 show that sewer revenues have exceeded expenditures, which appears to be due to land development fees and interest earnings.
- Debt service – The 2026 budget provides for about $1.0 M in debt service, which is about 18% of total sewer appropriations.
- Reserves – The 2026 budget does not include a capital reserve line.
- Sewer use law – The sewer use law is Chapter 230 of the Town code.

### 7.3.2 Other Systems

Several private wastewater facilities with SPDES permits are located throughout the Town of Fallsburg. These include industrial facilities such as Fallsburg Terminals, Riato Stone, LLC, and privately-operated wastewater treatment plants serving several residential developments (The Orchards, Riverside Estates, and Rosemond Estates). Other SPDES permit filings show several wastewater facilities either planned or constructed in the Town.

#### *7.3.2.1.1 Fallsburg Terminals, LLC*

This bulk petroleum storage facility is owned by Fallsburg Terminals, LLC, and has an active and renewed SPDES permit through February 28, 2027. This permit initially became effective on March 1, 1993, and has not been modified. The permit allows for unlimited stormwater runoff and tank test water discharge into a tributary of the Neversink River, a Class B stream.

#### *7.3.2.1.2 Riato Stone, LLC*

This sand and gravel mine is owned by Riato Stone, LLC, and is covered under a SPDES permit for discharges of up to 200,000 GPD from its 18.2-acre sand and gravel mine's dredge pond. It is currently in the process of applying for a new Individual Permit in relation to a proposed 13.4-acre expansion, to discharge unlimited process wastewater and stormwater runoff into a tributary of the East Mongaup River, a Class B trout stream. Once approved, the discharge will be subject to the current water quality standards.

#### *7.3.2.1.3 The Orchards WWTP*

This facility is owned by Oco Realty, LLC, and has an active and renewed SPDES permit through November 30, 2025. This permit initially became effective on September 4, 2015, and has not been modified. The permit allows for a monthly average flow of 54,000 GPD of discharge from its WWTP into the Sheldrake Stream via Coney Brook, a Class C stream.

*7.3.2.1.4 Riverside Estates WWTP*

This facility is a small sand-filter system designed to service a PUD that never materialized, and it currently only serves a handful of homes. It is currently owned by D&N Management Corp and has an active and renewed SPDES permit through August 31, 2027. This permit initially became effective on May 1, 2012, and has not been modified. The permit allows for a monthly average flow of 22,500 GPD of discharge to groundwater; the WWTP currently receives about 1,575 GPD. A modification took effect on September 1, 2022, requiring the transfer of ownership of the facility to a government agency, municipality, or sewage works corporation on or before August 31, 2027.

*7.3.2.1.5 Rosemond Estates*

This facility is owned by Rosemond Owners Corporation and has a SPDES permit that was initially effective on July 1, 2013, and has not been modified. Renewal documentation was unavailable. The permit allows for a monthly average flow of 9,350 GPD of discharge from its WWTP into a tributary of Silver Woods Lake, a Class D stream.

*7.3.2.1.6 Davos WWTP*

This facility treats wastewater from a portion of the Davos Development outside Woodridge (i.e., the portion that doesn't go to the Woodridge WWTP for treatment). It is a package plant with a permitted flow of 100,000 GPD and it currently treats between 20,000 GPD to 30,000 GPD on average. The treatment technology uses rotating biologic contactors (RBCs), and the WWTP discharges to surface water (Neversink River, Middle Stem). The SPDES permit lapsed and the current owner is working with NYSDEC to renew it. A draft permit was issued in April of 2025.

*7.3.2.1.7 Other Permits*

A SPDES permit has been issued for the Camp Mesifta Nachlas Yakov facility involving a renewal of a permit to operate a wastewater facility with a discharge to groundwater.

The following permits have pending decisions have been determined incomplete:

- Oraysa Sewage-Works Corp for a discharge to surface waters involving a reauthorization of a prior SPDES permit and facilities expansion;
- Camp Ger for a 30,000 GPD discharge to surface waters for a facility involving a religious camp served by multiple septic tanks and a dual storage pond/infiltration lagoon with surface discharge;
- Gan Eden Estates for a discharge to surface waters in connection with a 534-unit development (situated primarily within the Town of Thompson, with a small portion in the Town);

- Mountain Crest Mobile Home Park Inc for reauthorization of a discharge of 24,000 GPD to surface waters;
- Sheldrake Karmel Rd Properties LLC for a new permit involving a discharge of 52,000 GPD to surface waters; and
- Camp Bnos Belz for modification of a permit involving a discharge of 20,000 GPD to groundwater.

### 7.3.3 Challenges and Opportunities

Seasonality of flow constitutes a key challenge, with some portions of the system exceeding permit parameters due to higher flows received during peak usage. In addition, land development activity has placed added demands on the Town's sewer infrastructure.

The sewer infrastructure serving the Hamlet of Mountaindale needs to be upgraded, given that its age exceeds the expected service life. The proposed alternatives include repair and replacement, new construction, and general site enhancements. Reducing I&I in the collection system tributary to the WWTP will have an impact on the design capacity of the upgraded Mountaindale WWTP.

The Mountaindale WWTP upgrades may be an opportunity to optimize and centralize overall sewer service to this part of the Town. As part of upgrades to the Mountaindale WWTP, and in response to a request from NYSDEC, the Town is looking at whether the flow from the aforementioned Riverside Estates and Davos WWTP, which, as noted, are private facilities, could be directed to the Town-operated Mountaindale WWTP once it is upgraded instead. Accordingly, the engineering report for the WWTP upgrades will look at design flows needed to accommodate not only future flows from parcels in the Mountaindale sewer service area, but also existing flow from Davos that goes to the Woodridge WWTP, existing flow to the private Davos WWTP, and the private Riverside Estates sand filter system.

Finally, I&I in portions of the system is a challenge. For example, the Loch Sheldrake WWTP experiences disruption of operations during significant rain events, and the Town recently completed I&I investigations in the Laurel Avenue portion of the South Fallsburg service area. I&I mitigation in targeted areas throughout the consolidated system represents a potential next step.

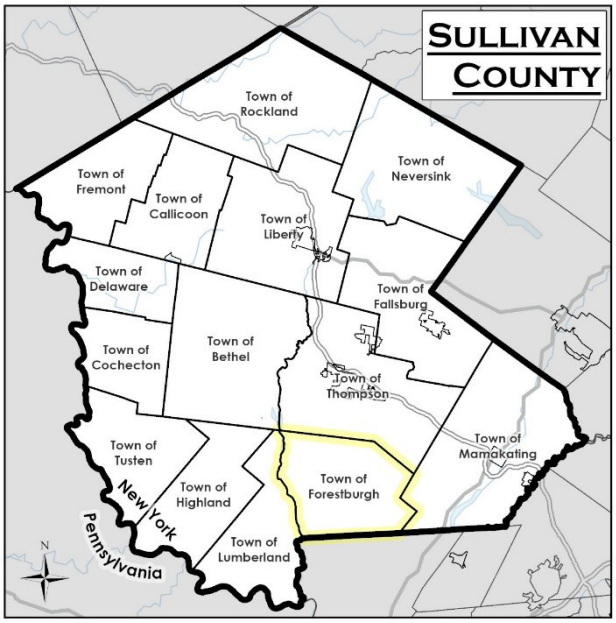
## 7.4 Methodology and Sources

In preparing this report, publicly available data were collected and reviewed, along with any additional documentation supplied by a municipal representative, county office, or other authoritative sources. In addition, the project team contacted and interviewed key individuals who have specialized knowledge of their local systems. The following is a list of sources consulted.

- Camp Ohr Shalom 2023 Water Withdrawal Report (WWR0000209)
- Davos-Riverside 2023 Water Withdrawal Report (WWR0000401)
- Lochmor 2023 Water Withdrawal Report (WWR0000919)
- Mountaindale 2023 Water Withdrawal Report (WWR0001055)
- Tarry Brae 2023 Water Withdrawal Report (WWR0001524)
- Fallsburg-WHO-LS-SF 2023 Water Withdrawal Report (WWR0000506)
- Woodbourne Correctional 2023 Water Withdrawal Report (WWR0001734)
- Davos-Riverside Annual Water Quality Report (AWQR) 2024 (NY5210302)
- Mountaindale Annual Water Quality Report (AWQR) 2024 (NY5203322)
- Fallsburg-WHO-LS-SF Annual Water Quality Report (AWQR) 2024 (NY5203324)
- Woodbourne Correctional Annual Water Quality Report (AWQR) 2024
- Fallsburg 2025 Town Budget
- Consolidated Fallsburg Sewer District Map, Plan, & Report (2024)
- Mountaindale WWTP Upgrade Preliminary Engineering Report (2018)
- Mountaindale Collection System Drawings (1982-1989)
- Mountaindale WWTP Reports
- Mountaindale WWTP Drawings (1982 & 1989)
- Davos WWTP Construction Drawings (1989)
- Davos WWTP Modification Drawings (2006)
- Davos Collection System Drawings (1972-2022)

- Avon WWTP Evaluation (2018)
- Loch Sheldrake WWTP Preliminary Design Report (2022)
- Loch Sheldrake WWTP Reports
- NYSDEC Environmental Benefit Permit Strategy (EBPS) 2025 Rankings
- NYSDEC Department Application Review Tracking (DART) system (accessed October 2025)
- EPA Community water system Service Area Boundaries (accessed September 2025)
- EPA Detailed Facility Report: Sullivan Correctional Facility
- EPA Detailed Facility Report: Foxcroft Village
- EPA Detailed Facility Report: Sunrise MHP, LLC.
- EPA Detailed Facility Report: Hasbrouck Estates MHP
- EPA Detailed Facility Report: The Orchards
- EPA Detailed Facility Report: Fallsburg WHO-LC-SF
- EPA Detailed Facility Report: DiSanto Mobile Home Park
- EPA Detailed Facility Report: Woodbourne Correctional Facility
- EPA Detailed Facility Report: Woodridge Village
- EPA Detailed Facility Report: RALHAL / Venetian Villas
- DRBC Wastewater Discharge Docket D-2012-019 CP-2 (RALHAL)
- DRBC Wastewater Discharge Docket D-1981-066 CP-2 (Avon)
- DRBC Wastewater Discharge Docket D-1982-059 CP-2 (Fallsburg)
- DRBC Wastewater Discharge Docket D-2014-019 CP-1 (Orchards)
- DRBC Water Withdrawal Docket D-2007-028 CP-2 (Woodbourne Correctional)
- DRBC Water Withdrawal Docket D-1990-105 CP-5 (Fallsburg)
- 2024 Mid-Hudson Momentum Grant Application to NYS Empire State Development

# 8. TOWN OF FORESTBURGH



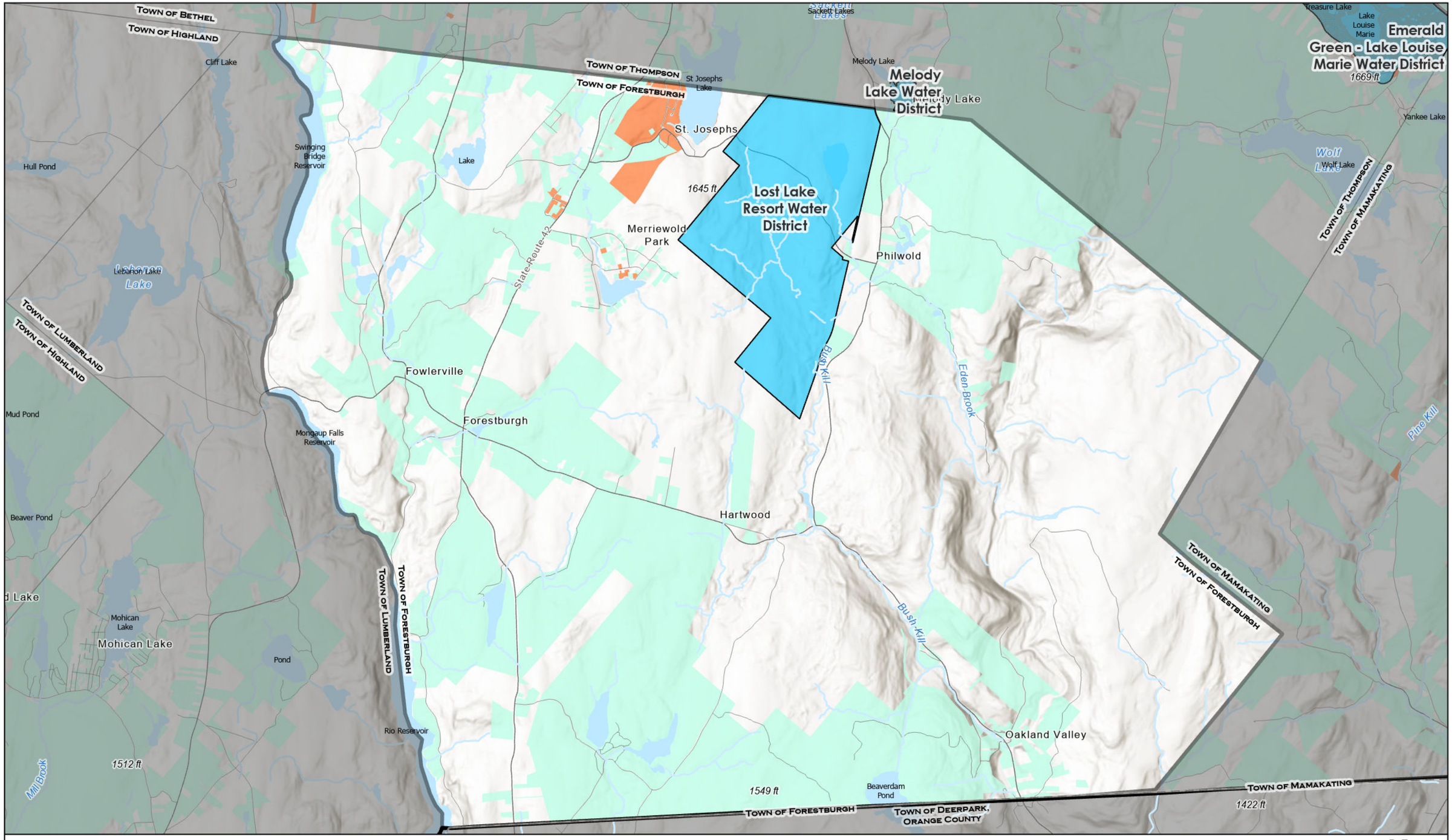

## 8.1 Municipal Overview

The Town of Forestburgh is located in the southern part of Sullivan County along the Mongaup River, centered along NYS Route 42 and Sullivan County Routes 44 and 48. The rural Hamlets of Forestburgh, Fowlerville, Merriewold Park, Saint Josephs, Hartwood, Philwold, Oakland Valley, and Hartwood Club are scattered amongst its approximately 65,000 acres of forested hills with 17 lakes, ponds, and reservoirs. There is no primary commercial center currently in this town of 808 people (as of the 2020 Decennial Census), and no public water or sewer systems currently exist. The Town lies entirely within the DRBC boundary but entirely outside the NYC watershed boundary.

## 8.2 Water Supply and Distribution Inventory & Evaluation

While no centralized municipal water systems exist in the Town, as part of a planned development, the Town formed a water district in connection with the Lost Lake development. The planned development is to be supplied by a private entity, the Lost Lake Resort Water Company, Inc. The Town created a water district in 2012 to coincide with this development's service area, which at the time of this writing is an approved subdivision consisting of 402 currently undeveloped residential parcels, which is to be part of a larger, multi-phase development.

According to various public materials, including a 2012 DRBC docket filing, the water supply infrastructure was to consist of five on-site wells, one of which was to be used for supplying a golf course. These wells appear to have been drilled. And the proposed water supply system was to be designed to convey water to approximately 1,840 users on 650 domestic and 3 commercial service connections. As noted below, the infrastructure supporting the water district formed by the Town encompassing the Lost Lake Resort is privately owned and operated.




# Town of Forestburgh Water Facilities Map

## Sullivan County, New York

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

- Municipal Water Service Areas
- Centralized or Regulated Decentralized Service
- Individual On-Site Systems
- Delaware River Basin (Entire Town)
- NYC Watershed (Entirely Outside)
- Town Boundary
- Other Municipalities
- Stream
- Waterbody

0 0.75 1.5 3 4.5 6 Miles

N

### 8.2.1 Municipal Systems

As noted, the infrastructure supporting the water district formed by the Town encompassing the Lost Lake Resort is privately owned and operated. As of this writing, no water supply infrastructure has been placed into service in the Town.

### 8.2.2 Other Systems

All water supply in the Town is via individual on-site wells or is supplied by regulated decentralized systems operated by a private utility. Based on information available, there are several regulated private public water systems in the Town.

As noted above, a private utility would supply the Lost Lake Resort development when constructed. The Hoey – De Graw Community Waterworks System provides centralized water service to two neighborhoods in the northwest of Town along Dill Road and NY Route 42, and operates a community water system (Table 12).

*Table 12. Town of Forestburgh regulated community water systems*

| Water System | Service Area | SDWA # | Population | Connections |
|---|---|---|---|---|
| HOEY-DE GRAW WATERWORKS | Residential | NY5203353 | 50 | 18 |

Additionally, privately owned water systems serve the Lake Joseph Homeowners Association at the northern town line and the Hartwood Club at the southern town line. The Lake Joseph Homeowners Association and Saint Joseph's Lake straddle the town border of Forestburgh and Thompson. The association covers approximately 70 properties on the Forestburgh side of the lake.

The Hartwood Club is a private hunting and fishing resort association with utility systems serving approximately 40 buildings associated with its organization.

The water supply map (Figure 15) shows the aforementioned Town water district, as well as, based on 2023 tax assessment information, which lands in the Town are likely to be served by individual on-site wells for drinking water. These parcels account for 40.8%, or 611 of 1,498, of the total parcels within Forestburgh.

No facilities with capacity requiring a NYSDEC water withdrawal permit lie within the Town.

### 8.2.3 Challenges and Opportunities

One potential challenge is the increase in development pressure along the Town's northern border. Intermunicipal systems could be an option with the Melody Lake Water District present just over the municipal boundary.

The extensive privately-owned planned infrastructure to be constructed as part of the Lost Lake Resort can present challenges. As noted, at the time of this writing, no water or sewer infrastructure has been placed into operation. As noted in the 2011 SEQR Statement of Findings (SOF) for this project, the water and sewer districts were created in the event that the private utility companies (organized under NYS Transportation Corporations Law) ceased to provide these services. Under NYS law, the Town is obligated to assume control of sewer infrastructure but is not necessarily obligated to assume control of water supply infrastructure.

As the SOF notes, approval by the Town for the formation of the private water and sewer utility companies would have provided an opportunity to address this scenario, under which the Town would become responsible for providing these services. The purpose of the Town districts is so that the underlying property owners fund the costs of the system, and the costs are not a burden to the Town or other property owners.

With residents relying on individual on-site facilities, the challenges and opportunities associated with these facilities are highly site-specific and beyond the scope of this report. In general, localized conditions, any regulatory requirements (e.g., well separation distances and setbacks, which vary by type of use, regulatory classification, potential on-site sources of contamination, water withdrawal capacity, etc.), and private decision-making. In addition, financing centralized infrastructure can be challenging due to relatively smaller numbers of potential users to be connected.

## 8.3 Sanitary Sewer and Wastewater Treatment Inventory & Evaluation

There are no municipal centralized sewer systems in the Town at the time of this writing. As discussed below, the Town has created a sewer district to coincide with a proposed development and its planned sewer system, which will be privately owned. There are several existing centralized, privately owned sewer systems in the Town, but for most properties in the Town, wastewater is managed with individual on-site facilities.

### 8.3.1 Municipal Systems

The lone public sewer district in the Town was created in connection with the undeveloped Lost Lake Resort. The wastewater conveyance and treatment infrastructure to be installed

# Town of Forestburgh Wastewater Facilities Map

## Sullivan County, New York

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

Municipal Sewer Service Areas
Centralized or Regulated Decentralized Service
Individual On-Site Systems

0 0.75 1.5 3 4.5 6 Miles

Delaware River Basin (Entire Town)
NYC Watershed (Entirely Outside)
Town Boundary

Other Municipalities
Stream
Waterbody

N

as part of that private development is to be operated by the Lost Lake Resort Sewer Company, Inc. The proposed development has not been constructed.

### 8.3.2 Other Systems

Wastewater disposal in the Town is provided by individual on-site systems or is part of a regulated decentralized system operated by a private utility. As noted above with respect to private water systems, the Lost Lake Resort sewer district was created in 2012 to coincide with an approved subdivision consisting of 402 currently undeveloped residential parcels. The SPDES permit issued for this system has a flow limit of 135,000 GPD, with discharge to the Bush Kill. This permit was granted on November 15, 2012, was last renewed on November 15, 2017, and was shown to have expired on November 14, 2022. The Lake Joseph Homeowners Association and the Hartwood Club Active both also have privately-owned regulated decentralized sewer systems that serve the same areas as the water systems.

Figure 16 shows parcels, which are highlighted in green, likely having individual on-site facilities, such as septic systems for sewage disposal, as per the 2023 County assessor records. These parcels account for 40.8%, or 611 of 1,498, of the total parcels within Forestburgh.

### 8.3.3 Challenges and Opportunities

As noted and detailed above, with respect to water supply and distribution, challenges and opportunities relate to an increase in development pressure along the Town's northern border and the proposed Lost Lake Resort. In accordance with NYS law (Article 10 of the NYS Transportation Corporations Law), ownership of a sewage works corporation passes to the Town if that entity abandons or otherwise discontinues maintenance and operation of the system. These requirements under NYS law present a range of challenges during the planning and corporation formation phases, to ensuring construction is completed, reviewing rates and finances, and – potentially – assuming ownership of the system. The purpose of the Town districts is so that the underlying property owners fund the costs of the system, and the costs are not a burden to the Town or other property owners.

While assessment of specific conditions in areas served by individual on-site facilities is beyond the scope of this report, challenges commonly faced with these settlement patterns, especially those areas with a long history of settlement, include individual on-site infrastructure designed and installed to earlier standards; difficulty obtaining space on lots to comply with contemporary standards (e.g., separation distances); and a more direct connection between septic systems and water bodies, with attendant water quality

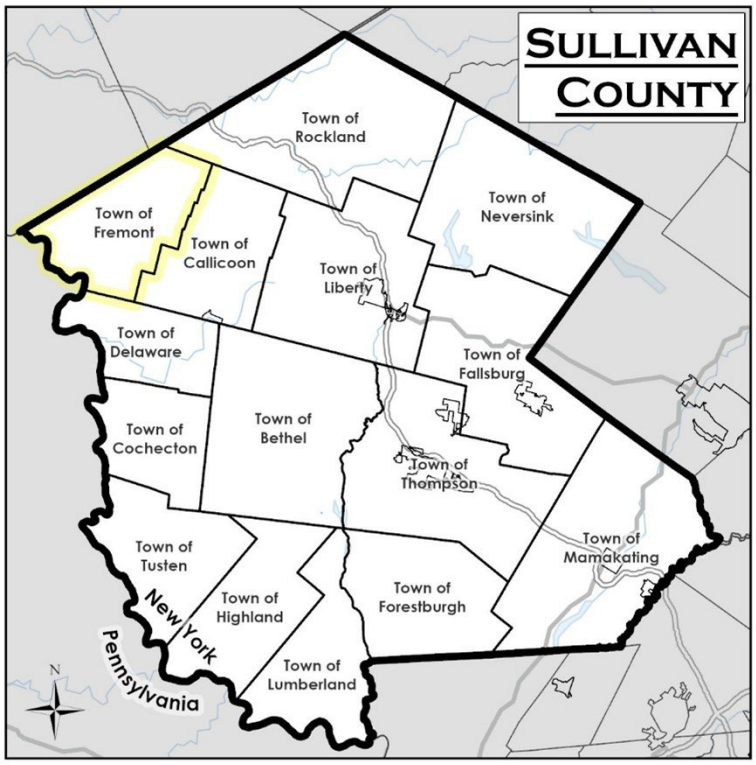
impacts. In addition, financing centralized infrastructure can be challenging due to relatively smaller numbers of potential users to be connected.

## 8.4 Methodology and Sources

In preparing this report, publicly available data were collected and reviewed, along with any additional documentation supplied by a municipal representative, county office, or other authoritative sources. In addition, the project team contacted and interviewed key individuals who have specialized knowledge of their local systems. The following is a list of sources consulted.

- Lost Lake Resort Sewer Company Inc. 2012 NY State Pollutant Discharge Elimination System (SPDES) Permit (NY0275204)
- Lost Lake Resort Sewer Company Inc. 2017 SPDES Permit Renewal (NY0275204)
- Hoey – De Graw Community Waterworks System EPA Community Water Report
- DRBC Wastewater Discharge Docket D-2011-008 CP-1 (Lost Lake)
- DRBC Water Withdrawal Docket D-2011-007 CP-2 (Lost Lake)

# 9. TOWN OF FREMONT




## 9.1 Municipal Overview

The Town of Fremont, located in northwest Sullivan County along the Delaware River, is comprised of woodland tracts and small farms interspersed around its many hamlets, including Long Eddy, Hankins, Fremont Center, Lakewood, Mileses, Pleasant Valley, Tennanah Lake, Basket, Buck Brook, Fernwood, Obernburg, and Acidalia. The Town borders the Town of Callicoon to the east, the Town of Delaware to the south, the Town of Rockland to the northeast, the Delaware County Towns of Hancock to the west and Colchester to the north, and the Wayne County, PA Township of Manchester to the southwest. The Hamlets of Long Eddy, Hankins, and Fremont Center are the primary commercial centers, while the remaining hamlets are residential or agricultural. The Town's population is just under 1,161 (2020 Decennial Census). The only municipal system in the Town is the Long Eddy Water Distribution District. The Town lies entirely within the DRBC boundary but entirely outside the NYC watershed boundary.

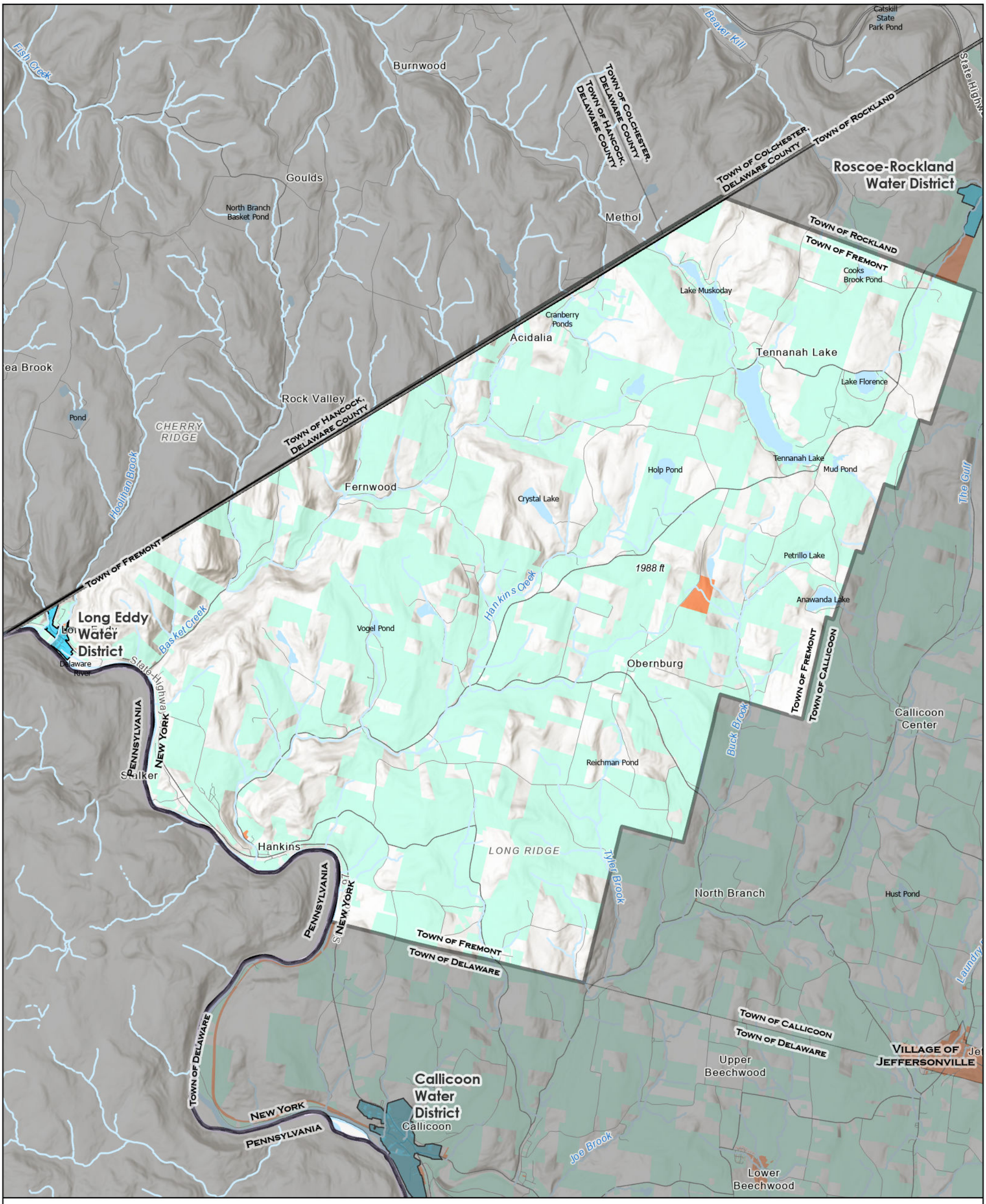
## 9.2 Water Supply and Distribution Inventory & Evaluation

### 9.2.1 Municipal Systems

The Town provides water service to an area encompassed within the Long Eddy Water District. The District encompasses an area of 52.75 acres and supplies water to 58 parcels, made up of 34 residential, 2 utility, 3 commercial, 2 community service, 1 industrial, and 16 vacant tax parcels. Its primary commercial user is Dedeco International, Inc. Other non-residential users include the Long Eddy Saloon, the Long Eddy Country Store, the U.S. Post Office, St. Patrick's Catholic Church, the Basket Historical Society, and the Long Eddy Hose Co.

# Town of Fremont Water Facilities Map

## Sullivan County, New York




Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

0 0.5 1 2 3 4 Miles

N

- Municipal Water Service Areas
- Centralized or Regulated Decentralized Service
- Individual On-Site Systems
- Delaware River Basin (Entire Town)
- NYC Watershed (Entirely Outside)
- Town Boundary
- Other Municipalities
- Stream
- Waterbody

#### *9.2.1.1 System Components Inventory and Overview*

The system was originally designed in 1999 and was constructed in the year 2000. It consists of approximately 1.5 miles of water mains, one water storage tank, two active wells, one out-of-service well, one wellhouse, six blowoff valves, 21 gate valves, and one valve pit. The water mains are comprised of 2" (522'), 3" (1,666'), 4" (624'), 6" (4,851'), and 12" (77') diameter pipes. Water mains are constructed of Class 52 ductile iron, and all water services are constructed of copper. Water treatment occurs at the well house using liquid chlorine.

#### *9.2.1.2 Recent/Future Upgrades*

No recent or future upgrades were available for the Fremont Water System at the time of the data collection.

#### *9.2.1.3 Finances and Administration*

As part of the data collection process, information about system finances and budgeting was requested and researched from publicly available sources; local codes governing system administration and use were also reviewed, where publicly available. This information, where available, was used in order to develop an understanding of key metrics, including revenues and trends, expenses and trends, rate structure, revenues versus expenditures, debt service, and reserves.

Analysis of available financial information against the following metrics is as follows. Detailed budget and other information were unavailable for review at the time of writing with respect to expenses and trends, revenues versus expenditures, rate structure, debt service, reserves, and water use law.

### 9.2.2 Other Systems

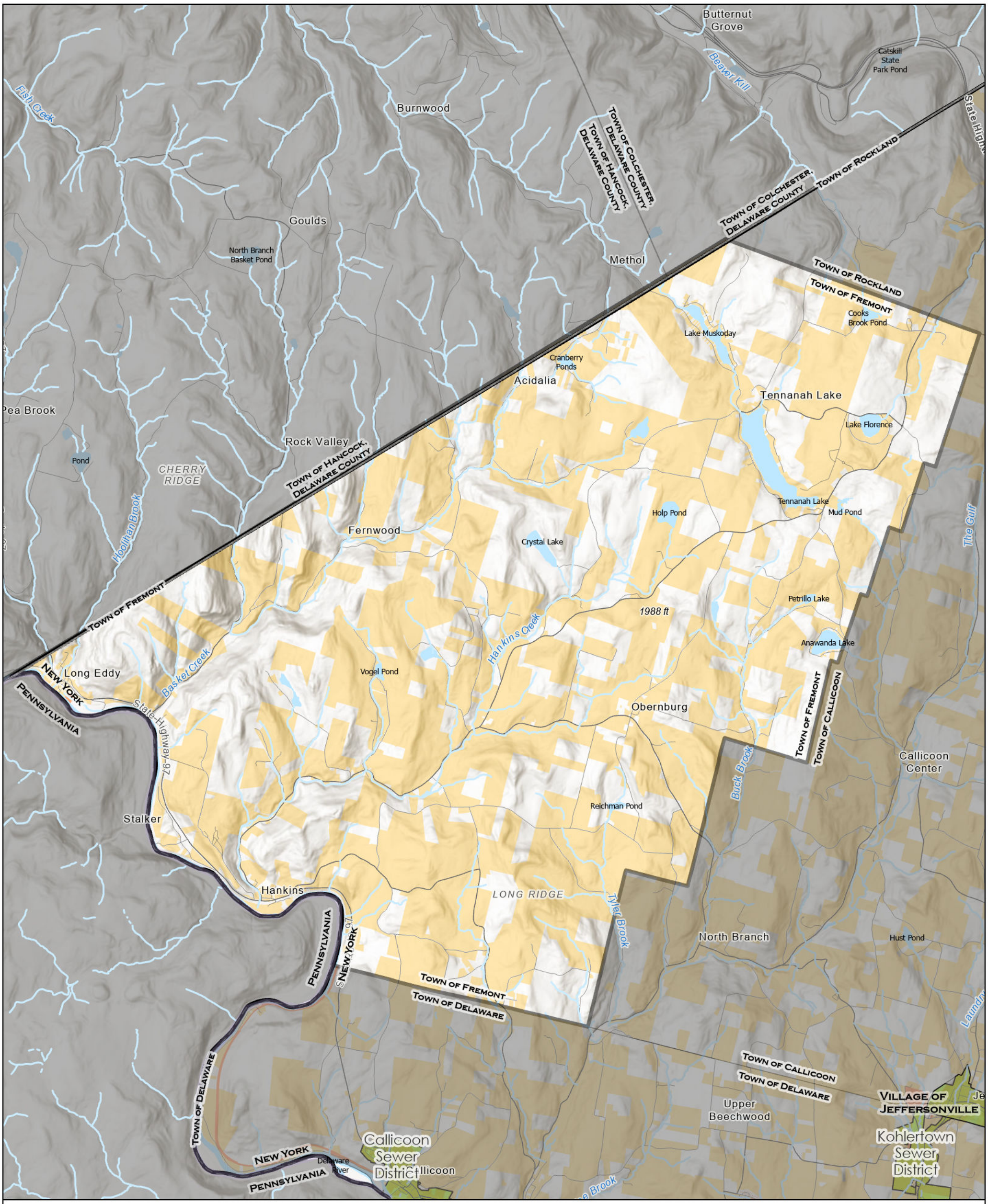
No private centralized water distribution systems exist in the Town, and no facilities with capacity requiring a NYSDEC water withdrawal permit lie within the Town.

### 9.2.3 Challenges and Opportunities

Among the challenges are those generally facing systems with relatively smaller user populations. This can make needed capital funding challenging to raise without significant changes to user rates. With many residents relying on individual on-site facilities, the challenges and opportunities associated with these facilities are highly site-specific and beyond the scope of this report. In general, localized conditions, any regulatory requirements (e.g., well separation distances and setbacks, which vary by type of use, regulatory classification, potential on-site sources of contamination, water withdrawal capacity, etc.), and private decision-making. In addition, financing centralized

# Town of Fremont Wastewater Facilities Map

## Sullivan County, New York




Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

0 0.5 1 2 3 4 Miles

N

- Municipal Sewer Service Areas
- Parcels with Centralized Wastewater Service
- Individual On-Site Systems
- Delaware River Basin (Entire Town)
- NYC Watershed (Entirely Outside)
- Town Boundary
- Other Municipalities
- Stream
- Waterbody

infrastructure can be challenging due to relatively smaller numbers of potential users to be connected.

## 9.3 Sanitary Sewer and Wastewater Treatment Inventory & Evaluation

The Town does not provide municipal sewer service.

### 9.3.1 Other Systems

In the absence of a centralized municipal system, all wastewater disposal in the Town is provided by privately-owned individual on-site wastewater disposal facilities. Two private regulated decentralized sewer treatment facilities with SPDES Permits are located in the Town.

The Tennanah Lake Townhouse and Villas is located in the northeastern portion of the town and operates a wastewater treatment facility to discharge up to an average of 55,000 GPD into a tributary of Callicoon Creek. The system is operated by Fremont-Rockland Sewage Corp. Dedeco International, Inc. is located within the Long Eddy Water District and operates a wastewater treatment facility with a discharge to groundwater.

### 9.3.2 Challenges and Opportunities

Among the challenges facing municipalities with private sewage works corporations providing centralized sewer service within their boundaries is that, pursuant to NYS law, the municipality must assume ownership of the system in the event a responsible private entity does not exist or otherwise fails to maintain and operate the system. One opportunity to address potential cost implications to municipalities under such a scenario is to create a sewer district so that the benefitted users pay the costs, not the Town or the other property owners not benefitting from the service.

