TOWN OF WESTFIELD

Village Wastewater Study

Preliminary Engineering Report - 30% Draft

Vermont State Department of Environmental Conservation

Prepared for the:

Town of Westfield
38 School Street
Westfield, VT 05874

July 22, 2025

AES Project No. 5301

VT DEC Loan # RF1-386-1.0

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1 PROJECT PLANNING

1.1 Location

The Town of Westfield is located in Orleans County in Northern Vermont. The Town borders the Town of Jay to the North, the Town of Troy to the East, the Town of Lowell to the South, and the Town of Montgomery to the West. Refer to Figure 1.1: *Project Location Map*. According to the U.S. Census Bureau, the Town of Westfield has a total area of 40.2 square miles. **The Town lies within the Lake Champlain drainage basin**.

The project is focused on the designated Village Center area within the Town of Westfield. The report study area extends slightly beyond the Designated Village Center, as shown in Figure 1.2: *Sewer Service Area*, to include nearby areas within ¼-mile of the Village into the project. The Sewer Service Area is defined solely to identify the geographic limits of the project evaluation and does not represent the extent of any potential future wastewater system.

1.2 Environmental Resources Present

The Town of Westfield is located adjacent to mountainous terrain, agricultural farmlands and flood zones, as well as the Missisquoi River. This section briefly discusses the environmental resources present in and around the project area. Additional information will be provided in the Environmental Information Document (EID), which is included in Appendix A.

1.2.1 Landmarks and Historic Features

The Town of Westfield has two buildings that are treasured by the community. The Hitchcock Museum and Library and the Community Center serve as gathering places and anchor the Village Center.

The Hitchcock Museum and Library is a Westfield landmark, built in 1899 with funds donated by Aaron E. Hitchcock, a local farmer, businessman, and real estate investor of the time. The museum currently houses a natural history collection, wild game trophies from around the world, ships-in-bottles, Town historical photos, documents, and farming objects.

The Westfield Community Center was formerly the Village School, circa 1860. The building has been modernized and raised onto a foundation, and is now used for senior meals and activities, civic groups, and Town Board meetings.

The Long Trail runs through the Town of Westfield, and a portion known as Hazen's Notch is a scenic and historic area. The Notch has been designated a Natural Heritage Site. Most of the land is owned by the State, but some private ownership provides access to some forests and camps.

1.2.2 Archeological Sites

The Missisquoi River, on the east side of the Town and a main water body in the Village Center, is designated as a corridor of "expected archeological sensitivity". Due to the nature of the land topography and slopes, and considering the distances to water, food, and other natural resources, the likelihood that archeological sites are present in this area are significant. Care will be taken during the soils investigation to coordinate with the Vermont Division for Historic Preservation (VDHP) and have an archeologist on site during test pits.

Once the Town board has selected the Alternative and directed the engineer to proceed with Step 2 and the design of the infrastructure, the preliminary design documents of infrastructure improvements will be submitted to VDHP again for a final determination of any impact on archaeological and/or historic resources.

1.2.3 Wetlands

According to the Westfield Town Plan, there are 444 acres of wetlands in the Town. While many of these are comprised of small areas scattered throughout the town, the majority of the wetlands in and near the project area lie in the fields along the Missisquoi River, as shown in Figure 1.3: *Village Wetlands*.

1.2.4 Floodplains

Changes in local weather patterns in recent years have increased the frequency of severe and intense storms in Vermont, which have emphasized the need to verify that proposed work can withstand the 100-year (1% recurrence interval) and possibly the 500-year (0.5% recurrence interval) flooding events. The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) are used to determine the extent of the 100-year and 500-year flood.

Figure 1.4: *FEMA Flood Hazard Areas* shows that areas within the project adjacent to the Missisquoi River and its tributaries are prone to flooding. These areas have been designated as Zone A on the Flood Hazard Boundary Map, indicating they are areas with a 1% annual chance of flooding. Detailed analyses have not been performed for these areas and therefore there is no known base flood elevation, however it is known that these areas are prone to flooding and should be avoided for a potential wastewater disposal area. Refer to Figure 1.4: *FEMA Flood Hazard Areas.*

1.2.5 Existing Soils

Hydrologic Soil Groups are classifications developed by the U.S. Department of Agriculture's Natural Resources Conservation Service (USDA-NRCS) to estimate the runoff potential of soils. Soils are assigned to one of four groups – A, B, C, or D – based on the infiltration rate of the soil and water transmission potential under conditions of maximum wetness (i.e., when the soil is thoroughly wetted and vegetative cover is established). Classifications may also appear as dual groups – A/D, B/D, or C/D – where drainage conditions significantly alter the soil's hydrologic behavior. These classifications are commonly used in wastewater planning and stormwater management to assess site suitability, determine appropriate system design, and evaluate potential environmental impacts.

The Proposed Sewer Service Area includes a mixture of different soil types and hydrologic soil group classifications. Much of the Proposed Service Area includes soils designated as Group B, C, D, or in dual groups. Below is a description of each hydrologic soil group description and discussion of suitability for wastewater discharge. Refer to Figure 1.5 for mapping and additional descriptions of the soils present in the Proposed Sewer Service Area and Village of Westfield.

Soils in Group A have a high infiltration rate when thoroughly wetted, and are generally consisting of deep, well-drained sands or gravels with low runoff potential. Soils in this group are most favorable for infiltration-based systems, such as mounds or infiltration beds due to excellent percolation and transmissivity.

Soils in Group B have a moderate infiltration rate when thoroughly wetted, and are generally well-drained soils with moderate rates of water transmission (i.e., loams). Soils in this group are typically suitable for many wastewater disposal methods, though site-specific conditions must still be evaluated. Transmissivity and percolation are adequate but may be sensitive to compaction or seasonal saturation.

Soils in Group C have a slow infiltration rate when thoroughly wetted, and are generally consisting of finer texture (e.g., clay loams) with restrictive layers or moderately high water table. Soils in this group may require engineered solutions or alternative designs to address the slow percolation and limited water movement. These soils are not typically desirable for wastewater disposal methods, though site-specifical conditions must still be evaluated.

Soils in Group D have a very slow infiltration rate when thoroughly wetted, and are generally consisting of clays, silty clays, or soils with a high water table or shallow impermeable layer. Soils in this group are the least favorable for infiltration-based systems and often require advanced treatment or alternative discharge methods. Mound systems with engineered fill are typical for soils in this group.

Some soils are classified as dual groups (A/D, B/D, C/D) when natural drainage is poor (D), but improved drainage (by artificial means such as underdrains or mounding) can elevate the soil's performance to match a better hydrologic group (A, B, or C). These soils initially have low permeability and transmissivity due to shallow water tables or restrictive layers. With engineered improvements, such as underdrain installation or mounding above the seasonal high groundwater, the soil potential may be restored for higher percolation and acceptable design performance.

While USGS-NRCS mapping is a good indicator of the soils present in a location, it is necessary to confirm the presence of soils through site evaluation including methods of soil borings, percolation testing, soil excavations and seasonal high water table identification to determine if the dual classification can be relied upon for design. Dual group designations emphasize the need for long-term performance considerations, especially for systems relying on infiltration in marginal or seasonally saturated conditions.

1.2.6 Farmland and Agricultural Lands

A large portion of the report study area to the south of Route 100 is designated as agricultural land cover. Refer to Figure 1.5: *Agricultural Land Cover*. Furthermore, nearly the entire Designated Village Center is comprised of primary agricultural soils, see Figure 1.5.1: *Prime Ag Soils*. Prime agricultural soils are defined by the USDA as soils that have the physical and chemical characteristics necessary to produce sustained high yields of food, feed, forage, fiber, and oilseed crops with minimal inputs (such as fertilizers or irrigation). According to the USDA-NRCS, prime farmland soils possess traits of good moisture retention and drainage, favorable soil texture and structure, adequate depth and fertility, minimal risk of erosion or flooding, and consistent temperature and growing season length. In Vermont, prime agricultural soils are especially valuable because of the state's limited flat and fertile land. These soils are typically identified and classified by the Soil Survey data (SSURGO) and are protected under various state and federal policies. Most of this land is designated as conserved farmland through the Vermont Land Trust, see Figure 1.5.2: *Conserved Land Map*

and Section 1.2.6.

For consideration of wastewater impact to farmland and prime agricultural soils, projects proposed on or adjacent to prime agricultural soils may require mitigation or avoidance strategies to minimize soil disturbance. Wastewater design systems (such as leach fields or soil-based disposal) should account for the preservation of agricultural productivity to ensure that soil health, compaction, and nutrient management are addressed.

