25% DELIVERABLE
PRELIMINARY ENGINEERING REPORT

WASTEWATER IMPLEMENTATION

FOR THE

TOWN OF GREENSBORO
VERMONT

MARCH 16, 2021

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25% PER Executive Summary

The Town of Greensboro requested that Hoyle, Tanner & Associates complete a Preliminary Engineering Report for wastewater implementation in either the Caspian Lake, Greensboro Village or Greensboro Bend District. This effort begins with Phase 1, a "50,000 foot level study" of wastewater implementation opportunities in Greensboro to identify which of the three Districts is best suited for Town owned wastewater implementation. This "50,000 foot level study" findings include the following:

1) Potential District needed capacities, wastewater treatment regulatory requirements and potential wastewater implementation capital and future life cycle costs indicate that a Town-owned wastewater treatment system(s) of 30,000 gpd or less would likely be best suited to serve the Town.
2) Engineering analysis of published information and information provided by the Town indicate that the Greensboro Village District is best suited for Town owned wastewater implementation based upon the following technical factors:
    a) The Greensboro Village District Community Septic Survey results indicate the highest response rate and positivity interest in wastewater implementation indicating the highest public health and sanitation need.
    b) The Greensboro Village District has the highest percentage of parcels with existing individual on-site septic systems that are greater than 20 years old. In addition, small lots and mediocre soils constrain potential for economic development of replacement individual on-site septic systems. This broadly indicates the highest aging infrastructure need.
    c) Although published population Town growth plans are conflicting, the Sewer Committee consensus is that some modest growth is needed for new housing and business either in the Greensboro Village or Bend Districts. Further, the Greensboro Village Community Septic Survey results indicate the highest need for reasonable growth compared to the Greensboro Bend and Caspian Lake Districts.
    d) GIS analysis of parcel size, building location, unit cost of wastewater collection and treatment, mapped soil suitability for treated effluent infiltration, other wastewater implementation and land development constraints and development of comparative total project costs of wastewater implementation in Greensboro Village would be approximately 17% less than in the Greensboro Bend District.
    e) It is understood that the Town would be eligible for up to 45% USDA RD WEP grant regardless of which District is selected. The Greensboro Village District Community septic survey results indicate the highest level of wastewater implementation positivity interest of the three Districts.
3) Wastewater implementation of one or more 30,000 gpd treatment systems to serve the Caspian Lake District appears to be infeasible due to poor soils and other constraints. Smaller cluster wastewater systems, continued use of individual on-site septic systems or other options may be feasible in the Caspian Lake District.
4) Overall, mapped Greensboro Bend District soils appear to have the least constraints to continued use and replacement of existing individual on-site septic systems. Although the Greensboro Bend District community septic survey results indicate low interest in Town owned wastewater implementation, mapped soils indicate good potential for private development of small cluster wastewater systems.

Engineering evaluation of published information and other information received from the Town indicate that the Greensboro Village District is best suited for Town owned wastewater implementation but the final District selection decision for wastewater implementation rests with the Town, not the Engineer.

1. Project Planning

1.1. Location of Project Planning Areas

The Town of Greensboro is located in Orleans County in northeastern Vermont, occupying an area of approximately 39.4 square miles, or 25,216 acres. Greensboro borders Hardwick to the south, Wolcott and Craftsbury to the west, Glover to the north, and both Wheelock and Stannard to the east. Craftsbury and Glover are also in Orleans County, while Hardwick, Wheelock, and Stannard are located in Caledonia County and Wolcott is located in Lamoille County. The Phase 1 Study Area for this project includes the Caspian Lake District, Greensboro Village District, and Greensboro Bend District. The Town will select one preferred District to advance to Phase 2. The Caspian Lake District encompasses the area surrounding the entire perimeter of Caspian Lake, located in south-central Greensboro. The Greensboro Village District comprises the village located just southeast of the Caspian Lake District. The Greensboro Bend District is composed of the area in and around Greensboro Bend, located in the southeasternmost corner of Greensboro. 294, 106, and 82 parcels make up the Caspian Lake, Greensboro Village, and Greensboro Bend Districts, respectively. Refer to Appendix 1-1 for District Maps. Refer to Appendix 1-2 for topographic maps of the Districts.