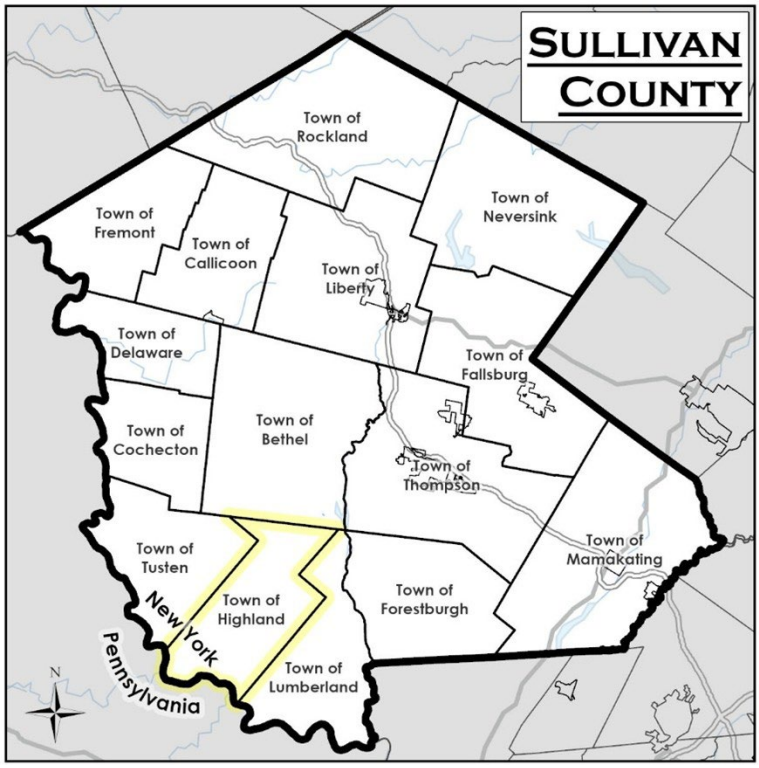
While assessment of specific conditions in areas served by individual on-site facilities is beyond the scope of this report, challenges commonly faced with these settlement patterns, especially those areas with a long history of settlement, include individual on-site infrastructure designed and installed to earlier standards; difficulty obtaining space on lots to comply with contemporary standards (e.g., separation distances); and a more direct connection between septic systems and water bodies, with attendant water quality impacts. In addition, financing centralized infrastructure can be challenging due to relatively smaller numbers of potential users to be connected.

## 9.4 Methodology and Sources

In preparing this report, publicly available data were collected and reviewed, along with any additional documentation supplied by a municipal representative, county office, or other authoritative sources. In addition, the project team contacted and interviewed key individuals who have specialized knowledge of their local systems. The following is a list of sources consulted.

- Water Main Plan – Hamlet of Long Eddy Water District – 6/4/1999
- As-Built Drawings – Long Eddy Water District Project – 12/14-2000
- Tennanah Lake Townhouse and Villas 2001 SPDES Permit (NY0145505)
- Dedeco International, Inc. 2016 SPDES Permit Renewal (NY0264296)

# 10. TOWN OF HIGHLAND

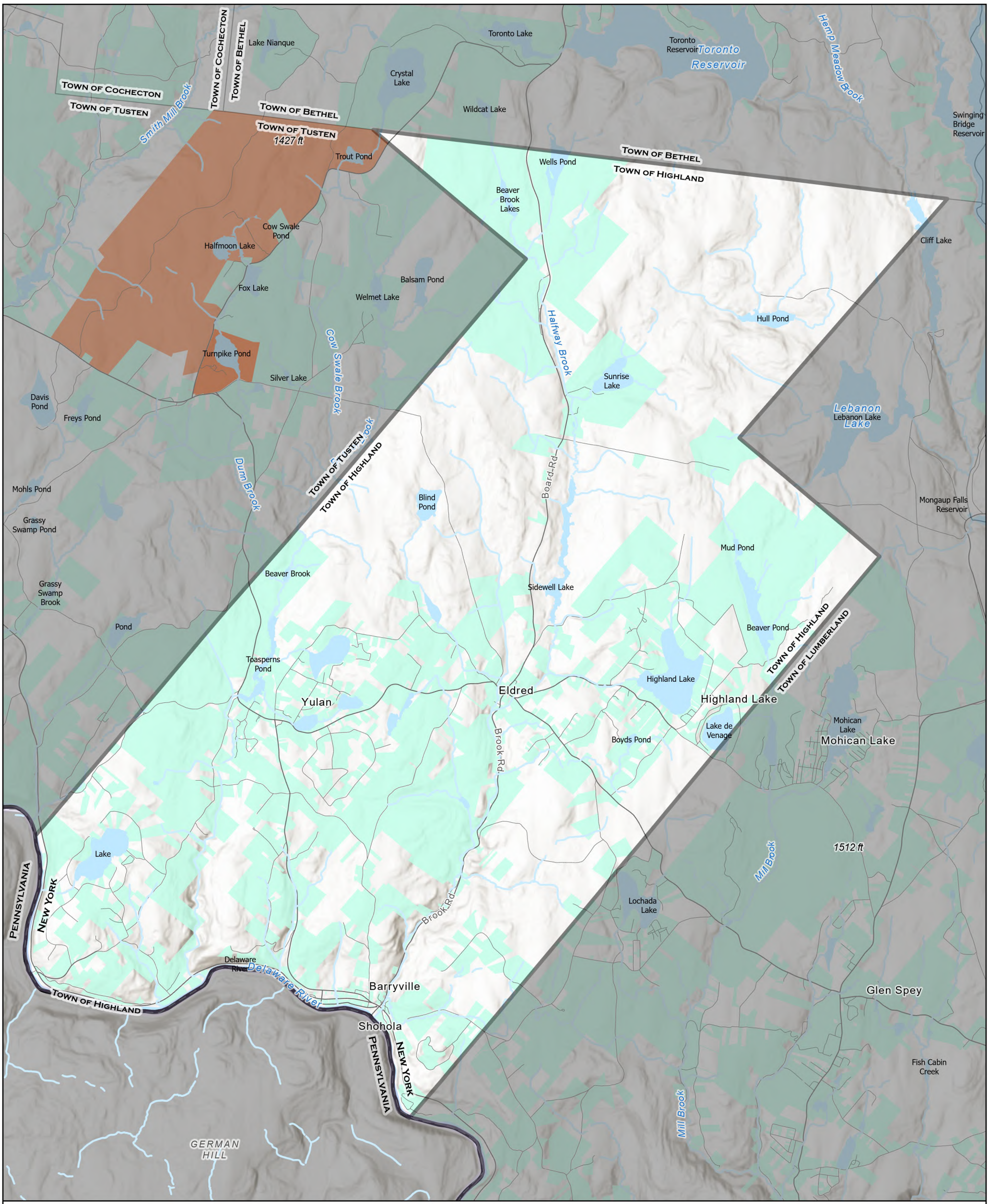



## 10.1 Municipal Overview

The Town of Highland is located in the southern part of Sullivan County along the Delaware River, centered along NYS Routes 97 and 55. The Town is 33,088 acres and lies west of Lumberland, east of Tusten, south of Bethel, and north of the Townships of Shohola and Lackawaxen in Pike County, Pennsylvania. Its primary Hamlets are the administrative center of Eldred, the riverfront communities of Barryville and Minisink Ford, and the lakefront communities of Highland Lake and Yulan. Additionally, a large seasonal Camp, Camp Tel Yehudah, is located on the border with Lumberland along the Delaware River. In the 2020 Decennial Census, the Town had a population of 2,196 people. The Town lies entirely within the DRBC boundary but entirely outside the NYC watershed boundary.

The Town of Highland does not provide public water or sewer services, and no surrounding systems are proximate to the boundaries of the Town. Limited centralized water and sewer are provided through private entities. There is interest in the development of public infrastructure within the Hamlet of Barryville.

Although without municipal water or sewer infrastructure, there is a significant amount of publicly owned amenities, spaces, and buildings throughout the Town. Town-owned assets include 77.5 miles of roadway, a waterfront park, Eagle Park, Hero's Park, Yulan Fire House, Hillside Fire House, Eldred Fire House, the Town highway garage, the Town senior center, the Town office building, and the Town Court building. Other public amenities include Sunshine Hall Free Library, Minisink Ford Battleground, Hickok Brook Multiple Use Area, Minisink Ford Eagle Observation Area, Yulan Fireman's Field, DEC Barryville Fishing Access, DEC Highland Fishing Access, and Mongaup Valley Wildlife Management Area.




# Town of Highland Water Facilities Map

## Sullivan County, New York

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

0 0.5 1 2 3 4 Miles

N

- Municipal Water Service Areas
- Centralized or Regulated Decentralized Service
- Individual Onsite Water Facilities
- Delaware River Basin (Entire Town)
- NYC Watershed (Entirely Outside)
- Town Boundary
- Other Municipalities
- Stream
- Waterbody

## 10.2 Water Supply and Distribution Inventory & Evaluation

### 10.2.1 Municipal Systems

No municipal water systems currently exist within the Town of Highland.

### 10.2.2 Other Systems

All regulated decentralized water supply is provided by private entities or by individual on-site water supply systems.

One regulated community water system is located within Highland for the New Hope Manor Rehabilitation Center in Barryville. Via a groundwater source, this system serves approximately 75 people (Table 13).

*Table 13. Town of Highland regulated community water systems*

| Water System | Service Area | SDWA # | Population | Connections |
|---|---|---|---|---|
| NEW HOPE MANOR | Institution | NY5220232 | 75 | 4 |

The water supply map provides an indication of parcels in the Town with regulated decentralized water supply facilities and individual on-site facilities. The parcels highlighted in light green are all the properties that are reported to use private, individual on-site facilities for drinking water, as per the 2023 County Assessor records.

One transient non-community water system was identified in the Town. FIMFO (Camp Kittatinny), a large RV and water park redevelopment of an existing campground, is planned with a capacity of 2,500 people. According to the project environmental review documents, improvements would be made to the existing private water treatment and distribution system. As of this writing, this proposal remains with the Town's Planning Board and in the land use permitting and environmental review process.

No facilities with capacity requiring a NYSDEC water withdrawal permit lie within the Town.

### 10.2.3 Challenges and Opportunities

Water supply in the Town is provided by individual on-site or privately-owned regulated decentralized facilities. The challenges and opportunities associated with these facilities are highly site-specific and beyond the scope of this report. In general, they are dependent on localized conditions, private decision-making, and regulatory requirements, such as well separation distances, variable well setbacks, regulatory classifications, potential on-site sources of contamination, and water withdrawal capacity. In addition, financing

centralized infrastructure can be challenging due to relatively smaller numbers of potential users to be connected.

## 10.3 Sanitary Sewer and Wastewater Treatment Inventory & Evaluation

The Town does not provide municipal sewer service. There is one regulated decentralized wastewater system in the Town. Other wastewater disposal needs are accommodated by individual on-site facilities.

### 10.3.1 Other Systems

All sewer infrastructure is either privately owned or provided by a private sewer utility. There are two wastewater facilities with SPDES permits in the Town. One has been issued and serves the Eldred Preserve Hotel and Restaurant, with a flow limit of 17,000 GPD and a permitted discharge to Halfway Brook (B(T)). A second, for New Hope Manor, Inc., has been issued for a facility with a capacity of 6,000 GPD discharging to a tributary of the Delaware River.

On the wastewater management map for the Town, the parcels highlighted in light orange are all the properties that may be served by a private septic system for sewage treatment, as per the 2023 County Assessor records.

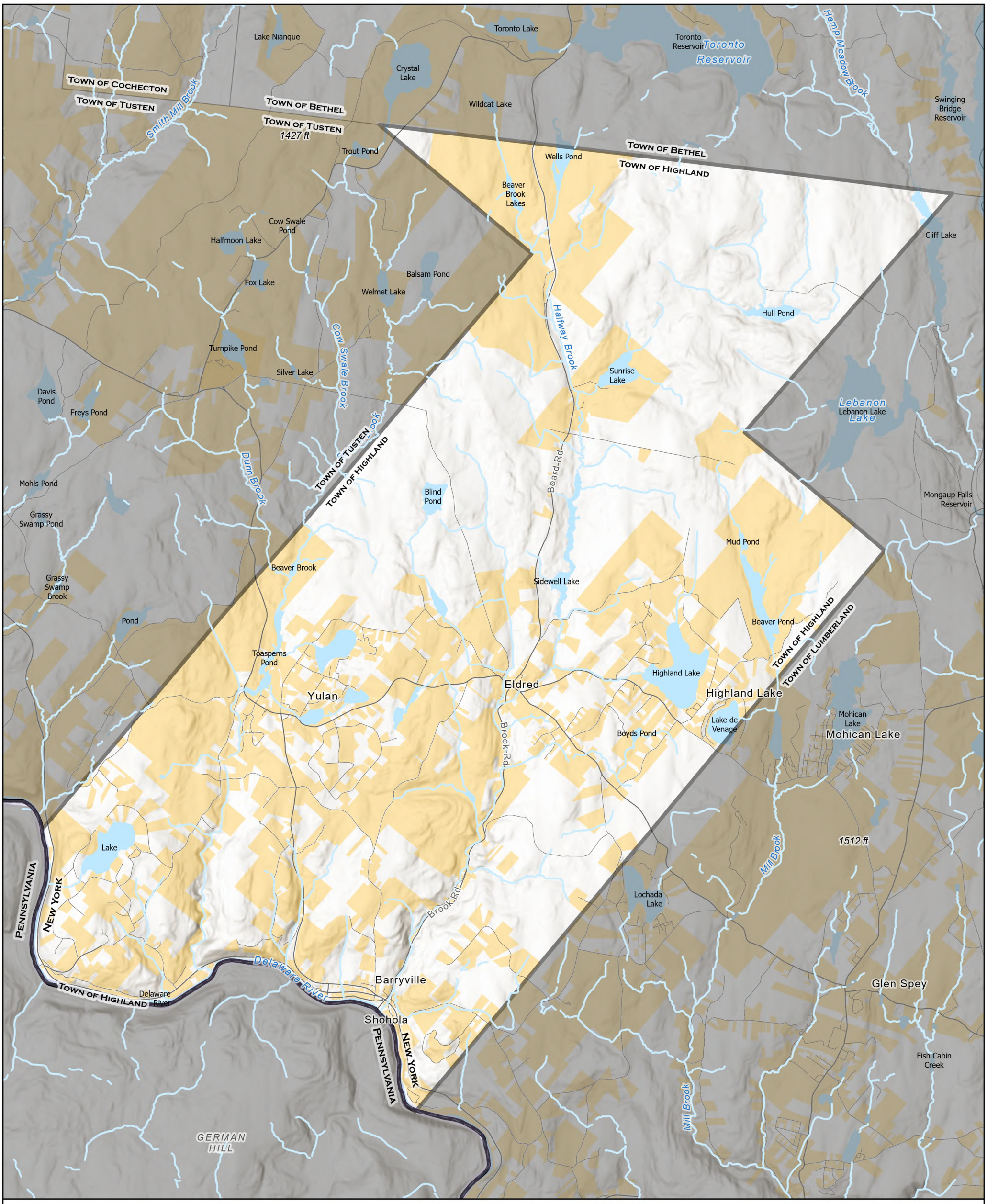
As noted above, FIMFO (Camp Kittatinny), a large RV and water park redevelopment project, is planned with services for 2,500 people. According to project environmental review materials, the proposal involves upgrades to existing individual on-site septic systems as well as new, expanded centralized sewer infrastructure, which is anticipated to be privately owned and operated.

## 10.4 Challenges and Opportunities

Among the challenges facing the Town is existing and planned development along, and in close proximity to, the Delaware River and other sensitive ecological areas. The Town's leadership is starting the process of evaluating individual on-site water and sewer conditions and needs in the Town to better understand the existing conditions and nature of collective issues users may be experiencing, as well as whether municipal services may offer solutions.

# Town of Highland Wastewater Facilities Map

## Sullivan County, New York




Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

0 0.5 1 2 3 4 Miles

N

- Municipal Sewer Service Areas
- Centralized or Regulated Decentralized Service
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- Delaware River Basin (Entire Town)
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For example, the FIMFO development has spurred the Town to begin discussing the implementation of public water and sewer services along the riverfront. This includes the Hamlet of Barryville, which is one of the more densely populated locations within Sullivan County that presently lacks centralized water or sewer service (public or private). Shown in Figure 3 below, the Hamlet has approximately 110 developed and 55 undeveloped parcels in an area of approximately 0.5 square miles; Town officials have estimated that any system would need to accommodate at least 34,000 gallons of water per day.

In addition, members of the business community have also voiced a desire for centralized municipal water and sewer services, as many struggle to stay in compliance with NYS Department of Health regulations. This is particularly true along the Delaware River, where approximately 30 homes/businesses front on the waterway.

Also, the Town's more settled lake communities, including DeVenoge, Highland, Washington, Montgomery, Bodine, and York lakes, have small lots with direct waterfrontage.

While assessment of specific conditions in these areas is beyond the scope of this report, challenges commonly faced with these settlement patterns, especially those areas with a long history of settlement, include individual on-site infrastructure designed and installed to earlier standards; difficulty obtaining space on lots to comply with contemporary standards (e.g., separation distances); and a more direct connection between septic systems and water bodies, with attendant water quality impacts. In addition, financing centralized infrastructure can be challenging due to relatively smaller numbers of potential users to be connected.

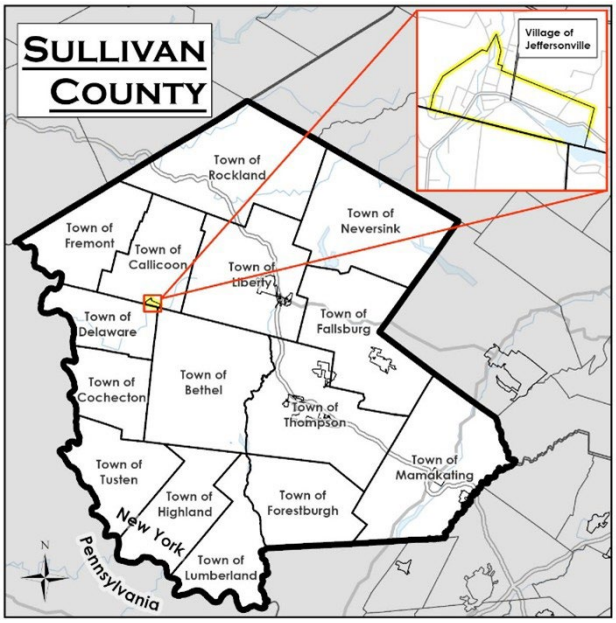
## 10.5 Methodology and Sources

In preparing this report, publicly available data were collected and reviewed, along with any additional documentation supplied by a municipal representative, county office, or other authoritative sources. In addition, the project team contacted and interviewed key individuals who have specialized knowledge of their local systems. The following is a list of sources consulted.

- Eldred Preserve Hotel and Restaurant 2019 NY State Pollutant Discharge Elimination System (SPDES) Permit (NY0281239)
- Eldred Preserve Hotel and Restaurant 2024 NY SPDES Permit Renewal (NY0281239)

- Camp FIMFO Modernization and Improvement Project Final Environmental Impact Statement (FEIS)
- EPA Community water system Detailed Facility Report: New Hope Manor

# 11. VILLAGE OF JEFFERSONVILLE




## 11.1 Municipal Overview

The Village of Jeffersonville is located in the southern portion of the Town of Callicoon along its border with the Towns of Delaware and Bethel and centered along NYS Route 52 and the East Branch of the Callicoon Creek. Commercial activity consists primarily of 1 & 2-story, detached row buildings with light commercial occupancies including restaurants and cafes, retail, offices, and medical facilities, alongside churches and government buildings. The Village's 282.21 acres contain a population of 368, as estimated by the 2020 Decennial Census. This makes Jeffersonville the smallest municipality in terms of both area and population in Sullivan County.

The Village owns, operates, and maintains both a public water and a wastewater system, and these systems serve the entire Village as well as various portions of the adjoining Towns of Callicoon and Delaware.

The Village lies entirely within the DRBC boundary but entirely outside the NYC watershed boundary.

## 11.2 Water Supply and Distribution Inventory & Evaluation

### 11.2.1 Municipal Systems

The Village's municipal water system provides drinking water to approximately 400 residents and businesses through 225 active metered service connections. Water service is provided, at no charge, to seven properties along the water main from the wells and storage tank north of the Village, in the Town of Callicoon. This main has been in place for many decades, and at the time of installation, routing through these privately owned parcels allowed for the Village system to be fed by gravity. These properties were provided with water service in exchange for the use of the properties and have been grandfathered forward. Four additional service connections are provided to Town of Delaware residents at the end of Taylor Road.

# Village of Jeffersonville Water Facilities Map

## Sullivan County, New York

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

0 0.05 0.1 0.2 0.3 0.4 Miles

N

- Village Water Service Area
- Municipal Water Service Areas
- Centralized or Regulated Decentralized Service
- Individual On-Site Systems
- Delaware River Basin (Entire Village)
- NYC Watershed (Entirely Outside)
- Village Boundary
- Stream
- Waterbody

#### *11.2.1.1 System Components Inventory and Overview*

The source water is located in the Town of Callicoon. The system consists of four wells, one 100,000-gallon storage cistern, two pump/treatment buildings, chlorinating equipment, and a 4-mile-long network of 4" to 6" distribution mains. Well 4 is now the primary source for the water system. Water is pumped from Well 4 to the nearby treatment building for disinfection prior to storage in the cistern. From the cistern, the finished water flows via gravity down to the Village distribution system. Water is metered in the treatment building and at each water service connection.

*Table 14. Village of Jeffersonville water withdrawal permit information*

| Water System | Component | Max Rate (GPD) | Average Daily w/d | Peak Day w/d | NYSDEC Permitted w/d | DRBC Permitted w/d |
|---|---|---|---|---|---|---|
| **Village of Jeffersonville** | Well #2 | 288,000 | 54,012 | 81,375 | <100,000 | <100,000 |
| | Well #3 | 86,400 | | | | |
| | Well #4 | 432,000 | | | | |

#### *11.2.1.2 Recent/Future Upgrades*

Much of the water system is in excess of 50 years old and is quickly approaching the end of its useful life. In 2021, the NYSDOH notified the Village that its water system needed to address inadequate source capacity and recommended several improvements:

- New Source through the Development of Two Wells
- New Pump/Treatment Building
- New 120,000-Gallon Water Storage Tank
- Approximately 750' of New Distribution Main

The system is in need of substantial investment. Watermain breaks have resulted in numerous losses of service to the entire Village and boil water advisories. These improvements will also involve the implementation of leak detection technology and replacement/repair prioritization based on the recommended improvements, and should result in less water lost due to system leaks and broken mains. The Village funded the evaluation of the system that generated a $5.3 million capital project estimate. The costs include: anticipated land acquisition and construction costs, as well as related engineering, construction inspection, legal, administrative, fiscal assistance, and other related project expenses.

#### *11.2.1.3 Finances and Administration*

As part of the data collection process, information about system finances and budgeting was requested and researched from publicly available sources; local codes governing system administration and use were also reviewed, where publicly available. This information, where available, was used in order to develop an understanding of key metrics, including revenues and trends, expenses and trends, rate structure, revenues versus expenditures, debt service, and reserves.

Analysis of available financial information against the following metrics is as follows.

- Rate structure – Chapter 185 of the Village code, water user rates are to be determined by and set as needed by the Village Board.
- Water use law – Chapter 185 of the Village code is the water use law.

Detailed budget and other information were unavailable for review at the time of writing with respect to revenues and trends, expenses and trends, revenues versus expenditures, debt service, and reserves.

### 11.2.2 Other Systems

No private centralized water systems are located within the Village of Jeffersonville's boundaries, with all parcels having access to the municipal water system. Seven developed properties were assessed as not using public water in 2023. No facilities with capacity requiring a NYSDEC water withdrawal permit lie within the Village.

### 11.2.3 Challenges and Opportunities

As noted above, the age of many components of the Village's water system presents challenges, with the Village in the process of investing in repair, replacement, and upgrades of a significant proportion of the system. In addition, portions of the distribution main connecting the cistern to the Village run along the Laundry Brook streambed in the area mapped as floodway. This line was damaged in the floods of 2006, 2011, and 2019 and is vulnerable to future storm damage.

## 11.3 Sanitary Sewer and Wastewater Treatment Inventory & Evaluation

### 11.3.1 Municipal Systems

The Village provides municipal sewer service to an area encompassing the Village boundaries as well as an area located in the Town of Delaware. The Village's municipal

# Village of Jeffersonville Wastewater Facilities Map

## Sullivan County, New York

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

0 0.05 0.1 0.2 0.3 0.4 Miles

N

- Village Wastewater Service Areas
- Municipal Sewer Service Areas
- Centralized or Regulated Decentralized Service
- Individual On-Site Systems
- Delaware River Basin (Entire Village)
- NYC Watershed (Entirely Outside)
- Village Boundary
- Stream
- Waterbody

system provides service to the 225 users within the Village, and to the Kohlertown Sewer District in the Town of Delaware, in which the treatment plant is located.

#### *11.3.1.1 System Components Inventory and Overview*

The collection system is comprised of approximately 5 miles of 8" gravity sewer mains and 875 feet of 4" low-pressure main, with 84 manholes. The wastewater treatment facility itself was constructed between 1982 and 1983 and is located roughly one mile south of the Village, within the Town of Delaware. The facility treatment processes consist of an oxidation ditch, an influent chamber, a sludge holding tank, two clarifier tanks, an ultraviolet disinfection room, and four sludge drying beds.

The most recent SPDES Permit expired in February of 2023, effective March 1, 2018. The permit is considered active, likely due to a renewal under the NY State Administrative Procedures Act (so-called "SAPA extensions"), whereas, upon application to NYSDEC, certain SPDES permits, including for wastewater systems, can be renewed. At the time of the permit's expiration, the monthly effluent limit was 120,000 GPD. The receiving waters for the system are the East Branch of the Callicoon Creek, a Class C trout stream.

According to NYSDEC's EBPS, this facility received a rank of 136 and a score of 21. The score components are based on the age of the existing SPDES permit and time since the last time the facility submitted a long-form permit application, together with required comprehensive effluent sampling. In general, the higher the EBPS rank, the more likely it is that the permit for this facility will undergo a full technical review by NYSDEC in the near future.

#### *11.3.1.2 Recent/Future Upgrades*

Plans for recent or future upgrades were not available at the time of this report.

#### *11.3.1.3 Finances and Administration*

As part of the data collection process, information about system finances and budgeting was requested and researched from publicly available sources; local codes governing system administration and use were also reviewed, where publicly available. This information, where available, was used in order to develop an understanding of key metrics, including revenues and trends, expenses and trends, rate structure, revenues versus expenditures, debt service, and reserves.

Analysis of available financial information against the following metrics is as follows. Chapter 161 of the Village code is the sewer use law. Chapter A194 sets forth the intermunicipal agreement between the Village and Town of Delaware by which services are provided to the Town of Delaware's District No. 1. The agreement provides for an estimated

allocation of 82,000 GPD to Village users and 38,000 GPD to users in the Town of Delaware, with O&M costs to be paid in the amount of 77% by the Village and 23% by the Town of Delaware.

Detailed budget and other information were unavailable for review at the time of writing with respect to revenues and trends, expenses and trends, revenues versus expenditures, rate structure, debt service, and reserves.

### 11.3.2 Other Systems

No centralized private sewer systems currently exist within the Village. All the parcels in the Village have access to the public sewer system; however, based on tax assessment records, 14 developed parcels were assessed as not using public sewer in 2023.

### 11.3.3 Challenges and Opportunities

Given the age of the Village's collection and treatment systems and based on uncertain plans for recent and planned upgrades, it is likely that portions of the system may require investment beyond periodic upkeep and maintenance. The expired SPDES permit (if not already done so) should be addressed, and the Village should be planning for the possibility that nutrient removal may be required at some point in the future.

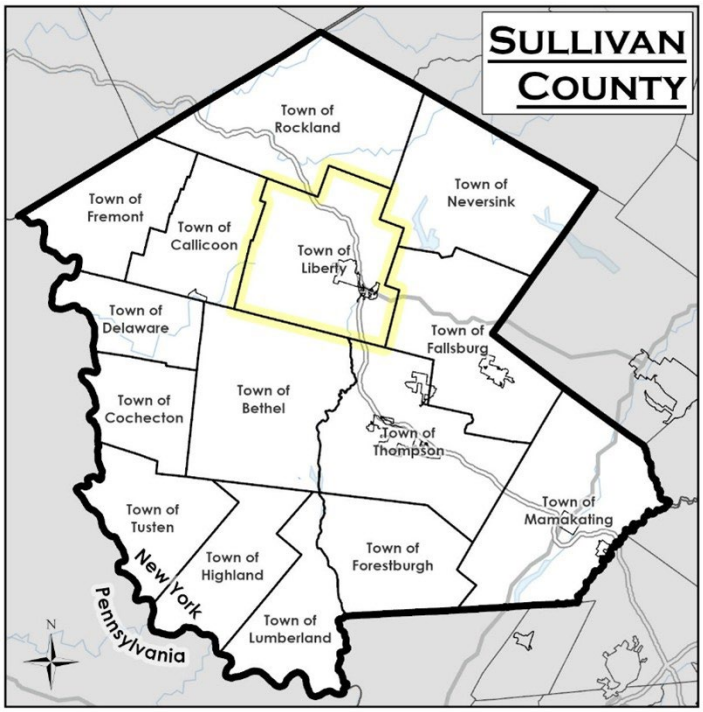
## 11.4 Methodology and Sources

In preparing this report, publicly available data were collected and reviewed, along with any additional documentation supplied by a municipal representative, county office, or other authoritative sources. In addition, the project team contacted and interviewed key individuals who have specialized knowledge of their local systems. The following is a list of sources consulted.

- Jefferson Village Code
- Interceptor Sewers and Sewage Collection System Drawings (1980)
- Wastewater Treatment Facilities & Pumping Station Drawings (1982)
- State Pollutant Discharge Elimination System Permit (SPDES) (2018)
- 2023 Water Withdrawal Report (WWR0000827)
- Water System Improvements Engineering Report (2024)
- NYSDEC Environmental Benefit Permit Strategy (EBPS) 2025 Rankings

- EPA Community water system Service Area Boundaries (accessed September 2025)

# 12. TOWN OF LIBERTY




## 12.1 Municipal Overview

The Town of Liberty is in the north-central portion of Sullivan County and is bordered to the north by the towns of Rockland and Neversink, to the east by Fallsburg, to the west by Callicoon, and to the south by Bethel and Thompson. Liberty contains the Village of Liberty, which is centrally located on the eastern side of the Town. The Town covers an area of approximately 81 square miles, with NYS Route 17 running north to south through its core. NYS Routes 52 and 55 also cross through the Town and intersect in the Village. According to the 2021 ACS, the Town had an estimated population of 10,146 people. The primary population center is the Village of Liberty, while other populated locations consist of unincorporated hamlets, including Ferndale, White Sulphur Springs, Swan Lake, and Parksville.

The Town of Liberty owns and operates public water and sewer systems for the benefit of the property owners within these service areas and their associated special districts. There are four sewer districts and seven water districts administered by the Town of Liberty. In addition, portions of the Town's and Village's water and sewer systems are interconnected, with the Town relying on the Village system for wastewater treatment in the areas adjacent to the Village. In addition, the Village directly supplies several areas of the Town with water and sewer service.

The Town lies entirely within the DRBC boundary. Two relatively small areas in the northeastern portions of the Town lie within the NYC watershed boundary.

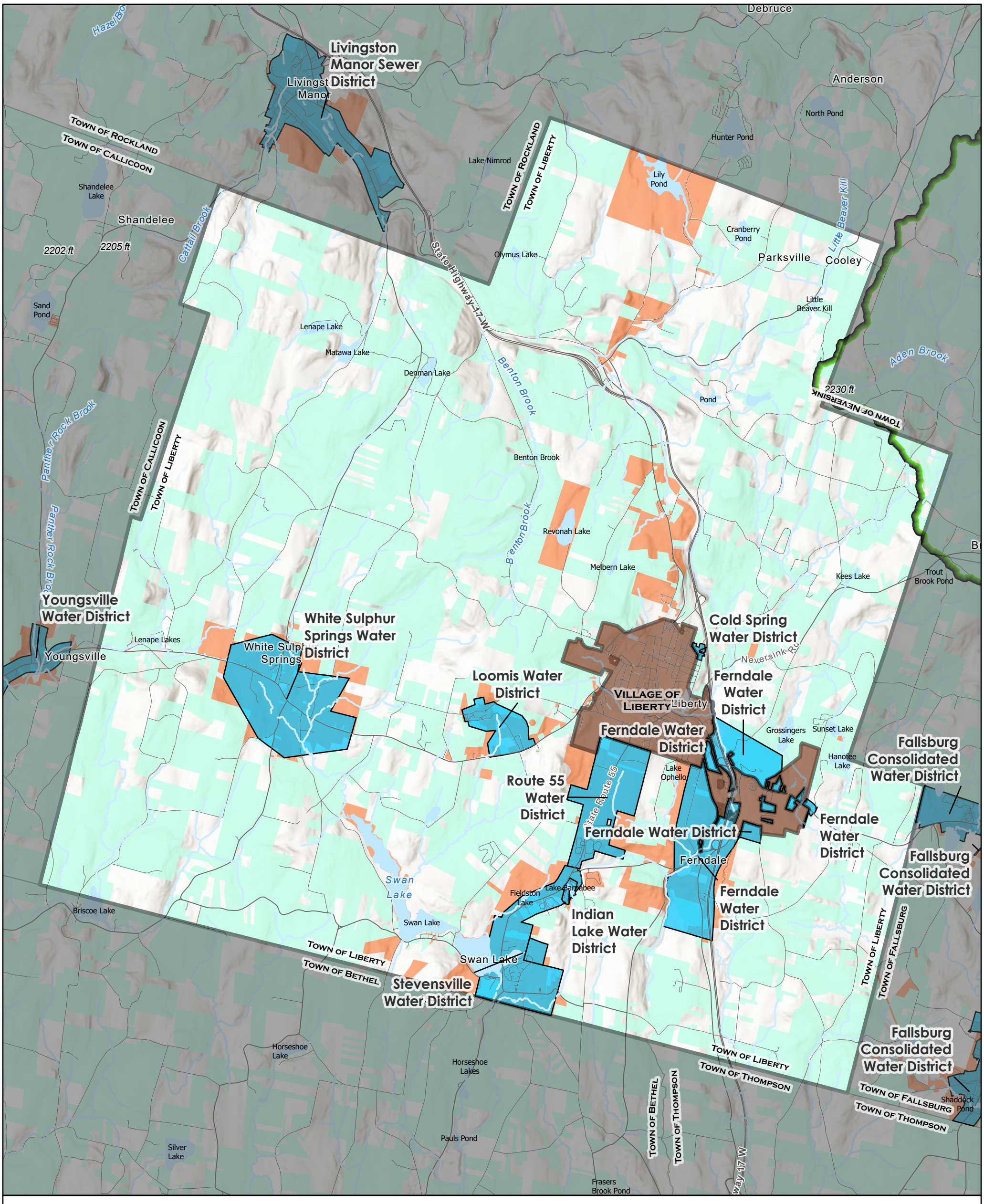
## 12.2 Water Supply and Distribution Inventory & Evaluation

### 12.2.1 Municipal Systems

The Town provides municipal water service to several hamlet areas; the Village of Liberty also provides water service to certain portions of the Town. Supply for the Town's system

# Town of Liberty Water Facilities Map

## Sullivan County, New York




Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

0 0.5 1 2 3 4 Miles

N

- Municipal Water Service Areas
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- Stream
- Waterbody

consists of two well fields and the Village of Liberty. There are approximately 524 service connections. The Stevensville well field serves areas within the Ferndale, Indian Lake, Loomis, Route 55, and Stevensville water districts, representing about 345 connections. The White Sulphur Springs wellfield serves an area within a water district of the same name, with about 160 connections. The Village of Liberty system serves 19 connections in an area adjacent to the Village of Liberty within the Cold Spring Road water district. In addition, the Village of Liberty serves roughly 100 users within the Hamlet of Parksville.

*Table 15. Town of Liberty water withdrawal permit information (all figures in GPD)*

| Water System | Component | Max Rate (GPD) | Average Daily w/d | Peak Day w/d | NYSDEC Permitted w/d | DRBC Permitted w/d |
|---|---|---|---|---|---|---|
| **Liberty - White Sulfur Springs** | WWS Well #1 | 230,400 | 35,178 | 126,000 | 250,000 | 1,508,064 |
| | WWS Well #2 | 230,400 | | | | |
| **Liberty - Stevensville** | Well #1 | 230,400 | 273,600 | 859,000 | 1,085,000 | |
| | Well #2 | | | | | |
| | Well #3 | 230,400 | | | | |
| | Well #4 | 648,000 | | | | |
| | Well #4B | 648,000 | | | | |
| **Liberty - Sherwood-Roth** | Sherwood Well | 720,000 | 273,600 | 859,000 | 1,085,000 | |
| | Roth Well | 720,000 | | | | |

#### *12.2.1.1 System Components Inventory and Overview*

The Town's distribution system consists of three booster pump stations, six water storage tanks, one covered reservoir, and several miles of transmission and distribution water mains. The majority of existing water distribution system was originally installed in the 1960s. It is predominantly comprised of 8-inch diameter water mains, which are made up partially of asbestos-cement pipe, with the remainder being ductile iron pipe.

The Stevensville and White Sulphur Springs sources are interconnected but generally operate separately. The Village of Liberty and Town systems are also interconnected, but this connection has not been in service since the Village of Liberty constructed the Lily Pond reservoir and treatment system. As noted, to maintain hydraulics in the system, the Town uses several booster stations, and the aforementioned points of interconnection involve hydraulic differences that affect flow through those locations.