1.2.7 Conserved Lands

The Designated Village Center is surrounded by conserved lands to the south of Route 100. Many of these lands coincide with agricultural lands and prime ag soils, as discussed above. Furthermore, there are large portions of land that lie along Route 100 towards the Town of Troy that are also conserved. See Figure 1.5.2: *Conserved Land Map*.

1.2.8 Coastal Zones

There are no coastal zones in or near the project area. As Figure 1.1: *Project Location Map* and Figure 1.2: *Sewer Service Area* show, the Town of Westfield is landlocked in northern, central Vermont. The Designated Village Center and sewer service area are not near any major water bodies, besides the Missisquoi River.

1.2.9 Rivers

The Sewer Service Area is adjacent to the Missisquoi River, and its tributaries run through the Village Center. The Missisquoi River runs across the northwestern part of Vermont and into southern Quebec. These rivers and streams provide cultural, scenic, and recreational value to the community. With a mix of high-elevation cold-water and slower-flowing warm water, the river supports a variety of fish and wildlife.

1.2.10 Fish and Wildlife

According to the Vermont ANR Atlas, there are no fish and wildlife habitat blocks or management areas within the sewer service area or the surrounding lands.

1.2.11 Endangered Species

The Vermont ANR Atlas indicates there are no endangered species present in the project area or along the Route 100 corridor leading to the Town of Troy.

1.3 Population Trends

According to the 2020 census from the U.S. Census Bureau, the Town of Westfield had a population of 534 people. This is a slight decrease from the 2010 census that reported a population of 536.

Census Year	**Population[1]**	↑ or ↓	**% Change**
1900	646	--	--
1910	613	↓	5.11%
1920	490	↓	20.07%
1930	448	↓	8.57%
1940	354	↓	20.98%
1950	358	↑	1.13%

1960	347	↓	3.07%
1970	375	↑	8.07%
1980	418	↑	11.47%
1990	422	↑	0.95%
2000	503	↑	19.19%
2010	536	↑	6.56%
2020	534	↓	0.37%

[1]*Source: United States Census Bureau*

The data demonstrates population decline in the Town from 1900 to 1960, with a resurgence and increase in the latter half of the 20th century until the most recent Census. The trend from the last 40 years indicates that the population of the Town may be stabilizing.

The Village is not listed separately in the U.S. Census data, however, based on the 2023 American Community Survey, the average household size is approximately 2.68. With an estimated 63 parcels included in the Sewer Service Area, it gives an estimated Village Center population of 168, about 32% of the Town's population.

In the last 20 years, the Town population has increased about six percent. Assuming similar trends in the Village Center, the village population is estimated to grow to about 178. Based on recent studies looking at infill development in urban areas, dedicated efforts to expand residential housing in the Village Center indicates population growth could be expected to increase by about 5% in addition to natural population growth.

1.4 Community Engagement

The Town is committed to maintaining clear and consistent communication with community members throughout the planning and feasibility phase of a potential wastewater project. To initiate public outreach, the Town mailed a survey to property owners and residents within the Proposed Service Area. These letters included a summary of the project scope and information on where additional resources and updates could be accessed. Later sections of this report include discussion of survey results. Refer to Chapter 2. *Existing Facilities.*

At the Town's request, AES Northeast assisted in the development of a project overview that has been published on the Town's official website. This page includes project background, timelines and information regarding upcoming public meetings/workshops.

In compliance with Vermont DEC funding and public participation requirements, the Town will hold a series of three public meetings at the 30%, 60%, and 90% completion stages of the Preliminary Engineering Report. These meetings will serve as formal opportunities to present the project status, share technical findings, and gather input from community members. Each session will be structured to encourage inclusive dialogue, use accessible language, and ensure that questions and concerns from all stakeholders are heard and considered. These meetings will include pertinent information such as understanding of project need, discussion of potential alternatives, the utility operational service levels that may be required, and funding and revenue strategies to meet VTDEC requirements, along with other applicable considerations.

The Town and AES Northeast recognize the value of community input and are committed to ensuring that the engagement process is respectful, transparent, and responsive. Feedback collected during these meetings will be used to inform project decisions and ensure that community concerns are meaningfully addressed as the project advances through potential design and permitting.

Discussion of feedback collected during these meetings will be addressed in later sections of this report along with feasibility analysis of the alternatives. Refer to Chapter 5. *Selection of an Alternative (when available)*.

2 EXISTING FACILITIES

The Town of Westfield does not currently have a municipal sewer system. The homes and businesses in the Designated Village Center and surrounding area are served by individual, private septic systems located on their properties. The Town sent a survey to the 65 properties included in the Proposed Sewer Service Area (PSSA) asking for information on the existing wastewater systems. The Town received responses from 28 property owners (43%), which helped to inform the general statements made in Chapter 2 and Chapter 3 of this report.

A blank copy of the survey is attached in Appendix B.

2.1 Existing Facilities Mapping

Since the Town does not have their own municipal wastewater infrastructure, the Town does not possess a map of existing individual, private septic systems used by residents. The Town plans to perform site visits to each location within the PSSA to flag at-grade where wastewater pipes exit structures and pathways to existing septic systems, if known. The Town intends to perform this work with assistance from property owners within the PSSA. These locations will be integrated into GIS to map the existing wastewater systems and serve as a reference for the design phase when it may be necessary to determine connection points for a potential new collection system.

2.2 History

It is unknown when most of the privately owned septic systems were constructed. Many are thought to be original to the construction of the buildings, though some have been replaced in recent years. All 26 survey responses gave an indication of when their system was built. Twelve percent of respondents indicated their system was constructed before 1970, 19% between 1970 and 1989, 15% between 1990 and 2006, 19% after 2007, and 31% didn't know. A more detailed evaluation of septic system status and dates of construction will be completed during design. There have not been any recorded violations of regulatory requirements for any of the privately owned septic systems in Westfield.

2.3 Condition of Existing Facilities

The Town and property owners have indicated that the majority of these septic systems use traditional in-ground trench disposal fields. Some properties may have another type of system such as a mound, at-grade system, or other. Through discussions with the Town, it was understood that the existing systems are frequently inundated by flooding and are at the end of their useful life. However, of the 26 property owners that answered the survey, the majority (62%) of respondents indicated that they do not have any issues with their septic system, 23% didn't answer, and 15% indicated they may occasionally experience wetness, sewage on the ground, or basement backups.

Most of the properties in the PSSA are residential, and from the survey it appears that the majority of the homes are 3-bedroom. Very few property owners have a copy of the design documents, as it is assumed that most of the systems were constructed prior to State Wastewater permits (and therefore exempt from the permit requirements). However, it is assumed that the systems have the capacity to handle the wastewater

flows from their respective buildings. Many of the existing systems do not have any capacity to add additional connections.

The estimated wastewater flows for current usage are summarized in the table below. These design flow estimates were calculated in accordance with Section 1-803 of the Vermont Wastewater System and Potable Water Supply Rules (effective November 6, 2023). There are approximately 71 parcels within the proposed sewer service area, of which the majority are residential. Design flow for residential parcels was estimated based on a standard 3-bedroom single-family residence at 70 gallons per day (gpd) per bedroom, unless otherwise specified in survey responses. The remaining parcels include commercial, institutional, or mixed-use properties, for which flow estimates were determined using appropriate unit rates, such as 15 gpd per employee or seat, depending on the specific type of use.

Type of Connection	**Design Flow (gpd)**
Residential (59)	26,000
Commercial (12)	7,300
Total Estimated Daily Flow	**33,300**

Future wastewater demand is influenced by various factors, including population growth, regional development, and commercial expansion. For this study, projections are based on the current estimated flows and anticipated growth trends. Applying a projected 6% population increase over the next 20 years, along with an additional 5% increase attributed to infill development, the future wastewater flow is estimated to reach approximately 37,000 gpd.

2.4 Financial Status of any Existing Facilities

The existing septic systems are privately owned, and therefore residents do not pay a sewer tax quarterly or annually, and there are no shared O&M costs associated with wastewater disposal. Without a municipal system, the Town does not currently have any existing debts or reserve accounts related to a wastewater utility. The American Community Survey reported the median household income (MHI) in 2023 to be $90,625. This is higher than the MHI reported throughout the State of Vermont in 2023 as $81,211.

2.5 Water/Energy/Waste Audits

At this time, the Town of Westfield has not conducted any water, energy, or waste audits associated with this project.

Add info on existing water utility within DVC. Confirm energy audits have not been conducted.