The Town of Greensboro has no publicly-owned sewer system, with residences and businesses instead utilizing privately-owned septic systems and leach fields for wastewater management. Two small public water systems provide potable water in Greensboro. One is located in Greensboro Bend and provides water to a handful of residential properties, a church, a store, and a preschool. The second public water system serves Greensboro Village and part of the Caspian Lake District. Both systems serve fewer than 250 properties and comprise Fire Districts established by the legislature which are not a part of Greensboro's town government.

Greensboro welcomes an influx of tourists in summer months who often visit for attractions such as Caspian and Elligo Lakes, Hill Farmstead Brewery, Jasper Hill Farm, and Circus Smirkus. The town hopes to expand upon tourism opportunities in coming years, as highlighted in the Town Plan, which also indicates that public wastewater infrastructure is essential for the growth of tourism in Greensboro.

Reference: Greensboro, Vermont – Town Plan 2007-2020, last amended by the Greensboro Planning Commission on June 12, 2019, hereinafter the Greensboro Town Plan

1.2. Environmental Resources Present

The Town of Greensboro has a wealth of natural resources, most notably including Caspian Lake and the Lamoille, Barton, and Black Rivers, alongside numerous smaller streams, brooks, ponds, wetlands, and significant forest cover. Approximately 76% of Greensboro's land is forested, with roughly 6% of the forested land being conservation land protected by the State of Vermont. The Greensboro Town Plan emphasizes that Greensboro residents consider preservation of its natural resources and beauty to be paramount. Refer to Appendices 1-3, 1-5, 1-6, 1-7, and 1-10 for maps of the environmental resources present in the project planning area.

Reference: Greensboro, Vermont – Town Plan 2007-2020, last amended by the Greensboro Planning Commission on June 12, 2019

1.2.1. On-Site Wastewater Soil Disposal Ratings

The 2008 Soil Suitability Groups for Soil-Based residential Wastewater Disposal Systems in Vermont, prepared by the United States Department of Agriculture (USDA) Natural Resources Conservation Service, updated information on the suitability of the soils in Vermont for soil-based residential wastewater disposal systems based on the 2007 Vermont Environmental Protection Rules. Soil ratings for soil-based residential wastewater disposal systems include five interpretive suitability groups:

- I Well Suited,
- II Moderately Suited,
- III Marginally Suited,
- IV Generally Not Suited, and
- V Not Rated

These soil ratings are useful in assessing the potential for development of treated effluent infiltration for municipal wastewater implementation. Results of a GIS analysis of soil suitability in each of the three Districts is shown below in Table 1.1.

Table 1.1: *Percentage of area in each district by Onsite Sewage Disposal Rating*

Onsite Sewage Disposal Rating	% of District Area by Rating		
	Bend District	Lake District	Village District
I - Well Suited	37%	0%	0%
II - Moderately Suited	30%	33%	48%
III - Marginally Suited	5%	20%	38%
IV - Not Suited	28%	47%	13%
Total:	100%	100%	100%

As shown in Table 1.1, the Greensboro Bend District has the highest areal percentage of suitable soils, followed by the Greensboro Village District, and then the Caspian Lake District. These results indicate that the Greensboro Bend District has a higher potential for economic development of a municipal wastewater treated effluent infiltration area, followed by the Greensboro Village and Caspian Lake Districts. It should be noted that the Greensboro Bend District also has a higher potential for economic development of individual on-site septic system *replacement*, followed by the Greensboro Village and Caspian Lake Districts. Refer also to Appendix 1-3 for District maps of on-site wastewater soil disposal ratings.

An initial screening was completed to identify potential treated wastewater effluent soil infiltration areas with potential capacity of up to 30,000 gpd in nearby proximity to each of the Caspian Lake, Greensboro Village, and Greensboro Bend Districts. Conveyance distance from the three districts to the possible infiltration areas were estimated to determine potential constraints to purchase and development of this land. Both the maps of on-site wastewater soil disposal ratings and the Natural Resources Conservation Service (NRCS) Web Soil Survey (WSS) maps were used to complete this analysis. The Initial Infiltration Area Screening Memo is attached to this Report as Appendix 1-4.