Over the past several decades, the Town has undertaken upgrades to the distribution system, including replacement of about 1,500 feet of 12" main along Upper Ferndale Road in an area prone to water main breaks. In addition, where breaks have recently occurred, these sections have been replaced with both cast iron and HDPE pipes. As noted above, the seasonality of demand is a consideration for the Town's system, and seasonality also affects the distribution system, with July and August peak demands placing a load on certain booster stations of up to 80% of capacity.

Asbestos cement (transite) mains were originally used to serve the White Sulphur Springs area. As it aged, this pipe became increasingly prone to water main breaks. The Town began working to replace transite water mains throughout the district in 2005, and this goal was accomplished in 2020. During this process, most or all of the water services have been replaced up to the curb stop valves.

According to the 2023 AWQR, the Cold Spring water system tested higher than MCL for disinfection byproducts, including both total trihalomethanes (TTHM) and total haloacetic acids (THAA). The source of Cold Spring supply is the Village of Liberty's water system, of which the surface water reservoir, Lily Pond, is a primary source. These byproducts are formed when organic matter found in surface water reacts with disinfectants, which are used to control many microorganisms. According to the EPA, byproducts, if consumed in excess of these standards over many years, may, over these longer periods of time, increase health risks. DBPs, although studied with mixed results, are likely to be associated with certain cancers and reproductive issues. According to the 2020 AWQR for the WSS system, the Town reported no violations or exceedances. Similarly, the Town did not report violations or exceedances in 2023 for the Loomis, Stevensville, Route 55, or Ferndale water systems.

#### *12.2.1.2 Recent/Future Upgrades*

As noted above, starting in the mid-2010s, the Town made substantial investments in the infrastructure supporting the Stevensville District, including the installation of a new water storage tank, improvements to the wellfield, and replacement of pipe in portions of the distribution system. The project addressed seasonally heavy demands, wellfield capacity and operational issues, aging water mains, and the replacement of obsolete asbestos cement pipe. In addition, approximately 1,500 LF of 12" water line along Upper Ferndale Road was upgraded to cement-lined ductile iron pipe in 2020. At the aforementioned Route 55 WST location, the old 250,000-gallon tank removed from service was abandoned in place and remains on the site.

The Town also, beginning in 2014, undertook a long-term project to replace aging and deteriorating watermains in the White Sulphur Springs Water District. Between 2014 and 2021, a total of $4.3 M in Community Development Block Grant (CDBG) funding was secured to replace nearly 11,000 lineal feet of watermain along with hydrants, valves, and water services. Other work completed using the CDBG funding included the redevelopment of an existing but non-operational well to provide the water district with a reliable backup source.

In order to increase the overall capacity of the Town's system, the Town has sought development of additional sources of supply to supplement the existing well-field complexes. In the late 2010's, the Town hired a hydrogeologist and conducted a search of two (2) areas of the Town underlain by the South Fallsburg-Woodbourne unconsolidated aquifer, generally centered on Paul's Lake, a stretch of Leslie Road between Route 52 and McIntosh Road, and a portion of the Middle Mongaup River south of Swan Lake Road. However, the search yielded no viable additional water sources.

The Town, working with partners such as the Village of Liberty and Sullivan County Partnership, has engaged in several efforts aimed at infrastructure planning. With support from the Town, the Sullivan County Partnership spearheaded an effort to evaluate opportunities for economic development along a roughly 3.5-mile section of the Old Route 17 corridor in the Town of Liberty and the Town of Thompson, between I-86 exits 101 and 102. Among other recommendations, this study assessed opportunities to enhance water supply infrastructure availability in this area. In addition, the Town, in partnership with the Village of Liberty, undertook an infrastructure master planning effort in early 2022. That plan, finalized in late 2025, made a series of recommendations relating to water supply and distribution in the area generally adjacent to the Village and north of the Old Route 17 corridor area.

In part an outgrowth of these planning exercises, the Town has secured over $20 M in state and federal grant funding to support upgrades and extension of municipal water and sewer infrastructure to support economic development activities along the Old Route 17 Corridor. Specifically, the Town has identified a need to increase the size from 6-inch to at least 12-inch approximately 5,700 lineal feet of water main along Old Route 17, as well as extend this main about 800 lineal feet south to a planned business park. In addition, approximately 2,350 lineal feet of the existing 8-inch diameter main and appurtenances connected to the Village's water system from the Exit 100 roundabout, under NY 17/86, and extending onto Triangle Road (on-ramp to NY 17/86 West) to be upgraded to a 12-inch diameter pipe in order to improve hydraulics and capacity in this portion of the Town's system.

#### *12.2.1.3 Finances and Administration*

As part of the data collection process, information about system finances and budgeting was requested and researched from publicly available sources; local codes governing system administration and use were also reviewed, where publicly available. This information, where available, was used in order to develop an understanding of key metrics, including revenues and trends, expenses and trends, rate structure, revenues versus expenditures, debt service, and reserves.

Analysis of available financial information against the following metrics is as follows.

- Revenues and trends – Revenues are generated primarily through metered water sales, including summer surcharges. For the Route 55 and Stevensville water districts, interfund transfers from other served districts also account for a portion of revenues.
- Expenses and trends - The Town has a single budget line for the Water and Sewer Department, which had a 2025 budget of $1,043,236.00 and consisted mainly of personnel services. This line is then allocated to each of the eleven (11) districts in rough proportion to each district's share of appropriations. Given that only two (2) of the Town's water districts produce water, the Town accounts for water delivered to non-producing districts within the Town as interfund transfers in the budget; the Cold Spring Road District receives water directly from the Village of Liberty. Expenses connected to the water districts accounted for about 17% of the Town's 2025 budget.
- Rate structure - In the Town's water districts, O&M costs are charged based on water consumption. The Town also maintains a summer surcharge fee of $4.25 per 1,000 gallons over 100,000 gallons, applicable to the quarterly billing period, including June, July, and August. The outside-district rate varies by water district from about 30% to 60% higher.
- Revenue versus expenditures – In general, across the Town's water districts, revenues have exceeded expenditures, and this appears to be largely due to the Town underestimating revenues and overestimating expenses.
- Debt service - Stevensville for debt service in connection with the aforementioned capital improvements in the Stevensville system. In 2025, it amounted to about 20% of the Stevensville district budget.

- Reserves – Over the past few years, the Town has maintained about $225,000 in water supply-related capital reserve funding. The funds include: Water and Sewer Major Equipment, water lines capital fund, Route 55 water, and Stevensville capital.
- Water use law – Chapter 144 of the Town code is the sewer use law.

### 12.2.2 Other Systems

There are two users with water withdrawal capacity requiring a NYSDEC water withdrawal permit: Grossinger Country Club and Sullivan County Golf Course. The withdrawals mainly exist to serve the needs of these golf courses and, at the time of this writing, do not provide water service as part of a public water supply system. Based on information available, there are several regulated community water systems in the Town (Table 16).

*Table 16. Town of Liberty regulated community water systems*

| Water System | Service Area | SDWA # | Population | Connections |
|---|---|---|---|---|
| MOUNTAIN VIEW MEADOWS MHP | MHP | NY5201348 | 140 | 48 |
| TCFD - HARRIS | Medical | NY5225004 | 600 | 35 |
| HUDSON VALLEY FOIE GRAS-FERNDALE | Industrial | NY5230008 | 120 | 19 |
| GOOD LIFE MHP | MHP | NY5201345 | 200 | 101 |
| LEISURE LAKE ESTATES CONDOMINIUMS | MHP | NY5230210 | 285 | 95 |

### 12.2.3 Challenges and Opportunities

Capacity in the Town's system has been identified as a challenge as it relates to the seasonality of demand it experiences and the potential of the system to support demand from additional users. As noted, the Town has sought to develop additional source capacity, and it is possible that other potential sources, such as the Hanofee Park area, adjacent to the 2018 northeast water search area and also underlain by the South Fallsburg-Woodbourne aquifer, could be an opportunity. As well, the Grossinger's Resort property has historically supplied its own water, and its source potentially could be developed for additional supply, and the Town has sought to partner with land developers to develop additional water sources as part of their projects.

The population serviced by and demand placed on the Town's water districts can vary significantly throughout the year, as a number of summer residents live in seasonal camps

or summer homes connected to the municipal water systems. June, July, and August peak daily flows are typically double peak flows for the remainder of the year.

An opportunity lies in partnering with the Village of Liberty, especially as it relates to increasing the water that can be supplied by the Village's Elm Street Well. To increase capacity from this source, investment is needed, and the opportunity to increase the user base sharing these costs would benefit both the Town and the Village, including by providing increased system resiliency. Lily Pond, the area's only active surface water source, has been limited by both reservoir capacity (i.e., the historical determination that its safe yield is 750,000 GPD) and by the water treatment plant infrastructure. Moreover, it is unclear the extent to which the existing system of transmission and distribution mains has the capacity to convey additional water even if additional production were to occur, and an opportunity lies in further investigation of system hydraulics.

Supporting large-scale manufacturing and industrial users can be a challenge, as these large water users have the potential to impact wastewater system operations and capacity significantly, both when they commence and should they ever terminate operations. Certain types of processing facilities also require specialized processes to adequately treat certain waste products.

Other challenges relate to the age of portions of the distribution system, such as the Stevensville water storage tank, which requires capital improvements, and the approximately 7,500 LF of aging 10" cast iron water main along Route 55 between the bridge on Briscoe Road and the Stevensville WST, which has seen frequent breaks. Portions of this line have been replaced as part of recent projects and during water main break fixes. Finally, according to the 2024 AWQR, the Town reported detecting DBPs at levels in excess of the MCL, and addressing DBPs can be a challenge due to seasonal and other dynamics in surface water sources.

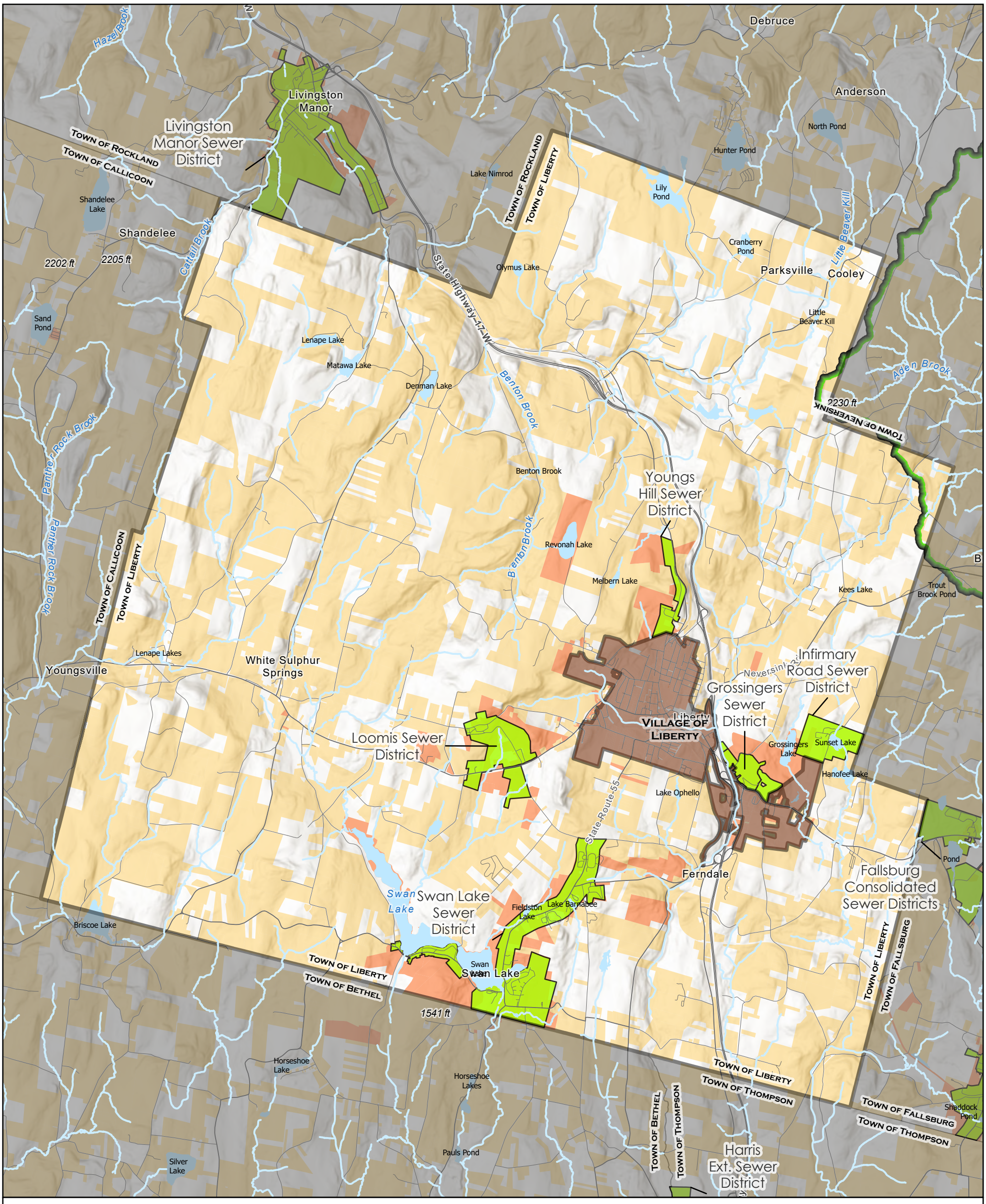
## 12.3 Sanitary Sewer and Wastewater Treatment Inventory & Evaluation

### 12.3.1 Municipal Systems

The Town operates a municipal system that provides sewer service to areas of White Sulphur Springs and Swan Lake, as well as some areas adjacent to the Village of Liberty. Areas adjacent to the Village are interconnected with the Village sewer system, with treatment ultimately provided by the Village WWTP. Parts of the Town's systems serving these areas, especially east of I-86, are comprised of relatively extensive conveyance infrastructure, such as pump stations. Conversely, about 53 parcels receive services from the Village's collection system as out-of-district users.

# Town of Liberty Wastewater Facilities Map

## Sullivan County, New York




Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

0 0.5 1 2 3 4 Miles

N

- Municipal Sewer Service Areas
- Centralized or Regulated Decentralized Service
- Individual On-Site Systems
- Delaware River Basin (Entire Town)
- NYC Watershed (Entirely Outside)
- Town Boundary
- Other Municipalities
- Stream
- Waterbody

Other areas of the Town, including the White Sulphur Springs (WSS) and Swan Lake service areas, each have separate collection and treatment systems. The entire Town lies within the Delaware River Basin, and the municipal systems are regulated, in part, by DRBC. The Town's infrastructure includes two wastewater treatment plants, eight pump stations, and about 10 miles of sewer collection mains, as further described below.

#### *12.3.1.1 System Components Inventory and Overview*

The municipal systems serving the Town are described below.

##### *12.3.1.1.1 Swan Lake*

The WWTP serves residents and businesses in the hamlet of Swan Lake, which has a full-time population of approximately 1,500 residents, as well as some seasonal communities and second homes. The area served by this system comprises about 606 parcels spanning an area of 735.2 acres with about 455 service connections. Sixty-two percent of the district's parcels are classified as single-family residences, and 22% as vacant lands, with the remaining 16% mixed between seasonal residences, multifamily residences, manufactured residential, commercial, religious, recreational, and public utility uses. There are no large industrial users connected to the system.

The Swan Lake WWTP, which is located along the southern town boundary with the Town of Bethel, was completed in 1983. The WWTP has an average monthly maximum daily flow of 365,000 GPD, with a maximum permitted flow of 425,000 GPD into a tributary of the West Branch Mongaup (a Class C trout stream). The Swan Lake WWTP sees double the peak flows in the summer months (June to August) compared to other times of the year. With respect to the collection and conveyance system, during storm events and wet weather, flows can exceed the capacity of elements of the collection system. The system consists of gravity sewers and pump stations, both privately and publicly owned.

The Swan Lake WWTP has experienced SPDES permit compliance issues. In 2023 and 2024, SPDES permit effluent limits were exceeded for various parameters, with non-compliance principally related to excessive screenings and rags entering the plant and clogging the process equipment, most notably the oxidation ditch jet aerators. Earlier, in 2022, SPDES permit effluent limits were also exceeded for various parameters, likely also due to ragging as well as seasonal low flows to the plant, aging equipment, and other environmental factors, like ambient temperatures and dilution of process liquids due to seasonal precipitation with snowmelt.

##### *12.3.1.1.2 Loomis*

The Loomis WWTP was constructed in 1985, upgraded in phases in the mid-2010s, and is permitted for a monthly average of 80,000 GPD; however, it is currently only operating at

between 25,000 and 30,000 GPD. The sanitary sewer system services year-round and seasonal residences, as well as the Town highway garage, the Sullivan County B.O.C.E.S. buildings, with the Cornell Cooperative Extension Building, two out-of-district developments, and two in-district developments. Flow to the Loomis WWTP has been falling due to the decline in the number of single-family district users. This has been a result of property vacancies and consolidations through acquisition by a single residential user. Roughly one-third of the land within the district is under single ownership, and there is no plan at present for the future use of these properties.

The Loomis system consists of approximately 15,000 lineal feet of sewer main, most of which is 6" PVC (about 9,400 lineal feet) and 6" transite (about 2,000 lineal feet). There is one pump station, the Fancher's PS. The Loomis conveyance system was extensively evaluated in the mid-2010's as part of a response to NYSDEC regulatory compliance actions relating chiefly to permitted flow exceedances caused by I&I in the collection system. Pursuant to that action, sewer main replacement, repairs to system components, and rehabilitative work on this system were carried out.

According to NYSDEC's EBPS, this facility received a rank of 469 and a score of 6. The score components are based on the age of the existing SPDES permit and time since the last time the facility submitted a long-form permit application, together with required comprehensive effluent sampling. In general, the higher the EBPS rank, the more likely it is that the permit for this facility will undergo a full technical review by NYSDEC in the near future.

*12.3.1.1.3 Village of Liberty*

Other portions of the Town's municipal system are connected to the Village-owned conveyance system and discharge to the Village WWTP. In these areas, the collection system is owned and operated by the Town.

North of the Village, the Town owns and operates approximately 4,500 lf of 8" cast iron main installed in the 1970s that serves about 30 parcels along Youngs Hill and Parksville Rd. This main connects to the Village system at the Town-Village line on Youngs Hill Rd.

East of the Village of Liberty, the Town owns and operates about 2,500 lf of 8" PVC gravity sewer along Infirmary Road, along with the Infirmary Road pump station, which connects to the Village system, ultimately discharging through the Village's Millers pump station. This area primarily serves the Sullivan County Human Services Campus. Also, in this area lies the former Grossingers Resort. Although the property is not currently in use, a new resort is planned for the site, which could include a 250-room hotel, a renovated golf course, a

convention center, and other attractions. The site is served by a system of sewer mains directly connected to the Village's collection system and served by the Village WWTP.

#### *12.3.1.2 Recent/Future Upgrades*

The sewer systems serving the Town have been the subject of substantial historical and ongoing investments by both the Town and the Village of Liberty. Upgrades to the Swan Lake WWTP and Loomis WWTP are discussed below. The Village of Liberty system, including recent upgrades, is described in the accompanying municipal report in this volume (see the Village of Liberty report, Sanitary Sewer and Wastewater Treatment Inventory & Evaluation section).

##### *12.3.1.2.1 Swan Lake*

Since 2019, the Town has been advancing a project to upgrade the Swan Lake WWTP. The facility has exceeded its useful life and, as noted above, can no longer consistently meet permit effluent limits. In addition, due to high summer/seasonal flows, the plant lacks sufficient capacity to accommodate existing and future growth within the district.

The proposed WWTP upgrade is designed to increase the plant's treatment capacity from its current 0.425 MGD to 0.960 MGD. The project is in the final phases of design and regulatory permitting. The NYSDEC has provided preliminary effluent limits, and the new SPDES permit will require nutrient removal. To address this, the upgrade will include the introduction of new, advanced waste tertiary treatment facilities, which will have the flexibility to manage high seasonal flows and also be able to consistently meet stringent nutrient limits. In addition, the project involves relocating an existing influent pump station and headworks out of the flood zone.

The cost of the upgrade/expansion project is estimated to be $40 M, and the Town has secured over $11.4 M in grant funding with 0% hardship financing from NYSEFC. However, due to the relatively small size of the sewer district, the annual cost to a typical single-family home in the sewer district could more than double without additional funding. In response to public opposition to the project, the Town Board committed to exploring additional grant opportunities designed to make the project more affordable.

##### *12.3.1.2.2 Loomis*

The Loomis WWTP was last upgraded in 2017. That $3.1 M project consisted of expanding the existing plant to include a second RBC unit and a new secondary clarifier. The existing influent flow splitter box was replaced with a new, larger splitter box, and the existing sand filters were rehabilitated. A new chemical feed building was also constructed as part of the upgrade. These improvements increased the plant's capacity from 80,000 GPD to 100,000 GPD.

#### *12.3.1.2.3 Hamlet of Parksville*

Over the past several years, the Town has undertaken to study the provision of municipal sewer service to the Parksville area. There are about 40 existing potential users and potential for additional users of about 30. Two studies have been undertaken. One study evaluated the installation of a new WWTP discharging to the Little Beaver Kill but recommended the construction of a connection to the Village of Liberty system. The second study evaluated the installation of a community septic-type system involving secondary treatment and discharge to groundwater via an absorption bed sized to accommodate the anticipated flow of about 28,500 GPD. At the time of writing, this project remains in the feasibility and concept phase.

### *12.3.1.3 Finances and Administration*

As part of the data collection process, information about system finances and budgeting was requested and researched from publicly available sources; local codes governing system administration and use were also reviewed, where publicly available. This information, where available, was used in order to develop an understanding of key metrics, including revenues and trends, expenses and trends, rate structure, revenues versus expenditures, debt service, and reserves.

Analysis of available financial information against the following metrics is as follows.

- Revenues and trends – Sewer rents constitute the majority of revenues per district. In the Loomis district, the budget line for sewer agreement fee – which appears to represent an agreement with an out-of-district user – is about half of the revenue in that district.
- Expenses and trends - The Town has a single budget line for the Water and Sewer Department, which had a 2025 budget of $1,043,236.00 and consisted mainly of human resources costs. This line is then allocated to each of the eleven (11) districts in rough proportion to each district's share of appropriations. Sewer expenditures are about 14% of the Town's appropriations.
- Rate structure – The Town charges for service (O&M) and capital costs. The O&M fee for sewer service is calculated based on estimated total effluent received at the plant and then allocated to users based on their total annual water use in the district, and then transformed into units equivalent to 75,000 gallons per day of effluent. In those districts carrying debt, sewer unit shares for debt service are calculated in accordance with the schedule of rates found in the Liberty Town Code Article XIII Sewer District Capital Charge - §121-60 Schedule of Rates. Sewer Units are computed based on land road frontage and property improvements separately

and are totaled for each parcel. Vacant land is assigned the same road frontage units as improved land. In addition, users in the Youngs Hill sewer district, for which the Village provides treatment, are charged a separate user fee by the Village.

- Revenue versus expenditures – In general, across the Town's sewer districts, revenues have exceeded expenditures.
- Debt service – The Town's 2025 budget includes about $67,000 in debt service, associated with the Loomis and Youngshill portions of the system. This is about 7% of total sewer appropriations.
- Reserves – The Town maintains four reserve funds: Water and Sewer Major Equipment Infirmary Road Sewer Capital Fund; Loomis Sewer Capital Fund; and Swan Lake Sewer. In general, since 2023, the Town has created increases in each of these funds, which run about 25% of the total sewer budget.
- Sewer use law - Chapter 121 of the Town code is the Town's sewer use law.

### 12.3.2 Other Systems

There are several SPDES permits for private wastewater facilities in the Town. There is one commercial private permitted wastewater discharge facility in the Town owned by Shelly Realty Corporation for County Petroleum Products, Inc. This facility discharges into the Mongaup River, a Class B(T) waterway, with discharges of both stormwater tank test water.

Permits have also been issued for the following non-commercial facilities:

- Camp Yeshiva STP for renewal of a permit for a 17,000 GPD facility with a discharge to a tributary to Swan Lake (B);
- Camp Gan Israel for renewal of a permit for a 29,400 GPD facility with a discharge to Little Beaver Kill Trib (B(T));
- Camp Bnos for renewal of a permit for a discharge to surface waters; and
- Camp Machna Shalva Bobov for renewal of a permit for a discharge to surface waters.

In addition, the following SPDES permits are pending or have statuses other than issued:

- Devany Estates for a new permit for a facility with a capacity of 45,000 GPD to surface waters;
- Lipkowitz Trailer Units for a facility with discharge to groundwater;

- Camp Rayim for a facility with a discharge to surface waters;
- Camp Agudah for renewal of a permit involving a discharge to Middle Mongaup River (B(T));
- Cross Farms School for a new permit for a facility with a capacity of 15,000 GPD with a discharge to surface waters.

### 12.3.3 Challenges and Opportunities

Like the water districts, the population and demand of the Town's sewer districts can vary significantly throughout the year. The ability of the Village of Liberty's sewer system to accept additional flow is an opportunity, but it is limited to areas adjacent to the Village.

As described above, the Swan Lake WWTP is over 35 years old, approaching its current permitted treatment capacity, and will require a comprehensive system upgrade to maintain long-term SPDES permit compliance. The planned upgrade will address those issues, but there is strong public opposition to the project locally.

Finally, as noted above, the Town has evaluated providing municipal sewer service to the Hamlet of Parksville. There is presently no centralized sewer collection and treatment system in the area. All sewer treatment is provided by individual on-site septic systems, and many of these systems are older and in less suitable soils or are vulnerable to flood waters. In addition, certain commercial establishments, like restaurants, may have difficulty in meeting wastewater regulatory standards with individual, on-site systems, which is a challenge to further commercial activity in the Hamlet. The small user numbers, combined with the extent and nature of the collection and conveyance system, create financial challenges.

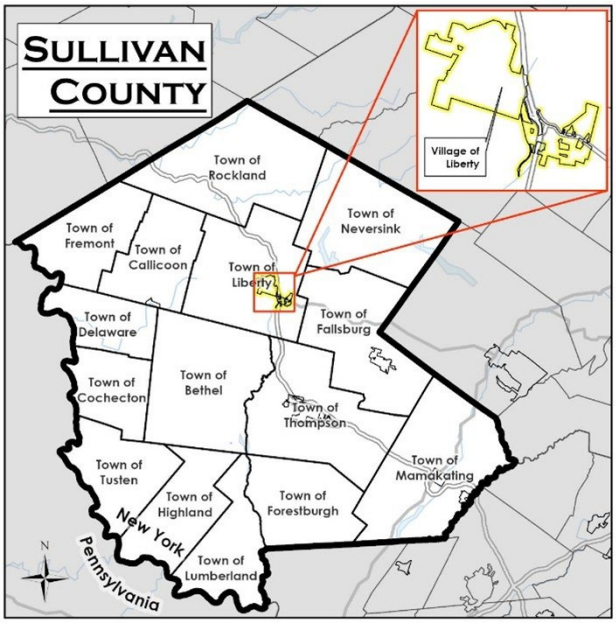
## 12.4 Methodology and Sources

In preparing this report, publicly available data were collected and reviewed, along with any additional documentation supplied by a municipal representative, county office, or other authoritative sources. In addition, the project team contacted and interviewed key individuals who have specialized knowledge of their local systems. The following is a list of sources consulted.

- DRBC Water Supply Docket Number D-1967-121 CP-2
- Liberty V/T Infrastructure Master Plan (2025)
- Shelly Realty Corporation for County Petroleum Products, Inc SPDES (NY0260355)

- Cold Spring Annual Water Quality Report (AWQR) 2023 (NY5230111)
- Ferndale Annual Water Quality Report (AWQR) 2023 (NY5203326)
- Loomis Annual Water Quality Report (AWQR) 2023 (NY5203332)
- Route 55 Annual Water Quality Report (AWQR) 2023 (NY5203343)
- Stevensville Annual Water Quality Report (AWQR) 2023 (NY5211831)
- White Sulphur Springs Annual Water Quality Report (AWQR) 2023 (NY5203347)
- NYSDEC Department Application Review Tracking (DART) system (accessed October 2025)
- EPA Community water system Service Area Boundaries (accessed September 2025)

# 13. VILLAGE OF LIBERTY




## 13.1 Municipal Overview

The Village of Liberty is located in the central and eastern portion of the Town of Liberty and is situated amongst the various intersections of NYS Routes 17, 52, and 55. The Village is a commercial and cultural hub of Sullivan County and is made up of a wide array of buildings and housing types. The Village's 1,660 acres contain a population of 4,700, as estimated by the 2020 Decennial Census. The Village's population somewhat increases during the summer from seasonal uses, like summer camps; in addition, there are seasonal demands on the centralized utility system and other public infrastructure due to the operation of thirteen (13) additional summer camps throughout the Town of Liberty.

The Village owns and operates both a public water and wastewater system. The largest users within the Village include Liberty High School, Liberty Elementary School, and the (recently closed) Frito-Lay manufacturing facility. Portions of the Village's municipal water and sewer systems are interconnected with those of the Town of Liberty.

The Village lies entirely within the DRBC boundary but entirely outside the NYC watershed boundary.

## 13.2 Water Supply and Distribution Inventory & Evaluation

### 13.2.1 Municipal Systems

The Village provides municipal water service within the Village boundaries as well as to portions of the Town of Liberty. There are approximately 1,700 water connections to the Village system, including a small portion of the Town along Cold Spring Road and the Parksville area. Conversely, the Town supplies water to portions of the Village west of I-86. Notably, the Town and Village water systems are connected in three (3) locations, though these interconnections are not regularly activated. One connection, located in the Town along Main Street, is an emergency interconnection that can supply 150,000 GPD. This booster station was installed during the early 1990's in order to provide another source of

# Village of Liberty Water Facilities Map

## Sullivan County, New York

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

0 0.25 0.5 1 1.5 2 Miles

N

- Village Water Service Area
- Municipal Water Service Areas
- Centralized or Regulated Decentralized Service
- Individual On-Site Systems
- Delaware River Basin (Entire Village)
- NYC Watershed (Entirely Outside)
- Village Boundary
- Stream
- Waterbody

supply when MTBE contamination at the Elm Street well was discovered; it is not currently in use.

*Table 17. Village of Liberty water withdrawal permit information (all figures in GPD)*

| Water System | Component | Max Rate (GPD) | Average Daily w/d* | Peak Day w/d* | NYSDEC Permitted w/d | DRBC Permitted w/d |
|---|---|---|---|---|---|---|
| **Village of Liberty** | Lily Pond WTP | 1,500,000 | 517,000 | 702,800 | 1,450,000 | 803,226 |
| | Elm Street Well | 1,080,000 | | | | |

*Average of prior five (5) years as reported to NYSDEC

#### *13.2.1.1 System Components Inventory and Overview*

As noted, the Village obtains raw water from both surface and groundwater sources. The Village lies entirely within the Delaware River Basin boundary, and water withdrawals by the Village water supply system are regulated by DRBC. The most recent DRBC docket dates to December 2013 and affords maximum withdrawals of 252,000 GPD from the Elm Street well and 750,000 GPD from Lily Pond, yielding a total of about 1,002,000 GPD. Periodic required testing (the most recent being in September 2023) has found elevated levels of treatment byproducts (HAA5). Most of the year, the Town uses approximately 5,000-10,000 GPD, but in the summer, usage can be up to 100,000-120,000 GPD in Parksville.

##### *13.2.1.1.1 Lily Pond Water Treatment Plant*

Lily Pond is an impoundment located on an unnamed tributary to the Little Beaver Kill, approximately 7 miles north of the Village of Liberty, on the Town of Liberty's border with the Town of Rockland. Lily Pond is a 90-acre reservoir that consists of a larger upper reservoir and a smaller lower impoundment separated by a 200-foot-long, 7-foot-high earthen dam with a concrete spillway constructed in 1923. Water is pumped, using a system of three lift pumps, from the upper reservoir through an intake and a 12-inch diameter pipe to the WTP. The intake is positioned so that only the upper four feet of the reservoir's total volume is used for water supply. A water withdrawal permit originally approved in 1923 limits the withdrawal amounts of the reservoir to 750,000 GPD.

To address surface water treatment requirements, the Lily Pond WTP uses flocculation, sedimentation, and filtration processes to produce potable water. Three single-media filters are using crushed anthracite coal. Each treatment train is rated at 500,000 GPD. The equipment at the plant consists of a package system, whereby the system components are procured and assembled off-site, and then delivered and installed at the site. The package system vendor recently inspected the system, and, with certain refurbishment of the

treatment trains, the plant's lifespan may be increased by 15 to 20 years. The building itself will also need maintenance performed, such as replacement of the exposed fastener metal roof and various other minor items.

*13.2.1.1.2 Elm Street Well*

The Elm Street Well is located in the valley of the Middle Mongaup River, adjacent to the southern side of the New York State Highway (Route 17/Future Interstate 86) and separated from the river by the highway right-of-way. The Elm Street Well is used to supplement the Village's primary water supply source at Lily Pond and to maintain adequate pressure in the water distribution system. The wellhead and associated infrastructure have been elevated above the 100-year flood elevation. The system consists of two caisson wells, installed in 1960, of approximately 6-8 feet in diameter, with a total depth of 40 feet, and connected by a siphon pipe. Currently, the Elm Street Well is equipped with two 125-horsepower vertical turbine pumps (rotated at least once a year). Permitting data indicates that the well has a maximum capacity of 700 GPM.

*13.2.1.1.3 Water Distribution System*

The system obtains pressure from two storage tanks located at Lily Pond WTP and off of Revonah Hill Road. From the Lily Pond Storage tank, about 37,000 LF of 12" water main runs south along Lily Pond Road to Parksville Road where it continues along Parksville Road to Young Hill Road where it enters the Thomas Avenue WTB. This 12" transmission main was installed in the in the mid-2000s and it, together with air release valves and other appurtenances, is reported to be in good condition. This main also supplies water to portions of the hamlet of Parksville. There are approximately 165 service connections between Lily Pond WTP and the Thomas Avenue WTB.

From the Thomas Avenue WTB, the main supply line continues as a 12" to Buckley St and then transitions to a combination of 8" and 6" size pipes, traverses through the Village to join the 8" main coming from the Revonah Hill Road storage tank, and ultimately to the intersection of Route 52 and South Main Street. Within the Village, distribution lines are mostly 6" and 4" in size. The main running from Revonah Hill along Lewis Street is 8" and allows the Revonah Hill water tank to recharge other portions of the system in this area.

To control water throughput in the system, the Village adjusts a manual valve located near the Thomas Avenue treatment building. Adjustments to this manual valve are made depending on various operational scenarios, such as when there is a need to add or take water away from the overflow at Revonah/Village Distribution System or after a switch to pumps at Elm Street is made, due to small pumping rate differences between the different motors.

The Village owns the water meters installed at the point of end use. Replacement of the meter heads and other required system components serving the Village's roughly 1,700 metered users is planned.

There are several points of interconnection between the Village and Town water systems. A booster station is located at the Main Street interconnection with the Town's system. This station is needed in order to overcome pressure differences between the Village and Town systems. This emergency interconnection can supply 150,000 GPD and was installed during the early 1990s to provide a supplemental supply source when the Elm Street Well was taken offline; the station is not currently in use. At present, this interconnection permits unidirectional flow; however, a bypass allows water to flow from the Village to the town. There are several other interconnection points between the Village and Town of Liberty systems, generally along the southerly Village-Town of Liberty boundary.

According to the 2024 AWQR, the Village reported testing higher than the MCL for disinfection byproducts (both TTHM and THAA). The Village system relies on the surface water reservoir, Lily Pond, and these byproducts are formed when organic matter found in surface water reacts with disinfectants, which are used to control many microorganisms. According to the EPA, byproducts, if consumed in excess of these standards over many years, may, over these longer periods of time, increase health risks. DBPs, although studied with mixed results, are likely to be associated with certain cancers and reproductive issues.

#### *13.2.1.2 Recent/Future Upgrades*

As noted above, water meter maintenance and replacement are underway with a plan to replace all meter heads serving the roughly 1,700 service connections on the Village's system. The generator, SCADA system, and 0.5 mg storage tank at the Lily Pond WTP were installed in the mid-2000's. The storage tank, installed at the same time as the new 12" transmission main leading to the Village, was dived and cleaned in 2015. The Lily Pond WTP building itself is reported to be in good condition, with a metal roof (exposed fastener-type), gutter, and metal door replacement the main areas of need. Also, as noted, the Elm Street Well has undergone investments to elevate critical equipment out of the floodplain. According to Village officials, near-term investments in the well's electrical system, pumps, building, and chemical feed system are likely required.

#### *13.2.1.3 Finances and Administration*

As part of the data collection process, information about system finances and budgeting was requested and researched from publicly available sources; local codes governing system administration and use were also reviewed, where publicly available. This information, where available, was used in order to develop an understanding of key

metrics, including revenues and trends, expenses and trends, rate structure, revenues versus expenditures, debt service, and reserves.

Analysis of available financial information against the following metrics is as follows.

- Revenues and trends – Based on the 2023/2024 budget, revenues are derived mainly from metered water sales. In that year, 9% were derived from appropriated fund balance.
- Expenses and trends – Expenditures overall increased slightly from 2022/2023 but are not detailed in the materials reviewed. Detailed budget information for the remaining portions of the Village budget was unavailable for review.
- Rate structure – Users are charged per 1,000 gallons of metered use for inside-the-Village and outside-the-Village users, respectively. Outside user rates are about 75% higher for water supplied by the Village than for inside users. There are 1,700 water connections, with about 75% of these connections being residential users.
- Revenue versus expenditures – As noted, in 2023/2024, about 9% of water revenues were derived from appropriated fund balance. Fund balance formed a similar share of the prior two budget cycles.
- Debt service – Debt service accounts for about 20% of expenditures.
- Reserves – Fund balance is about 60% of expenditures.
- Water use law – Chapter 84 of the Village code is the water use law.