3 NEED FOR PROJECT

3.1 Health, Sanitation, and Security

The Town has reported many of the existing septic systems are frequently inundated by flooding and are at the end of their useful life. Aged septic systems have the potential to pose significant health concerns for the community. Groundwater or surface water may become contaminated if the soil is not properly treating the wastewater. Furthermore, raw sewage exposure becomes hazardous in yards or basements from backups or overflows and can result in unpleasant odors. Slow drains or toilet overflows can lead to sanitation concerns inside the home, and standing sewage on lawns can attract pests, insects, and rodents.

3.2 Aging Infrastructure

The Town has reported ongoing challenges with many of the existing septic systems in the Village, indicating that these systems are nearing the end of their useful life. There have been complaints of a sewage odor throughout the Village during the springtime, which is evidence that the systems are not functioning properly.

A wastewater permit search revealed that some of the properties in the Proposed Sewer Service Area have already replaced their original septic system. A detailed search should be incorporated during design to make sure that the properties that need to upgrade their system are included in the project and remove previously improved systems.

3.3 Reasonable Growth

In 2024, Vermont introduced Act 181, new legislation aimed at revising land use planning, including a focus on infill development of vacant areas within the Designated Village Center. The intent is to balance growth, protecting natural resources, and the state's rural character. Studies have shown that infill development leads to population growth by increasing population density by building residential housing on vacant or underutilized parcels to accommodate more residents. Infill development may specifically encourage the creation of multi-family units and accessory dwelling units (ADUs), which can help meet housing demand and affordability challenges. The Town hopes to take advantage of this new law to encourage the expansion of infill with these higher density dwellings in the village area. However, the existing wastewater infrastructure in the Village does not currently support such development. This report seeks to study alternatives that will improve wastewater disposal and treatment in the Village Center and allow for increased density.

Based on recent studies that evaluated infill development in urban areas, dedicated infill efforts to expand residential housing in the Village indicate population growth could be expected to increase by about 5% in addition to natural population growth. Much of the undeveloped land in the Sewer Service Area is conserved as dedicated farmland by the Vermont Land Trust and cannot be developed in the future. This limits infill development to increasing density through multi-family housing and accessory dwelling units.

4 FIGURES

5 APPENDICES

Appendix A: Environmental Information Document (EID)

Appendix B: Village Wastewater Survey Form

FIGURES

N

RICHFORD

JAY

TROY

NEWPORT TOWN

COVENTRY

WESTFIELD

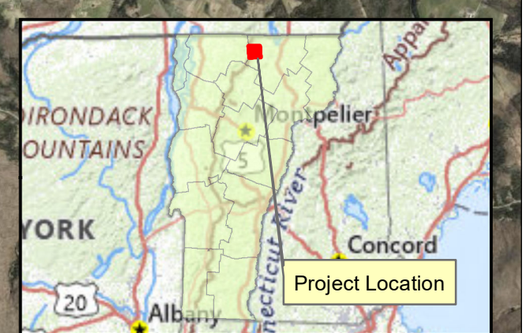
MONTGOMERY

LOWELL

ALBANY

Legend

- Designated Village Center
- Westfield Town Boundary
- Towns



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Notes:
1. Aerial photography is from on-line orthoimagery (World Imagery) provided by ESRI ArcMap program.
2. Soils Data: Web Soil Survey. Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online. Accessed 12/21/2023.

1 inch = 6,445 feet

0 1,550 3,100 6,200
Feet

Document Name: 1.1 Location Figure10.4
Date: 7/16/2025

5301
Town of Westfield
Village Wastewater Study

Figure 1.1: Project Location Map

N

BESSETTE RD

N HILL RD

SUGARHOUSE RD

BALLGROUND RD

SCHOOL ST

TOWN HWY 31

LOOP RD

CRAWFORD TRL

VT ROUTE 100

LANE RD

FREEDOM DR

CARMEL RD

CEMETERY RD

Legend

- Proposed Sewer Service Area
- VTPARCELS_Westfield

Project Location

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Notes:
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2. Soils Data: Web Soil Survey. Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online. Accessed 12/21/2023.

Document Name: 1.2 SewerServiceArea10.4
Date: 7/16/2025

1 inch = 672 feet

0 165 330 660

Feet

5301

Town of Westfield
Village Wastewater Study

Figure 1.2:
Sewer Service Area

Designated Village Center + 1/4 mile radius

N

Legend

- DVC + 1/4 mile buffer
- VTPARCELS_Westfield

WETLAND TYPE

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine
- Other

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Document Name: 1.3 Wetlands
Date: 7/16/2025

1 inch = 572 feet

0 140 280 560
Feet

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Village Wastewater Study

Figure 1.3: Wetlands Map

N

JOINS 03

ZONE A

ZONE A

ROUTE 100

CORPORATE LIMITS

ZONE A

MISSISCOUOI

Mill

JOINS 05

ZONE A

Brook

Brook

ZONE A

ROUTE 100

River

ZONE A

CORPORATE LIMITS

Turtle

JOINS 09

APPROXIMATE SCALE
1000 0 1000 2000 3000 FEET

MAP REVISED
12/24/76

FLOOD HAZARD BOUNDARY MAP

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

TOWN OF WESTFIELD, VT
(ORLEANS CO.)

06

Legend

Project Area

FEMA Flood Map

Value

Zone A

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Notes:
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2. Flood Hazard Data. ArcGIS Living Atlas, FIRM Maps, FEMA

Document Name: 1.4 Flood Hazard Map10.4
Date: 7/16/2025

1 inch = 1,124 feet

0 275 550 1,100
Feet

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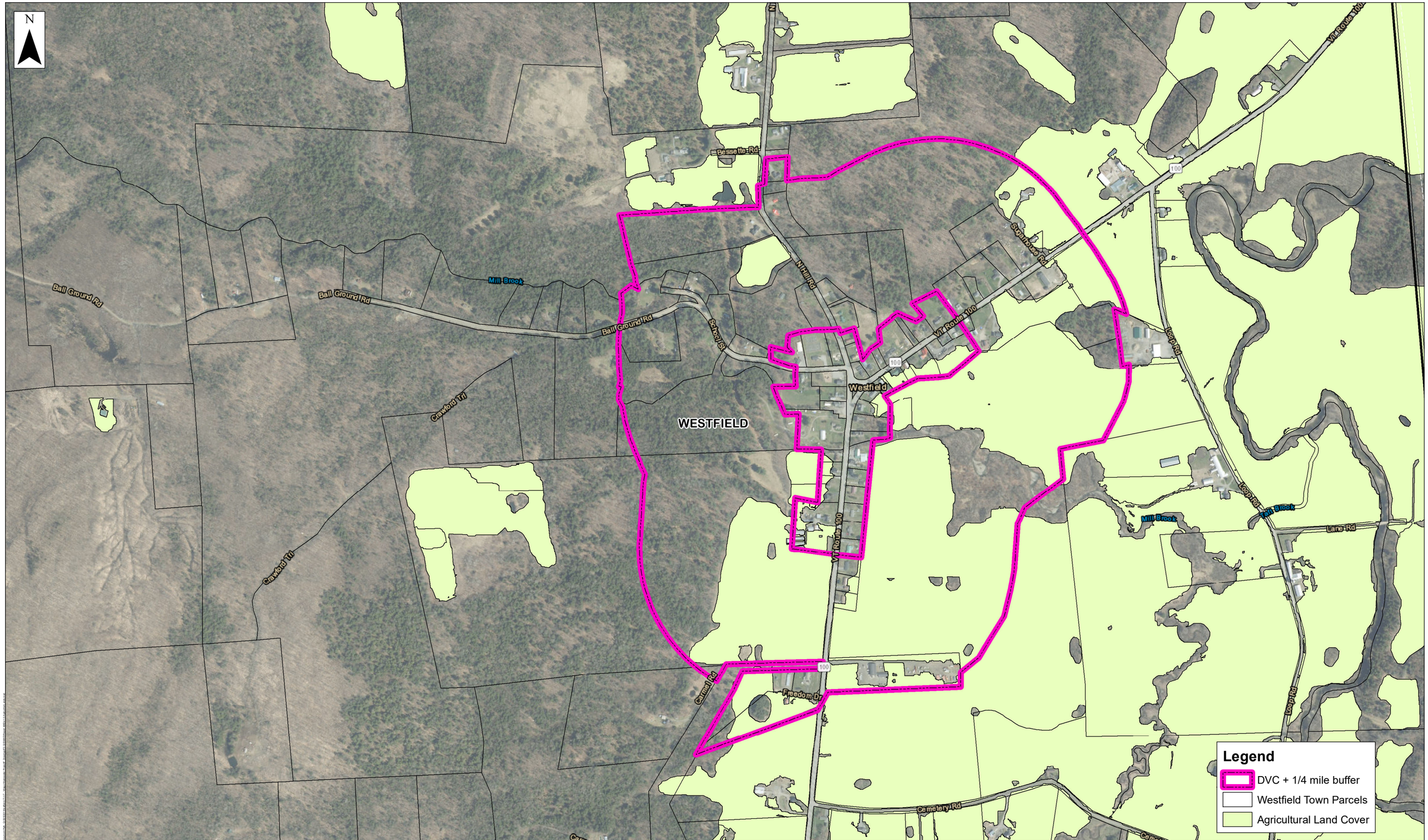
Village Wastewater Study