Results of the initial screening of 8 locations in nearby proximity to the Caspian Lake District indicate that all 8 potential infiltration areas have onsite sewage disposal ratings of Class 2 – Moderately Suited. There are no Class 1 – Well Suited soils within the Caspian Lake District. Refer to Appendix 1-4 for a Summary of Initial Soil Screening Areas. This indicates that there are significant barriers to development of economically feasible treated effluent area development. These include:

- Shallow depth to bedrock of 20-40”
- Low capacity of 0.01 – 2.00 in/hr infiltration rate to transmit water
- Limited available land area
- Proximity to small streams
- Low compatibility with existing Caspian Lake District land uses

Development of a treated effluent area with up to 30,000 gpd capacity is not feasible within the District due to the above-described barriers. However, there may be potential for smaller treated effluent areas to serve smaller clusters of homes. Refer to Appendix 1-4 for detailed soil information for each of the 8 locations considered in the Caspian Lake District.

Results of the initial screening of 6 locations for the Greensboro Village District indicate that all 5 potential infiltration areas within the district have onsite sewage disposal ratings of Class 2 – Moderately Suited. The sixth location, Area 6, is located outside the Greensboro Village District boundary, approximately 1.25 miles downgradient along The Bend Road from the Greensboro Village Post Office intersection with soils classified as Class 1 – Well Suited. Refer to Appendix 1-4 for a Summary of Initial Soil Screening Areas. This indicates that there are significant barriers to development of an economically feasible treated effluent area *within* the five locations inside the Greensboro Village District. These barriers include:

- Shallow depth to bedrock
- Low capacity of 0.01 – 2.00 in/hr infiltration rate to transmit water
- Proximity to small streams

Greensboro Village Area 6, although located approximately 1.25 miles from the Greensboro Village center, has Class 1 – Well Suited soils with good characteristics for infiltration of treated wastewater into the soil.

Although economic development potential of a 25,000 gpd treated effluent area within the Greensboro Village District is low due to the above-described barriers, there may be potential for economic development of smaller treated effluent areas to serve smaller clusters of homes or businesses within the Greensboro Village District. Refer to Appendix 1-4 for detailed soil information for each of the 6 locations considered in the vicinity of the Greensboro Village District.

Results of this initial screening of 10 locations in nearby proximity to the Greensboro Bend District indicate that all 10 potential infiltration areas have onsite sewage disposal ratings of Class 1 – Well Suited for onsite sewage disposal. There are no Class 1 – Well Suited soils *within* either the Caspian Lake or Greensboro Village Districts. Refer to Appendix 1-4 for a Summary of Initial Soil Screening Areas. The 10 Greensboro Bend potential infiltration areas considered have good potential for feasible economic treated effluent area development generally including:

- Deep, well-drained soils

- Proximity to existing non-forested developed and undeveloped land
- Proximity to existing infrastructure
- Proximity to the Lamoille River with large drainage basin

Development of a 25,000 gpd treated effluent area is economically feasible within the 10 potential sites in the District due to the factors described above. Additionally, there may be potential for smaller treated effluent areas to serve smaller clusters of homes. Refer to Appendix 1-4 for detailed soil information for each of the 10 locations considered in the Greensboro Bend District.

Some of the potential sites in the Greensboro Bend District are located within the Greensboro Bend Public Water Well Head Protection Area (WHPA). Only Greensboro Bend Areas 1, 4, and 10 are not located in the Public Water WHPA and Area 1 is located at the far northerly part of the District and is topographically isolated. Greensboro Bend Areas 4 and 10 have the highest potential for treated effluent infiltration area development. Refer to Attachment 8 of Appendix 1-4 for a depiction of the Greensboro Bend Public Water WHPA location.

Based upon this Initial Soils Screening Evaluation, the three districts are listed below in Table 1.2 in order of their potential for development of treated effluent infiltration areas.

Table 1.2: *Districts ranked by potential for implementation of treated effluent infiltration areas*

District	Ranking by Effluent Infiltration Area Development Potential
Bend	1
Village	2
Caspian Lake	3

Refer also to the Initial Infiltration Area Screening Memorandum included in Appendix 1-4 for further detail.

1.2.2. Wetlands

Refer to Appendix 1-5 for District maps of wetlands. These maps were created using the Vermont Significant Wetlands Inventory and National Wetlands Inventory within the Vermont Center for Geographic Information Interactive Map Viewer.

Refer also to the Development Potential Analysis and Mapped Wetland Constraints section of Appendix 3-1.