### 13.2.2 Other Systems

Based on information available, no regulated private community water systems or facilities with capacity requiring a NYSDEC water withdrawal permit lie within the Village.

### 13.2.3 Challenges and Opportunities

Like many surface water sources, among the challenges identified with the Lily Pond water source is that the pond is shallow and has a high level of natural organic matter. This organic matter can, during treatment, cause the formation of certain substances known as disinfection byproducts (DBPs). Recent water quality reporting and discussion with Village water operators have indicated that these DBPs do not exceed regulatory limits.

The Lily Pond Filtration Plant itself, constructed from equipment acquired from another water system operator and placed into service in 1998, is now over 25 years old and, according to Village water operators, needs about $50,000 per year over the next 10 to 15

years to remain in service, after which time it will likely need capital investments to continue operation; investments may also be needed in order to support any increase in supply. As noted above, a recent assessment of the WTP found that, with refurbishment, it may be possible to extend the plant's useful service life.

With respect to the Elm Street Well, its historical contamination from adjacent land uses constitutes a challenge. While remediation has been undertaken and regular testing shows the finished water meets applicable standards, the nature of the contamination is such that, if well pumping is increased, there is potential to draw contaminants along with these higher withdrawals. As noted above, the Elm Street Well likely has the capacity to provide additional water supply to the Village system. It is important to note that the Village conducts routine (quarterly) monitoring of the well, and contaminants (MTBE) have not been detected since December 1998. Also, among the challenges is that the equipment is aging, and the facility lacks a backup power source. Short-term needs likely involve new pumps, electrical upgrades, and auxiliary power.

The Village has an opportunity, partnering with the Town, to provide water to portions of the Town where economic development investment and other land development may occur. A key benefit of increasing the user base is the ability to spread the fixed costs of running the water supply system over a greater number of users. The Village and the Town of Liberty have partnered recently to plan for water infrastructure serving the Village and areas of the Town immediately adjacent, and the Village has also been exploring ways to increase supply in its system. Grant funding has been awarded to the Town of Liberty for a project to extend municipal water and sewer service to a portion of the Old Route 17 corridor in support of economic development initiatives. For a detailed description, see the Town of Liberty Report's section on Recent/Future Upgrades.

Another challenge is that the Village-owned system likely would need further hydraulic analysis to understand whether and where within the system additional water can be supplied. The relatively smaller 6" and 8" mains running from Buckley Street to the South Main-Route 52 intersection and the downtown area that appears to be served by a combination of 4" and 6" pipes are examples of these challenges; understanding the hydraulic properties of the system will be important to long-term management, operations, and supply availability. The various interconnections with the Town's system provide an opportunity to increase service area as well as system resiliency.

Supporting large-scale manufacturing and industrial users can be a challenge, as these large water users have the potential to impact wastewater system operations and capacity significantly, both when they commence and should they ever terminate operations.

Certain types of processing facilities also require specialized processes to adequately treat certain waste products.

On the financial side, as noted above, the water fund balance is about 60% of expenditures and is an opportunity that broadly addresses the unreserved fund balance, as a matter of policy. Such policy making and implementation is a best practice in local finance. As noted above, maintaining a reserve can also help the Village to implement priority projects.

Obtaining sufficient qualified personnel to maintain operations has been a challenge. According to the 2024 AWQR, the Village reported addressing identified needs, including staffing, conducting an operational evaluation, and flushing the water system. The Village recently conducted a rate study, and a comprehensive main flushing program was initiated. The services of a private water operator were retained to provide the required number of certified operators. Plant coverage was addressed, and an operational evaluation was performed. Finally, according to the 2024 AWQR, DBPs have been detected at levels in excess of the MCL, and addressing DBPs can be a challenge due to seasonal and other dynamics in surface water sources.

## 13.3 Sanitary Sewer and Wastewater Treatment Inventory & Evaluation

### 13.3.1 Municipal Systems

The Village provides municipal sewer throughout the Village as well as to portions of the Town of Liberty, generally along Parksville Road, along Route 52 to Old Monticello Road, and the northern portion of Infirmary Road (County Social Services complex). Wastewater is conveyed to the Village's WWTP by a combination of gravity and force mains.

#### *13.3.1.1 System Components Inventory and Overview*

This section presents information about the collection and conveyance system as well as the Village's WWTP.

##### *13.3.1.1.1 Collection and conveyance system*

The gravity mains serving the Village were primarily installed at the turn of the last century, or earlier, and are comprised mainly of 8" mains. The sewer system has approximately 111,000 linear feet (lf) of pipe ranging from 6" to 30" with at least 250 manholes. There are eight (8) pump stations installed on the collection system tributary to the Village WWTP, six of which are Village-owned and two of which are owned by the Town of Liberty.

The Days Inn PS accepts flow from the Infirmary Road Pump Station, Lannings PS, Millers PS, and Ferndale PS, and makes it an important element of the system, conveying a substantial amount of flow from both the Village and the Town of Liberty. It is a package

# Village of Liberty Wastewater Facilities Map

## Sullivan County, New York

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

0 0.25 0.5 1 1.5 2 Miles

N

- Village Wastewater Service Areas
- Municipal Sewer Service Areas
- Centralized or Regulated Decentralized Service
- Individual On-Site Systems
- Delaware River Basin (Entire Village)
- NYC Watershed (Entirely Outside)
- Village Boundary
- Stream
- Waterbody

system installed in the 1970s, with new pumps capable of handling rags installed in the 2010s. According to a recent assessment conducted in concert with Village officials, the pump station operates close to capacity during wet weather flows, with the 6" discharge forcemain also potentially limiting capacity, according to recent testing.

As noted below, in the past decade, portions of the conveyance system have required emergency repairs, including a roughly 400-foot gravity main known as the Green Lane line. I&I has been observed and investigated by the Village. The Village has also undertaken prior efforts to investigate and address I&I, and these have focused on grouting mains, repair of laterals, disconnection of sump pumps and roof leaders, and addressing surface and subsurface inflow and infiltration into manholes.

*13.3.1.1.2 Wastewater Treatment Plant*

The Village WWTP has a permitted capacity of 2.0 MGD and discharges to an unnamed tributary of the East Branch Mongaup River, classified as a B(TS) stream for regulatory purposes. The WWTP dates to the 1980s, and since the 2010s, the Village has undertaken a multi-phase program of upgrades to address life-cycle issues and improve efficiency and performance.

The WWTP is an extended aeration, oxidation ditch style, activated sludge treatment plant that removes biological ammonia through nitrification and ultraviolet (UV) disinfection to meet the requirements of the discharge permits. The WWTP headworks have mechanical bar screens, and the treatment process employs two clarifiers, three sludge holding tanks, and a belt press for sludge drying and processing. Sludge is currently hauled off-site and landfilled. The plant operates at average daily flows of roughly 0.9 MGD, with increases experienced during wet-weather events.

The SPDES permit was issued in 1995. In 2022, NYSDEC initiated a full technical review to update this permit and reflect current standards. Accordingly, and as part of this process, current standards may require the WWTP to implement new procedures as part of the treatment process, including addressing carbonaceous biochemical oxygen demand (BOD). On September 1, 2025, NYSDEC issued a new SPDES permit for the WWTP. The issued permit reduces effluent limits for BOD, total residual chlorine, and winter ammonia. In addition, a new effluent limit for dissolved oxygen (DO) was instituted. Taken together, these new limits may require a major modification to the treatment facility or operations that will take a significant amount of time and financial resources to properly plan, design, fund, and build.

#### *13.3.1.2 Recent/Future Upgrades*

Since the early 2010's, the Village has carried out a number of projects at the WWTP aimed at repair and modernization. For example, between 2012 and 2017, a series of emergency repairs and upgrades were undertaken. These projects involved repair and replacement of key parts of the biological treatment processes as well as upgrades to the headworks equipment, including a new headworks building. Later phases involved UV disinfection system upgrades and reconstruction of one of the clarifiers.

The Village is moving forward with a comprehensive WWTP upgrade, involving upgrading the existing facility with new components and various process improvements, but no major process changes. Work on Phase 1 of these improvements was completed in July 2024. In addition, planned upgrades in the short term include upgrades to replace aged sludge dewatering and sludge handling equipment.

As noted, a SPDES permit review and update was initiated in 2022. The proposed daily maximum limit of 15 mg/L CBOD can be challenging for a secondary treatment plant like the WWTP without decreasing treatment capacity, and additional upgrades may be necessary in the future to maintain the permit flow of 2.0 MGD.

With respect to the collection and conveyance system, the Village has undertaken or planned several projects. In 2012, a portion of the Green Lane line needed reconstruction, which involved about 325 lf of replacement of an 8" sewer main and four manholes. This project involved only a portion of this 8" main, which, over its length, is about 3,600 lf. Given its age, location along a watercourse, history of failure (including due to wet weather and blockages), further investment in the Green Lane 8" main remains an important planned project for the Village, as this portion of the system serves a large proportion of the southwestern portion of the Village, including West St.

The Village in 2024 was awarded an Engineering Planning Grant (EPG) from NYSEFC to conduct I&I investigations into the sanitary sewer collection system. These investigations are the first step in the development of a comprehensive I&I reduction strategy. The effort will positively identify, through observation, direct inspection, investigation, and indirect monitoring, those areas responsible for the largest periodic increases to system flow due to I&I into the collection system. The intent of the report is to ultimately identify a candidate project aimed at addressing these issues and to support an application for additional funding assistance.

Finally, the Town of Liberty was recently awarded economic development grant funding from NYS Empire State Development. A portion of these funds will be used to carry out upgrades to the Days Inn PS and 6" forcemain in order to upgrade this equipment and

infrastructure to increase capacity in support of economic development goals. For a detailed description, see the Town of Liberty report's section on Recent/Future Upgrades.

#### *13.3.1.3 Finances and Administration*

As part of the data collection process, information about system finances and budgeting was requested and researched from publicly available sources; local codes governing system administration and use were also reviewed, where publicly available. This information, where available, was used in order to develop an understanding of key metrics, including revenues and trends, expenses and trends, rate structure, revenues versus expenditures, debt service, and reserves.

Analysis of available financial information against the following metrics is as follows.

- Revenues and trends – According to the 2023/2024 sewer fund budget, revenues were mainly sourced from sewer rents, with about 10% from appropriated fund balance.
- Expenses and trends – Expenditures overall increased 11% from 2022/2023, but are not detailed in the materials reviewed. Detailed budget information for the remaining portions of the Village budget was unavailable for review.
- Rate structure – Rates are based on metered water usage. Outside user rates are about 56% greater than inside users. There are 1,593 sewer connections, with about 75% of these connections being residential users. Chapter 67 of the Village code establishes authority for sewer rents, and it provides for large users, as defined in the code, to be changed for O&M and Capital expenditure according to two formulas based on these users' proportionate share of these costs as related to the average daily flow, solids, and BOD they generate and send to the WWTP.
- Revenue versus expenditures – As reflected in the 2023/2024 budget, revenue was about 5% lower than expenditures.
- Debt service - Debt service accounts for about 17% of expenditures.
- Reserves – Sewer fund balance is about 20% of expenditures.
- Sewer use law – Chapter 68 of the Village code is the sewer use law.

### 13.3.2 Other Systems

No private centralized sewer systems exist within the Village of Liberty.

### 13.3.3 Challenges and Opportunities

The age of the Village sewer infrastructure represents a challenge. For example, prior emergency repairs to the Green Lane sewer line have been required, and there is an additional expense and complexity in addressing several thousand additional feet of sewer main with challenging site conditions. In addition, sewer flow increases during wet weather indicate the presence of I&I, and addressing this issue often involves varied types of projects aimed at both the condition of the mains, manholes, and service connections as well as work to disconnect stormwater conveyances (often on private property) from the sanitary system.

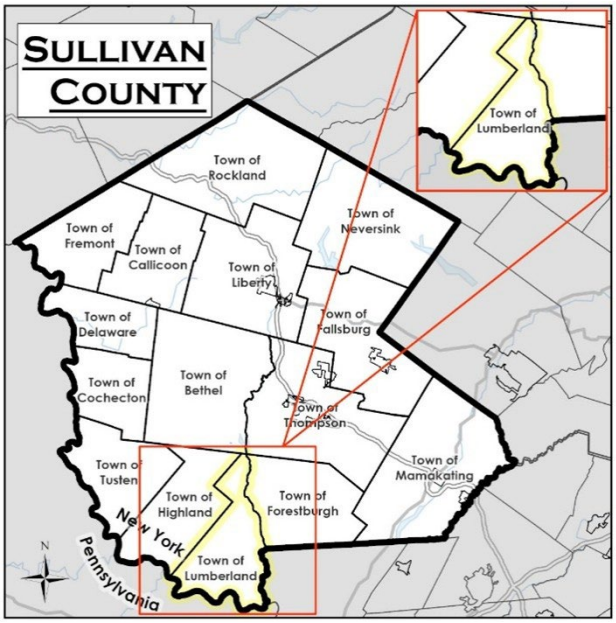
As noted, the Village WWTP SPDES permit was updated, with new standards for what it may discharge to receiving waters. Meeting these new standards will likely involve significant investment in the treatment equipment and processes and/or lower permitted influent limits, potentially lowering capacity. Among the opportunities – already being realized – is the ongoing and expanded collaboration with the Town of Liberty. As noted, there is a substantial planned investment in a key portion of the Village infrastructure – the Days Inn PS – to be undertaken with grant support from NYSESD. In addition to involving capital investment in aging infrastructure, expansion of the user base can help support addressing fixed costs.

## 13.4 Methodology and Sources

In preparing this report, publicly available data were collected and reviewed, along with any additional documentation supplied by a municipal representative, county office, or other authoritative sources. In addition, the project team contacted and interviewed key individuals who have specialized knowledge of their local systems. The following is a list of sources consulted.

- Liberty V/T Infrastructure Master Plan (2025)
- DRBC Water Supply Docket Number D-1965-039 CP-3
- NYS DEC 2023 Water Withdrawal Permit (WWR0000908)
- 2024 Annual Drinking Water Quality Report (NY5203329)
- EPA Detailed Facility Report: Elm Street Treatment Plant
- SPDES Permit Modification (NY0234770)
- SPDES Permit Renewal (4/21/2021)

# 14. TOWN OF LUMBERLAND




## 14.1 Municipal Overview

The Town of Lumberland is located in the southern part of Sullivan County, along the Delaware River, centered along NYS Routes 97 and County Route 42. The Town lies west of Forestburgh and the Orange County Town of Deerpark, east of Highland, South of Bethel, and north of the Pike County, Pennsylvania, Townships of Shohola and Westfall. Its primary Hamlets are the administrative center of Glen Spey, the riverfront communities of Pond Eddy, Handsome Eddy, Knights Eddy, Mongaup, and Upper Mongaup, and the lake communities of Mohican, Champion, DeVenoge, and Lochada.

Additionally, there are several large seasonal camps within the town boundaries. There are no municipal public water or sewer services in Lumberland, and no surrounding systems are proximate to the boundaries of the Town. The 2020 census population was 2,243 people.

The Town lies entirely within the DRBC boundary but entirely outside the NYC watershed boundary.

### 14.1.1 Public Assets

There is a significant amount of publicly owned amenities, spaces, and buildings throughout the Town. Town-owned assets include 31.5 miles of town-owned roadways, the Circle Park, the Pond Eddy Park, the ballfield at Mackenzie Ross Elementary, the Glen Spey Fire Station, Town Hall, Town Justice Court, Town Highway Garage, the Lower Mongaup Cemetery, the Berme Cemetery, the Van Tuyl Hillside Cemetery, the Town Museum, and the Town Senior Center.

Other public amenities include 3,372 acres of NYSDEC property associated with the Rio and Mongaup Falls Reservoirs and the 3.13-acre property along the Delaware River owned by Sullivan County. According to Town officials, stormwater management and drainage have been and continue to be an issue regarding road washouts and culvert replacements.

Hollow Road, in particular, is slowly being repaired; however, the issue will seemingly persist beyond the repairs.

## 14.2 Water Supply and Distribution Inventory & Evaluation

As noted, there are no municipal centralized water supply and distribution systems present in the Town. All water supply is provided by individual on-site facilities or by a private regulated decentralized water system. It is likely that the majority of water supply wells in the Town are completed in bedrock as opposed to unconsolidated formations; according to NYSDEC data, there are no users in the Town with capacity requiring a NYSDEC withdrawal permit.

Based on information available, there are several regulated private public water systems in the Town, but no community water systems. According to NYSDOH records, these systems likely include certain of the aforementioned camps as well as a year-round resort and event center.

The water supply map provides an overview of likely parcels in Town with individual on-site water supply facilities. The parcels highlighted in light green are all the properties that reported using a private well for drinking water, as per the 2023 County assessor records. These parcels account for 51.3%, or 1,541 out of 3,003, of the total parcels within Lumberland.

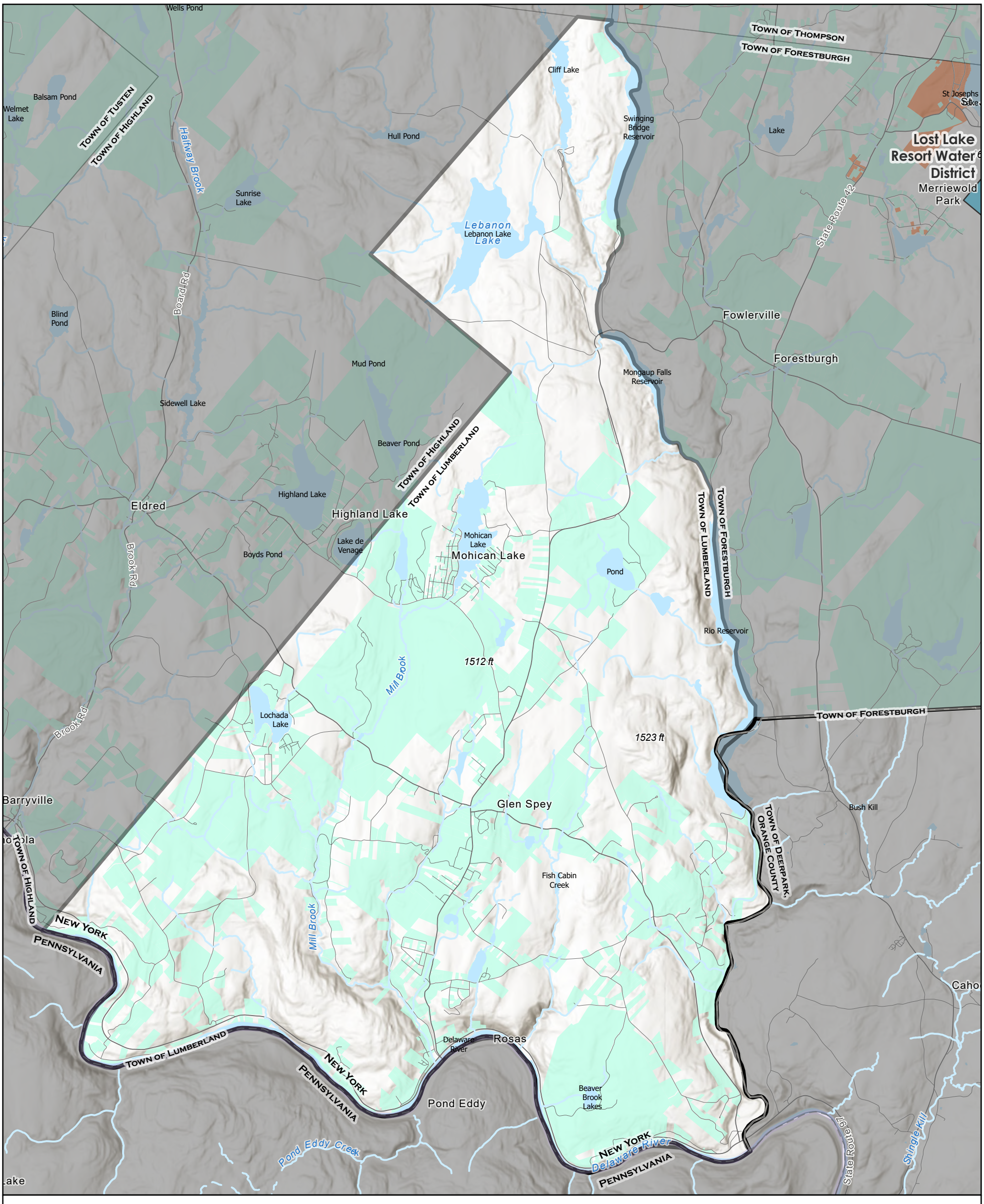
### 14.2.1 Challenges and Opportunities

Water supply in the Town is provided by individual on-site systems or other privately-owned regulated decentralized facilities. The challenges and opportunities associated with these facilities are highly site-specific and beyond the scope of this report. In general, localized conditions, regulatory requirements (e.g., well separation distances and setbacks, which vary by type of use, regulatory classification, potential on-site sources of contamination, water withdrawal capacity, etc.), and private decision-making are the primary challenges in Lumberland. In addition, financing centralized infrastructure can be challenging due to relatively smaller numbers of potential users to be connected.

A challenge with providing municipal water service is that any system is, in most areas, likely to have a small user base and, therefore, the costs of construction and ongoing O&M would be challenging.

# Town of Lumberland Water Facilities Map

## Sullivan County, New York




Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

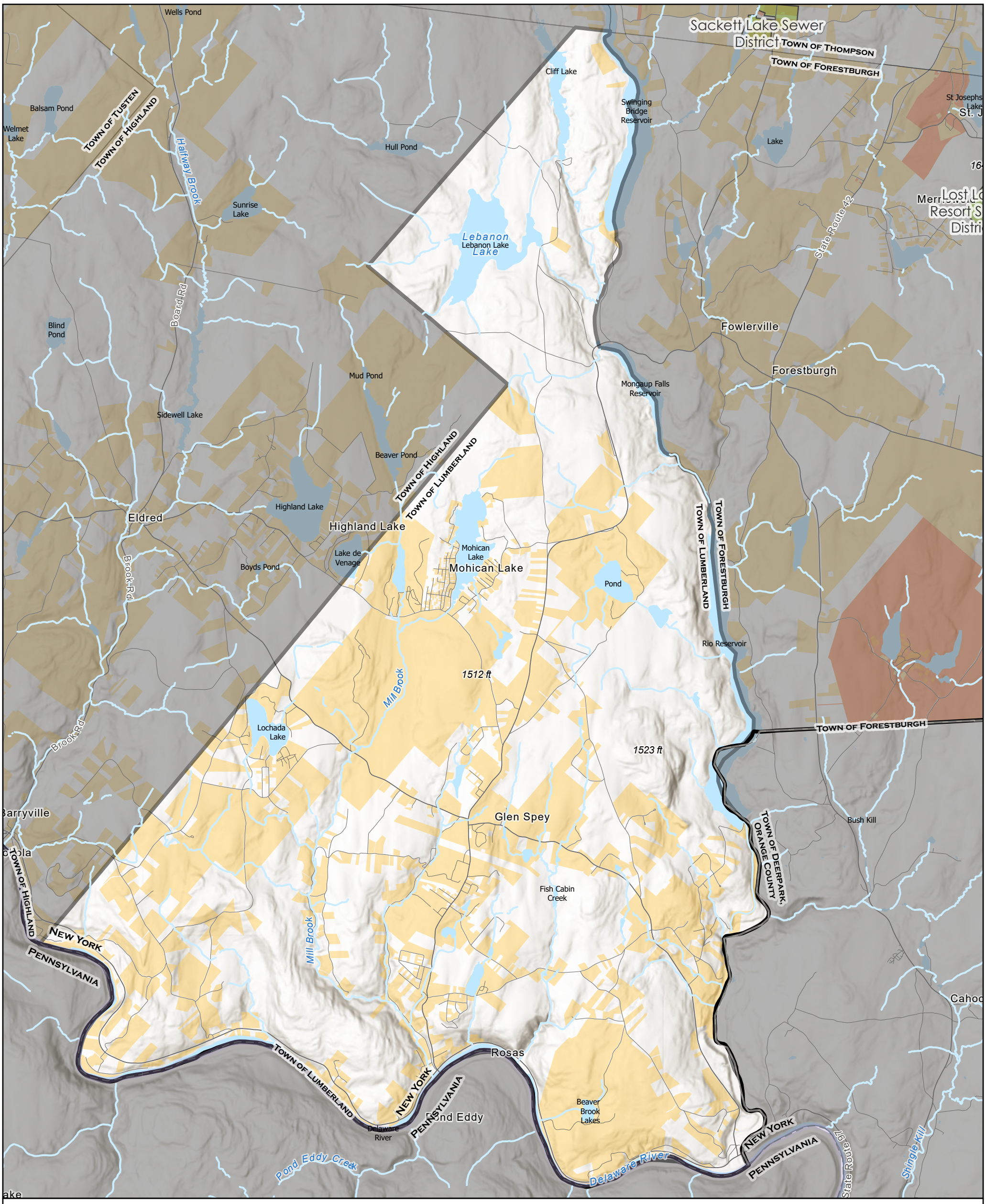
0 0.5 1 2 3 4 Miles

N

- Municipal Water Service Areas
- Centralized or Regulated Decentralized Service
- Individual On-Site Systems
- Delaware River Basin (Entire Town)
- NYC Watershed (Entirely Outside)
- Town Boundary
- Other Municipalities
- Stream
- Waterbody

# Town of Lumberland Wastewater Facilities Map

## Sullivan County, New York




Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

0 0.5 1 2 3 4 Miles

N

- Municipal Sewer Service Areas
- Centralized or Regulated Decentralized Service
- Individual On-Site Systems
- Delaware River Basin (Entire Town)
- NYC Watershed (Entirely Outside)
- Town Boundary
- Other Municipalities
- Stream
- Waterbody

## 14.3 Sanitary Sewer and Wastewater Treatment Inventory & Evaluation

All sewer infrastructure in the Town is either privately owned or part of a private sewer utility. As noted below, many of these systems appear to be associated with several camps located in the Town and, therefore, have relatively larger capacities. Several SPDES permits have been issued or are pending issuance within the Town of Lumberland, including the following:

A permit has been issued for Camp Simcha, which is a large summer camp for kids with cancer, disabilities, & serious illnesses located in Glen Spey. It has an interim flow limit of 17,500 GPD and a final flow limit of 45,000 GPD. The treatment facility discharges to an unnamed tributary of the Delaware River and has been upgraded within the last ten years.

A permit has been issued for renewal of a permit at Morry's Camp involving a system with a facility with a capacity of 17,000 GPD discharging to an unnamed tributary of the Delaware River (C).

Finally, there is a pending permit for modifications to an existing discharge of 15,000 GPD to Lake Metaque, a class B waterbody from a primary treatment plant, as well as 2,240 GPD to groundwater from a primary treatment plant at the Girl Scout Camp. Figure 28 provides an overview of likely parcels in Town with individual on-site wastewater disposal facilities. The parcels highlighted in light orange are all the properties that reported using a private septic system for sewage disposal, as per the 2023 County assessor records. These parcels account for 51.1%, or 1,537 out of 3,003, of the total parcels within Lumberland.

### 14.3.1 Challenges and Opportunities

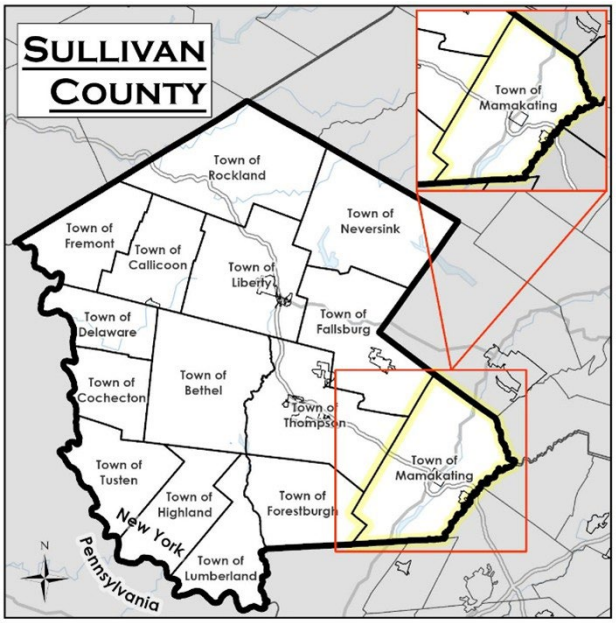
Wastewater management in the Town is provided by individual on-site systems or privately-owned regulated decentralized facilities, some of which appear to serve relatively larger developments or developed areas. While assessment of specific conditions in these areas is beyond the scope of this report, challenges commonly faced with these settlement patterns, especially those areas with a long history of settlement, include individual on-site facilities designed and installed to earlier standards; difficulty obtaining space on lots to comply with contemporary standards (e.g., separation distances); and a more direct connection between septic systems and water bodies, with attendant water quality impacts. In addition, financing centralized infrastructure can be challenging due to relatively smaller numbers of potential users to be connected.

## 14.4 Methodology and Sources

In preparing this report, publicly available data were collected and reviewed, along with any additional documentation supplied by a municipal representative, county office, or other authoritative sources. In addition, the project team contacted and interviewed key individuals who have specialized knowledge of their local systems. The following is a list of sources consulted.

- NYSDEC Department Application Review Tracking (DART) system (accessed October 2025)
- NYSDEC Department Application Review Tracking (DART) system (accessed October 2025)
- Camp Simcha 2015 NYS DEC SPDES Permit Modification (NY0035271)
- Camp Simcha 2022 NYS DEC SPDES Permit (NY0035271)
- Town of Lumberland Comprehensive Plan (2008)

# 15. TOWN OF MAMAKATING




## 15.1 Municipal Overview

The Town of Mamakating is located in the southeastern part of Sullivan County along the Shawangunk Kill, centered along NYS Route 209 and NYS Highway 17W. The Town lies east of the Towns of Fallsburg, Thompson, and Forestburgh; south of the Town of Wawarsing in Ulster County; west of the Towns of Shawangunk, Crawford, and Wallkill in Orange County; and to the north of the Towns of Mount Hope and Deerpark in Orange County. The Villages of Wurtsboro and Bloomingburg both sit completely within the Town's boundary. The primary hamlets within Mamakating include Phillipsport-Summitville, Wurtsboro Hills, Mount Prosper, Yankee Lake, Burlingham, Haven, and Winterton. Additionally, the Hamlets of Westbrookville, New Vernon, and Spring Glen straddle the Town's boundary. The areas of Bloomingburg Village, New Vernon, Burlingham, and Spring Glen, along with Woodridge Village and Mountain Dale in Fallsburg, are the only portions of Sullivan County outside of both the NYCDEP and Delaware River Watersheds.

In the 2020 Decennial Census, the Town had a population of 12,655 people. The Town has an area of 96.2 square miles, making it the largest town in the county by area. It is the third largest municipality in the County by population, after Thompson and Fallsburg. Town, County, and State park and preservation lands account for nearly 25% of the total acreage of the Town. The Town's development pattern is highly decentralized, with the major developments of Wurtsboro Hills, Mountain Lakes Camp, and Yankee Lake having the greatest density outside the villages.

Most of the Town (61%) lies within the DRBC boundary, with the balance situated within the Hudson River Watershed. The Town is entirely outside the NYC watershed boundary.

### 15.1.1 Public Assets

There are a significant number of publicly owned amenities, spaces, and buildings throughout the Town. Town-owned assets include 183.1 miles of town-owned roadway and the following lands and structures:

- Mamakating Town Park
- Central Bark Dog Park
- D&H Canal Linear Park Trail
- Mamakating O&W Rail Trail
- Town Landfill
- 12 Water Supply Parcels associated with Wurtsboro Hills
- Town Highway Garage
- Town Hall and Court
- Bloomingburg Restoration Foundation at the Dutch Reformed Church
- Mamakating Historical Society
- Mamakating Environmental Education and Interpretive Center

Other public amenities, not owned by the Town of Mamakating, include the following properties and structures:

- Wurtsboro Airport
- Bashakill Wildlife Management Area
- Wurtsboro Ridge State Forest
- Roosa Gap State Forest
- Shawangunk Ridge State Forest
- Mamakating Library
- Mamakating First Aid Squad
- Summitville Fire Station
- Bloomingburg Joint Fire Station
- Westbrookville Fire Station
- Wurtsboro Joint Fire Station

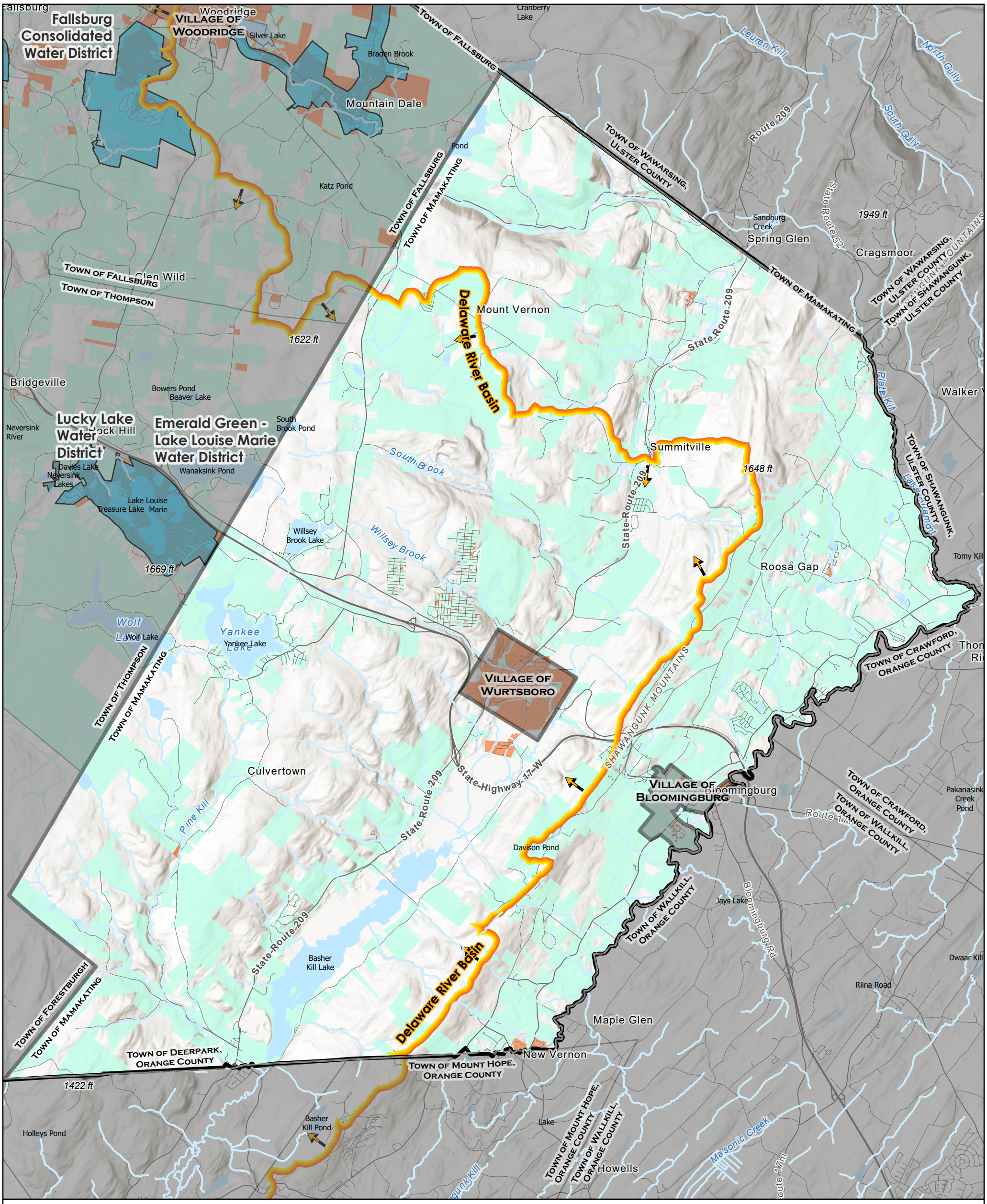
## 15.2 Water Supply and Distribution Inventory & Evaluation

### 15.2.1 Municipal Systems

No centralized municipal water systems exist within the boundaries of the Town of Mamakating, outside of the Village systems, which are confined to their respective boundaries.

### 15.2.2 Other Systems

Water supply in the Town is via privately owned individual on-site wells or is part of a privately-owned, regulated decentralized water supply system. Based on information available, there are several regulated private community water systems in the Town (Table 18). These systems serve a combined estimated population of nearly 2,400 people. There




# Town of Mamakating Water Facilities Map

## Sullivan County, New York

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

0 0.5 1 2 3 4 Miles

N

- Centralized or Regulated Decentralized Service
- Individual On-Site Systems
- Delaware River Basin
- NYC Watershed (Entirely Outside)
- Town Boundary
- Other Municipalities
- Stream
- Waterbody
- Municipal Water Service Areas

are also several systems in the Town that operate at capacities large enough to require a NYSDEC water withdrawal permit.

With regard to systems operating with a NYSDEC water withdrawal permit, the Spring Glen Water Company operates a single shared well for a small community at the north end of the Town. In 2011, the well had an average daily withdrawal of 9,000 gallons, a maximum daily withdrawal of 13,500 gallons, and an average monthly withdrawal of 270,000 gallons. This well is operated by JCO, Inc., and serves approximately 90 people within 34 units in the vicinity of Spring Glen Lake.

The Sullivan Farms II Water Company is a privately held utility that serves the Chestnut Ridge portion of the Village of Bloomingburg. According to officials, the Village desires to incorporate it into a municipal water system. For more information, see the Village of Bloomingburg report's section on Water Supply and Distribution Inventory & Evaluation.