Figure 1.4:
FEMA Flood Hazard Areas



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Document Name: 1.5 Agricultural Lands
Date: 7/16/2025

1 inch = 751 feet
0 187.5 375 750
Feet

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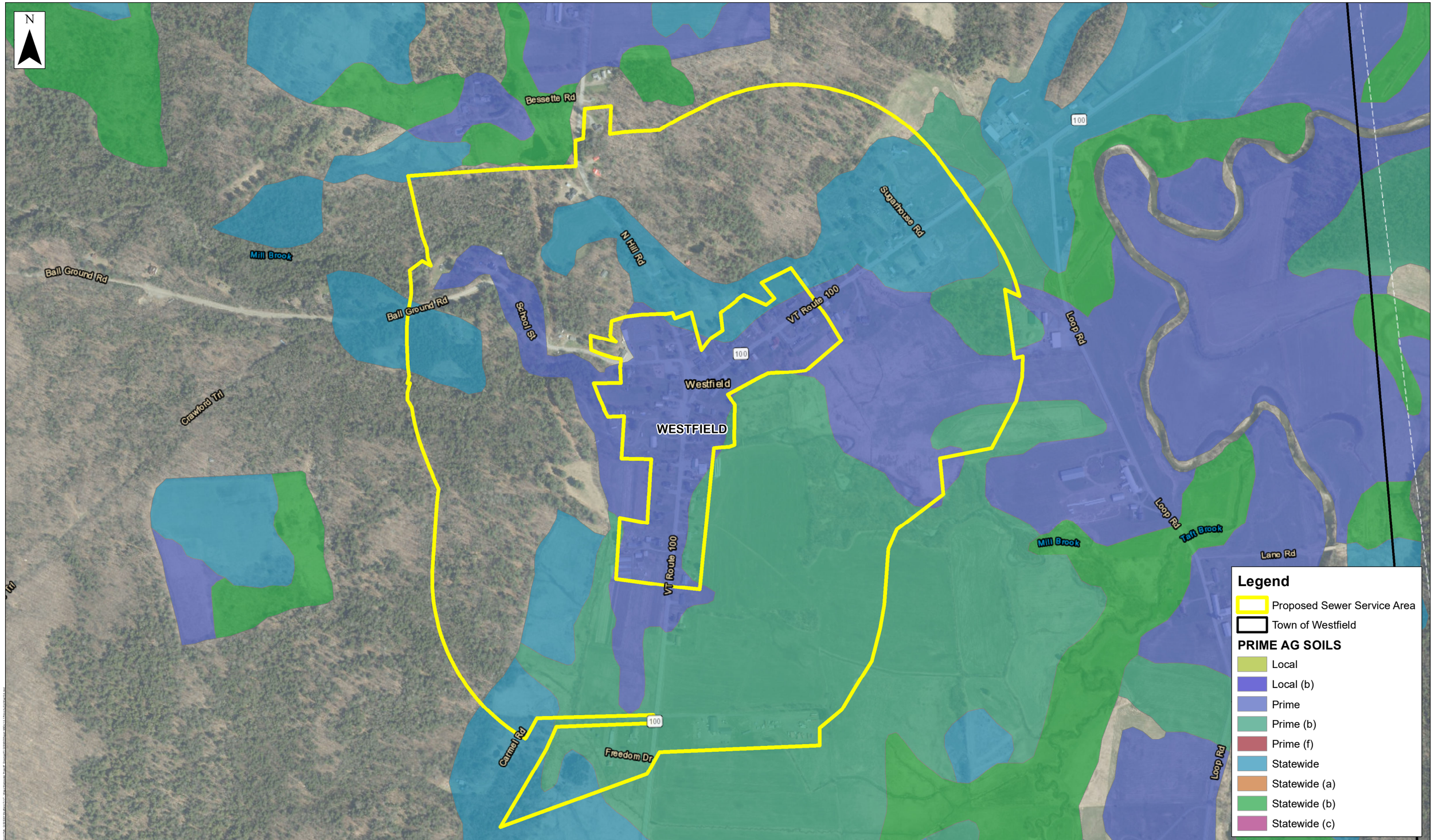
Village Wastewater Study

Figure 1.5: Agricultural Land Cover



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Document Name: 1.5.1 Prime Ag Soil Map10.4
Date: 7/19/2023

1 inch = 625 feet

0 155 310 620
Feet

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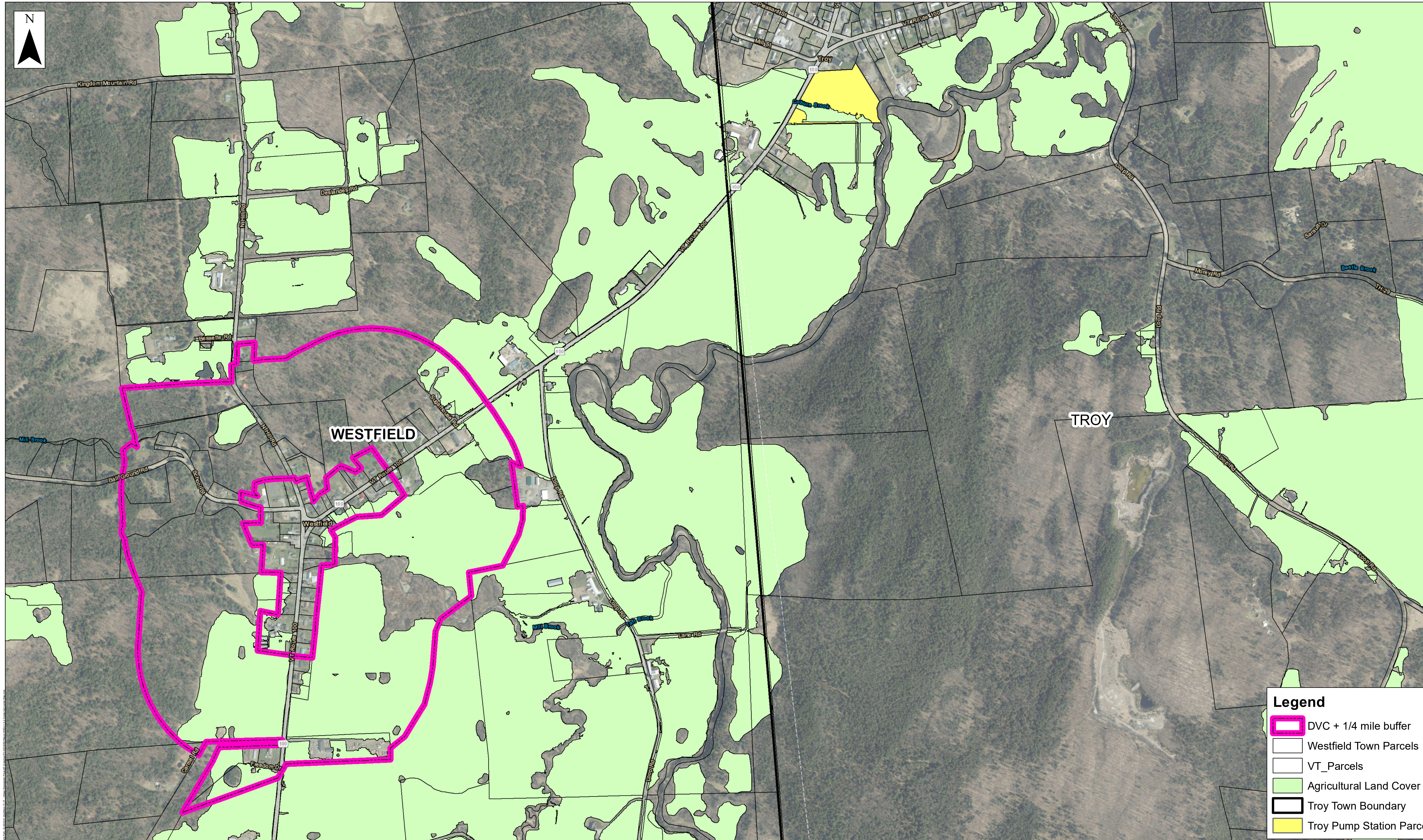
Village Wastewater Study