1.2.3. Endangered Species

Refer to Appendix 1-6 for a map of endangered species in the Greensboro Districts. These maps were created using the Vermont Center for Geographic Information Interactive Map Viewer with the Vermont Fish and Wildlife Department's Natural Heritage Inventory (NHI). These maps indicate that there are no endangered or threatened species documented in any of the Caspian Lake, Greensboro Village, or Greensboro Bend Districts.

1.2.4. Hazardous Waste Sites

Refer to Appendix 1-7 for a map of hazardous waste sites in the Greensboro Districts. These maps were created using the Vermont Center for Geographic Information Interactive Map Viewer. The Vermont Agency of Natural Resources (ANR) Atlas and Environmental Research Tool (ERT) were used to determine the status of each of the identified hazardous waste sites.

These maps indicate that there are three hazardous waste sites in Greensboro Village: Greensboro Town Garage, New England Telephone – Greensboro, and Greensboro Garage. The source for each of these hazardous waste sites was identified as underground gasoline storage tanks, with an additional spill leading to MTBE release at the Greensboro Garage site. The Vermont Department of Environmental Conservation Site Management Section (SMS) issued letters to close both the Greensboro Town Garage (4/17/96) and New England Telephone – Greensboro (4/25/01) sites and approved the sites for Site Management Activity Completed (SMAC) designation. Refer to Appendix 1-8 for the SMAC letters for the Greensboro Town Garage and New England Telephone. The Greensboro Garage site is still active, with a pump and treat system (P&T) continuing to operate while groundwater contaminants of concern (COCs) remain near Vermont Groundwater Enforcement Standards (VGESs). This site is currently considered to be a low priority.

The maps additionally indicate two more hazardous waste sites in the Greensboro Bend District: Smith's Store and the former Greensboro Bend Store. The source of contamination was identified to be underground gasoline storage tanks for both locations, with underground diesel storage tanks also contributing at the former Greensboro Bend Store. The Vermont Department of Environmental Conservation Site Management Section (SMS) issued a letter to close the Smith's Store site on November 7, 2005 and approved the site for Site Management Activity Completed (SMAC) designation. Refer to Appendix 1-8 for the Smith's Store SMAC letter. The former Greensboro Bend Store site is still active. It previously achieved SMAC status in 2005, but an aboveground storage tank spill in 2008 reopened the site. It has since been converted to apartments, but remains a low priority.

There are no hazardous waste sites located in the Caspian Lake District.

Each of the hazardous waste sites was discussed with James Donaldson of the Vermont Department of Environmental Conservation Waste Management and Prevention Division Sites Management Section (VTDEC WMD SMS), who provided further detail and addressed potential design concerns in addition to explaining an overview of the Vermont Petroleum Cleanup Fund (PCF). See Appendix 1-9 for a memo with a synopsis of the discussion.

1.2.5. Archaeological Resources

The State of Vermont Division for Historic Preservation Online Resource Center was used to determine whether any documented archaeological resources were located in the Caspian Lake, Greensboro Village, or Greensboro Bend Districts. There are no documented archaeological resources in either location.

1.2.6. Prime Agricultural Soils

Refer to Appendix 1-10 for a map of prime agricultural soils in the Caspian Lake, Greensboro Village, or Greensboro Bend Districts. These maps were created using the Vermont Center for Geographic Information Interactive Map Viewer. The maps indicate there are prime agricultural soils located in each of the Caspian Lake, Greensboro Village, and Greensboro Bend Districts.

1.3. Population Trends

The United States Census Bureau Information for the Town of Greensboro, Vermont is included in Table 1.3.

Table 1.3: *Greensboro, VT Historical Population*

Census Year	Population	Previous 10-yr Growth (+/-)
1940	768	-7.6%
1950	737	-4.0%
1960	600	-18.6%
1970	593	-1.2%
1980	677	14.2%
1990	717	5.9%
2000	770	7.4%
2010	762	-1.0%

The Greensboro Town Plan indicates that population growth has been mostly stagnant since 1940, hitting a low point in 1970 with a total of 593 residents. The highest population total was in 1940, at which time Greensboro had a population of 768. Increases since 1970 bumped the population up to 762 by 2010. Orleans County has seen similar population trends over the same time period, with decreasing totals from 1940 to 1970 and increasing totals since then, although the decrease from 1940 to 1970 was less significant and the increase since 1970 has been more significant than those of Greensboro, resulting in a net increase of approximately 25% from 1940 to 2010.