*Table 18. Town of Mamakating regulated private community water systems*

| Water System | Service Area | SDWA # | Population | Connections |
|---|---|---|---|---|
| BLUE SKY MANOR | MHP | NY5201340 | 495 | 210 |
| FLSQ MHP | MHP | NY5214954 | 240 | 80 |
| NEW TWIN LAKES VILLAGE | MHP | NY5201350 | 900 | 259 |
| SPRING GLEN LAKE | Residential | NY5203335 | 68 | 34 |
| WHISPERING PINES COMMUNITY | MHP | NY5201339 | 400 | 169 |
| WHITLOCK FARMS | Residential | NY3503611 | 100 | 33 |

Figure 29 depicts parcels and geographies in the Town that are likely served by individual on-site systems as well as privately-owned regulated decentralized systems. The parcels highlighted in light green are all the properties that reported using a private well for drinking water, as per the 2023 County assessor records. These parcels account for 59%, or 4,470 of 7,575, of the total parcels within Mamakating.

### 15.2.3 Challenges and Opportunities

There is an opportunity in the Town to provide centralized water service, given the proximity to areas served by existing water supply infrastructure. Service providers could include the Village of Bloomingburg, the Village of Wurtsboro, the Town of Thompson, and the various private water supply systems in the Town. With the planned rapid expansion of the Village of Bloomingburg, developing a sufficient water supply is an important factor, and the Town has areas with potentially high-yielding aquifers.

With many of its residents served by privately-owned regulated decentralized water supply systems, a potential challenge lies in the exiting of these private entities from the water supply business. If not acquired by another private entity, municipal ownership of these systems is sometimes sought.

With other residents relying on individual on-site facilities, the challenges and opportunities associated with these facilities are highly site-specific and beyond the scope of this report. In general, localized conditions, any regulatory requirements (e.g., well separation distances and setbacks, which vary by type of use, regulatory classification, potential on-site sources of contamination, water withdrawal capacity, etc.), and private decision-making. In addition, financing centralized infrastructure can be challenging due to relatively smaller numbers of potential users to be connected.

A challenge with providing municipal water service is that any system is, in most areas, likely to have a small user base and, therefore, the costs of construction and ongoing O&M would be challenging.

## 15.3 Sanitary Sewer and Wastewater Treatment Inventory & Evaluation

No centralized municipal sewer systems exist within the boundaries of the Town of Mamakating, outside of the Village of Bloomingburg systems, which do not serve any users outside these boundaries.

### 15.3.1 Other Systems

There are several SPDES permits for existing or proposed privately-owned regulated decentralized wastewater facilities in the Town. Permits with a status of issued are associated with the following facilities:

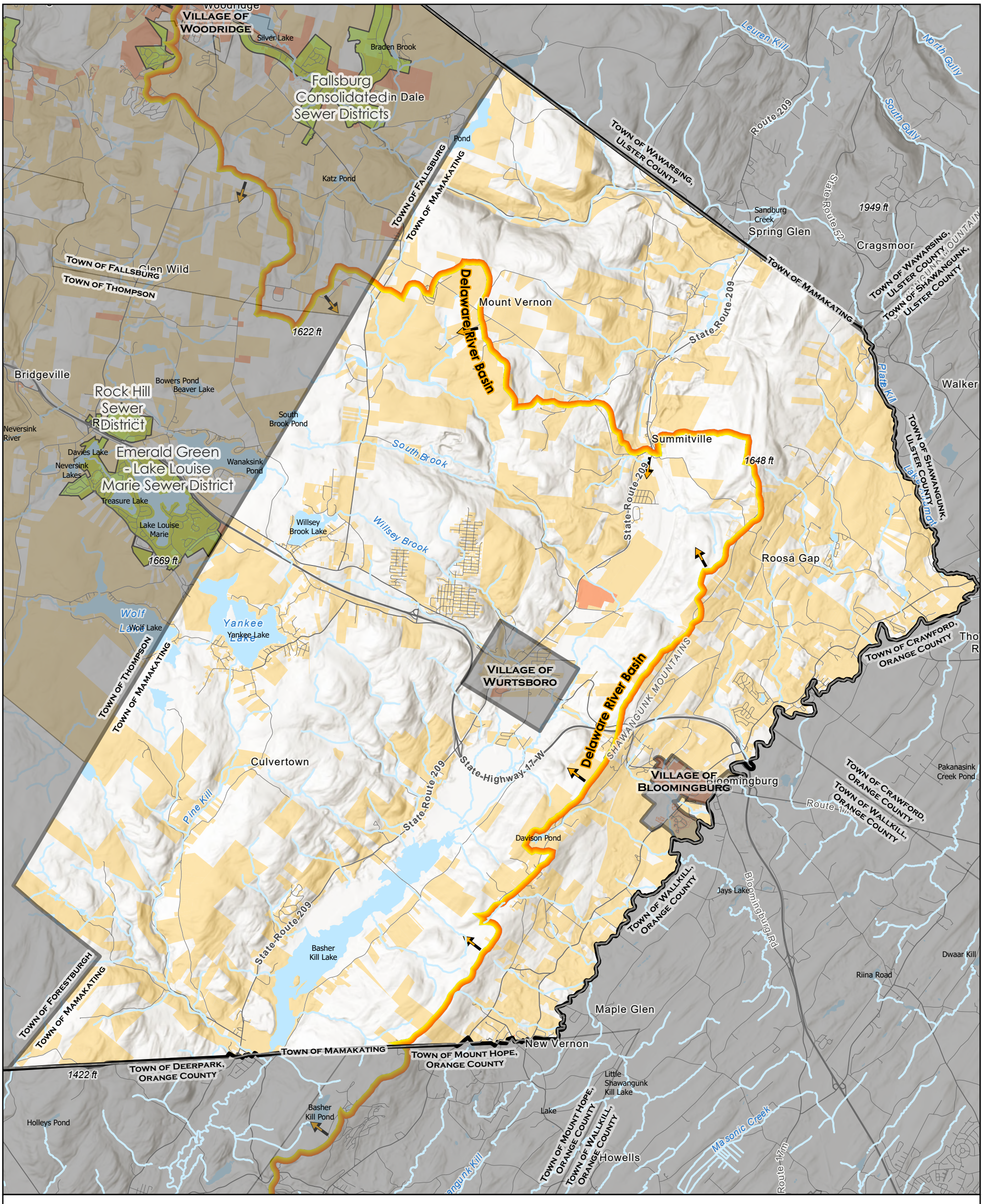
- River Edge Mobile Homes Park WWTP, involving a modification to a permit for a facility with a discharge to surface waters;
- Camp Kaylie at Ohel, involving renewal of a permit for a facility with a capacity of 26,000 GPD and a discharge to groundwater; and
- Camp Nitra for renewal of a permit for a facility with a capacity of 15,000 GPD and a discharge to groundwater.

There are several SPDES permits with statuses other than issued within the Town:

- Mountain Crest Mobile Home Park Inc for reauthorization of a permit involving a facility with a capacity of 24,000 GPD and a discharge to surface waters;

# Town of Mamakating Wastewater Facilities Map

## Sullivan County, New York




Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

0 0.5 1 2 3 4 Miles

N

- Centralized or Regulated Decentralized Service
- Individual On-Site Systems
- Delaware River Basin
- NYC Watershed (Entirely Outside)
- Town Boundary
- Other Municipalities
- Stream
- Waterbody
- Municipal Sewer Service Areas

- Village Green Mobile Home Park for renewal of a permit for a facility with a discharge to groundwater; and
- Senior Horizons at Wurtsboro for reauthorization of a lapsed permit involving a facility with a discharge to surface waters.

Finally, the proposed Yukiguni Maitake mushroom production facility's approved sewer treatment plant has a permit involving discharge to groundwater adjacent to the Basher Kill through three outfalls. The wastewater discharged through outfall 001 is sanitary waste, the discharge through outfall 002 is a combination of process water and boiler blowdown, and the discharge through the third outfall, labeled 005, is geothermal byproduct. While Yukiguni Maitake never launched operations, its local assets were acquired by BE-ECI, LLC, for the operation of an indoor agriculture complex. The company has renewed the discharge permit since 2017 and received approval in April of 2025 to begin development.

Figure 30 provides the likely areas served in the Town by individual on-site wastewater disposal facilities as per the 2023 County assessor's records. These parcels are shaded in light yellow. These parcels account for 61.2%, or 4,638 of 7,575, of the total parcels within Mamakating.

### 15.3.2 Challenges and Opportunities

Proximity to existing municipal sewer systems (Village of Bloomingburg and Emerald Green – Lake Louis Marie in Thompson), in general, provides an opportunity to leverage existing facilities where service may be desired in the Town.

While assessment of specific conditions in the more densely settled areas of the Town that are not served by centralized wastewater systems is beyond the scope of this report, challenges commonly faced with these settlement patterns, especially those areas with a long history of settlement, include individual on-site facilities designed and installed to earlier standards; difficulty obtaining space on lots to comply with contemporary standards (e.g., separation distances); and a more direct connection between septic systems and water bodies, with attendant water quality impacts. In addition, financing centralized infrastructure can be challenging due to relatively smaller numbers of potential users to be connected.

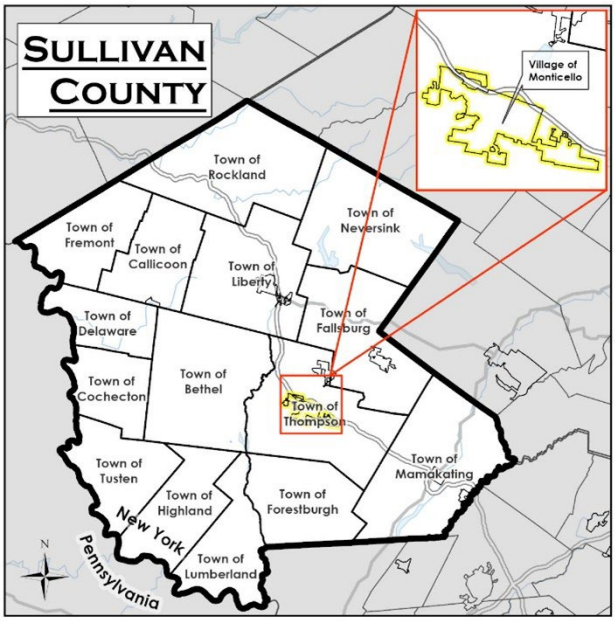
## 15.4 Methodology and Sources

In preparing this report, publicly available data were collected and reviewed, along with any additional documentation supplied by a municipal representative, county office, or other authoritative sources. In addition, the project team contacted and interviewed key

individuals who have specialized knowledge of their local systems. The following is a list of sources consulted.

- Mamakating Comprehensive Plan
- Spring Glen Water Co. 2011 Water Withdrawal Permit (WWR0001462)
- Sullivan Farms II 2023 Water Withdrawal Permit (WWR0002019)
- Wurtsboro Village 2023 Water Withdrawal Permit (WWR0001748)
- Yukiguni Maitake 2009 NYS SPDES Permit (NY0264903)
- Yukiguni Maitake 2014 NYS SPDES Permit Renewal (NY0264903)
- Village of Bloomingburg 2025 NYS SPDES Permit Renewal (NY0208426)
- Village of Bloomingburg 2015 NYS SPDES Permit (NY0208426)
- NYSDEC Department Application Review Tracking (DART) system (accessed October 2025)
- DRBC Water Supply Docket Number D-2003-026-2 (Yukiguni Maitake)
- DRBC Water Supply Docket Number D-1994-025 Cp-3 (Wurtsboro)
- EPA Community Water System Detailed Facility Report: Blue Sky Manor
- EPA Community Water System Detailed Facility Report: Wurtsboro Village
- EPA Community Water System Detailed Facility Report: Deerpark Manor
- EPA Community Water System Detailed Facility Report: New Twin Lakes Village
- EPA Community Water System Detailed Facility Report: Whispering Pines Community
- EPA Community Water System Detailed Facility Report: Whitelock Farms
- EPA Community Water System Detailed Facility Report: Spring Glen Water Co.

# 16. VILLAGE OF MONTICELLO




## 16.1 Municipal Overview

The Village of Monticello is situated in the center of the Town of Thompson, at the intersection of New York State Routes 17 and 42. The Village's 2,618 acres contain a population of 7,173 as estimated by the 2020 Decennial Census. The Village's population rises each year with seasonal residents and camp operations. The Village possesses a diverse array of building and housing types.

The Village provides municipal water and sewer service. The largest users within the Village include the Monticello Raceway, County Office Buildings, and the High School. The areas lying outside of the Village that are directly tied to the water and sewer systems are the areas in the Town of Thompson encompassed by the Cold Spring Road, the Dillon Farm, and the Adelaar water and sewer districts. The largest users outside the Village are all located within the Adelaar District and include Resorts World Casino, Monster Golf Club, and Kartrite Resort and Water Park.

The Village lies entirely within the DRBC boundary but entirely outside the NYC watershed boundary.

## 16.2 Water Supply and Distribution Inventory & Evaluation

### 16.2.1 Municipal Systems

The Village owns and operates a municipal water system serving residential, commercial, and industrial properties within and surrounding Monticello. NYSDEC water withdrawal permit information is summarized below.

# Village of Monticello Water Facilities Map

## Sullivan County, New York

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

0 0.25 0.5 1 1.5 2 Miles

N

- Village Water Service Area
- Municipal Water Service Areas
- Centralized or Regulated Decentralized Service
- Individual On-Site Systems
- Delaware River Basin (Entire Village)
- NYC Watershed (Entirely Outside)
- Village Boundary
- Stream
- Waterbody

*Table 19. Village of Monticello water withdrawal permit information (all figures in GPD)*

| Water System | Component | Max Rate (GPD) | Average Daily w/d | Peak Day w/d | NYSDEC Permitted w/d | DRBC Permitted w/d |
|---|---|---|---|---|---|---|
| **Village of Monticello** | Kiamesha Lake | 2,880,000 | 1,271,516 | 1,822,123 | 2,900,000 | 2,430,000 |
| | Well #1 | 432,000 | | | | |
| | Well #2 | 432,000 | | | | |
| | Well #3 | 360,000 | | | | |

#### *16.2.1.1 System Components Inventory and Overview*

In 2023, the distribution system consisted of 50 miles of pipe serving a population of 9,500 with 2,040 connections and 2,124 metered accounts. The system receives its water from surface water (Kiamesha Lake) and three municipal groundwater wells. Although permitted for a higher withdrawal, the Village water operators limit withdrawals from the Kiamesha Lake source to 2.0 MGD during the summer and 1.53 MGD throughout the rest of the year, according to the Village's Engineer.

Due to federal surface water treatment rules requiring filtration, the water from the lake goes through a treatment process that includes coagulation, filtration, disinfection, PH adjustment, and corrosion control treatment. The treated water enters the distribution system and fills the two water tanks in the Village. The water from the wells goes through the same process, except it does not have a coagulation process.

The well field water production is variable, with an average of 40,000-80,000 GPD in 2022 and an average under 35,000 GPD in 2023. The maximum pumping was measured at 276,000 GPD in 2019; however, the pump is regularly limited to between 100,000 and 200,000 GPD due to operational circumstances. Therefore, only one-third of the well field's potential is currently being utilized.

With respect to the distribution system, Waverly Avenue, Edward Avenue, Route 42, and East Broadway are areas with a history of more frequent water main breaks. As part of the Resorts World Catskills Casino project, for which the Village provides water supply, the existing 0.5 MG water storage tank located on West Broadway was recently replaced with a new 2.5 MG water storage tank.

According to the 2024 AWQR, the Town reported no violations or exceedances based on contaminant testing.

#### *16.2.1.2 Recent/Future Upgrades*

The Kiamesha Lake source has been a recent focus for upgrades. A new intake line from the lake to the plant was installed in 2023. In 2023, the Village Engineer recommended upgrading the well piping and/or well pumps to allow for an increase of flows into the distribution system of up to an additional 600,000 GPD. The flows have been approaching the 1.53 MGD permitted limit but are still below the 2.0 MGD summer limit, according to the engineer's report.

The Village Engineer recommended that, in order to accommodate current and future development, the plant's year-round capacity be increased to 2.0 MGD to accommodate the 110,000 GPD increase from permitted future developments and the 162,000 GPD from land development projects currently pending approval. This increase, plus a doubling of the well-field production, which is possible, according to the Village Engineer, would constitute a total potential capacity of 2.6 MGD. Well-field planned engineering analysis includes well evaluations and repairs, and also conducts the relevant hydraulic analysis of the piping network to further improve production capacity in the well field. Moreover, the Village's Water Superintendent stated that the water treatment plant needs capital investment. The Village has USDA grant funding available and engineering plans for a new facility, though there remain additional steps to implement this project.

In 2023, the Village completed the lead and copper monitoring required under their reduced schedule, through NYSDOH, whereas they must complete a minimum of 20 residential distribution system sampling sites every 3 years.

According to the 2024 AWQR, about 52% of water produced was sold to customers, while the remainder was accounted for through filter backwashing, hydrant flushing, firefighting, municipal buildings, and system losses.

#### *16.2.1.3 Finances and Administration*

As part of the data collection process, information about system finances and budgeting was requested and researched from publicly available sources; local codes governing system administration and use were also reviewed, where publicly available. This information, where available, was used in order to develop an understanding of key metrics, including revenues and trends, expenses and trends, rate structure, revenues versus expenditures, debt service, and reserves.

Analysis of available financial information against the following metrics is as follows.

- Rate structure – Users are charged per 100 cubic feet. Outside-Village rates are 100% higher than inside-Village rates. There also appear to be minimum rates established for seasonal users.
- Water use law – Chapter 256 of the Village code is the water use law.

Detailed budget and other information were unavailable for review at the time of writing with respect to revenues and trends, expenses and trends, revenues versus expenditures, debt service, and reserves.

### 16.2.2 Other Systems

No private centralized water systems exist within the Village, and there are no facilities with capacity requiring a NYSDEC water withdrawal permit.

### 16.2.3 Challenges and Opportunities

The Village has made investments in parts of the Kiamesha Lake source system, but additional investments in the WTP are needed. Production from the Village's Park Street well complex has been uneven and lower than what yield testing has indicated may be possible. Based on information supplied by the Village Engineer, it is likely that significant additional demands placed on the system, such as those caused by land development, will require investments in the development of additional supply capacity. With respect to land development, this represents an opportunity to broaden the user base and spread of fixed costs, as well as partnering with those proposing projects to offset the cost of providing additional services. The proportion of water produced that is unaccounted for via metered sales or other tracking mechanisms is also a challenge.

## 16.3 Sanitary Sewer and Wastewater Treatment Inventory & Evaluation

### 16.3.1 Municipal Systems

#### *16.3.1.1 System Components Inventory and Overview*

The Village's WWTP, located on the east end of the Village, near the Sullivan County Landfill, was originally constructed over 50 years ago and last upgraded in 2016. The plant discharges to Tannery Brook (Class C) and has a permitted flow of 3.1 MGD. The most recent permit renewal document was unavailable for review. The previous permit was issued in 2016 and expired in 2020. It should be noted that, upon application to NYSDEC, certain SPDES permits, including for wastewater systems, can be renewed under the NY State Administrative Procedures Act (so-called "SAPA extensions"), and this has likely

# Village of Monticello Wastewater Facilities Map

## Sullivan County, New York

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

0 0.25 0.5 1 1.5 2 Miles

N

- Village Wastewater Service Areas
- Municipal Sewer Service Areas
- Centralized or Regulated Decentralized Service
- Individual On-Site Systems
- Delaware River Basin (Entire Village)
- NYC Watershed (Entirely Outside)
- Village Boundary
- Stream
- Waterbody

occurred for this permit. Peak inflows during rain or snowmelt are between 4.5 and 6 MGD, while average summer flows are approximately 2.2 MGD. The WWTP received a rank of 249 and a score of 105 in NYSDEC's EBPS system, which indicates that the WWTP lies in the middle of priority for NYSDEC's full technical review. The score components are based on the age of the existing SPDES permit and the time since the facility last submitted a long-form permit application, together with required comprehensive effluent sampling. In general, the higher the EBPS rank, the more likely it is that the permit for this facility will undergo a full technical review by NYSDEC in the near future.

The collection system consists of approximately 30 miles of gravity and force mains of various diameters with 9 pump stations, 14 flow meters, and approximately 730 manholes. Nearly 100 manholes were shown to need repair or replacement in the Village's 2011 inventory. Upgrading the 40-60-year-old pump stations is a priority for the Village; this is followed by the replacement of all force mains throughout the system.

#### *16.3.1.2 Recent/Future Upgrades*

The WWTP received extensive process and equipment upgrades in 2016. The system was upgraded to a sequencing batch reactor with a fine bubble aeration system able to meet stricter regulations for the removal of biochemical oxygen demand (BOD), total suspended solids (TSS), and nutrients from nitrates and phosphates. Variable frequency drives were added to the plant to keep pumping costs to a minimum by ensuring that they only operate when demanded. A new belt press was installed, which presses sludge to 20% solids and reduces the cost and energy to haul off the water component of the waste. A fine screen was added to remove rags and wipes to ensure that no materials will get caught in the pumps. Ineffective sludge handling has been corrected, significantly improving dewatering of sludge and reducing offsite hauling. New processes have also decreased overall electrical usage and the cost of operations and maintenance.

Officials report no other upgrades or projects are planned at this time.

#### *16.3.1.3 Finances and Administration*

As part of the data collection process, information about system finances and budgeting was requested and researched from publicly available sources; local codes governing system administration and use were also reviewed, where publicly available. This information, where available, was used in order to develop an understanding of key metrics, including revenues and trends, expenses and trends, rate structure, revenues versus expenditures, debt service, and reserves.

Analysis of available financial information against the following metrics is as follows.

- Rate structure – Sewer rents are a combination of capital fees determined based on assessed value and usage fees determined by water usage.
- Sewer use law - Chapter 206 of the Village code is the sewer use law.

Detailed budget and other information were unavailable for review at the time of writing with respect to revenues and trends, expenses and trends, revenues versus expenditures, debt service, and reserves.

### 16.3.2 Other Systems

No private centralized sewer systems exist in the Village.

### 16.3.3 Challenges and Opportunities

The conveyance system is understood to need investment due to component life-cycle issues, including the repair or replacement of approximately 15% of the manholes in the system, as well as investment in the pump stations and forcemains, which are reaching the end of their useful life. As noted above, a Village priority has been addressing pump stations and forcemains.

In addition to the conveyance system, it also appears that, in addition to pump stations, forcemains, and manholes, gravity mains and associated connections are in a condition such that I&I is a concern. Given that the system does not combine storm and sanitary flows, it is more likely that the age of the system, coupled with materials of construction, exacerbates I&I.

One proposed land development project located on the east side of the Village has been presented in concept form to the Planning Board. This proposal involves a residential development of about 1,000 dwelling units with an estimated wastewater flow of 300,000 GPD. The Village is requesting that the project construct its own sewer treatment plant for the Village to operate at the site to avoid substantial upgrade costs for expanding the Village's pumping and piping infrastructure. The presence of I&I and limited capacity in the existing pressure mains may, depending on specific siting, involve investments in the conveyance system in order to support land development activities that involve an increase in flow to the Village system.

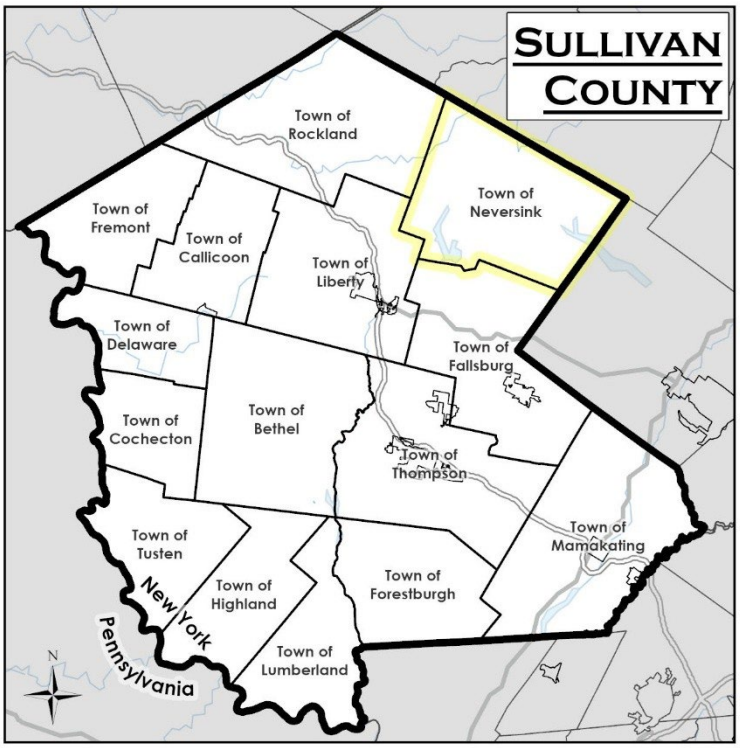
## 16.4 Methodology and Sources

In preparing this report, publicly available data were collected and reviewed, along with any additional documentation supplied by a municipal representative, county office, or other authoritative sources. In addition, the project team contacted and interviewed key

individuals who have specialized knowledge of their local systems. The following is a list of sources consulted.

- Village of Monticello Annual Water Quality Report (AWQR) 2024 (NY5203337)
- 2025 Village Engineer's Status Report
- 2010-2023 Water Withdrawal Permit WWR0001029 Reports
- 2013 SPDES Permit Modification
- 2015 SPDES Permit Renewal
- Sewer Fieldwork Map from Sewer Department
- Sewer Improvements Map from Sewer Department
- Water Distribution Map from Water Department
- Sewer Pump Station Reports from Sewer Department

# 17. TOWN OF NEVERSINK




## 17.1 Municipal Overview

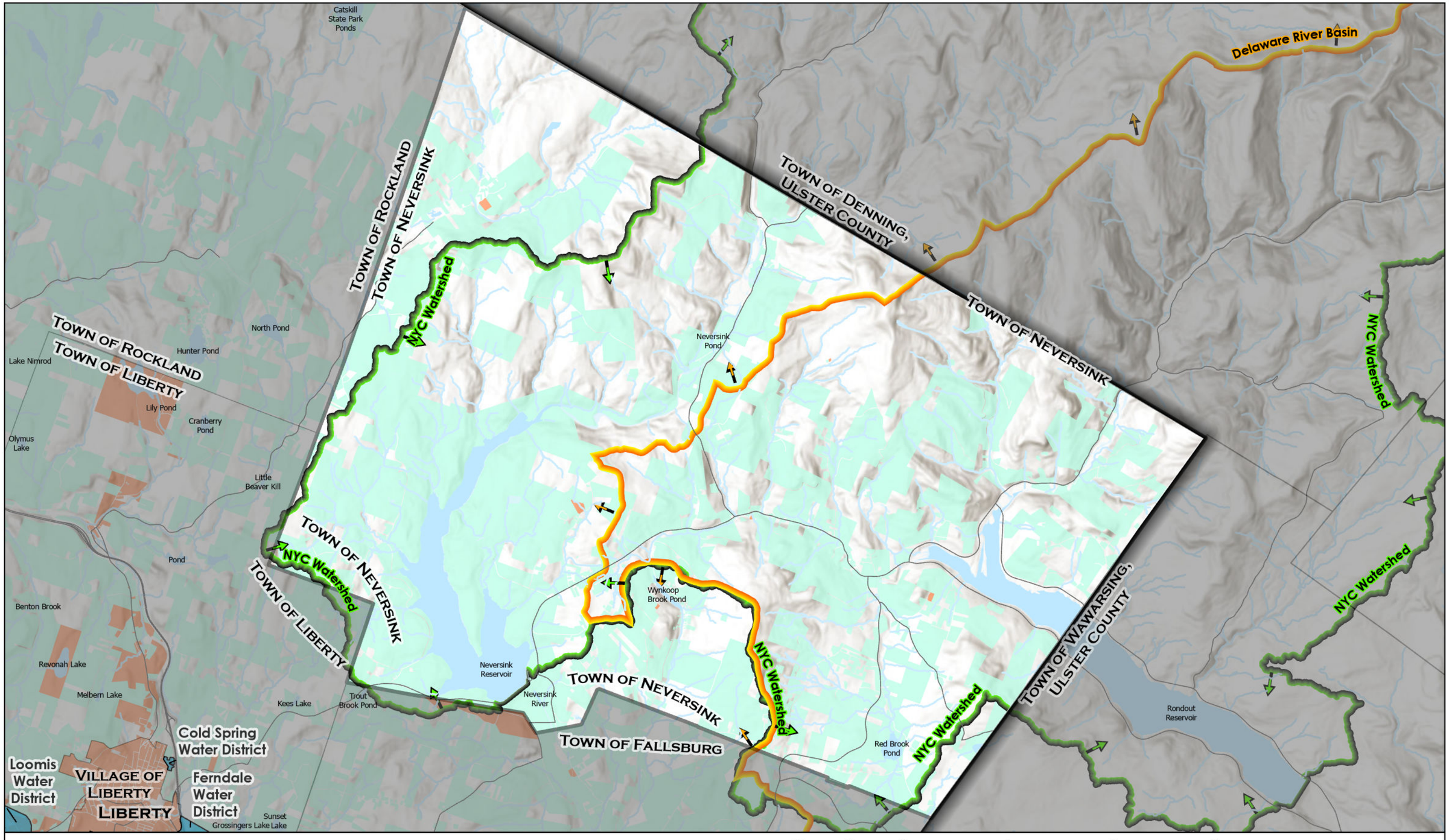
The Town of Neversink, in the northeastern portion of Sullivan County, is a welcoming, scenic, and tight-knit community of 3,366 people (according to the 2020 decennial census) consists of vast woodlands interrupted by small farms and hamlets within narrow valleys hugging the southern slopes of the Catskill Plateau and the banks of the Neversink River, Chestnut Creek, Rondout and Neversink Reservoirs, and numerous small streams and brooks. The primary hamlets of the Town include Grahamsville, Neversink, Curry, Unionville, Willowemoc, Claryville, Aden, and Bradley.

There is one centralized sewer system in Neversink, centered around the WWTP in the Hamlet of Grahamsville. From Grahamsville, the district stretches west for 3.2 miles along NYS Route 55 through the Hamlets of Unionville and Curry, south along NYS Route 42 for 2.25 miles, and to the northeast along Route 55, Route 55A, and Rocky Hill Road for 1.6 miles. The Claryville-Neversink Septic Maintenance District was also created to cover all properties along Claryville Road outside the sewer collection district in order to assist with certain costs and installations.

The Town is the only municipality in the County that lies partially within the DRBC boundary, partially within the NYC watershed boundary, and partially within the Catskill Park.

## 17.2 Water Supply and Distribution Inventory & Evaluation

The Town does not operate a municipal water system. Water supply is provided through a combination of private individual on-site facilities and regulated decentralized water systems managed by private operators. It is noted that several water withdrawal permits associated with the City of




# Town of Neversink Water Facilities Map

## Sullivan County, New York

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

0 1 2 4 6 8 Miles

N

- Municipal Water Service Areas
- Centralized or Regulated Decentralized Service
- Individual On-Site Systems
- Delaware River Basin
- NYC Watershed
- Town Boundary
- Other Municipalities
- Stream
- Waterbody

New York water supply system are tied, for administrative purposes, to the City of New York DEP's Grahamsville office address.

### 17.2.1 Other Systems

Based on information available, there are several regulated private public water systems in the Town. The Neversink Mobile Home Park operates a community water system serving its residents (Table 20). The Neversink River Campground and General Store operate regulated water systems, which are only operational during a portion of the year, although these are not community water systems.

*Table 20. Town of Neversink regulated private community water systems*

| Water System | Service Area | SDWA # | Population | Connections |
|---|---|---|---|---|
| NEVERSINK MHP | MHP | NY5201443 | 18 | N/A |

### 17.2.2 Challenges and Opportunities

Water supply in the Town is provided by individual on-site systems or privately-owned regulated decentralized facilities. The challenges and opportunities associated with these facilities are highly site-specific and beyond the scope of this report. In general, localized conditions, any regulatory requirements (e.g., well separation distances and setbacks, which vary by type of use, regulatory classification, potential on-site sources of contamination, water withdrawal capacity, etc.), and private decision-making. In addition, financing centralized infrastructure can be challenging due to relatively smaller numbers of potential users to be connected. A challenge with providing municipal water service is that any system is, in most areas, likely to have a small user base and, therefore, costs of construction and ongoing O&M would be challenging.

## 17.3 Sanitary Sewer and Wastewater Treatment Inventory & Evaluation

### 17.3.1 Municipal Systems

The City of New York owns and operates the Grahamsville WWTP and its collection and conveyance system. The Town is involved to the extent that it has adopted a sewer use law and sewer district to support the provision of sewer service to the Grahamsville area. In addition, the Town entered into an agreement with the Catskill Watershed Corporation to participate in the Community Wastewater Management Program, which, with financial support received pursuant to regulation of the City of New York's drinking water system,

# Town of Neversink Wastewater Facilities Map

## Sullivan County, New York

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

Municipal Sewer Service Areas
Centralized or Regulated Decentralized Service
Individual On-Site Systems

Delaware River Basin
NYC Watershed
Town Boundary

Other Municipalities
Stream
Waterbody

0 1 2 4 6 8 Miles

N

provided for the design and construction of a wastewater management program project for certain residential individual on-site septic systems located in the Town.

#### *17.3.1.1 System Components Inventory and Overview*

Grahamsville Sewer District No. 1 serves approximately 800 residents on 305 parcels, with 136 service connections, in an area of 556.5 acres. The WWTP is permitted to discharge 180,000 GPD into Chestnut Creek, a Class A trout stream. The WWTP and collection and conveyance system are owned and operated by the City of New York and are intended to support management of its water supply system. The Town has formed a sewer district in order to support the provision of this service.

According to NYSDEC's EBPS, this facility received a rank of 299 and a score of 72. The score components are based on the age of the existing SPDES permit and time since the last time the facility submitted a long-form permit application, together with required comprehensive effluent sampling. In general, the higher the EBPS rank, the more likely it is that the permit for this facility will undergo a full technical review by NYSDEC in the near future.

Some areas of the Town, outside of the sewer collection district, fall within the Claryville-Neversink Septic Maintenance District. This utility was formed by the Town in the late 2010s with financial support from the City of New York. The 62 properties along Claryville Road outside of the sewer district make up the maintenance district. Properties rely on individual on-site septic systems for wastewater collection and treatment. The district provides guidelines and maintenance requirements to ensure these systems function effectively to protect the Town's environmental quality. Properties within this district are eligible for septic maintenance services such as inspections, pumping, and repairs. The Town Board, on behalf of the district, oversees operations and appropriations of the district.

In accordance with Article X, Section 36-1003 of the Town Code, the District is responsible for the operation and maintenance of the existing septic systems (commencing at the septic tank) located within the Septic Maintenance District. The District will develop a maintenance schedule for each conventional septic system to be inspected and pumped out on a periodic basis. Alternative systems may be inspected more frequently as deemed necessary by the Town Board. These costs are covered by the District but are limited to domestic systems only. The District's responsibility is to maintain, repair, or replace existing septic systems, contingent on the availability of funds.

#### *17.3.1.2 Recent/Future Upgrades*

In 2019, the Town and the City of New York addressed exposed sewer lines due to erosion through a stream crossing improvement project. This project evaluated and reinforced 18 stream crossing locations over Chestnut Creek to prevent pollution and recover ecological conditions within and surrounding the streams (Hazen and Sawyer Grahamsville Stream Crossing Improvements Evaluation). This project resulted in the incorporation of hard and bio-engineered features to stabilize the channel and provide aquatic and riparian ecological uplift. Restoration designs included retrofitting existing stream structures, installing in-stream structures, maintenance of debris and sediment in the channel, and stabilizing the banks through riparian plantings and the relocation of sewers outside of the streams. The new design has removed fish barriers by providing a deeper channel and eddies.

In 2011, the City of New York made significant upgrades to the Grahamsville WWTP. These upgrades included the replacement of the chlorine disinfection process with a UV disinfection process. Safety improvements were made with the installation of a propane shutoff valve and fire/gas detection systems. It is stated within the Sewer Use Law that strategic planning is necessary to manage capacity and evaluate potential service area expansions.

Finally, construction of 3,400 linear feet of sewer extension was completed in 2009. This involved approximately 100 more connections made to the system, with an additional 40,000 gallons of sewage being processed daily at the WWTP.

#### *17.3.1.3 Finances and Administration*

As part of the data collection process, information about system finances and budgeting was requested and researched from publicly available sources; local codes governing system administration and use were also reviewed, where publicly available. This information, where available, was used in order to develop an understanding of key metrics, including revenues and trends, expenses and trends, rate structure, revenues versus expenditures, debt service, and reserves.

Analysis of available financial information against the following metrics is as follows.

- Revenues and trends – No revenue for the sewer district was realized or anticipated through real property taxes, interest, or earnings in 2024 or 2025. $202,985.24 was realized through interest and earnings in 2023 for the community wastewater district.

- Expenses and trends - With all employees under the jurisdiction of the NYC DEP, the Town budgeted for $2,000 in 2025 for administration and $3,000 for collection services.
- Rate structure - All district users are provided sewer collection services without charge, and the financial obligations of the Town of Neversink for the sewer system are small.
- Revenue versus expenditures – The City of New York operates and maintains the municipal sewer system serving Grahamsville.
- Debt service – The City of New York operates and maintains the municipal sewer system serving Grahamsville.
- Reserves – The repair, replacement, and maintenance of the septic systems were funded by the City part to create a District fund. The income earned each year from the fund is to be used for repair, replacement, and maintenance of the septic systems within the District
- Sewer use law – Chapter 36 of the Town code is the sewer use law.

The City of New York operates and maintains the municipal sewer system serving Grahamsville; detailed budget and other information from the owner was unavailable for review at the time of writing.