Figure 1.5.1:
Prime Ag Soils
Agriculturally Important Soil Units



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Document Name: 1.5.2 Conserved Lands Map
Date: 7/16/2025

1 inch = 961 feet

0 240 480 960 Feet

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Town of Westfield, VT
Village Wastewater Study

Figure 1.5.2: Conserved Land Map

APPENDICES

APPENDIX A

Environmental Information Document

VERMONT
ENVIRONMENTAL CONSERVATION

EnvRep-103

Appendix H

Water Investment Division

Environmental Information Document
and Environmental Report

Project Name _____

Project Owner _____ Address _____

Project Location _____

Drinking Water System Name _____ WSID No. _____

State Assigned Drinking Water Revolving Loan (DWSRF) Number RF3-_____

Wastewater and/or Stormwater System Name _____

List Existing Permit Numbers: _____

State Assigned Clean Water Revolving Loan (CWSRF) Number RF1-___

All Projects: USEPA Grant (STAG) Number _____

Federal Fiscal Years (s) of USEPA Grant Appropriation _____

Applicants are strongly encouraged to consult early and frequently with our staff to ensure that all environmental issues are described, evaluated, and impacts appropriately considered and mitigated, in order to expedite the application process and SRF review and approval of a proposed project

SRF design review staff will independently evaluate and verify accuracy of information supplied in the project environmental report, and issue the CATEX, FONSI or ROD determination.

If an SRF determination is made that an Environmental Assessment or an Environmental Impact Statement is required, for projects with a greater complexity of impacts and mitigation, the SRF staff will be responsible for initiating the preparation of this document internally or by a third party.

The EIS will result in a Record of Decision determination, instead of a CATEX or FONSI.

Through a memorandum of understanding between United States Department of Agriculture-Rural Development and the Vermont Agency of Natural Resources, this environmental report format is acceptable to both funding agencies.

Please note that Environmental Review Determination eligibility, public comment, and public notice requirements may differ among the funding agencies.

Provide the “need of project” statement:	
Provide the “purpose of project” statement:	
Provide a brief description of the project scope and design as detailed in the Preliminary Engineering Report:	
Highlight the project features that will likely have an environmental impact or impact to historical resources or involve environmental justice issues. The level of project detail should be in keeping with the scope and magnitude of the construction project.	

Program Loan	Information Request	YES	NO	WID
Projects requiring **no** Mitigation measures will qualify to proceed with a Categorical Exclusion (CATEX) process. Projects requiring Mitigation may qualify for a Finding of No Significant Impact (FONSI).				
CWSRF and DWSRF	Is the Project likely to have no or very minimal effects?	○	◉	☐
CWSRF and DWSRF	Does the project require mitigation measures?	○	○	☐
CWSRF and DWSRF	Does the authorized project representative make a written request for a Categorical Exclusion, for Projects likely to have no or very minimal effects (included)?	○	○	☐
Projects of greater complexity and impact will require an Environmental Impact Statement (EIS) and result in a Record of Decision (ROD)				
CWSRF and DWSRF	Does the project involve greater complexity and impact or controversy[1]?	○	○	☐
CWSRF and DWSRF	Attach ***additional information*** such as a qualified consultant assessment or determination letters, permits from regulatory authorities, and mapping	○	○	☐
Projects limited to the existing footprint of a building (e.g., a UV disinfection project)				
CWSRF and DWSRF	No Impact Certification Statement, submitted?	○	○	☐
CWSRF and DWSRF	The project is restricted to the footprint of the existing building:	○	○	☐
Project Scope				
DWSRF	Will the project expand capacity to serve more than 500 additional users or a 30% increase in the existing population, whichever is greater?	○	○	☐
CWSRF	Will the project increase hydraulic (flow) treatment capacity by more than 20%	○	○	☐
CWSRF	Percent increase in hydraulic capacity	0%		
CWSRF	Will the project increase influent 5-day biochemical oxygen demand (BOD5) organic treatment capacity by more than 30% ?	○	○	☐
CWSRF	Percent increase in BOD5 capacity	0%		☐
CWSRF	Existing hydraulic capacities		gal.	☐
CWSRF	Existing organic capacities		mg/l	☐
CWSRF	Proposed hydraulic capacities		gal.	☐
CWSRF	Proposed organic capacities		mg/l	☐
Sole Source Aquifer				
DWSRF and CWSRF	Will the project take place in an area designated by the Environmental Protection Agency as a "Sole Source Aquifer"?	○	○	☐
New Project Features				
DWSRF	Does the project call for a jurisdictionally new withdrawal of groundwater or of surface water (10 V.S.A. § 1042(b))?	○	○	☐
CWSRF	Does the project include a new discharge to surface water or groundwater?	○	○	☐
DWSRF	Will the project result in a 30% increase in groundwater or surface water withdrawal at an existing site?	○	○	☐
DWSRF	Percent increase in groundwater/surface water withdrawal	0.00%		☐
Mitigation				
DWSRF and CWSRF	Do you believe your project qualifies for a Categorical Exclusion in accordance with the Environmental Review Procedures for projects funded through the Vermont/EPA Drinking Water Revolving Loan Program and/or the Vermont/EPA Clean Water Revolving Loan Program, based on the environmental information and documentation, presented in the attached form?	○	○	☐
DWSRF and CWSRF	With your applicant's signature below, do you request a Categorical Exclusion for your project?	○	○	☐
DWSRF and CWSRF	If "No" above (Not a CATEX project), you must fill out all affected environmental and historical considerations below. If you answer "Yes" you will also need to provide the mitigation measures or an alternative action plan			

[1] Environmental controversy. Controversy includes not only scientific disagreement about the mitigation's effectiveness, but also public interest or debate. Controversy is an unresolved group opposition, disagreement or concern to the proposed project within the affected community

WID

1. Environmental Justice Considerations

Considerations	Yes or No	Basis for Determination and Documentation	
The WID uses this form to establish compliance with NEPA requirements. The WID determination of NEPA compliance does not extend to other permitting by other agencies. The intention of the WID review/determination is to establish that the project development takes into account all direct and indirect aggregated environmental impacts of the project.			
Sensitive Communities include persons who: may have reduced mobility; persons who reside in hospitals, nursing homes, convalescent homes, intermediate care facilities, board and care facilities, and retirement service centers; communities disenfranchised due to economic condition; communities disenfranchised by minority status, such as ethnic, religious, race, color or sexual identity. Sensitive communities includes children and elderly individuals within each of the definitions above.			
Will the project adversely affect a sensitive population? Present a map produced using the online EJSCREEN tool, showing the project perimeter.	○ ◉		☐
Will the project affect sensitive populations? Project characteristics that may result in effects on sensitive populations include: Measures to avoid loss of life or injury during flood or storm events; construction or operation dust, odor or noise control measures; storage of hazardous chemicals in areas of sensitive communities; limitations on transportation access etc.	○ ○		☐
Is the project known or expected to have a significant negative effect on the quality of the human environment? Consider the cumulative and also the long term effects of the project on the community. Provide a narrative of anticipated effects.	○ ○		☐
Will the project contribute to significant changes to the socioeconomic makeup of the area?	○ ○		☐
Is the project unaffordable? Provide an evaluation of the projected effect on user rates versus the affordability analysis.	◉ ○		☐
Has the project undergone an alternatives analysis evaluating practicable alternatives to address the pollutant or pollutants of concern (Criterion 9 of Chapter 2)?	○ ○		☐
Does the project implement the least cost alternative based upon a Life Cycle Cost Analysis (Criterion 9 of Chapter 2)?	○ ○		☐
Does the project implement the least cost alternative of the Long-Term Cost Effectiveness Analysis per (Criterion 9 of Chapter 2)?	○ ○		☐
Does the project impact an "existing use" contact recreational activity (on or after November 28, 1975) such as a swimming hole listed in a published Tactical Basin Plan?	○ ○		☐