Population projections are based on past trends in births, deaths and migration which provide reasonable estimates of future conditions. The Vermont Agency of Commerce and Community Development produced a report calculating projections based on past trends from two time Periods. However, the Greensboro Town Plan indicates that these population projections are not credible due to the small size of the community. Instead, the Town Plan suggests that the permanent population growth of Greensboro is likely to remain quite slow, or even stagnant, since the population did not increase between 2000 and 2010. Despite the Town Plan indicating that the statewide projections are not accurate for such a small community, they actually do reflect this conclusion, with 775 residents projected in 2020 and 774 in 2030 for one scenario and 742 residents projected in 2020 and 713 projected in 2030 for the other scenario.

1.4. Community Engagement

The Town of Greensboro advertises in the local newspaper (Hardwick Gazette) and uses the town website and word of mouth to inform and engage the community in the project planning process. The Town engaged the community as detailed in the Greater Greensboro Community Visit Report and Action Plan dated November 2019 and produced by the Vermont Council on Rural Development (VCRD). The VCRD facilitated the visit process, which is structured to enable a community to identify and prioritize goals and foster local leadership, in addition to acting as a catalyst for the development and realization of concrete, achievable action plans.

The program in Greensboro included three Community Visit meetings between Summer and Fall 2019. On July 19, over 140 Greensboro residents in six focus group areas met to discuss community needs. On August 22, over 75 Greensboro residents met at the Lakeview Union School to discuss opportunities in Greensboro and set priorities. On October 2, over 60 residents joined 4 task forces which held their first meeting at the Lakeview Union School to get organized, build action steps, and consider state, federal, non-profit, and private sector resources which may be available to support their work. One of the task forces formed by community members was the Build Community Wastewater Infrastructure Task Force. This Preliminary Engineering Report (PER) Effort is a result of the effort of this Task Force. Refer to the Greater Greensboro Community Visit Report in Appendix 1-11.

A project kick-off meeting videoconference was conducted on December 16, 2020 with town residents, a VTDEC official, and Hoyle, Tanner engineers to discuss preliminary wastewater implementation feasibility efforts to date and project goals and timeline moving forward. Refer to Appendix 1-12 for a list of the meeting attendees.

Subsequent meeting videoconferences were conducted on January 5, January 14, and March 4, 2021 with town residents, a VTDEC official, and Hoyle, Tanner engineers to discuss strategies and results for the community septic survey.

2. Existing Facilities

2.1. Location Map

There are no existing publicly owned centralized or decentralized wastewater facilities in the Town of Greensboro. Existing properties in the Service Area utilize existing on-site septic Systems or leach fields to manage wastewater produced on the property. A location map indicating each of the three districts is included in Appendix 2-1. Refer to Insets 1, 2, and 3 for the Greensboro Bend, Caspian Lake, and Greensboro Village Districts, respectively.

The Caspian Lake project site is comprised of the entirety of the area around the lake and enclosed by Craftsbury Road, North Shore Road, Lake Shore Road, and Breezy Avenue with the exception of a row of parcels bordering the town-owned right-of-way along Breezy Avenue and Craftsbury Road spanning from 432 Breezy Ave to High Pines. All town-owned roads that approach the lake itself are contained within the Caspian Lake District.

The Greensboro Village project site is composed of the village and its surroundings just southeast of the Caspian Lake District. This site includes the area east of Breezy Avenue from Hardwick Street to The Bend Road, east of the Bend Road-East Street intersection, north of Cemetery Ridge up to Baker Hill Road, west of Lauredon Avenue between Baker Hill Road and the Lauredon Avenue-Craftsbury Road intersection, and the row of parcels west of Breezy Avenue and Craftsbury Road not included in the Caspian Lake District.

The Greensboro Bend project site is comprised of both the land between Main Street and VT Route 16 and the land immediately east of Main Street from the Greensboro town line to the south to the Main Street-VT Route 16 intersection to the north. The project site also includes the area west of VT Route 16 between the Greensboro town line and The Bend Road, and both sides of The Bend Road for about half a mile up the road from its intersection with VT Route 16.

2.2. History

The Town of Greensboro currently has no public sewer system and has not had one in the past.