### 17.3.2 Other Systems

The City of New York-owned Hydroelectric Facility on the Rondout Reservoir is designed to treat water flowing through its processes and does not accept sanitary waste from other users. This WWTP has a SPDES permit to discharge to the reservoir. The permit addresses pH, lead, and oil and grease components of discharge effluent. No private centralized sewer systems are currently operating within the Town.

### 17.3.3 Challenges and Opportunities

The presence of the City of New York -owned centralized sewer infrastructure in the Town is an opportunity to provide Town residents and businesses with this service, for which local costs are very low. The sewer use law provides provisions for extending this system, designed to ensure capacity, continued system operations, and compatibility of infrastructure design. Among the challenges is that the Town must rely on another entity for the provision of these services. This is mirrored in the Town's formation of the septic maintenance district, where the regulation and protective measures associated with the

City of New York drinking water supply facilitate the provision of assistance to owners of private, individual on-site residential septic systems.

Areas outside of the Grahamsville sewer service area rely on individual on-site wastewater facilities. While assessment of specific conditions in these areas is beyond the scope of this report, challenges commonly faced include individual on-site facilities designed and installed to earlier standards; difficulty obtaining space on lots to comply with contemporary standards (e.g., separation distances); and a more direct connection between septic systems and water bodies, with attendant water quality impacts. In addition, financing centralized infrastructure can be challenging due to relatively smaller numbers of potential users to be connected.

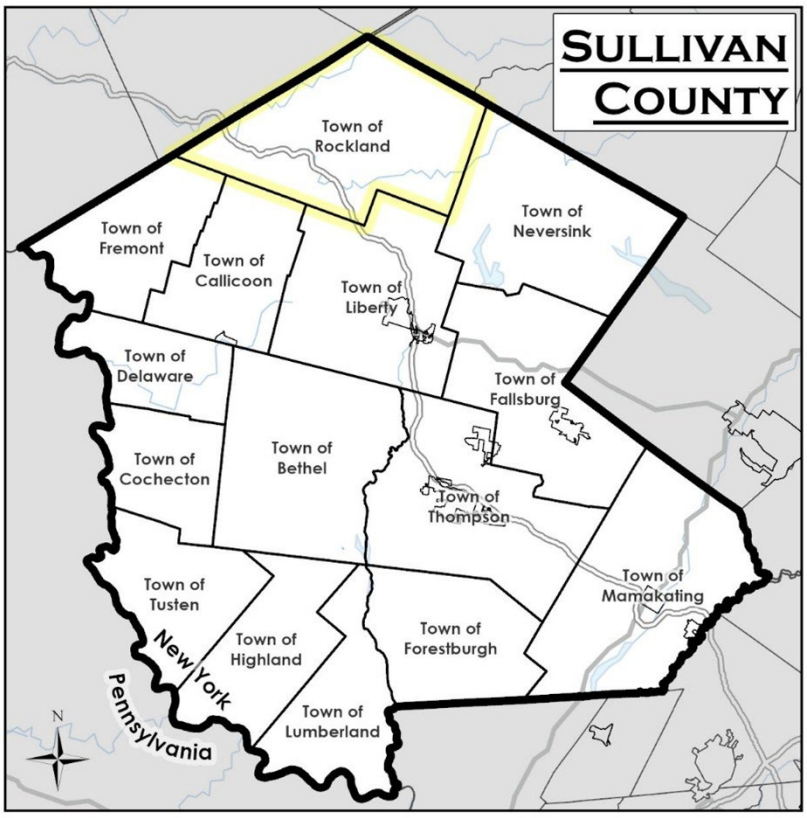
## 17.4 Methodology and Sources

In preparing this report, publicly available data were collected and reviewed, along with any additional documentation supplied by a municipal representative, county office, or other authoritative sources. In addition, the project team contacted and interviewed key individuals who have specialized knowledge of their local systems. The following is a list of sources consulted.

- EPA Community water system Service Area Boundaries (accessed September 2025)
- EPA Community Water System Service Area Boundaries (accessed September 2025)
- 2025 Town of Neversink Budget
- 2010 Sewer Service Area Sewer District Extensions Drawing
- 2019 Collection System Overall Plan View Drawing
- 2003 Grahamsville Hydroelectric Facility SPDES Permit (NY0264784)
- 2018 Grahamsville Hydroelectric Facility SPDES Permit Renewal (NY0264784)
- 2024 Grahamsville Hydroelectric Facility SPDES Permit Renewal (NY0264784)
- 2002 Neversink East Delaware Tunnel Outlet SPDES Permit (NY0264687)
- 2012 Neversink East Delaware Tunnel Outlet SPDES Permit Renewal (NY0264687)
- 2017 Neversink East Delaware Tunnel Outlet SPDES Permit Renewal (NY0264687)
- 2018 NYCDEP Grahamsville WWTP SPDES Permit Modification (NY0026549)

- 2021 NYCDEP Grahamsville WWTP SPDES Permit Renewal (NY0026549)
- EPA Community Water System Detailed Facility Report: Frost Valley YMCA – UV Horse Barn

# 18. TOWN OF ROCKLAND




## 18.1 Municipal Overview

The Town of Rockland, in northern Sullivan County, is situated along the borders of Delaware and Ulster Counties. Rockland is a community of small farms within multiple river valleys winding around the mountainous terrain of the southern Catskills. The Town borders the Towns of Fremont, Callicoon, and Liberty to the south and the Town of Neversink to the east. It also borders the Towns of Denning and Hardenburgh in Ulster County and the Town of Colchester in Delaware County.

The hamlets of the Town include Anderson, Beaverkill, Craigie Clair, DeBruce, Deckertown, Grooville, Hazel, Joscelyn, Lew Beach, Livingston Manor, Morsston, Parkston, Rockland, and Roscoe. The Hamlets of Roscoe and Livingston Manor are substantial commercial centers, and account for approximately 50% of the Town's population, while the other locations throughout the Town are more rural and residential. At the decennial census of 2020, the Town had an estimated population of 3,290 within an area of 95.27 square miles. The Town provides municipal water and sewer service in two areas, Roscoe and Livingston Manor.

The Town lies entirely within the DRBC boundary, partially within the Catskill Park, but entirely outside the NYC watershed boundary.

## 18.2 Water Supply and Distribution Inventory & Evaluation

### 18.2.1 Municipal Systems

The Town provides municipal water service within the hamlets of Roscoe and Livingston Manor. These systems are separate and not connected.

#### *18.2.1.1 System Components Inventory and Overview*

This section presents an overview of the infrastructure serving the Town's two municipal water systems.

##### *18.2.1.1.1 Roscoe-Rockland Water System*

The system provides water to approximately 500 people and businesses through 275 service connections. The water system also provides fire protection to the community. The Roscoe-Rockland service area is composed of two separate, unconnected systems supplied by two discrete well fields.

*Table 21. Town of Rockland water withdrawal permit information, Roscoe System (all figures in GPD)*

| Water System | Component | Max Rate (GPD) | Average Daily w/d | Peak Day w/d | NYSDEC Permitted w/d | DRBC Permitted w/d |
|---|---|---|---|---|---|---|
| Roscoe-Rockland | Well #1 | 288,000 | 66,768 | 157,399 | 288,000 | 294,000 |
| | Well #2 | 288,000 | | | | |
| Tennanah Lake Road | Well #3 | | 509 | 3600 | <100,000 | <100,000 |
| | Well #4 | | | | | |

The water system was initially created in 1963 as a surface water-sourced system but was later converted to a groundwater-sourced system. The system currently utilizes Well 2, which has a capacity of 200 gallons per minute. The well is located off of Rockland Road, at the northern end of the hamlet area. Well 1 is also located on this site but is no longer active An extension of this portion of the Roscoe-Rockland Water System incorporated Riverside Drive via the development of a new main associated with the redevelopment of the Stewart Brook Road Bridge.

More recently, service was provided along Tennanah Lake Road but was not tied into the rest of the Roscoe-Rockland water distribution system and utilizes a separate water treatment facility. The infrastructure of this service area consists of roughly one-half mile of water main along Tennanah Lake Road, a water operations and treatment building located off of Tennanah Lake Road, and nine additional service connections. The water source is

# Town of Rockland Water Facilities Map

## Sullivan County, New York

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

Municipal Water Service Areas
Centralized or Regulated Decentralized Service
Individual On-Site Systems

Delaware River Basin (Entire Town)
NYC Watershed (Entirely Outside)
Town Boundary

Other Municipalities
Stream
Waterbody

0 1 2 4 6 8 Miles

N

Wells 3 and 4. Although not connected to the initially constructed service area, the Roscoe-Rockland water district was extended to encompass this new service area.

The Rockland-Roscoe water system has a total of 275 service connections, with 260 active users, approximately 25% of whom are commercial users. The District's historic water usage is summarized below. There are no out-of-district users connected to the water system. Additionally, the hamlets do not have contracts with third-party water suppliers, and there are no system users with contractual agreements for rates and charges that are not accessible to the general public.

The active well, supplying the system, pumps to an adjacent water treatment plant, which is located on the same parcel. The treatment process includes the addition of chemicals for disinfection and corrosion control. A pressure tank within the building provides chlorine contact time. From the chlorine tank, finished water is pumped to the distribution system, which consists of approximately 27,000 linear feet of mains with valves, hydrants, and service connections. According to officials, the pump/treatment facilities are in serviceable condition and require no major upgrades. The system is permitted by DRBC to withdraw up to about 294,000 GPD.

The wells and treatment facility are situated on a 1.6-acre parcel owned by the Town, located at the northern end of the hamlet. To protect the water source, the Town has established an Aquifer Protection Overlay (APO) district, which includes the unconsolidated groundwater aquifer and portions of the contributing drainage area. Additionally, there is a Watershed Protection Overlay (WPO) district, established under the Town's zoning law, which encompasses the remaining land contributing surface water runoff to the unconsolidated aquifer within the APO. This zoning regulation explicitly prohibits certain uses and practices that could cause contamination of the aquifer and imposes institutional controls and restrictions on others.

The water storage system consists of a 500,000-gallon glass-lined steel tank located off NYS Route 206 on a half-acre parcel owned by the Town. The tank was installed in the 1990s, and the system pressure within the hamlet is approximately 80 psi. A pressure transducer, situated in a pit near the tank, employs wireless telemetry to communicate the tank level to the Water Treatment Facility, which activates the well pumps as needed.

According to the 2024 AWQR, the Town reports no violations or exceedances based on contaminant testing.

*18.2.1.1.2 Livingston Manor Water System*

The Town of Rockland also owns and operates the water supply and distribution system for the Livingston Manor Water District and its service area. The system provides water to approximately 850 residents and businesses through approximately 475 service connections. The water system also provides fire protection to the community.

About 20% of the service connections are commercial users. The DRBC docket lists a permitted withdrawal of up to about 395,000 GPD (12.0 mgm). There are no outside users connected to the water system.

*Table 22. Town of Rockland water withdrawal permit information, Livingston Manor system (all figures in GPD)*

| Water System | Component | Max Rate | Average Daily w/d | Peak Day w/d | NYSDEC Permitted w/d | DRBC Permitted w/d |
|---|---|---|---|---|---|---|
| **Livingston Manor** | Well #1 | 792,000 | 203,482 | 489,230 | 800,000 | 394,520 |
| | Well #2 | 792,000 | | | | |

When the DRBC docket was first approved in 1963, the water system had as its source Matawa Lake, located in the hills southeast of the hamlet. Presently, the water supply is served by two drilled wells, each with a capacity of 550 GPM. The treatment facility and both wells are located in the same general vicinity, southeast of the former Livingston Manor airport. Finished water is pumped to a 500,000-gallon welded steel tank. A radio telemetry system relays the tank level to the water treatment facility. The water distribution system consists of approximately 9 miles of water main, valves, hydrants, and services. The source, treatment, and end users are all metered. Treatment includes the addition of a polyphosphate (ESC-532), which serves as a manganese sequestrant /corrosion control agent, and sodium hypochlorite for disinfection prior to entering a 25,000± gallon concrete contact tank. Caustic soda is injected for pH adjustment just prior to exiting the treatment facility. Both the wells and the water treatment facility (WTF) are in serviceable condition, and the finished water consistently meets all water quality standards and quantity requirements.

From the WTF, the water is pumped to a 500,000-gallon welded steel water tank located in the southwest of the hamlet just off High Street. The water tank was constructed at an elevation of 1,543 feet, and some residential property owners in the water district have needed to install booster pumps to obtain adequate pressure. A pressure transducer is located in a pit just off the tank and is connected to a radio communication system, which

relays the tank level to the water treatment facility and serves as a basis for activating the well pumps.

The water system has approximately 9 miles of water distribution main (primarily DI, C, AC, HDPE, and PVC) with associated valves, hydrants, and services. Most of this piping is original to construction (75+ yrs est.). The water system provides fire protection to the community. Water usage is metered at each service connection.

The water system is generally in good repair. The most pressing issues are with the water storage and distribution system. Finished water is stored in a more than 50-year-old, 500,000-gallon welded steel water tank. The tank, which has exceeded its useful life, is rusting, actively leaking, and has been ordered to be repaired or replaced by the NYSDOH. In addition, the tank elevation does not provide sufficient head to attain the desired pressure throughout the hamlet, particularly the area north of the Willowemoc, where pressures are lower. The proposed project will relocate a new water tank to a higher elevation just upgradient of the existing tank.

One challenge is the large volume of water loss. Water audits indicate a substantial amount (up to 70%) of unaccounted-for water, much of which is believed to be lost in the more than 70-year-old distribution network. Finally, officials believe that a relatively high percentage of the unaccounted-for water is due to failing water meters, which are reported to have exceeded their useful life and require replacement.

According to the 2024 AWQR, the Town reported no violations or exceedances based on contaminant testing.

#### *18.2.1.2 Recent/Future Upgrades*

##### *18.2.1.2.1 Roscoe-Rockland System*

The NYSDOH has cited the water system for lacking redundancy of water sources. This situation has persisted since Well 1 was taken out of service due to its failure to meet water quality standards, with elevated manganese and magnesium levels. Additionally, raw water produced by Well 2 has tested at double the recommended level for manganese, which can negatively impact the infrastructure as well as public health. The Town is seeking to develop additional redundant water supplies.

Most of the system's piping is still from the original construction of the distribution system. The Town has been actively conducting leak detection investigations due to extreme losses throughout the system. Most recently, the Town funded a system evaluation to support funding applications for the upgrades. Based on the comparison between the amount of finished water produced and the metered usage, nearly 70% of the water produced is being

lost via leaks and infiltration. A primary goal of the Town is to reduce the volume of unaccounted-for water.

The Town has planned or identified the need for several projects. One project would involve replacing up to 6,000 linear feet of water main (about 13% of the distribution network), with a second phase involving replacement of as much of the distribution network as is economically feasible at the time of construction. In addition, an 8-inch water main, which spans 400 feet across Willowemoc Creek, has become exposed due to erosion and needs to be reburied beneath the stream bed. As well, while all service connections within the distribution system are metered, most are approaching the end of their useful life and need to be replaced. The Town was recently awarded a $572,000 grant from NYSEFC to replace the old meters with new energy-efficient smart water meters in both Roscoe and Livingston Manor. Finally, development of new sources (groundwater wells), maintenance of the storage tank, and construction of a new treatment building have all been identified as planned projects.

#### *18.2.1.2.2 Livingston Manor System*

The Town has been conducting ongoing leak detection investigations in this system as well. Based on the amount of finished water produced versus metered usage, it appears that up to 70% of the water is lost in the distribution system, and a primary goal of this project is to reduce the volume of unaccounted-for water.

The water tank is well over 50 years old and is quickly approaching the end of its useful life. A NYSDOH 2023 inspection flagged issues with corrosion in the foundation of the tank, and it needs to be replaced. Additionally, the watermain at the tank is also in need of replacement. These upgrades will serve to address low water pressure in some segments of the system. The Town funded an evaluation of the system in 2023 to support funding applications for these necessary upgrades.

The majority of the water meters are over 20 years old and approaching the end of their useful life, and need to be replaced. The Town was recently awarded a $572,000 grant from NYSEFC to replace the old meters with new energy-efficient smart water meters in both Roscoe and Livingston Manor. Finally, adding a backup power source at the water treatment facility has been identified as a needed project. In 2025, the Town was awarded a GIGP grant from NYSEFC for $500,000 to support the replacement of the meters for both districts.

### *18.2.1.3 Finances and Administration*

As part of the data collection process, information about system finances and budgeting was requested and researched from publicly available sources; local codes governing

system administration and use were also reviewed, where publicly available. This information, where available, was used in order to develop an understanding of key metrics, including: revenues and trends, expenses and trends, rate structure, revenues versus expenditures, debt service, and reserves.

Analysis of available financial information against the following metrics is as follows.

- Revenues and trends – For the Roscoe-Rockland system, the largest increase in revenues over 2024 and 2025 was associated with an additional 6.4% from metered sales. Interest/penalties, interest earned, and service and miscellaneous charges were either flat or saw small changes. In the Livingston Manor system, the largest increase in revenues over those two years was associated with an additional 29.1% from metered sales. Interest earned increased, and interest/penalties increased by slightly, while service and miscellaneous charges remained unchanged.
- Expenses and trends – For the Roscoe-Rockland system, 2023, 2024, and 2025. Between those years, the total budget appropriation increased by 6%, with increases in source of supply/power costs, purification costs, and administration costs. The cost of transmission/distribution decreased by 30%, while the cost of benefits decreased by 8.9% and the reserve remained constant. In the Livingston Manor system, total budget appropriation increased by 29.3%, with the increase associated with administration costs, purification costs, source of supply/power, and the transmission/distribution by. The cost of benefits fell by 5.7%, while reserve costs remained constant. In 2024, water service was about 8% of the Town's appropriations.
- Rate structure – Rates consists of capital charge based on assessed value and O&M charges based on metered water usage.
- Revenue versus expenditures – Review of recent budgets indicates that revenues generally equal expenditures.
- Debt service – No debt is carried in the water districts.
- Reserves – The Town has created a reserve line in each district for contractual expenditures.
- Water use law – Chapter 180 of the Town code is the water use law.

### 18.2.2 Other Systems

A water system serving the Catskill State Fish Hatchery is located in the Town and has capacity large enough to require a NYSDEC water withdrawal permit. It is one of twelve such hatcheries around NYS operated by NYSDEC, which provide fish for both recreation and conservation purposes. The facility is located at 402 Mongaup Road, Livingston Manor, near the hamlet of DeBruce. The facility withdraws water from Toad Spring, Mongaup Creek, Henry Brook, and three wells with an average of 3,880,000 GPD and a permitted maximum of 5,300,000 GPD. Based on information available, one regulated private community water system exists in the Town (Table 23).

*Table 23. Town of Rockland regulated private community water systems*

| Water System | Service Area | SDWA # | Population | Connections |
|---|---|---|---|---|
| SUN VALLEY MOBILE HOME PARK | MHP | NY5201351 | 54 | 19 |

### 18.2.3 Challenges and Opportunities

With respect to the municipal water systems, among the challenges is equipment that, given its age, has reached the end of its useful life and requires replacement or other investments in order to maintain proper service. The age of the infrastructure supporting both municipal water supply systems also is likely related to the loss of substantial amounts of finished water. Age and need of replacement of water meters is also a challenge that will soon be addressed. In the Town's Roscoe-Rockland system, another challenge relates to the need to develop additional sources of water supply, due to Well 1 having been taken out of service.

## 18.3 Sanitary Sewer and Wastewater Treatment Inventory & Evaluation

### 18.3.1 Municipal Systems

This section presents an overview of the infrastructure of the Town's two municipal sewer systems.

#### *18.3.1.1 System Components Inventory and Overview*

The Town owns and operates two independent sewer systems serving the hamlets of Roscoe and Livingston Manor.

##### *18.3.1.1.1 Roscoe Sewer System*

This system serves an area encompassed by the Roscoe Sewer Collection District. There are approximately 276 developed parcels out of 316 parcels within this district. All

# Town of Rockland Wastewater Facilities Map

## Sullivan County, New York

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

- Municipal Sewer Service Areas
- Centralized or Regulated Decentralized Service
- Individual On-Site Systems
- Delaware River Basin (Entire Town)
- NYC Watershed (Entirely Outside)
- Town Boundary
- Other Municipalities
- Stream
- Waterbody

0 1 2 4 6 8 Miles

N

wastewater flows generated within the district are non-industrial, and no hauled waste is accepted into the system. Additionally, there are no outside district users connected to the system.

The WWTP is located off Old Route 17, approximately one mile outside of the service areas, and discharges into the Beaverkill Kill (a Class C Trout Stream). The SPDES permit was last renewed on January 1, 2021, and will expire on December 31, 2025. In July 2025, the NYSDEC published a notice indicating that the agency intends to renew the permit administratively, maintaining the current SPDES permit effluent limitations and monitoring and report requirements.

The WWTP was constructed in 1986 for the treatment of up to 200,000 GPD of residential and commercial wastewater. According to the Disinfection Report of 2020, the average annual flow was 0.065 MGD, which has remained unchanged since 2013, according to a 2015 Engineering Report. The WWTP continues to operate below its effluent limit with an average in 2024 of 0.069 MGD.

According to NYSDEC's EBPS, this facility received a rank of 127 and a score of 27. The score components are based on the age of the existing SPDES permit and the time since the last time the facility submitted a long-form permit application, together with required comprehensive effluent sampling. In general, the higher the EBPS rank, the more likely it is that the permit for this facility will undergo a full technical review by NYSDEC in the near future. In 2025, the Town received a NOV from NYSDEC for a clarifier being out of service which sustained a complete failure. The Town is pursuing emergency loan funding from NYSEFC to support replacement and are commencing a plant-wide evaluation to support the need for further upgrades.

*18.3.1.1.2 Livingston Manor Sewer System*

The Livingston Manor WWTP and collection system serves an area encompassed by the Rockland-Livingston Manor Sewer Collection District. The WWTP is located on Covered Bridge Road, approximately one mile outside of the sewer district, and discharges into the Willowemoc Creek, a C(TS) stream. The most recent SPDES permit expired in 2019.

The original WWTP was constructed in 1967 and expanded in 1977 with a permitted flow of 800,000 GPD. In 1987, four new sludge drying beds were constructed adjacent to the trickling filter, which was converted to a sludge holding tank. With the closure of Manor Poultry in 1996, permitted flows were also reduced by 50% of the permitted capacity. The sewer collection system consists of approximately 13 miles of 8" and 10" gravity sewer mains, along with two (2) pump stations that convey wastewater to a pump station on the east side of Cover Bridge Road adjacent to the WWTP.

The WWTP is operated at less than the design capacity for most of the year and officials do not expect significant increases in flow to the facility in the foreseeable future.

According to NYSDEC's EBPS, this facility received a rank of 315 and a score of 65. The score components are based on age of the existing SPDES permit and time since the last time the facility submitted a long form permit application together with required comprehensive effluent sampling. In general, the higher the EBPS rank, the more likely it is that the permit for this facility will undergo a full technical review by NYSDEC in the near future.

#### *18.3.1.2 Recent/Future Upgrades*

##### *18.3.1.2.1 Roscoe Sewer System*

In 2019, the Town upgraded the influent pump station and installed new screening/grit systems. More recently, chlorination treatment was added adjacent to the settling tanks. In September of 2025, the WWTP was cited by the NYSDEC for only having one functional secondary clarifier. The other secondary clarifier had been continually out of service due to parts breaking. The Town has been awarded Emergency Funding by NYSEFC to support that work. The Town intends to seek funding for a comprehensive plant upgrade at Roscoe WWTP in 2025. Also in 2025, the Town reconstructed a sewer pump station on Rockland Road.

##### *18.3.1.2.2 Livingston Manor Sewer System*

The STP was upgraded in 2017 to convert the treatment process to SBR technology and to accommodate the average daily treatment of 400,000 GPD of residential and commercial wastewater. The average daily flow for 2018 was 0.291 MGD. The 2017 upgrades included the influent pump station, two SBR units, flow equalization basin, pump chamber, post aeration tank, stormwater pump chamber; two aerobic digesters with sludge pumps, sludge holding tank, four sludge drying beds, air blowers, and an operations building with generator. In 2025, a sewer pump station was reconstruction on Old Route 17.

#### *18.3.1.3 Finances and Administration*

As part of the data collection process, information about system finances and budgeting was requested and researched from publicly available sources; local codes governing system administration and use were also reviewed, where publicly available. This information, where available, was used in order to develop an understanding of key metrics, including: revenues and trends, expenses and trends, rate structure, revenues versus expenditures, debt service, and reserves.

Analysis of available financial information against the following metrics is as follows.

- Revenues and trends – In the Roscoe System, the total estimated revenues increased by 3.4% between 2023 and 2025, with most of the increase associated with the miscellaneous budget line and increases in sewer rents; there were also relatively smaller increases in interest earned and interest/penalties. In the Livingston Manor System, the total estimated revenues increased by 18.3% between 2023 and 2025, nearly all of which was attributable to sewer rents. Revenues from interest/penalties and miscellaneous revenues also increased.

- Expenses and trends – In the Roscoe System, between 2023, 2024, and 2025years, the total budget appropriation increased by 1.8%, with the largest increase associated with collection costs at 34%. An additional 18.2% was associated with increase in administration costs. Appropriation reductions were achieved through a combined decrease of 9.2% in benefits, treatment, and other costs, with reserve costs remaining unchanged. In the Livingston Manor System, between 2023, 2024, and 2025, the total budget appropriation increased by 11.2%, with the largest increase associated with treatment costs at 36.4%. Additional appropriations were associated with a 21.3% increase in collection costs and a 17.2% increase in administration costs. Appropriation reductions were achieved through a decrease of 9.2% in benefits and 0.5% in other costs, with reserve costs remaining unchanged.
- Rate structure – In both systems, all parcels within the respective sewer district are charged a flat rate for existing debt from the construction of a secondary treatment plant, pump station, force main, and gravity sewer lines. The charge has two components: 50% is based on assessed value, and 50% is based on water usage. Parcels with connections are charged quarterly based on water use. Where unmetered, the Town has enacted a schedule of uses, based on one-family dwelling units being assigned typical daily consumption of 250 gallons. The Town has also enacted surcharges to offset increased O&M due to elevated BOD and suspended solids.
- Revenue versus expenditures – In the both systems, between 2023 and 2025, revenues were generally less than appropriations.
- Debt service – Each system carries debt. For Livingston Manor, debt is 34% of appropriations; for Roscoe, 29% of appropriations.
- Reserves – Both systems have a reserves line labeled “contractual” in the 2025 budget.

- Sewer use law – Chapter 143 of the Town code is the sewer use law.

### 18.3.2 Other Systems

As noted above, within the Town is located the Catskill State Fish Hatchery, which operates a wastewater treatment system serving the facility Its average flow into the Mongaup Creek is 10,420 GPD. The facility's WWTP outfalls to Mongaup Creek and discharges to groundwater. Process water is discharged to the creek and there are also permitted discharges to groundwater of 10,120 GPD for the hatchery and 300 GPD for an associated residence.

In addition, there are several SPSDES permits involving existing or proposed privately-owned regulated decentralized wastewater facilities in the Town:

- Camp Ruach Chaim for reauthorization of a lapsed permit involving a facility with a discharge to surface waters;
- Rockland House for renewal of a facility with a discharge to groundwater; and
- Camp Eureka for renewal of a facility with a discharge to groundwater.

### 18.3.3 Challenges and Opportunities

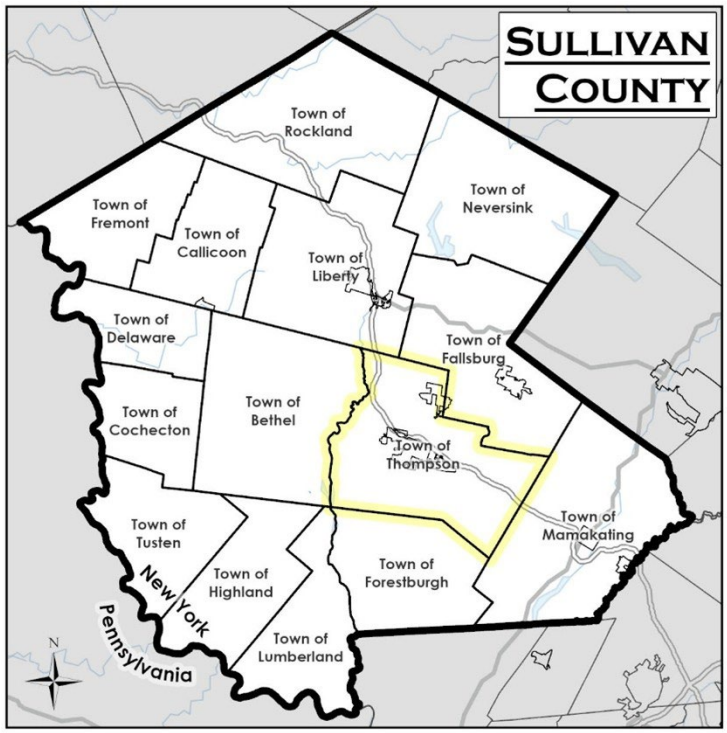
The Livingston Manor system was designed to accommodate an industrial user (poultry processing facility) which ceased operations in 1996. While the Town hasn't received many applications for the development of new commercial/industrial facilities within the sewer district in many years, the Planning Board recently granted site plan approval for the construction of a small-scale sake brewery with associated lodging and restaurants. Due to the size of the proposed facility, the WWTP is not expected to receive significantly higher flow or biological loading in the foreseeable future, but the wastewater will be monitored to determine if pre-treatment may be necessary at some point in the future. At the same time, the spare capacity can be viewed as an opportunity to support new users or economic investment in the Town.

## 18.4 Methodology and Sources

In preparing this report, publicly available data were collected and reviewed, along with any additional documentation supplied by a municipal representative, county office, or other authoritative sources. In addition, the project team contacted and interviewed key individuals who have specialized knowledge of their local systems. The following is a list of sources consulted.

- Roscoe Annual Water Quality Report (AWQR) 2024 (NY5203340)
- Livingston Manor Annual Water Quality Report (AWQR) 2024 (NY5203330)
- NYSDEC Environmental Benefit Permit Strategy (EBPS) 2025 Rankings
- NYSDEC Department Application Review Tracking (DART) system (accessed October 2025)
- EPA Community water system Service Area Boundaries (accessed September 2025)

# 19. TOWN OF THOMPSON




## 19.1 Municipal Overview

The Town of Thompson is located in the southeast portion of Sullivan County, in an area considered to be part of the Mid-Hudson Region as well as a gateway to the Catskill Mountain Region of New York State. According to the US Census, Thompson has the largest population of any town in Sullivan County, with an estimated 16,614 full-time residents as of 2023. Situated along Interstate I-86 (also known as NY-17), Thompson is strategically located as a place with easy access for seasonal second homeowners and year-round residents commuting to nearby employment centers.

With 812 businesses and over 10,000 people employed, Thompson is also an economic center and driver for Sullivan County. There are several commercial clusters in the town. Commercial activities include resort/entertainment businesses, restaurants and cafes, retail, offices, medical facilities, and religious and government buildings. Industrial clusters in Thompson include extractive industries/material suppliers and logistics.

The Town owns and operates both centralized water and sewer systems. While the majority of the areas served by this infrastructure involve Town-owned water and sewer supply and treatment systems, parts of the Town adjacent to the Village of Monticello, including the Resorts World Catskills casino, are ultimately provided water supply and wastewater treatment by the Village of Monticello. In addition, a number of other areas in the Town are served by privately-owned systems.

The Town lies almost entirely within the DRBC boundary but entirely outside the NYC watershed boundary.

## 19.2 Water Supply and Distribution Inventory & Evaluation

### 19.2.1 Municipal Systems

The Town provides municipal water service within five water districts: the Route 42 Water District, Cold Spring Water District, Dillon Farms Water District, Melody Lake Water District, and Lucky Lake Water District. The Town's systems serve residential, commercial, and industrial properties within and surrounding the Town.

#### *19.2.1.1 System Components Inventory and Overview*

##### *19.2.1.1.1 Adelaar Resort Water District*

This system serves Resorts World Catskills. The first phase of the development includes a casino and hotel. The water supply source for the system is the Village of Monticello. Average and maximum water demands provided by the Village for all four phases of the Adelaar Resort development project are 0.393 MGD and 0.795 MGD, respectively. The infrastructure was installed with support from the Sullivan County Infrastructure Local Development Corporation and is owned and operated by the Town, pursuant to Public Infrastructure Services Agreement. According to the 2022 AWQR, the Town reported no violations or exceedances based on contaminant testing.

##### *19.2.1.1.2 Route 42 Water District*

Route 42 Water District encompasses the main commercial hub of the Town just north of the Village of Monticello. The population served by the Route 42 Water District was estimated to be 200. This system is supplied by the Kiamesha Artesian Spring Water Company, Inc., (KASWC). KASWC is a privately-owned company supplying water to an estimated 450+ residential and commercial users in the Town of Thompson and the Village of Ateres.

According to water withdrawal reporting and DRBC docket information, the system KASWC operates has a NYSDEC permitted withdrawal of 550,000 GPD and consists of a combination of surface water and groundwater sources. The well at the filtration plant is reported to have been developed prior to 1900. The WTP was constructed in 1962, and the original storage tank dates to the 1960s (with a newer tank built in 1989). The plant remains little changed from 1999, following NYSDOH-directed improvements.

# Town of Thompson Water Facilities Map

## Sullivan County, New York

Prepared by: Delaware Engineering, DPC
Date: November 2025
Source: Sullivan County, NYSDEC, ESRI World Terrain

Dillon Farm Water District

Route 42 Water District

Lucky Lake Water District

Emerald Green - Lake Louise Marie Water District

Cold Spring Road Water District

Melody Lake Water District

Lost Lake Resort Water District

Fallsburg Consolidated Water District

Municipal Water Service Areas
Centralized or Regulated Decentralized Service
Individual On-Site Systems

Delaware River Basin
NYC Watershed (Entirely Outside)
Town Boundary

Other Municipalities
Stream
Waterbody

0 1 2 4 6 8 Miles

N

*Table 24. Town of Thompson water withdrawal permit information (all figures in GPD)*

| Water System | Component | Max Rate (GPD) | Average Daily w/d | Peak Day w/d | NYSDEC Permitted w/d | DRBC Permitted w/d |
|---|---|---|---|---|---|---|
| **Kiamesha Artesian Spring Well** | Filter Plant Well | 129,600 | 128,619 | 132,000 | 550,000 | 730,000 |
| | Frasier Road Well | 98,000 | | | | |
| | Kiamesha Lake | 274,000 | | | | |

Water is drawn from a well reported to be between 80-ft and 110-ft deep, located at the filter plant at the north end of the lake. This well, known as the Filter Plant Well, according to DRBC docket information, has a permitted withdrawal of about 132,000 GPD. The well includes a surface outlet in a heated enclosure that also houses the meter. The water drawn from the well is pumped into an atmospheric storage tank, and then into the distribution system.

A second well, the Fraser Road Well, is located on Frasier Road. The well is permitted to withdraw about 98,000 GPD. The well was drilled, tested, and permits issued, but no further work has been completed to develop the well or connect it to the system. To utilize this water source, a pump and sealed pit-less unit would need to be installed, a disinfection system constructed, and a connector line extended to the water mains.

In addition to the wells, KASWC is permitted to draw about 274,000 GPD of water from Kiamesha Lake; however, water from the lake requires filtration (in conformance with the Enhanced Surface Water Treatment Rule II). The method of filtration for Kiamesha Lake water (as reported by the Operator in 2012) was the single-stage sand filter; however, it is noted that this treatment method does not meet the standards applied by NYSDOH. As a result, the use of the filtration equipment has been discontinued, and the plant is reportedly inoperable at this time and not available as a source of water supply.

Water is disinfected using liquid chlorine and pumped into the distribution system. Water storage is provided by two steel tanks with a combined capacity of 1.4 MG. The storage tanks are located north of CR 109, on land reportedly owned by KASWC and accessed through easements. The tanks are situated at approximately 1,580 ft in elevation and provide a pressure of 70 to 80 psi at the water plant. The 440,000-gallon tank roof has buckled across its entire width, a condition that reportedly occurred due to wet, heavy

snow and rain. The partially collapsed roof renders this tank unreliable and undesirable for service.

The operator's report submitted to NYSDOH states that the system has approximately 5 miles of water main for which the KASWC provides maintenance; however, based on the reported extent of the service area, the water mains owned by the KASWC may be much more extensive. Due to the age of the original KASWC system, much of the watermain is a flush-joint bolted cast iron pipe. The operator reports that the mains do leak, and breaks are reported, which require boil water orders due to low water pressure and/or conduct of repairs. Given the age of many of the mains, the amount of water lost, and the frequency of breaks are expected to increase over time.

Over the past several years, the system KASWC operates has been cited for standards violations by NYSDOH, and boil water notices are frequently necessary. In late 2024, a group of investors filed a petition with the PSC to approve the transfer of 51% of the company's stock to ensure its continued operation. The PSC, on September 10, 2025, approved the petition for sale the stock to this group.

According to the 2022 AWQR, the Town reported no violations or exceedances based on contaminant testing.

*19.2.1.1.3 Cold Spring Water District*

This system serving the Cold Spring Water District consists of 2 wells (well #2 and well #3), 2 booster pumps, and 3,600 LF of water main. The maximum capacity is 30,000 gallons per day. The estimated population served is 450 people through 75 water service connections. Both wells are bedrock wells. Well #2 is 200ft deep and has a max rate of 30 GPM; well #3 is 245ft deep with a max rate of 40 GPM. The average daily withdrawal in 2023 was 9,029 GPD. The peak day withdrawal was 25,749 GPD. According to the 2022 AWQR, the Town reported no violations or exceedances based on contaminant testing.