2. Cultural, Historic and Archaeological Resources

Considerations	Yes or No	Basis for Determination and Documentation	WID
Projects shall protect cultural, historical and archaeological resources as they are of value to the community. Qualified consultants will assist and coordinate with WID and SHPO staff in making determinations and concurring with project applicant.			
Historic Sites Act: Will the project adversely affect a federal [16 U.S.C. sec. 461-467, (1935)] historic site?	○ ○		☐
Will the project adversely affect a state Vermont historic preservation act historic site? (*Please include copies of the historic resources assessment or archeological reports and subsequent phases as needed. List the qualified consultant, agencies and groups consulted.)*	○ ○		☐
National Historic Preservation Act [16 U.S.C. §470 et. seq. (1966)]: Will the project adversely affect historic buildings, over 50 years old, or listed in the National Register of Historic Places? https://www.nps.gov/subjects/nationalregister/database-research.htm Provide a list of any listed buildings, buildings over 50 years old, in the project area, and photos of each building, or a report by a qualified ACCD listed consultant.	○ ○		☐
Vermont listed historic preservation resource: Will the project adversely affect a Vermont listed historic resource? https://accd.vermont.gov/historic-preservation/identifying-resources Provide a list of any listed buildings, buildings over 50 years old, in the project area, and photos of each building, or a report by a qualified ACCD listed consultant.	○ ○		☐
Archaeological and Historic Preservation Act: Will the project adversely affect cultural resources? [16 U.S.C. §469a-1 (1974)] current 54 U.S.C. chapter 3125	○ ○		☐
Vermont archaeological and historic preservation: Does the project adversely affect a Vermont listed cultural archaeological or historic resource? https://accd.vermont.gov/historic-preservation/resources-rules https://accd.vermont.gov/historic-preservation/identifying-resources Provide documentation that the project perimeter has been evaluated for presence of these resources.	○ ○		☐
Executive Order 11593: **Will the project adversely affect cultural resources** "Protection and Enhancement of the Cultural Environment" https://www.archives.gov/federal-register/codification/executive-order/11593.html	○ ○		☐

3. Land Use

Considerations	Yes or No	Basis for Determination and Documentation	WID
Project applicant should identify related General Land Use features such as: a) Existing zoning ordinances, land use plans, development plans, etc.; b) Total land area required and/or proposed for purchase and the area that will be disturbed by construction for and operation of the proposed project; c) Current land uses in the area affected by the proposal, such as residential, commercial, agricultural, rangeland, forest land, recreational, etc; d) Compatibility of the proposed project with existing, if any: local, regional or state land use plans or controls; e) Any necessary mitigation measures.			
Does the project directly or indirectly adversely affect existing current land use? Provide mapping and information from local, regional, and state planning documents. Provide documentation of consultation with local and regional planning officials.	○ ○		☐
Will the project convert federally classified Agricultural Soils to non-agricultural uses? Present a map showing the project along with Natural Resources Conservation Service (NRCS) soil classifications. [NRCS soil mapping survey] Farmland Protection Policy Act; Present a completed AD-1006 Farmland Conversion Impact Rating form. [7 U.S.C. §4201 et. seq. (1981)] Submit a determination by the federal Natural Resources Conservation Service List agencies and groups consulted.	○ ○ ○ ○ ○ ○ ○ ○		☐ ☐ ☐ ☐
Does the project involve new impacts to identified primary agricultural soils, that may require mitigation of such impacts, to comply with Vermont Statute Act 250 Criterion 9(B)? State primary agricultural soils are defined: [10 V.S.A. Section 6001(15)] Refer to the online NRCS soil mapping survey and submit a map showing the project tract along with NRCS soil classifications [focused on rated Prime, Statewide, or Local soils of agricultural value group 1-7]. Provide a pre-application review letter from the Vermont Agency of Agriculture, Food & Markets. If offsite mitigation is anticipated to be proposed, please review the online "Fee Memo" indicating the current year estimated cost of offsite farmland mitigation acres (subject to annual revision), to present an estimated fee. Please note that all mitigation is subject to approval by the District Commission, and a proposed use of off-site mitigation outside a designated area would be subject to the Commission's findings as to appropriate circumstances. See 10 V.S.A. Section 6093.	○ ○ ○ ○ ○ ○ ○ ○	Estimate Mitigation Fee $ 0.00	☐ ☐ ☐ ☐
Is Land Use and Development review and approval under Act 250 necessary? Attach a copy of the ANR Project Review Sheet, or Permit Navigator output, including the District Environmental Commission determination on Act 250 permit requirements. *List agencies and groups consulted.*	○ ○	A Project Review Sheet, that reflects the full current project scope, is always required.	☐

			WID
Does the project contribute to sprawl growth outside of Designated Growth Centers? Present a map showing the project in relation to the Designated Growth Center. Attach copies of the Town Plan. Discuss using the Growth Center and Growth Management Document. List agencies and groups consulted.	○ ○ ○ ○ ○ ○		☐ ☐ ☐
Will the project cause other significant environmental impacts, including secondary impacts? List agencies and groups consulted.	○ ○		☐
Does the project alter or affect Formally Classified Lands (properties that are administered by either Federal, State, or local agencies)? Present a project area map, identifying each of the administered lands, from resources below as applicable. Federally Administered: Federal Tribal Lands BIA (download geospatial data) Surface Management Agency DoI (downloadable polygon) U.S. Forest Service (USFS) U.S. National Park Service (NPS) Nationwide Rivers Inventory Nat. Bureau Land Management BLM National Parks Conservation Association US Wildlife Refuges (USFWS) State and local land management and planning agencies: parks, and other state-owned and state administered lands (State Game Refuges, State Conservation Camps, State Fishing Access Areas, State Wildlife Management Areas etc.)	○ ○ ○ ○		☐ ☐

4. Intergovernmental Review of Federal Programs

Considerations	Yes or No	Basis for Determination and Documentation	
Does the project coordinate local government concerns in the review of proposed Federal financial assistance and direct Federal development? Executive Order 12372, Intergovernmental Review of Federal Programs	○ ○	Private projects must present a letter of municipal support. For Municipal projects check Yes.	☐

5. Wetlands, floodplains, coastal zones, wild and scenic rivers

Considerations	Yes or No	Basis for Determination and Documentation	
A qualified wetland professional is responsible for mapping lands meeting the definition of a wetland and its buffer area, to ensure proper continued function. The project applicant must demonstrate viability of the project without deterioration of wetland function.			
Will there be construction in a wetland or wetland buffer? Executive Order 11990, "Protection of Wetlands;" as amended by Executive Order No. 12608 (1997) A wetland buffer perimeter compliant with Vermont Wetland Rules applies A qualified consultant's assessment and/or the regulatory authority's determination must be attached for any construction in wetlands.	○ ○		☐

For any new construction please provide the wetlands classification delineation. List agencies and groups consulted. Indicate if a State permit or US Army Corps of Engineers permit is required. Qualified consultants are listed at: https://dec.vermont.gov/watershed/wetlands/what/id/wetland-consultant-list Present a printout of the map for the project location using: https://anrmaps.vermont.gov/websites/WetlandProjects/default.html The map should show the perimeter of the project, the wetlands in the project area and their corresponding **buffer zone**.	○	○	☐
Floodplain and Floodway hazard considerations. A detailed description of floodplain construction and a qualified consultant's assessment and/or the regulatory authority's determination must be attached. Show locations of all utility infrastructure on the Flood Insurance Rate Map (FIRM). Flood map available from Flood Insurance Rate Map. Refer to the SRF Guidance Document 37 on Floodplain management for additional information. **Caution**: ANR ATLAS (floodready) contains digital DFIRM mapping for 6 of the 14 Vermont counties: (Bennington, Chittenden, Rutland, Washington, Windham and Windsor County) and seven communities: (Bradford Village, Hardwick, Jay, Montgomery, Newbury, Stowe, and Wolcott). "About half of the flood hazard data in Vermont has been officially digitized". **Note:** TR-16 and other standard require that Critical Infrastructure is expected to be protected from a 500-year flood event. List agencies and groups consulted. All projects must comply with EO 11988 as amended by EO 13690 and reinstated by EO 14030.			
Will the project involve construction in a floodway? Publicly funded infrastructure should not be located within the floodway. Linear projects may have to cross a floodway but must be vertically located sufficiently above or below to avoid impacts. Include floodway boundaries on site plans and profiles.	○	○	☐
Will the project involve construction in a 100-year floodplain? Executive Order 11988, "Floodplain Management," as amended by Executive Order 12148 (1979) Publicly funded infrastructure should not be located within the 100-year floodplain. Linear projects may have to cross a 100-year floodplain, but must be vertically located sufficiently above or below to avoid impacts. All efforts to be made to locate critical infrastructure outside of floodplains to avoid impacts, however where unavoidable infrastructure shall be protected in accordance with the Executive Order and accepted standards. Include 100-year floodplain boundaries on site plans and profiles. Consult state guidance documents: https://floodtraining.vermont.gov/sites/floodtraining/files/documents/Accessory-Structures-Checklist.pdf	○	○	☐
Will the project involve construction in a 500 year floodplain? Publicly funded infrastructure should not be located within the 500-year floodplain (24 CFR §55.2(3)(i)&(4)). Linear projects may have to cross a 500-year floodplain, but may be vertically located sufficiently above or below to avoid impacts. All efforts to be made to locate critical infrastructure outside of floodplains to avoid impacts, however where unavoidable infrastructure shall be protected in accordance with accepted	○	○	☐