*Table 25. Town of Thompson water withdrawal permit information (all figures in GPD)*

| Water System | Component | Max Rate (GPD) | Average Daily w/d | Peak Day w/d | NYSDEC Permitted w/d | DRBC Permitted w/d |
|---|---|---|---|---|---|---|
| **Thompson - Cold Spring** | Well #2 | 43,200 | 9,029 | 25,749 | 30,000 | <100,000 |
| | Well #3 | 57,600 | | | | |

#### *19.2.1.1.4 Dillon Farms Water District*

This system consists of 1 well and 1,200 LF of water main. There are 15 service connections and water usage is about 5,100 GPD. According to the 2022 AWQR, the Town reported no violations or exceedances based on contaminant testing.

*Table 26. Town of Thompson water withdrawal permit information (all figures in GPD)*

| Water System | Component | Max Rate (GPD) | Average Daily w/d | Peak Day w/d | NYSDEC Permitted w/d | DRBC Permitted w/d |
|---|---|---|---|---|---|---|
| **Thompson - Dillon Farms** | Well #1 | | 5,100 | | <100,000 | <100,000 |

#### *19.2.1.1.5 Melody Lake Water District*

This system consists of 2 wells, 1 booster pump, and 4,000 LF of water main. This system serves 60 service connections and water usage is about 12,000 GPD. According to the 2022 AWQR, the Town reported no violations or exceedances based on contaminant testing.

*Table 27. Town of Thompson water withdrawal permit information (all figures in GPD)*

| Water System | Component | Max Rate (GPD) | Average Daily w/d | Peak Day w/d | NYSDEC Permitted w/d | DRBC Permitted w/d |
|---|---|---|---|---|---|---|
| **Thompson - Melody Lake** | Well #1 | | 12,000 | | <100,000 | <100,000 |
| | Well #2 | | | | | |

#### *19.2.1.1.6 Lucky Lake Water District*

Lucky Lake Water District is owned by the Town of Thompson, and it has 1 well and 2,600 LF of water main. There are 14 service connections. According to the 2022 AWQR, the Town reported no violations or exceedances based on contaminant testing.

*Table 28. Town of Thompson water withdrawal permit information (all figures in GPD)*

| Water System | Component | Max Rate (GPD) | Average Daily w/d | Peak Day w/d | NYSDEC Permitted w/d | DRBC Permitted w/d |
|---|---|---|---|---|---|---|
| **Thompson - Lucky Lake** | Well #1 | | 1,000 | | <100,000 | <100,000 |

#### *19.2.1.2 Recent/Future Upgrades*

##### *19.2.1.2.1 Route 42 Water District*

The Town Board has discussed the possibility of pursuing an agreement with the Village of Monticello as an emergency back-up source to ensure continued water service to the water district. As noted above, the system is privately-owned, and a number of improvements have been planned in the context of the recent ownership changes and recent history of nonconformance to NYSDOH standards. For more information, see the Village of Ateres report, Water Supply and Distribution Inventory & Evaluation section.

##### *19.2.1.2.2 Cold Spring Water District*

The Town has received recent requests from at least two developers to extend the Cold Spring Water District to service their properties for future residential development.

##### *19.2.1.2.3 Melody Lake Water District*

Planned upgrades include a new well, well house, storage tank, and treatment system at Melody Lake. This project has an estimated total cost of $1.25 M and will be funded in part through a $915,000 grant from the USDA Rural Utilities Service.

##### *19.2.1.2.4 Lucky Lake Water District*

No recent or planned improvements were identified.

#### *19.2.1.3 Finances and Administration*

As part of the data collection process, information about system finances and budgeting was requested and researched from publicly available sources; local codes governing system administration and use were also reviewed, where publicly available. This information, where available, was used in order to develop an understanding of key metrics, including: revenues and trends, expenses and trends, rate structure, revenues versus expenditures, debt service, and reserves.

Analysis of available financial information against the following metrics is as follows.

- Revenues and trends – According to the 2025 budget, most revenues raised across the districts derives from user charges, with comparatively smaller amounts raised from interest. These revenues have remained relatively stable across the 2023 to 2025 budgets.
- Expenses and trends – O&M costs account for the majority of revenue across districts, and these costs are associated with Equipment Personal Services, and Contractual lines. In the Adelaar district, the Town contracts with a private water operator. Smaller amounts of expenses relate to employee benefits. According to the 2024 AFR, water service runs about 3% of total appropriations. With the exception of isolated exceedances for contractual services, these figures have remained relatively stable across the 2023 to 2025 budgets, though benefit costs have increased.
- Rate structure – The Town charges for O&M and Capital costs per each of the Town's eight districts. In the Route 42/Kiamesha Water District and Adelaar Resort Water District, O&M costs are based on metered sales, with Capital charges based on a schedule of points; in other districts, O&M charges as well as Capital charges are based on points. (The adopted 2025 budget shows that Adelaar may be using points in lieu of metered water sales.) Outside users are assigned points on the same basis and using the same formula used for all parcels within the district, with an additional 10% administration fee. The point system is based on property classification assigned for tax assessment purposes. Single family dwellings are assigned 10 points each for O&M (rent) and Capital (debt).
- Revenue versus expenditures – With one exception, actual figures for 2023 and 2024 show revenues exceeding expenditures. It appears that in two districts, the Town runs a small deficit budget.
- Debt service – According to the 2025 budget, the Cold Spring and Melody Lake Districts carry debt representing about 2% of total appropriations.
- Reserves – According to the 2024 AFR, the Town maintains a fund balance of about 90% of 2024 expenditures. The fund balance is created or modified based on revenues versus expenditures.
- Water use law – Chapter 237 of the Town code is the water use law.

### 19.2.2 Other Systems

Based on information available, there are ten regulated private community water systems in the Town (Table 29). According to available data, these systems serve approximately 1,800 service connections. There is one user with capacity requiring a NYSDEC water withdrawal permit.

*Table 29. Town of Thompson regulated private community water systems*

| Water System | Service Area | SDWA # | Population | Connections |
|---|---|---|---|---|
| BROOKSIDE MOBILE HOME PARK | MHP | NY5201341 | 36 | 12 |
| CRYSTAL SPRINGS WATER CO. | Residential | NY5220222 | 300 | 27 |
| FOREST PARK ESTATES | HOA | NY5230201 | 244 | 61 |
| GREENTREE WATER COMPANY | Residential | NY5221394 | 184 | 95 |
| HARRIS WOODS DEVELOPMENT | HOA | NY5221008 | 440 | 100 |
| KIAMESHA ARTESIAN SPRING WATER COMPANY | Residential | NY5203344 | 879 | 350 |
| KINNEBROOK VILLAGE MHP | MHP | NY5201346 | 680 | 213 |
| SACKETT LAKE ESTATES | Subdivision | NY5230003 | 80 | 26 |
| WINDSOR HILL ESTATES | Residential | NY5230257 | 384 | 64 |

The Emerald Green – Lake Louise Marie Water Company operates a system serving 853 residential service connections in two subdivisions in the hamlet of Rock Hill (Emerald Green and Lake Louise Marie). Surface water is drawn from Lake Louise Marie, and an emergency supply is provided by groundwater wells. The water is filtered and treated before it is distributed to users via a 13.5-mile distribution system that loops around Lake Louise Marie and Treasure Lake within the Lake Louise Marie Property Owners' Association.

*Table 30. Town of Thompson Emerald Green water withdrawal permit information (all figures in GPD)*

| Water System | Component | Max Rate (GPD) | Average Daily w/d | Peak Day w/d | NYSDEC Permitted w/d | DRBC Permitted w/d |
|---|---|---|---|---|---|---|
| Emerald Green Lake Louise Marie Water Company | Lake Louise Marie | 880,000 | 243,422 | 404,000 | 880,000 | 700,000 |

Currently, only 162 of the 597 vacant single-family lots in the service area can be served by the existing water distribution system. Additional identified needs include building an elevated storage tank to replace the existing storage tank, which NYSDOH has identified as being undersized to meet current demands and maintain minimum chlorine contact time for disinfection. In October of 2024, the NYSDOH notified the Town that no new water connections will be permitted for the Emerald Green Lake Louise Marie Water System until the storage tank has been addressed.

### 19.2.3 Challenges and Opportunities

As noted, portions of the systems serving the Town may have constraints in terms of water that can be made available to existing and future users, due to conditions such as having less than required storage capacity or are reliant on a single source. The Village of Monticello serves part of the Town and evaluation of capacity of its wellfield was also identified by officials as important to understanding water supply capacity in the Town. In addition, there are some areas of the Town that have public sewer but currently lack public water, such as the Rock Hill Business District and the Old Route 17 corridor in Harris. In other locations, pending developments with private water systems have received land development approval but are unable to proceed due to poor well yield.

Another challenge is the variety and number of suppliers. The Town is supplied by a combination of municipal infrastructure owned by the Town and Village of Monticello as well as a number of privately-owned, regulated decentralized systems. Where not owned by the Town but providing an essential service to Town residents, coordination between the Town and its suppliers is often necessary in order to address a range of considerations, from responding to resident inquiries to adding new connections. In addition, some of the Town's municipal systems historically were privately owned, and these systems were, in some cases, acquired in a condition reflective of deferred maintenance.

The KASWC system, which serves a relatively higher number of service connections, which including major commercial centers in the Town, is presently privately owned. According to recent PSC docket information, there are substantial improvements that will need to be undertaken for its water system to be brought into compliance with NYSDOH directives, as well as to commence the use of the filtered lake water, if needed. In a comment letter to the PSC, the NYSDOH expressed concerns about the magnitude of the work that would be needed to bring the system into compliance. As back-up and in the event of an emergency, the Town Board has explored the possibility of pursuing an agreement with the Village of Monticello source to ensure continued water service to the water district.

A new ownership group has acquired KASWC, and this represents an opportunity with respect to the needed improvements and corrective actions necessary to address documented compliance and infrastructure issues with the water supply facilities. Finally, the expressed intent of the new ownership group is to convey its interest to the Village of Ateres, representing a possible future change in ownership from private to municipal.

The Thompson Town Board has been exploring the feasibility of acquiring the private Emerald Springs Water Company and creating a municipally owned water system to be named the Rock Hill-Emerald Springs Water District. The Emerald Springs Water Company is a transient system that serves the Emerald Corporate Park and its tenant – Crystal Run Healthcare.

## 19.3 Sanitary Sewer and Wastewater Treatment Inventory & Evaluation

### 19.3.1 Municipal Systems

The Town provides municipal sewer service to portions of the Town. The system providing this service consists of six WWTPs and their associated collection and conveyance systems. In 2021, the Town of Thompson completed a sewer district consolidation process. As part of that process, the number of sewer districts encompassing these service areas was reduced. Finally, this section discusses one proposed additional municipal sewer system to serve the Monticello Motor Club facility.

#### *19.3.1.1 System Components Inventory and Overview*

Municipal sewer service in the Town is described in this section according to WWTP and areas tributary to it.

##### *19.3.1.1.1 Consolidated Kiamesha Sewer District*

This system currently serves the area surrounding Kiamesha Lake, including the Route 42 commercial district. It also serves several residential developments, such as Harris Woods on Old Liberty Road, and Forest Park Estates and Parkside Estates on Anawana Lake Road. Treatment is provided at the Kiamesha Lake WWTP, the Town's largest.

The Kiamesha Lake WWTP is an extended aeration, oxidation ditch style, activated sludge treatment plant that achieves biological ammonia removal through nitrification. The secondary treatment process includes two clarification tanks, while tertiary treatment uses Granular Activated Carbon (GAC) filtration units to meet discharge permit levels.

The plant has a permitted capacity of 2.0 MGD and operates at about 25% of this capacity. The Kiamesha Lake WWTP is generally in good condition but has incurred SPDES permit violations due to operational deficiencies caused, in part, by aging equipment. The SPDES

# Town of Thompson Wastewater Facilities Map

## Sullivan County, New York

Fallsburg Consolidated Sewer Districts
Bethel Sewer District
Kauneonga Lake Sewer District
Kiamesha Lake Sewer District
Harris Ext. Sewer District
Dillon Farm Sewer District
Adelaar Sewer District
Rock Hill Sewer District
Sackett Lake Sewer District
Cold Spring Road Sewer District
Melody Lake Sewer District
Lost Lake Resort Sewer District
Emerald Green - Lake Louise Marie Sewer District

Village of Ateres
Village of Monticello
Village of Woodridge
Village of Wurtsboro

Town of Thompson
Town of Fallsburg
Town of Mamakating
Town of Wawarsing
Ulster County
Town of Bethel
Town of Highland
Town of Forestburgh
Town of Lumberland

Municipal Sewer Service Areas
Centralized or Regulated Decentralized Service
Individual On-Site Systems

Delaware River Basin
NYC Watershed (Entirely Outside)
Town Boundary
Other Municipalities

Stream
Waterbody
Kiamesha Consolidated District

0 1 2 4 6 8 Miles

N

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

permit recently underwent a full technical review by NYSDEC as part of a planned facility upgrade. The draft SPDES permit contains a compliance schedule requiring construction to be completed by September 30, 2026. According to NYSDEC's EBPS, this facility received a rank of 475 and a score of 5. The score components are based on age of the existing SPDES permit and time since the last time the facility submitted a long form permit application together with required comprehensive effluent sampling. In general, the higher the EBPS rank, the more likely it is that the permit for this facility will undergo a full technical review by NYSDEC in the near future.

The collection and conveyance system tributary to the plant consists of about 7 miles of sewer mains and three pump stations. Minor inflow and infiltration have been documented.

*19.3.1.1.2 Consolidated Rock Hill-Emerald Green Sewer District*

This system currently serves the residential communities surrounding Lake Louis Marie, Treasure Lake, and Davies Lake, as well as portions of the Rock Hill commercial business district. This system collects and conveys sanitary sewage to Emerald Green WWTP. The plant was originally constructed in the 1960s as a privately-operated facility, with upgrades completed in the 1970s and the 1990s; The Emerald Green WWTP utilizes a Sequencing Batch Reactor (SBR) process. An SBR is an "activated sludge" system, where wastewater is added to a single "batch" reactor for treatment. The SBR differs from Kiamesha's activated sludge system, in that the secondary treatment process happens all in one tank in a time-sequenced process, rather than in separate tanks.

The plant has a permitted design flow of 410,000 GPD and presently operates at approximately 80% capacity. The collection and conveyance system tributary to the plant consists of about 13 miles of sewer mains and ten pump stations. Reconfiguration and replacement of several pump stations have been performed in recent years. However, I&I remains a challenge.

According to NYSDEC's EBPS, this facility received a rank of 149 and a score of 12. The score components are based on age of the existing SPDES permit and time since the last time the facility submitted a long form permit application together with required comprehensive effluent sampling. In general, the higher the EBPS rank, the more likely it is that the permit for this facility will undergo a full technical review by NYSDEC in the near future.

The SPDES permit recently underwent a full technical review by NYSDEC as part of a planned facility upgrade and it expires on August 31, 2029. The SPDES permit contains a compliance schedule requiring the planned upgrade/expansion to be completed by October of 2027.

*19.3.1.1.3 Melody Lake Sewer District*

This system serves 61 residential users within a residential development originally developed as Melody Lake Acres. The collection system and WWTP were originally constructed in the mid-1970s and was originally privately-operated. Upgrades were completed in 2016, and the facility is reported to be in good working order. The WWTP has a permitted flow of 38,000 GPD and uses an activated sludge process for treatment. Average flows are reported to be well within the facility's design and permitted flow.

According to NYSDEC's EBPS, this facility is received a rank of 76 and a score of 81. The score components are based on age of the existing SPDES permit and time since last the facility submitted a long form permit application together with required comprehensive effluent sampling. In general, the higher the EBPS rank, the more likely it is that the permit for this facility will undergo a full technical review by NYSDEC in the near future.

*19.3.1.1.4 Sackett Lake Sewer District*

This system serves residential areas adjacent to Birchwood Pond, Forest Pond, and Sackett Lake. There are 464 residential service connections. Wastewater is collected and conveyed to the Sackett Lake WWTP. The plant has a permitted flow of 500,000 GPD and treatment is currently achieved via a fixed film process. The plant has incurred past permit violations due to excessive I&I.

According to NYSDEC's EBPS, this facility is received a rank of 6 and a score of 279. The score is based on age of the existing SPDES permit and time since the facility submitted a long form permit application together with required comprehensive effluent sampling. In general, the higher the EBPS rank, the more likely it is that the permit for this facility will undergo a full technical review by NYSDEC in the near future.

*19.3.1.1.5 Harris and Cold Spring Service Areas*

As noted, in 2021 the Town consolidated three sewer districts (Harris, Cold Spring, and Dillon Farms) to form the Consolidated Harris Sewer District. Of these, only the Dillon Farms service area is served by a separate WWTP and is discussed in the next section, below.

The combined service area has a total of 292 connections, of which 132 are single-family residences and another 41 connections are seasonal residences. In addition, there are several seasonal camp facilities connected to the system, along with several facilities owned and operated by The Center for Discovery, as well as the Garnet Health Catskills medical facility. Eleven other commercial users are connected and include small retail and storage/distribution facilities. The collection system consists of about 5 miles of gravity main, about 4.6 miles of force main, 99 manholes, and 7 pump stations.

#### *19.3.1.1.6 Dillon Farms Service Area*

Dillon Farms is a small residential development with only 12 users. The on-site wastewater treatment system, consisting of a 1,500-gallon septic tank and a buried sand filter, was originally privately owned. The facility has a history of effluent violations; however, it is not currently under a consent order. As discussed below, substantial cost would be incurred to upgrade this facility to meet new permit requirements.

According to NYSDEC's EBPS, this facility received a rank of 114 and a score of 39. The score components are based on age of the existing SPDES permit and time since the last time the facility submitted a long form permit application together with required comprehensive effluent sampling. In general, the higher the EBPS rank, the more likely it is that the permit for this facility will undergo a full technical review by NYSDEC in the near future.

#### *19.3.1.1.7 Monticello Motor Club Sewer District (proposed)*

In 2023, the Thompson Town Board passed a resolution authorizing the preparation of a Map, Plan, and Report (MPR) for the creation of a proposed sewer district designed to service the existing Monticello Motor Club (MMC) facility. MMC currently has an on-site septic tank and leach field that is sufficient to service the existing racetrack, but not large enough to accommodate future residential development and other planned improvements at the track.

### *19.3.1.2 Recent/Future Upgrades*

This section discusses recent and future investments in Town's municipal sewer systems for each sewer service area.

#### *19.3.1.2.1 Consolidated Kiamesha Sewer District- Kiamesha Lake WWTP*

A comprehensive plant upgrade that would include, among other things, installation of new UV disinfection equipment and an aerobic digester to reduce the Town's reliance on landfills for sludge disposal is in the final stages of design and permitting. As of this report, approximately $20.4 M in state and federal grants have been secured for the project.

#### *19.3.1.2.2 Rock Hill-Emerald Green Sewer District*

Pump station upgrades and addressing I&I conditions in the system are an identified need, though no specific projects were planned as of the time of writing.

#### *19.3.1.2.3 Emerald Green WWTP*

A planned upgrade to the plant is intended to increase the treatment capacity to 475,000 GPD to accommodate future growth, as well as replace aging equipment, update controls, and add a UV disinfection system. Construction of the upgrade project is expected to begin

in 2026 and be completed by 2027. As of this report, approximately $10.7 M in state and federal grants have been secured for the project.

*19.3.1.2.4 Melody Lake Sewer District - Melody Lake WWTP*

Officials identified a need to perform modifications to a portion of the treatment process involving the secondary clarifiers in order to address sludge removal.

*19.3.1.2.5 Sackett Lake Sewer District - Sackett Lake WWTP*

The Town is working on an approximately $2.2 M project to slip-line and replace portions of a gravity main, which is the primary source of I&I into the system. Additional future plant upgrades are in the process of being evaluated as well.

*19.3.1.2.6 Consolidated Harris Sewer District*

An approximately $10.0 M project (at time of report) to replace three of the existing pump stations (Harris Pump Station, Old Route 17 Pump Station, and Benmosche Pump Station) and add one additional pump station (Kaufman Road Pump Station) is in the final stages of design and permitting.

*19.3.1.2.7 Dillon Farms.*

Substantial improvements are required to bring the WWTP into compliance with the current SPDES permit limits, and it is very likely that any permit modification request to improve the facility would trigger new, more stringent effluent standards. Achieving the likely permit requirements would result in substantial capital investment and high operating costs. In the near future, according to officials, the Town plans to abandon the Dillon Farms WWTP and install a pump station and force main system to direct the flow to the Village of Monticello WWTP instead. While the total cost of that approach is estimated to be approximately $1.0 M, officials evaluating the system indicate it is more efficient than upgrading the existing facility and the newly consolidated sewer district will allow those costs to be spread over a larger user base.

*19.3.1.2.8 Monticello Motor Club Sewer District (proposed)*

As noted, the Town has been partnering with the Monticello Motor Club on a project to upgrade the existing system serving this facility. The Monticello Motor Club has engaged an engineer who is in the process of designing and permitting a new on-site WWTP, and the intent is to have ownership and operation transferred to the Town once all approvals are in place.

### *19.3.1.3 Finances and Administration*

As part of the data collection process, information about system finances and budgeting was requested and researched from publicly available sources; local codes governing

system administration and use were also reviewed, where publicly available. This information, where available, was used in order to develop an understanding of key metrics, including: revenues and trends, expenses and trends, rate structure, revenues versus expenditures, debt service, and reserves.

Analysis of available financial information against the following metrics is as follows.

- Revenues and trends – According to the 2025 budget, revenues for the Town's six sewer districts are derived primarily from user charges, with interest earnings making up a small component. In the Kiamesha district, outside user charges also comprise a significant component. Interfund transfers have also made up a portion of revenues in each district.
- Expenses and trends – The majority of expenditures across the districts is under the Sewage Treatment and Disposal line, further delineated by Personal Services, Contractual, and Equipment. Some costs are specified to service providers for each district, such as the Village of Monticello. According to the 2024 AFR, sewer service expenditures are about 20% of the Town's total appropriations.
- Rate structure - The Town charges for O&M and Capital costs per each of the Town's districts based on a schedule of points. Outside users are assigned points on the same basis and using the same formula used for all parcels within the district, with an additional 10% administration fee. The point system is based on property classification assigned for tax assessment purposes. Single family dwellings are assigned 10 points each for O&M (rent) and Capital (debt).
- Revenue versus expenditures – Actual 2023 and 2024 figures show that revenues have exceeded expenditures.
- Debt service – All districts carry some level of debt. The debt from the construction of the WWTP is set to mature in 2043, while the debt from the Storm Mitigation Loan Program is set to mature in 2047. The Town also has a "Bonds and Notes - Various" balance for miscellaneous short-term projects that roll into long-term funds. This balance is continuously added to and paid off in portions. Debt service comprises about 12% of appropriations across the Town's sewer districts.
- Reserves – The Town maintains a reserve fund of approximately $300,000 for unplanned equipment and WWTP expenditures. According to the 2024 AFR, fund balance was about 102% of budgeted appropriations.
- Sewer use law – Chapter 194 of the Town's code is the sewer use law.

### 19.3.2 Other Systems

A number of privately-owned regulated decentralized sewer systems exist within the Town, generally in areas where public sewer is not available. Some of these systems serve multiple users, such as small clusters of homes or large developments, at or near the site where the wastewater is generated. In addition, there are other privately owned regulated decentralized systems with higher capacity such that they are regulated under the SPDES program but may only serve individual businesses or other individual uses with a need for higher treatment capacity.

There are several SPDES permits involving existing or proposed privately-owned regulated decentralized sewer systems in the Town, including. The following permits have a status of issued, all involving renewal of existing permits for discharge to surface waters:

- Camp Zichron Zvi Dovid Congregation;
- Holiday Mountain Recreation Facility Staff Housing;
- Congregation Iched Anash;
- Windsor Hills Estates;
- Crescent Lake Estates;
- Kyprianou Property; and
- Kinnebrook Mobile Home Park.

The following permits have statuses of other than issued:

- Bridgeville Warehouse, involving a new permit for a facility with a discharge to groundwater;
- Camp Bobov involving a new permit for a facility with capacity of 29,160 GPD and a discharge to groundwater;
- Camp Ger involving a new permit for a facility with capacity of 30,000 GPD serving a religious camp with multiple septic tanks and a dual storage pond/infiltration lagoon with surface discharge;
- Camp Yeshiva Serdahel involving a new permit for facilities with capacities of 8,910 GPD, 8,800 GPD & 8,690 GPD to groundwater, with existing facilities to be abandoned & 3 new facilities proposed to service all existing & proposed buildings;

- Camp Zichron Zvi Dovid Congregation for modification of permit for a facility with 150,000 GPD capacity to replace existing sand beds for future planned development with a discharge to surface water;
- Cold Spring Cottages involving reauthorization of a permit with a discharge to surface water;
- Gan Eden Estates involving a new permit for a facility with a discharge to surface water serving a 534 unit development;
- Glen Wild Hotel involving renewal of a permit for a facility with a discharge to surface water;
- Holiday Mountain Recreation Facility Staff Housing involving renewal of a permit for a facility with a discharge to surface water;
- Joyland Park Estates involving reauthorization of a permit for a facility with 8,750 GPD capacity and a discharge to surface water;
- Kiamesha Artesian Spring Water involving a permit for discharge of WTP process water;
- Machne Ohel Torah involving reauthorization of a permit for a facility with a discharge to surface water;
- Ranch Road Realty involving modification of a permit for a facility with 1,900 GPD capacity and a discharge to groundwater;
- Sackett Vacation Homes involving renewal of a permit for a facility with a discharge to surface water; and
- Windsor Hills Estates involving a private sewage works corporation formation and discharge to surface water.

### 19.3.3 Challenges and Opportunities

The Kiamesha Lake WWTP is currently operating at approximately 25% of its permitted capacity, and there is sufficient capacity available for increases in flows to the plant.

Across the municipal systems, I&I remains a challenge, especially in the systems serving the Emerald Green and Sackett Lake areas. The Town has been taking steps to reduce I&I in known locations.

As noted above in the case of water supply, several of the municipal systems were previously privately-owned but were acquired by the Town from the original owners, some with challenges and needs due to deferred maintenance or other operational practices. Under NYS law, municipalities authorizing creation of transportation corporations for provision of sewer service are obligated to assume control of these systems from the private entity under certain conditions, such as if that entity ceases to exist. This is likely to remain a challenge, as there are other existing and proposed developments with privately-owned regulated decentralized infrastructure in the Town.

Officials indicated that acquisition from private entities of infrastructure, such as pump stations, that these entities construct and offer for dedication to the Town as part of land development projects is an important challenge. An opportunity to address aspects of this challenge, such as quality control, may lie in the Town modifying its regulations in order that it be a Town responsible to design and build pump stations and force mains, with costs borne by developers.

An opportunity lies in the Town having the Village of Monticello as a partner when it comes to provision of sewer services. Creating frameworks for collaboration with the Village of Monticello offers opportunities due to recent investment in infrastructure and reasonable costs to users.

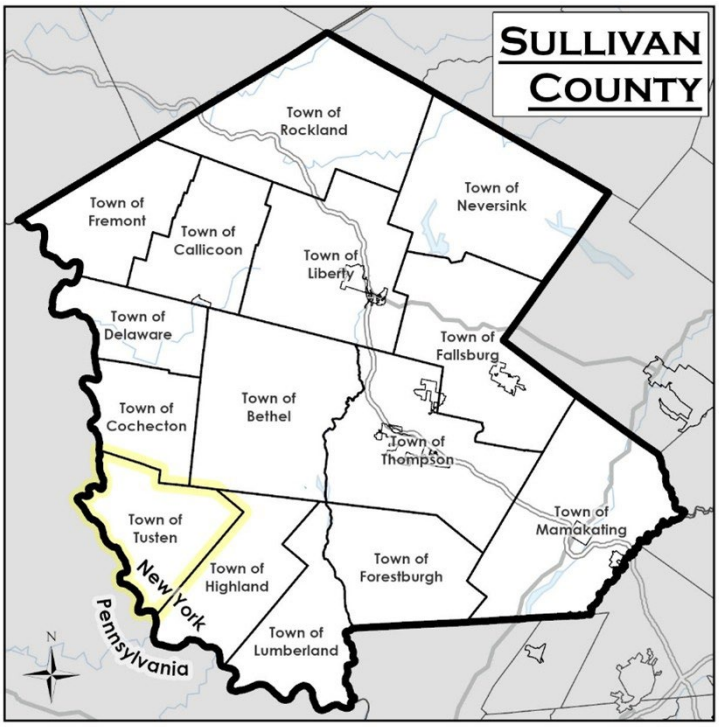
## 19.4 Methodology and Sources

In preparing this report, publicly available data were collected and reviewed, along with any additional documentation supplied by a municipal representative, county office, or other authoritative sources. In addition, the project team contacted and interviewed key individuals who have specialized knowledge of their local systems. The following is a list of sources consulted.

- Adelaar Annual Water Quality Report (AWQR) 2022 (NY5230211)
- Cold Spring Annual Water Quality Report (AWQR) 2022 (NY5220343)
- Dillon Farms Annual Water Quality Report (AWQR) 2022 (NY5203350)
- Melody Lake Annual Water Quality Report (AWQR) 202 (NY5205653)
- Lucky Lake Annual Water Quality Report (AWQR) 2022 (NY5203356)
- Kiamesha-Route 42 Water District Annual Water Quality Report (AWQR) 2022 (NY5220223)

- 2024 Annual Financial Report (AFR)
- 2025 Adopted Town Budget
- Town of Thompson code
- NYSDEC Environmental Benefit Permit Strategy (EBPS) 2025 Rankings
- NYSDEC Department Application Review Tracking (DART) system (accessed October 2025)
- EPA Community water system Service Area Boundaries (accessed September 2025)

# 20. TOWN OF TUSTEN




## 20.1 Municipal Overview

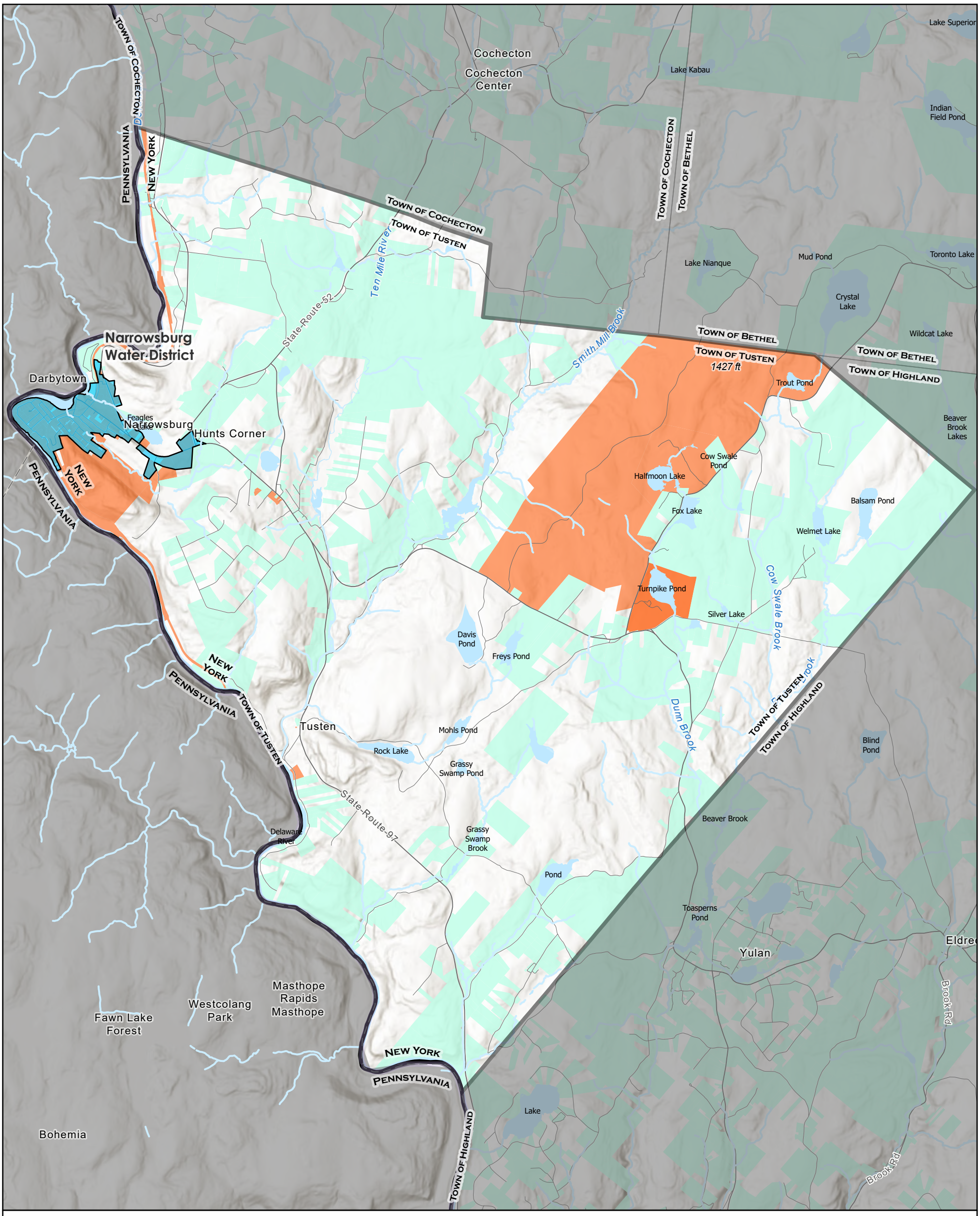
The Town of Tusten, located in southwest Sullivan County, is comprised of rolling hills, woodland tracts, small lakes, and small farms interspersed around the primary hamlet of Narrowsburg located along the Delaware River. Other hamlets include Lava, Newieden, Hunts Corner, and Tusten. The Town borders Cochecton to the north, Bethel to the northeast, Highland to the east and southeast, Damascus Township in Wayne County, PA, to the west, and Lackawaxen Township in Pike County, PA, to the southwest. The Town's population was 1,405 at the 2020 Decennial Census. Tusten owns and operates the Narrowsburg Water Distribution District, which includes Hunts Corner, and the Narrowsburg Sewer Collection District, which is confined to the immediate hamlet area. The Town lies entirely within the DRBC boundary but entirely outside the NYC watershed boundary.

## 20.2 Water Supply and Distribution Inventory & Evaluation

### 20.2.1 Municipal Systems

#### *20.2.1.1 System Components Inventory and Overview*

The Town provides municipal water service within an area encompassed by the Narrowsburg Water District. This service was first provided in 1925, when associated infrastructure was first installed. The system is permitted to withdraw 338,400 gallons per day from groundwater, pursuant to a DRBC docket. Drinking water is sourced from three wells along Delaware Drive, Second Street, and NYS Route 97. Of these wells, two are actively used. The system employs a chlorine gas and sodium hydroxide disinfection treatment process.




# Town of Tusten Water Facilities Map

## Sullivan County, New York

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

0 0.5 1 2 3 4 Miles

N

- Municipal Water Service Areas
- Centralized or Regulated Decentralized Service
- Individual On-Site Systems
- Delaware River Basin (Entire Town)
- NYC Watershed (Entirely Outside)
- Town Boundary
- Other Municipalities
- Stream
- Waterbody

*Table 31. Town of Tusten water withdrawal permit information (all figures in GPD)*

| Water System | Component | Max Rate (GPD) | Average Daily w/d | Peak Day w/d | NYSDEC Permitted w/d | DRBC Permitted w/d |
|---|---|---|---|---|---|---|
| **Tusten - Narrowsburg** | Well #1 | 201,600 | 66,716 | 302,523 | 338,400 | 136,774 |
| | Well #2 | 288,000 | | | | |
| | Well #3 | 86,400 | | | | |

Until recently, water was stored in a 75-year-old, 200,000-gallon, wax-lined steel tank situated between Hilltop Lane and Bridge Street. As of 2024, the water district covers an area of 444.75 acres, provides water to approximately 800 users through 325 service connections, and comprises 410 parcels. The distribution system is 100% metered and consists of roughly 7 miles of 0.75" to 8" water mains, 74 shutoff valves, and 59 fire hydrants.

According to the 2024AWQR, the Town reported no violations but did report elevated levels of sodium. Sodium is naturally occurring but also is present in the environment due to human activities, such as road salting and water softeners; animal wastes also can be a source.

#### *20.2.1.2 Recent/Future Upgrades*

The Town is in the process of implementing a roughly $7.5 M system-wide improvement project, with construction anticipated in 2026. The project consists of water storage, pumping, wellhouse, and distribution system upgrades. Upgrades in the distribution system include replacement of aging and undersized water mains, construction of new water main to eliminate dead ends, and upgrade various appurtenances, including hydrants and valves.

#### *20.2.1.3 Finances and Administration*

As part of the data collection process, information about system finances and budgeting was requested and researched from publicly available sources; local codes governing system administration and use were also reviewed, where publicly available. This information, where available, was used in order to develop an understanding of key metrics, including: revenues and trends, expenses and trends, rate structure, revenues versus expenditures, debt service, and reserves.

Analysis of available financial information against the following metrics is as follows.

- Revenues and trends – Metered sales make up about 75% of the budgeted revenues, with unexpended balance from prior years and user charges based on assessed value comprising another 21%.
- Expenses and trends – Administration (primarily contractual and personal services) and transmission and distribution account for about 75% of the 2025 budget; employee benefits accounted for about 11%.
- Rate structure – Water rates are based on metered water use and assessed value of parcels within the district.
- Revenue versus expenditures – As noted, unexpended balance carryover was about 4% of 2024 budgeted appropriations.
- Debt service – Debt service accounted for about 45% of 2025 water appropriations.
- Reserves – According to the 2025 adopted budget, the Town has maintained transfers to a dedicated reserve fund in 2024 and 2025.
- Water use law – Chapter 264 of the Town code is the water use law.