standards. Include 500-year floodplain boundaries on site plans and profiles.			WID
Will the project involve construction in a Vermont River Corridor? Provide a map created using the River Corridor layer of the ANR ATLAS, showing the perimeter of the project. Publicly funded infrastructure should not be located in the river corridor, as defined by the Vermont "Flood Hazard Area and River Corridor Protection Procedure" wherever practicable.	○	○	☐
Is a local zoning permit required for work in the flood hazard zone? Present copies of correspondence with local zoning official.	○	○	☐
Does the project require a hydraulic hydrologic study to comply with Act 250 Criterion 1(D)? Attach the hydraulic study as an appendix to the application.	○	○	☐
Coastal Zone Management Act; [16 U.S.C. § 1451 et. seq. (1972)] Vermont does not participate in the Coastal Zone Management program.	NO	○	☐
Coastal Barriers Resources Act; [16 U.S.C. §3501 et. seq. (1982)] Vermont waters are not affected by tidal action, therefore the Coastal Barrier Resource Act of 1982 does not apply.	NO	◉	☐
Will the project impact a wild, scenic or recreational river area and create conditions inconsistent with the character of the river? Discuss if the project is within a quarter-mile of a river on the National Park Service's Nationwide Rivers Inventory. A listing of rivers on the Nationwide Rivers Inventory is available at: Wild and Scenic Rivers Act; [16 U.S.C. §1271 et. seq. (1968)] *List agencies and groups consulted.*	○	◉	☐
Will the project involve construction in a stream? A qualified consultant's assessment and/or the regulatory authority's permit for stream alteration determination must be attached for construction in streams. List agencies and groups consulted.	○	◉	☐
Will the project involve: directional drilling under a stream, or an aerial crossing over a stream? Explain how the project was designed to address flood resiliency. List agencies and groups consulted (VTDEC Rivers Program, VTRANS).	○	○	☐
Does the project involve earthen impoundment of more than 500,000 CF (4 MG) of wastewater (Vermont Dam Safety Rule §37-108)? Explain if the impoundment is a Dam under the jurisdiction of the VT-ANR and what additional engineering and design standards apply.	○	○	☐

6. Fish and wildlife, and endangered species.

Considerations	Yes or No	Basis for Determination and Documentation	WID
The preservation of Vermont's natural fauna is an objective of all CWSRF funded projects. The EID related efforts should ensure that affected species are **not identified by name**, to protect their habitat.			
Will the project affect coastal fishing? Magnuson-Stevens Act (Rule at Fed. Reg. 85 FR 44220) and Essential Fish Habitat Consultation Process [as amended 16 U.S.C. §1801 et. seq (1996)]	No ◉	Vermont does not have Exclusive Economic Zones.	☐
Will the project: impound, divert, or otherwise control or modify the waters of any stream or body of water of the State? Fish and Wildlife Coordination Act [16 U.S.C. 661-667e (1934); as amended 1936, 1946, 1947, 1948, 1949, 1958, 1965] Identify the affected waters of the state. Provide citation and/or ANR Atlas map. Detail how many gallons will be impounded, what controls will be implemented, and the engineering and design standards applied, as well as any additional permiting, monitoring and reporting.	○ ◉		☐
Is the project likely to adversely affect birds covered by the Migratory Bird Treaty Act (MBTA) [(16 U.S.C. 703–712 (1918)]? All Vermont birds are listed and migratory and will affect consideration of proposed project designs. Involuntary "take" of birds should be identified in the project definition.	○ ◉		☐
Does the project affect an eagle habitat or nest? Bald and Golden Eagle Protection Act	○ ◉		☐
Is the project likely to adversely affect an federally endangered or threatened species? Endangered Species Act [16 U.S.C. §1531 et. seq. (1973)] *A qualified consultant's assessment and/or the regulatory authority's determination must be attached demonstrating compliance with US Fish & Wildlife guidance.* *List agencies and groups consulted. Submit IPaC summary.*	○ ◉	Do NOT name endangered species.-	☐
Is the project likely to adversely affect a Vermont state listed rare, threatened or endangered species? https://legislature.vermont.gov/statutes/section/10/123/05406 *A qualified consultant's assessment and/or the regulatory authority's determination must be attached*	○ ○	Do NOT name endangered species.-	☐
Is the project likely to adversely affect an ubiquitous statewide bat population? (area of tree removal) *VTrans Ind Bat and Northern Long Eared Tree Cutting Guidance by Region.pdf (vermont.gov)*	○ ○	Do NOT name endangered species.-	☐
	○ ○		☐

7. Drinking water and Groundwater Protection

Considerations	Yes or No	Basis for Determination and Documentation	
Project Objectives shall safeguard the sources of drinking water and be protective of the groundwaters of the state, which are held in public trust. The Safe Drinking Water Act - 42 U.S.C. 300f et. seq. as amended in 1976, 1986, and 1996, and the State of Vermont Groundwater Protection Rules provide a framework for these objectives.			WID
Are there Sole Source Aquifers in the project area? Present a map showing the project perimeter area using the EPA online map "EPA_Sole_Source_Aquifers": and indicate any "sole source aquifers". https://geopub.epa.gov/DWWidgetApp/	○ ◉	(As of August 2022, Vermont has no identified sole source aquifers).	☐
Will there be negative direct impacts to groundwater quality or quantity? Discuss positive and negatives impacts to nutrients, groundwater, existing drinking water supplies	○ ◉		☐
Subsurface Contamination and Constituents of Concern			
Has the desktop review of reasonably available information identified a need for a workplan submittal for approval by SMS to address recognized environmental conditions (RECs), contamination or suspected contamination? Links to guidance: 1) "**Linear Construction Projects Guidance** Document" for projects that take place within a public or private roadway, railroad, utility line, or rights-of-way (ROW). 2) "**Guidance For Construction of Public** Works Projects in Areas Where Contamination is Suspected or Known" 3) Resources: **ANR ATLAS** layers- Hazardous Sites Hazardous Waste Generators Brownfields Salvage Yard Aboveground Storage Tank Underground Storage Tank Additional ANR ATLAS layers: Dry Cleaners – verify PFAS results – where known Urban Soil Background Areas Land use restrictions status Others as needed	○ ○	Summarize Findings:	☐
4) Does the desktop review identify any potential **Emerging Contaminants**?	○ ○		☐

8. Air Quality, Noise and Emissions

Considerations	Yes or No	Basis for Determination and Documentation	
Construction, related to the installation and upgrade of infrastructure, and operation of water and wastewater facilities can potentially have emissions and may be required to meet federal and state air emission thresholds. Air Quality - Clean Air Act, as amended in 1990. [42 U.S.C. §7401 et. seq.]			WID
Will there be any changes to air quality (VTDEC Air Control Regulations)?	○ ◉		☐
Is an Air Pollution Control Permit required? Note: Emergency generators/pumps are only subject to limited requirements provided they are used strictly for emergency purposes (includes limited emergency demand response programs) and do not participate in peak shaving programs.	○ ◉		☐
Will there be any changes in emissions?	○ ◉		☐
Is your digester unequipped and operated without a flare?	○ ◉		☐
Are there any other non-emergency combustion devices at your facility, including but not limited to: stationary internal combustion engines such as diesel generators/ pumps, boilers or space heaters greater than 3 million BTU, or combustion turbines and/or boilers?	○ ◉		☐
Will there be any changes in noise levels?	○ ◉		☐
Will there be any changes in atmospheric dust levels?	○ ○		☐
Will there be any explosive dust generation?	○ ○		☐
Will there be any odor generation?	○ ○		☐

9. NEPA Related Considerations

Considerations	Yes or No	Basis for Determination and Documentation	
Project planning and development should consider both direct and indirect impacts of the project on archaeological, cultural, and environmental site features. These are further defined in the federal NEPA language.			WID
Is there a controversy[2] with respect to environmental effects of the project based on reasonable and substantial issues?	○ ○		☐
Is the project significantly greater (requiring a new Act 250 permit, or permit amendment) in scope than normal projects for the area?	○ ○		☐
Does the project have significant unusual characteristics (defined at 23 CFR 771.117 (b))?	○ ○		☐
Does the project establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects (cumulative impact based on current information)?	○ ○		☐
Does the project have significant adverse direct or indirect effects on federal or state parkland, other public lands, or areas of recognized Scenic or recreational value?	○ ○		☐
Cumulative Impacts: Will the project cause other significant environmental impacts, including secondary impacts? *List agencies and groups consulted.*	○ ○		☐
Will the project provide new drinking water facilities to serve a population greater than 2,000 persons, using population metrics consistent with the Public Water System regulatory program?	○ ○	Current DW Population 37 New DW Population 23	☐

[2] Environmental controversy. Controversy includes not only scientific disagreement about the mitigation's effectiveness, but also public interest or debate. Controversy is an unresolved group opposition, disagreement or concern to the proposed project within the affected community.