### 20.2.2 Other Systems

Based on information available, one regulated private community water system exists in the Town (Table 32). No facilities with capacity requiring a NYSDEC water withdrawal permit located in the Town.

*Table 32. Town of Tusten regulated private community water systems*

| Water System | Service Area | SDWA # | Population | Connections |
|---|---|---|---|---|
| BLUE HERON PARK | MHP | NY5214752 | 40 | 31 |

### 20.2.3 Challenges and Opportunities

The municipal water system may be as much as a century old, and the Town has undertaken projects to address system life-cycle issues.

As indicated by the water withdrawal reporting information, as of the most recent report, about 60% of water produced is unaccounted for (i.e., unmetered). Leaks, hydrant flushing, firefighting, faulty meters, and other causes contribute to this number. Replacing mains and other aging infrastructure is an opportunity to reduce these system losses.

## 20.3 Sanitary Sewer and Wastewater Treatment Inventory & Evaluation

### 20.3.1 Municipal Systems

The Town provides municipal sewer service to an area encompassed by the Narrowsburg Sewer District, which was created in 1981, with the installation of the collection system and a wastewater facility over the following years. The district nearly mirrors the water district boundary, with a major exception being that of the 20 parcels within the Hunts Corner hamlet area. As of 2024, the sewer district covers an area of 577.6 acres, provides collection service for approximately 750 users through 463 service connections, and comprises 354 parcels.

#### *20.3.1.1 System Components Inventory and Overview*

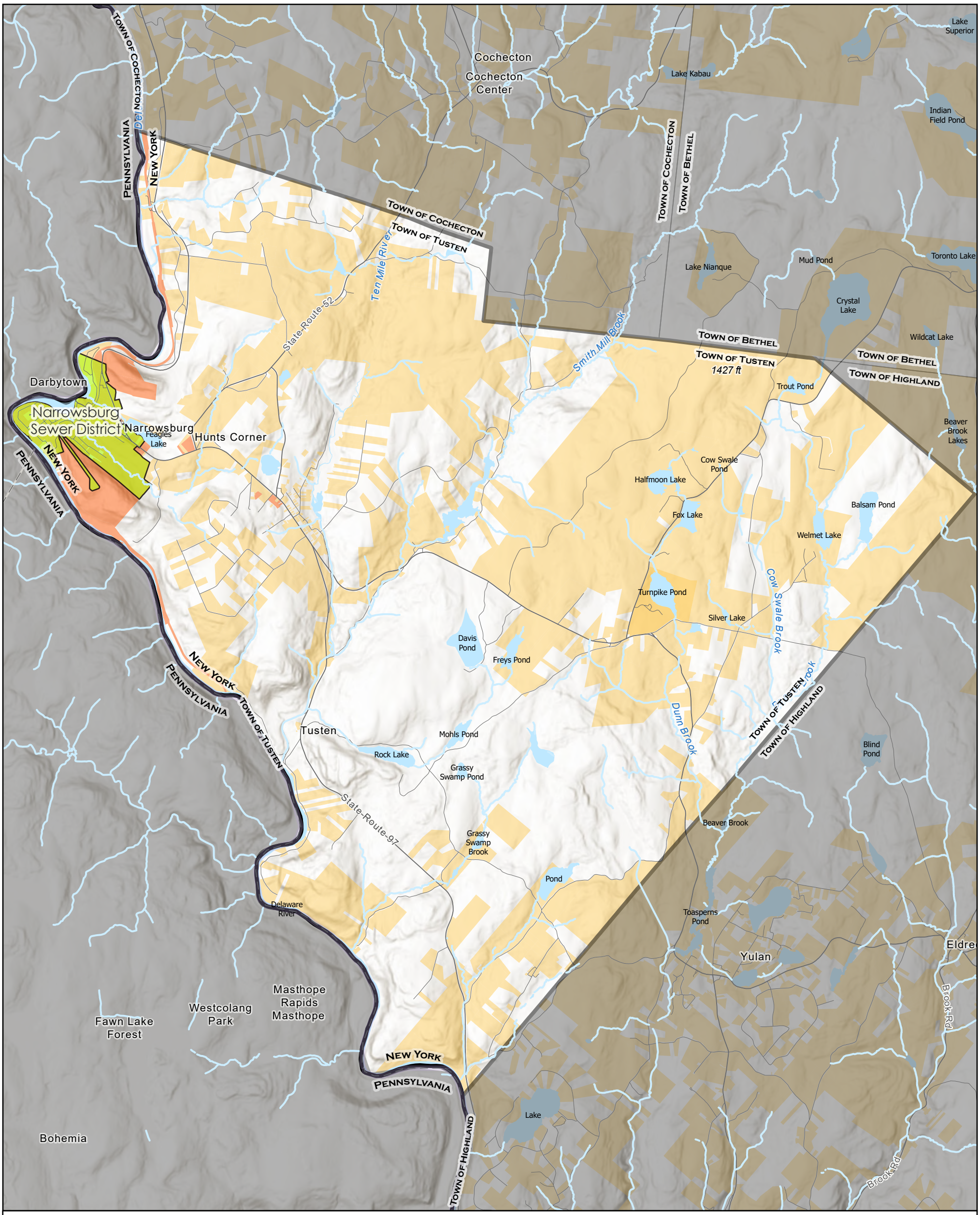
The collection system includes 8.5 miles of primarily 4", 6", or 8" gravity sewer mains; the system also includes a 476' low-pressure 6" main at the east end of Bridge Street. There are 20 lift stations throughout the district, comprised of 1 pump station, 1 pump pit, 1 valve pit, and 17 service line pumps. Additional sewer features include 26 manholes, 68 septic tank interconnections, 130 cleanouts, and 7,932 feet of sewer easements.

The WWTP SPDES permit has been renewed through December 31, 2026. The permit provides for a limit of 100,000 GPD discharged to the Delaware River. The WWTP is a four-bed sand filtration system built in 1982 and located at the terminus of Engleman Lane at the railroad tracks. The wastewater flow of the facility runs from an 8" gravity main to a pump station, a valve vault, a 6" force main, an intercepting and dosing tank, filter beds, a distribution box, a chlorine contact tank, a monitoring tank, and finally to receiving waters. The 578-foot outfall pipe crosses under the Conrail right-of-way and Delaware Drive until it reaches its discharge point at the center of the Delaware River.

According to NYSDEC's EBPS, this facility received a rank of 87 and a score of 72. The score components are based on age of the existing SPDES permit and time since the last time the facility submitted a long form permit application together with required comprehensive effluent sampling. In general, the higher the EBPS rank, the more likely it is that the permit for this facility will undergo a full technical review by NYSDEC in the near future.

#### *20.3.1.2 Recent/Future Upgrades*

No recent upgrades have been conducted on the wastewater collection system. Similar to the comprehensive investment in the water system, officials report plans to investigate the needs of the sewer system and begin the process of repair and upgrading in the short term.




# Town of Tusten Wastewater Facilities Map

## Sullivan County, New York

N

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

0 0.5 1 2 3 4 Miles

- Municipal Sewer Service Areas
- Centralized or Regulated Decentralized Service
- Individual On-Site Systems
- Delaware River Basin (Entire Town)
- NYC Watershed (Entirely Outside)
- Town Boundary
- Other Municipalities
- Stream
- Waterbody

#### *20.3.1.3 Finances and Administration*

As part of the data collection process, information about system finances and budgeting was requested and researched from publicly available sources; local codes governing system administration and use were also reviewed, where publicly available. This information, where available, was used in order to develop an understanding of key metrics, including: revenues and trends, expenses and trends, rate structure, revenues versus expenditures, debt service, and reserves.

Analysis of available financial information against the following metrics is as follows.

- Revenues and trends – Sewer rents comprise most (91%) of revenues, with unexpended fund balance carried over accounting for about 7%.
- Expenses and trends – Treatment and disposal and administrative costs account for about 75% of 2025 appropriations. Sewer service accounted for about 11% of the Town's total 2025 budget.
- Rate structure – Pursuant to a rate restructuring in 2023, users are now charged based on metered water usage.
- Revenue versus expenditures – As noted, 2024 unexpended fund balance was about 7% of 2024 appropriations.
- Debt service – According to the 2025, the sewer district does not carry debt.
- Reserves – The 2025 shows an allocation of about 1% of appropriations to be transferred to a reserve fund.
- Sewer use law – Chapter 229 of the Town code is the sewer use law.

### 20.3.2 Other Systems

No private centralized sewer systems are located within the Town of Tusten.

### 20.3.3 Challenges and Opportunities

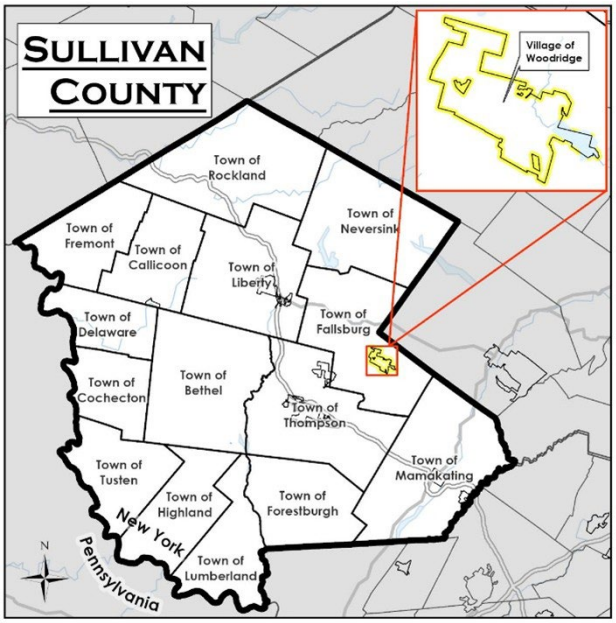
As noted, the Town intends to evaluate the need for investments in the municipal sewer system. Officials noted that the above-mentioned work on the Town's water system has been a major focus in recent years, and projects of that size and scope can be challenging in terms of demands at all levels of municipal government, from customer service to municipal boards, grant administration, project management and oversight, etc.

## 20.4 Methodology and Sources

In preparing this report, publicly available data were collected and reviewed, along with any additional documentation supplied by a municipal representative, county office, or other authoritative sources. In addition, the project team contacted and interviewed key individuals who have specialized knowledge of their local systems. The following is a list of sources consulted.

- Narrowsburg Annual Water Quality Report (AWQR) 2024 (NY5203338)
- 2025 adopted budget
- Town code
- NYSDEC Environmental Benefit Permit Strategy (EBPS) 2025 Rankings
- EPA Community water system Service Area Boundaries (accessed September 2025)

# 21. VILLAGE OF WOODRIDGE




## 21.1 Municipal Overview

The Village of Woodridge is located in the southeastern portion of the Town of Fallsburg near its border with Ulster County and centered at the confluence of County Routes 53, 54, 58, and 158. The Village's 1,069 acres contain a population of 747 as estimated by the 2020 Decennial Census. This lower density results in approximately 100 people less per square mile within the Village than in the Town of Fallsburg. However, the Village's population is seasonal, increasing by several thousand during the summer months due to the presence of seven seasonal camp operations within the Village boundaries. Commercial activity includes one- and two- story buildings with light commercial occupancies including restaurants and cafes, retail, offices, and medical facilities, religious and government buildings, and the Newburg Egg Processing facility.

The Village owns and operates centralized water and sewer systems and currently provides water service to three residential developments outside of its boundary, at Davos, Camp Skwere, and Rosemond, and sewer service to approximately 212 outside users within the Town of Fallsburg.

The Village lies partially within the DRBC boundary but entirely outside the NYC watershed boundary.

## 21.2 Water Supply and Distribution Inventory & Evaluation

### 21.2.1 Municipal Systems

The Village provides municipal water service to residential, commercial, and industrial properties within and surrounding Woodridge. Construction of the distribution system reportedly occurred in the 1910's, while the WTP and storage tank were constructed in the 1990s.

# Village of Woodridge Water Facilities Map

Sullivan County, New York

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

0 0.2 0.4 0.8 1.2 1.6 Miles

N

- Village Water Service Area
- Municipal Water Service Areas
- Centralized or Regulated Decentralized Service
- Individual On-Site Systems
- Delaware River Basin
- NYC Watershed (Entirely Outside)
- Other Municipalities
- Stream
- Waterbody

*Table 33. Village of Woodridge water withdrawal permit information (all figures in GPD)*

| Water System | Component | Max Rate (GPD) | Average Daily w/d | Peak Day w/d | NYSDEC Permitted w/d | DRBC Permitted w/d |
|---|---|---|---|---|---|---|
| **Village of Woodridge** | East Pond | 500,000 | 514,000 | 733,000 | 999,000 | |
| | Well #1 | 115,000 | | | | |
| | Well #2 | 173,000 | | | | |
| | Well #3 | 202,000 | | | | |

In 2022, the average daily withdrawal was 514,000 GPD with a maximum day withdrawal of 733,000 gallons. The Village reports 100% of the system is metered, with meters being 0-12 years old. According to officials, the anticipated growth in seasonal population during the summer months may double demands placed on the system by 2040.

#### *21.2.1.1 System Components Inventory and Overview*

The system receives its water from the East Pond and 3 wells (one shallow and two deep). The three wells are only operated as needed during seasonal increases in water demand. The WTP (0.50 MGD) and the wells (0.48 MGD) are capable of providing about 0.98 MGD. The 2023 AWQR states that the Village water system serves approximately 900 year-round residents and nearly 4,000 seasonal residents through approximately 600 service connections.

The Village's WTP draws raw water from East Pond Reservoir in the Town of Fallsburg. The WTP pumps water from the reservoir into a holding pond, feeds it through four slow-sand filters (replaced in 2018), adjusts its pH, and disinfects it prior to entering the distribution system. Treated water is stored in the WTP clear well (380,000 gallons) and a water storage tank (150,000 gallons); the combined storage capacity is 500,000 gallons. Water either gravity feeds into the distribution system from the clear well or is pumped to the water storage tank, depending on demand.

A loop of 8-, 10-, and 12-inch mains feeds water to the distribution system within the Village bounds from nearly 2 miles away at the water treatment plant. In 2020, the Village's water system consisted of approximately 10.7 miles of water mains ranging from 4" to 30" in diameter, 70 fire hydrants, and 148 valves.

#### *21.2.1.2 Recent/Future Upgrades*

Water system deficiencies identified in the 2020 Engineering Report include the restriction of flow, insufficient fire flows, insufficient water storage capacity, insufficient water source

capacity, and groundwater well water quality. The following improvements were recommended in the 2020 Report:

- Replace approximately 1,510 feet of 6-inch main with 10-inch main along Maple Avenue.
- Replace approximately 1,220 feet of 6-inch main with 10-inch main along Lew Street.
- Replace approximately 2,000 feet of 6- and 8-inch mains with 10-inch mains along Broadway.
- Replace approximately 2,120 feet of 8-inch main with 10-inch main along Krieger Boulevard.
- Based on the hydrants reviewed as part of the fire flow testing, replace approximately 20 hydrants.
- Replace or install approximately 30 valves.
- Install one (1) 0.60 MG water storage tank and associated appurtenances at the Maple Avenue location.

In 2023, the Village received a $5 M Water System Improvement Grant and $3.8 M in interest-free financing through the Bipartisan Infrastructure Law (BIL) along with $4.4 M from the USDA Rural Energy for America Program (REAP) to replace its water mains, construct a new storage tank, install an ultrafiltration system, rehabilitate the sludge lagoon, and install a new SCADA system.

#### *21.2.1.3 Finances and Administration*

As part of the data collection process, information about system finances and budgeting was requested and researched from publicly available sources; local codes governing system administration and use were also reviewed, where publicly available. This information, where available, was used in order to develop an understanding of key metrics, including: revenues and trends, expenses and trends, rate structure, revenues versus expenditures, debt service, and reserves.

Analysis of available financial information against the following metrics is as follows.

- Revenues and trends – The majority of revenues are derived from metered water sales, with about 2% coming from outside users. Capital charges made up 14% of revenues.

- Expenses and trends – Water administration was the largest component, with personal services and contractual lines accounting for about half of appropriations, with debt service constituting about 12%. Transfers to the general fund and reserve funds were 7% and 4%, respectively. According to the 25/26 adopted budget, water service appropriations were about 21% of the Village budget.
- Rate structure – Users are charged for O&M and capital costs. O&M is based on water consumption, with a base rate calculated from average user water consumption in the Village. Capital charges are based on a system of EDUs, with a single-family dwelling allocated one unit. Outside users and seasonal users are charged for capital costs similar to inside users. According to the water use law, all residential units located within the Village serviced by laterals to the Village water main that are either aboveground or below ground but above the frost line are considered seasonal residences and, for billing purposes, are only billed for two quarters each year.
- Revenue versus expenditures – Actual historical financial information was not available to be reviewed.
- Debt service – As noted, the Village carries debt, with debt service accounting for about 12% of appropriations.
- Reserves – As noted, appropriations for reserve funding were about 4% of the Village 25/26 budget.
- Water use law – Chapter 387 of the Village code is the water use law.

### 21.2.2 Other Systems

No regulated private centralized water systems exist within the Village, and there are no facilities with capacity requiring a NYSDEC water withdrawal permit.

### 21.2.3 Challenges and Opportunities

As noted, the Village is in the process of implementing a capital project, with grant financing anticipated. A current challenge includes securing additional funding if federal funds are no longer available in adequate time to complement the currently secured funding streams.

There is the potential for an additional five residential developments within the Village, one outside residential development, one commercial plaza development in the Village, and two residential annexations. Like other communities in the County experiencing growth

pressure, the Village faces challenges connected to planning for water system needs in order to address this growth.

## 21.3 Sanitary Sewer and Wastewater Treatment Inventory & Evaluation

### 21.3.1 Municipal Systems

The municipal sewer system provides service within the Village as well as the surrounding developments of Davos, Camp Skwere, and Rosemond Estates. The WWTP is permitted to discharge up to 800,000 GPD to Silver Lake. The SPDES permit was last issued to the Village in 2024 and expires in 2029.

#### *21.3.1.1 System Components Inventory and Overview*

The Woodridge WWTP was constructed in 2011 and is located on the east end of the Village near Silver Lake. The WWTP has a capacity of 0.8 MGD utilizing preliminary, secondary, and tertiary treatment, post-equalization, disinfection, post-aeration, solids digestion, and dewatering. The WWTP SPDES permit was last updated in 2024, after a full technical review. Among the permit conditions are the development of a mercury minimization program and a mini pretreatment program, aimed at the identification of industrial users contributing flow to the WWTP. As reported on the SPDES permit, between 2018 and 2023, the WWTP received 0.63 MGD on average. The only significant upgrade to the WWTP was improvements to the headworks implemented in 2019. A recent engineering report noted high levels of I&I in the collection and conveyance system.

The Village contracts with a private sewer operator to run the operations of the sewer collection and treatment system. The Village recently developed an intermunicipal agreement with the Town of Fallsburg to accept flows from the surrounding town sewer collection districts. There is an existing agreement in place for Newburg Egg Corp to direct wastewater to the Village WWTP.

According to Village officials, Newburg Egg (an industrial user) has increased production gradually over time, and as of 2022, the Village states they use approximately 160,000 GPD. Based on discussions with Newburg Egg, the Village estimates their usage will rise to 200,000 GPD in the future. It should be noted that in May 2023, USEPA fined Newburg Egg $100,000 for numerous violations that occurred between 2018 and 2021, including discharging excessive nitrogen, ammonia, and phosphorus into Sandburg Creek. More recently, in October of 2025, the NYSDEC issued a Notice of Violation for an "unpermitted discharge" into a wetland upstream of Silver Lake, which violated water quality standards.

# Village of Woodridge Wastewater Facilities Map

## Sullivan County, New York

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

Village Wastewater Service Areas
Municipal Sewer Service Areas
Centralized or Regulated Decentralized Service
Individual On-Site Systems
Delaware River Basin
NYC Watershed (Entirely Outside)
Other Municipalities
Stream
Waterbody

0 0.2 0.4 0.8 1.2 1.6 Miles

N

Fallsburg Consolidated Sewer Districts
Town of Wawarsing, Ulster County
Town of Fallsburg
Village of Woodridge
Woodridge
Delaware River Basin
Pond
Lake House Rd
Old Falls Rd
Wortzman Rd
Hideaway Dr
Maple Ave S
Dairyland Rd
Rosemond Rd
Roosevelt Ave
Joseph Rd
Fern St
Sunflower St
Silver Lake Rd
Lilac Ln
Broadway
Greenfield Rd
Lew St
Krieger Blvd
Canter Ave
Krieger Park Rd
Tlabaczynski Rd
Davos Rd
Davos Pl
Glen Wild
Mountaindale Rd
Rosemond Rd
1424 ft

Newburg Egg is listed as the only significant industrial user contributing flow on the 2024 updated SPDES permit. As noted above, as part of the mini pretreatment program, the SPDES permit requires the Town to identify industrial users; determine whether legal authority controls (e.g. sewer use laws) are adequate; require, issue, and enforce industrial user permits; and implement the program. In response to the repeated violations, Newburgh Egg is required to take steps to improve its wastewater pretreatment program and is working with the EPA and NYSDEC to comply with regulations.

According to NYSDEC's EBPS, this facility received a rank of 522 and a score of 0. The score components are based on age of the existing SPDES permit and time since the last time the facility submitted a long form permit application together with required comprehensive effluent sampling. In general, the higher the EBPS rank, the more likely it is that the permit for this facility will undergo a full technical review by NYSDEC in the near future.

#### *21.3.1.2 Recent/Future Upgrades*

As further described below, a recent (2022) engineering analysis recommended a number of investments at the WWTP and, most likely, to address I&I in the collection system. However, no specific projects are planned or have received funding as of this writing.

#### *21.3.1.3 Finances and Administration*

As part of the data collection process, information about system finances and budgeting was requested and researched from publicly available sources; local codes governing system administration and use were also reviewed, where publicly available. This information, where available, was used in order to develop an understanding of key metrics, including: revenues and trends, expenses and trends, rate structure, revenues versus expenditures, debt service, and reserves.

Analysis of available financial information against the following metrics is as follows.

- Revenues and trends – User charges for inside and outside users constitute the majority of revenues, at 54% and 21%, respectively. Capital charges are about 19% of budgeted revenues.
- Expenses and trends – Treatment and disposal represent the majority of appropriations, with personal services, contractual, and energy use comprising most of this category. Debt service is about 15% of appropriations; administration personal services, about 7%. According to the 25/26 budget, sewer service was about 35% of total appropriations.
- Rate structure – According to the 25/26 budget, the Village charges users for O&M and capital costs. O&M charges are based on gallons of usage. Outside-Village rates

are about 37% greater than inside rates. Capital costs are based on a system of units.

- Revenue versus expenditures – Actual budget information was unavailable for review.
- Debt service - The Village maintains a reserve fund of approximately $300,000 for unplanned equipment and WWTP expenditures.

Figure 43. Village of Woodridge wastewater facilities map

- Reserves – The Village provides for 4% of appropriations allocated to reserve, including for equipment and capital.
- Sewer use law – Local law 2 of 2011 is the Village sewer use ordinance.

### 21.3.2 Other Systems

No private centralized sewer systems exist within the Village.

### 21.3.3 Challenges and Opportunities

Challenges relate to operations at the WWTP and planning for growth. Flow and organic loading conveyed through the Village's WWTP have not consistently met the SPDES permit parameters during the 3-year period from January 2019 to December 2021. During this time period, the WWTP exceeded its permit limit an average of about once a month with respect to effluent limits for ammonia, BOD, phosphorous, and average monthly flow. With respect to growth and potential increases in flow to the WWTP, two proposed Village annexations are in process to extend Village boundaries to encompass proposed developments. At the same time, the Village has been in discussions with the Town of Fallsburg to redirect existing flow from the Davos Development to another Town-owned treatment facility to free up much-needed treatment capacity at the Woodridge WWTP.

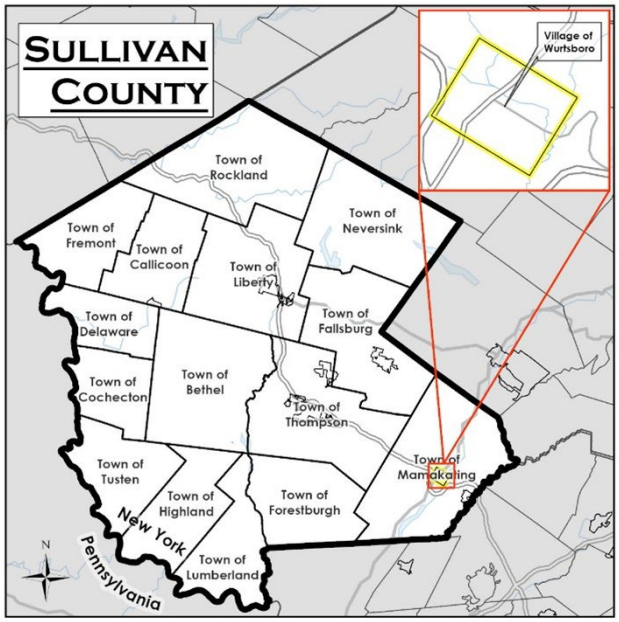
It is believed that the primary cause of these exceedances is due to elevated I&I levels, and therefore, the WWTP does not have available capacity beyond its maximum monthly average. A 2022 engineering report recommended rehabilitation and expansion of WWTP equipment capacities in order to support continued operation. Securing financing for the needed WWTP improvements is a challenge, as are uncertainties concerning the nature and extent of the underlying causes of I&I.

## 21.4 Methodology and Sources

In preparing this report, publicly available data were collected and reviewed, along with any additional documentation supplied by a municipal representative, county office, or other authoritative sources. In addition, the project team contacted and interviewed key individuals who have specialized knowledge of their local systems. The following is a list of sources consulted.

- Woodridge Annual Water Quality Report (AWQR) 2024 (NY5203348)
- 2022 Preliminary Engineering Report conducted by Barton and Loguidice
- Adopted 2025-2026 budget

# 22. VILLAGE OF WURTSBORO




## 22.1 Municipal Overview

The Village of Wurtsboro is located in the center of the Town of Mamakating in the southeast portion of Sullivan County. The Village is developed around the intersection of Kingston Avenue (NY 209) and Sullivan Street (CR 171) between the Hamlets of Summitville, Haven, High View, and Wurtsboro Hills. Wurtsboro had a population of 1,124 at the 2020 decennial census in an area of just over 800 acres, contributing to approximately 9% of the Town's total population and 1.3% of the Town's total area. The Village's 578 parcels consist of a mix of residential (361), commercial (66), and community services (26), surrounded by undeveloped forest and open space lands (51). A significant portion of the eastern and southern undeveloped areas consists of wetlands, totaling more than one-eighth of the Village's land area at 108 acres.

Wurtsboro does not have a municipal sewer system but does own and operate a centralized water system that serves nearly all of the properties within the Village. The Fello Lane trailer park provides private well water to residents, and five additional residential properties have private wells.

The Village lies entirely within the DRBC boundary but entirely outside the NYC watershed boundary.

## 22.2 Water Supply and Distribution Inventory & Evaluation

### 22.2.1 Municipal Systems

According to the 2017 DRBC docket, the Village system supplies water to the Village of Wurtsboro and approximately 46 users in an adjoining portion of the Town of Mamakating, just south of the Village.

# Village of Wurtsboro Water Facilities Map

## Sullivan County, New York

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

Village Water Service Area
Municipal Water Service Areas
Centralized or Regulated Decentralized Service
Individual On-Site Systems
Delaware River Basin (Entire Village)
NYC Watershed (Entirely Outside)
Other Municipalities
Stream
Waterbody

0 0.13 0.25 0.5 0.75 1 Miles

N

Village of Wurtsboro
Town of Mamakating
Wurtsboro
State Highway 17 W
State Route 209
Wurtsboro Mountain Rd
Summit Ave
Sullivan St
Helm St
Kingston Ave
Riina Rd
Forest Dr
David Ln
Marc Ln
Rosewood Ln
Water St
4th St
Lindberg Ave
Sheed St
Oak St
Grand St
Pennsylvania Ave
Willsey Brook
Leadmine Rd
Mamakating Rd
Perron Dr
Culver Dr
Aspen Rd
Delaware River Basin
1245 ft
888 ft
209

#### *22.2.1.1 System Components Inventory and Overview*

The Village water system serves an estimated 1,350 people through 466 service connections. The system has five wells and three are in use. Well 3 has a maximum flow rate of 200 GPM, Well 4 has a maximum flow rate of 75 GPM, and Well 5 has a maximum flow rate of 175 GPM. Existing Well 5 and its pump house are located within a FEMA mapped 100-year floodplain. The wellhead is equipped with a watertight seal and cased into bedrock.

The average daily withdrawal in 2022 was 154,799 gallons, with a maximum day withdrawal of 529,000 gallons. The permitted withdrawal limit as of 2023 was 914,400 GPD. In 2022, the Village reported a distribution system consisting of about 16 miles of pipe and 467 service connections, all of which are metered, with an average meter age of 18 years. The Village contracts with a private water operator to run the water treatment plant.

*Table 34. Village of Wurtsboro water withdrawal permit information (all figures in GPD)*

| Water System | Component | Max Rate (GPD) | Average Daily w/d | Peak Day w/d | NYSDEC Permitted w/d | DRBC Permitted w/d |
|---|---|---|---|---|---|---|
| **Village of Wurtsboro** | Well #3 | 288,000 | 154,799 | 529,000 | 792,000 | 335,484 |
| | Well #4 | 108,000 | | | | |
| | Well #5 | 252,000 | | | | |

According to the 2023 AWQR, the Village reported no violations but did report elevated levels of sodium and an action level exceedance at one sampling point for lead. Sodium is naturally occurring but also is present in the environment due to human activities, such as road salting and water softeners; animal waste also can be a source. Elevated levels of lead are likely caused by plumbing within a user's water system and beyond the point of interconnection with the public water distribution system.

According to EPA, the lead action level is a measure of the effectiveness of the corrosion control treatment in water systems. The action level is not a standard for establishing a safe level of lead in a home. To check if corrosion control is working, EPA requires water systems to test for lead at the tap in certain homes, including those with lead service lines. Systems compare sample results from homes to EPA's action level of 0.015 mg/L (15 ppb). If 10 percent of the samples from these homes have water concentrations that are greater than the action level, then the system must perform actions such as public education and lead service line replacement. The treatment technique regulation for lead (referred to as the Lead and Copper Rule) requires water systems to control the corrosivity of the water.

#### *22.2.1.2 Recent/Future Upgrades*

The Village has received state and federal funding for water infrastructure improvements. Specifically, the Village secured $1.25 M in Community Development Block Grant (CDBG) funding. This, combined with an existing $1.05 M in Water Infrastructure Improvement Act (WIIA) funding, provides a total funding package for replacing the water main along Sullivan Street and a 300,000-gallon water storage tank. In the near term, the Village is looking to continue to improve the infrastructure along Sullivan Street and develop a downtown park.

#### *22.2.1.3 Finances and Administration*

As part of the data collection process, information about system finances and budgeting was requested and researched from publicly available sources; local codes governing system administration and use were also reviewed, where publicly available. This information, where available, was used in order to develop an understanding of key metrics, including revenues and trends, expenses and trends, rate structure, revenues versus expenditures, debt service, and reserves.

Analysis of available financial information against the following metrics is as follows.

Detailed budget and other relevant information was unavailable for review at the time of writing with respect to revenues and trends, expenses and trends, rate structure, revenues versus expenditures, debt service, reserves, and water use law.

### 22.2.2 Other Systems

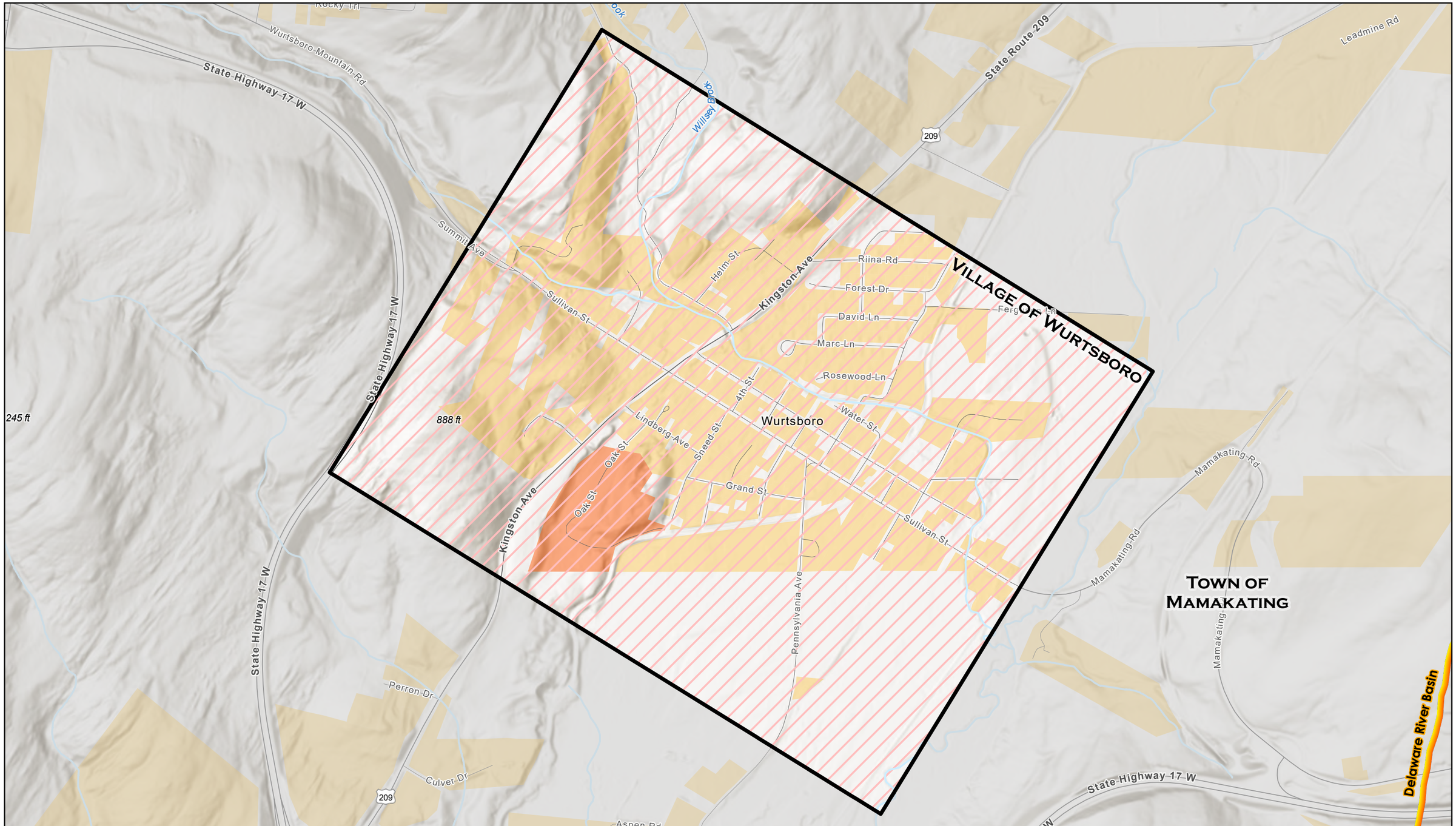
No private centralized water systems exist within the Village, and there are no facilities with capacity requiring a NYSDEC water withdrawal permit.

### 22.2.3 Challenges and Opportunities

As noted, some of the water supply infrastructure is situated within areas of flood hazard. The age of some of the components, including the water meters, may present challenges in terms of life cycle and operational characteristics. NYSDEC water withdrawal data suggest that the Village system does not operate near its permitted capacity.

## 22.3 Sanitary Sewer and Wastewater Treatment Inventory & Evaluation

No centralized sewer service is available in the Village. Wastewater generated in the Village is disposed of through use of onsite septic systems. No private centralized sewer systems are currently operating within the Village of Wurtsboro.




# Village of Wurtsboro Wastewater Facilities Map

## Sullivan County, New York

Prepared by: Delaware Engineering, DPC
Date: January 2026
Source: Sullivan County, NYSDEC, ESRI World Terrain

- Village Wastewater Service Areas
- Municipal Sewer Service Areas
- Centralized or Regulated Decentralized Service
- Individual On-Site Systems
- Delaware River Basin (Entire Village)
- NYC Watershed (Entirely Outside)
- Other Municipalities
- Stream
- Waterbody

0 0.13 0.25 0.5 0.75 1 Miles

N

### 22.3.1 Challenges and Opportunities

According to NRCS information, soils in the Village boundaries are somewhat limited or very limited with respect to septic system suitability due to a combination of depth to groundwater, slow absorption rates, presence of large rock elements, and slope. However, the developed area of the Village coincides with the relatively more favorable soils ("somewhat limited") within the Village boundaries. Given the relatively dense development pattern, locating suitable sites on existing parcels for replacement systems may be challenging.

While assessment of specific conditions in areas served by individual on-site facilities is beyond the scope of this report, challenges commonly faced with these settlement patterns, especially those areas with a long history of settlement, include individual on-site facilities designed and installed to earlier standards; difficulty obtaining space on lots to comply with contemporary standards (e.g., separation distances); and a more direct connection between septic systems and water bodies, with attendant water quality impacts. In addition, financing centralized infrastructure can be challenging due to relatively smaller numbers of potential users to be connected.

## 22.4 Methodology and Sources

In preparing this report, publicly available data were collected and reviewed, along with any additional documentation supplied by a municipal representative, county office, or other authoritative sources. In addition, the project team contacted and interviewed key individuals who have specialized knowledge of their local systems. The following is a list of sources consulted.

- Village of Wurtsboro Annual Water Quality Report (AWQR) 2023 (NY5203352)
- 2025/2026 budget
- Village code
- NRCS Web Soil Survey