10. Mitigation Measures and/or Alternative Plans of Action

Mitigation measures are applicable, to minimize adverse effects. Explain how mitigation measures will be achieved and monitored (Special Grant Condition or review of Plans and Specifications). Remember to consider structural and non-structural methods.	
Affected Environmental or Archeological Resources	**Mitigation Measures or Alternative Plan of Action**
A.)	
B.)	
C.)	
D.)	

Potential Mitigation Measure Decisions, must evaluate consider the following:
The adverse effect must have a **reasonable chance of occurring** in the foreseeable future; mitigation measures are only useful and appropriate when there is a compelling reason to address an identified impact. If an adverse effect has a low expectancy in the foreseeable future, mitigation is not likely necessary.
Mitigation measures must be **reasonable and enforceable**. There must be a reasonable expectation that the measure can be implemented and have the desired outcome.
The WID often relies on other federal state and local permitting entities to **monitor and enforce implementation**; environmental regulatory or natural resource agencies are technically in the best position to accomplish this. As much as possible, the WID will work with applicants to ensure mitigation follow-up. This may require a brief mitigation plan or need to be detailed in loan agreements.
Measures must balance the potential for impact on a resource and the resource's relative environmental value. Potential impacts on unique or scarce resources, for example, may require a strong mitigation measure (e.g. restrictive measure).

10. Mitigation Measures and/or Alternative Plans of Action continued

Mitigation measures are applicable, to minimize adverse effects. Explain how mitigation measures will be achieved and monitored (Special Grant Condition or review of Plans and Specifications). Remember to consider structural and non-structural methods.	
Affected Environmental or Archeological Resources	**Mitigation Measures or Alternative Plan of Action**
E.)	
F.)	
G.)	
H.)	

Potential Mitigation Measure Decisions, must evaluate consider the following:
The adverse effect must have a **reasonable chance of occurring** in the foreseeable future; mitigation measures are only useful and appropriate when there is a compelling reason to address an identified impact. If an adverse effect has a low expectancy in the foreseeable future, mitigation is not likely necessary.
Mitigation measures must be **reasonable and enforceable**. There must be a reasonable expectation that the measure can be implemented and have the desired outcome.
The WID often relies on other federal state and local permitting entities to **monitor and enforce implementation**; environmental regulatory or natural resource agencies are technically in the best position to accomplish this. As much as possible, the WID will work with applicants to ensure mitigation follow-up. This may require a brief mitigation plan or need to be detailed in loan agreements.
Measures must balance the potential for impact on a resource and the resource's relative environmental value. Potential impacts on unique or scarce resources, for example, may require a strong mitigation measure (e.g. restrictive measure).

Prepared By	Date	Title

Reviewed By	Date	Authorized Representative

*Basis for Determination and Documentation

The basis for determination and documentation information must be traceable and establish the factual data to support the response to each question. Any environmental concerns that are raised by federal, state, or local agencies or the public must be addressed as completely as possible and resolved before the environmental report will be considered complete. All supporting documentation (e.g., correspondence and exhibits) should be attached and easily cross-referenced back into the main body of the environmental report. Types of information to be included in this column are outlined below.

1. FIELD OBSERVATION: A site visit that does not usually involve any testing or measurements. FIELD OBSERVATION is an important method for initial screening of the issues, but for some of the categories it may be inadequate for final evaluation. Support documentation should include date of the site visit and by whom.

2. PERSONAL CONTACT: Personal contacts are useful when the individual contacted is an accepted authority on the subject(s) and the interview is documented. Supporting documentation should include the name, organization, and title of the person contacted and the date of the conversation. *Copies of written site inspection reports and determinations by regulatory authorities on applicability of regulations and permit requirements should be attached*.

3. PRINTED MATERIALS: These are useful sources of detailed information, materials such as comprehensive land use plans, maps, statistical surveys, and studies. Information must be current, i.e., not so old that changing conditions make them irrelevant and must represent accepted methodologies. Citations for the material should include enough information so that an outside reviewer can locate the specific reference.

4. SPECIAL STUDY: This is a study conducted for an individual factor or resource, and should be performed by a qualified person using accepted methodologies. Some tests are relatively simple to perform but others may require elaborate equipment or personnel with additional expertise. The preparer is responsible for obtaining assistance from others in order to have the appropriate test or studies conducted. Copy of the study must be appended or referenced as for Printed Materials.

5. CONTRIBUTOR EXPERIENCE: The professional judgment of the persons contributing to this environmental report can be useful provided their expertise is relevant. The contributor may have previous knowledge from familiarity with the area, or may have professional background to make judgments about a specific factor. Provide information of the person's qualification in addition to name, organization and position.

SUBMIT

APPENDIX B

Village Wastewater Survey Form

Village Wastewater Survey

This survey is for the Town of Westfield to better understand the current wastewater needs of the village area and its residents. The information gathered will be used for study purposes only.

Property Owner(s) Name: _____
Property Address: _____
Phone: _____
Mailing Address: _____
Size of Lot: _____ square feet or _____ acres (please approximate if not sure)

YOUR EXISTING WASTEWATER TREATMENT AND DISPOSAL SYSTEM

1. When was your septic system built? (Circle one)

Before 1970 1970-1989 1990-2006 2007-Present I Don't know

2. a. Does your system have a state WW permit?
   b. Do you have any design plans?

3. If yours is a residential property:
   a. How many bedrooms does your home have? ____
   b. Do you have an accessory dwelling (apartment, etc.)? __ Yes __ No
   c. Is the property vacant? __ Yes __ No

4. If yours is a commercial or non-residential property:
   a. Describe the building use: _____
   _____
   _____
   b. How many employees do you have? _____
   c. Provide information on the capacity and size of the building, campground, facility, etc:
   _____
   _____
   _____
   _____
   _____
   d. Is the property vacant? __ Yes __ No

5. Indicate the components of your septic system by circling 1 or more below:

Cesspool/ Dry Well/Seepage Pit
Leach Field
Absorption Trench
At Grade System
Mound System
Pump Station
Siphon
Distribution Box
Septic Tank
Effluent Filter
VW Bug
Pipe to a Ditch

a. Does your system use an Advanced or Innovative/Alternative Treatment System? What kind? (i.e. Manufacturer, type) _____

_____

6. Do you have any additional information about the property, sewer system or connections?

_____

_____

_____

_____

_____

7. How often is the septic tank pumped?

Never Every Two Years Every 4 Years Every Decade Other_____

Year that septic tank was last pumped, if known: _____

8. Has your wastewater disposal system experienced any of the following conditions? When?

Sewage on Ground Surface Ongoing Wetness Basement Backups Sewage Smells Sink Holes

Other: _____

9. Have you made any upgrades or repairs to your septic system within the last 10 years? __ Yes __ No
Describe: _____

_____

_____

YOUR WATER SUPPLY SYSTEM

Municipal Connection Drilled Well Shallow Well or Spring

If a well, what is the distance from the well to the nearest septic system? _____

COMMENTS

1. Do you have any comments about the wastewater needs for the Town of Westfield?

_____

_____

_____

2. If you had no limits on your property, what might you change? (examples: accessory apartment, more restaurant seats, etc.)

_____

_____

SKETCH OF PROPERTY

Please provide a sketch of your parcel with the location of buildings, driveways, nearest road, septic tank, leach field, property line, well/spring, brook or ponds.