Surveys of community on-site septic system performance can often provide relevant information regarding aging on-site septic system physical condition, performance, and the existence or absence of failing septic systems which are presumed environmental and public health risks. Hoyle, Tanner provided the Septic Survey Guidance, dated August 21, 2020 (Appendix 3-2) to the Greensboro Sewer Committee to assist the Town in completing a

community septic survey. Completion of community septic surveys can often be awkward and difficult because property owners generally find it an unpleasant topic to discuss. If underperforming or failing septic systems exist, property owners can be weary of being discovered because replacement systems are often very costly to construct. To further complicate the community septic surveys, the Town of Greensboro had even more difficulty in their efforts to complete the survey during the height of the global COVID-19 pandemic, during which the State of Vermont has mandated public mask use and physical distancing, and has prohibited indoor gatherings of people from outside of the household. Even with these extraordinary circumstances, the Greensboro Sewer Committee completed a community septic survey during January and February of 2021, as indicated in Appendix 3-3. Review of the results of the community survey indicates the following:

1. Greensboro Village District survey respondents were by far the most receptive to the idea of municipal wastewater implementation for replacement of existing on-site septic systems, with a response rate of approximately 30% and a positive response rate of 20%. This is additionally reflected in the detail and enthusiasm of the returned responses. Business owner and town building respondents were strongly in favor of municipal wastewater implementation.
2. Caspian Lake District survey respondents had a high rate of favorability amongst those who responded to the survey, though the response rate of only 5% meant that only 4% of district residents viewed municipal wastewater implementation favorably. This indicates general disinterest amongst Caspian Lake District residents. This result may also be indicative of the fact that many Caspian Lake District properties are seasonally occupied in Summer only.
3. Residents of the Greensboro Bend District had a low response rate of only 9% and the least favorable opinion of municipal wastewater implementation, with only 2% providing positive responses. Most responders gave little to no detail in their responses.

Refer below to Table 2.1, which displays the septic survey results. Assessment of these survey results is subjective, with the assumption that lack of response indicated disinterest in municipal wastewater. Therefore, both response rate and positive response rate, which measures the total number of favorable responses as a percentage of the total number of parcels in each district, are indicative of how favorably residents and business owners of each district view the possibility of municipal wastewater implementation. Favorable responses included “Yes” and “Probably”, while all other responses or lack thereof were counted as being unfavorable.

Table 2.1: *Community septic survey results for each district*

District	Total # of Parcels	# of Responses	Response Rate (%)	Positive Responses	Positive Response Rate (%)[1]
Bend	82	7	9%	2	2%
Lake	294	16	5%	11	4%
Village	106	30	28%	21	20%
Notes:					
1. Municipal WW Implementation Interest Positivity Response Rate as percentage of total number of parcels					

In conclusion, both the response rates and the positive response rates for the community septic survey make it clear that the Greensboro Village District residents have the most favorable opinion of potential municipal wastewater implementation, while the Greensboro Bend District residents had the least favorable opinion.

2.3. Condition of Existing Facilities

There are no existing town-owned centralized or decentralized wastewater facilities located in any of the Caspian Lake, Greensboro Village, or Greensboro Bend Districts. Currently, all properties are served by individual on-site septic systems or leach fields, many of which have unknown treatment performance and limited capacity. Refer also to Section 2.2 and 3.2 of this Report for additional detail regarding the condition of the existing on-site septic systems that serve properties in each of the three districts.

3. Need for Project

3.1. Health, Sanitation, and Security

The properties within the Sewer Service Area are all served by existing on-site septic systems and leach fields with varying condition, age, capacity, and operational effectiveness.

Septic systems and leach fields are potential sources of contamination for the public potable water wells. Parts of all three districts are served by public water supply wells, though contributing groundwater supply is only present in the Greensboro Bend District. Refer to Attachment 8 of Appendix 1-4 for a map of the Well Head Protection Area (WHPA) in the Greensboro Bend District. There are 37 properties with existing on-site septic systems or leach fields within the WHPA in the Greensboro Bend District.

The Town indicates that there are no Town Health Officer Reports regarding previous or currently existing septic systems.

As per Section 2.2 of this Report, the Community Septic Survey Results broadly indicate by the number of property owner responses and the positive nature of responses regarding Town-owned wastewater implementation that the Greensboro Village District has the highest need for Town-owned wastewater implementation. Further, Section 3.2 indicates that the Greensboro Village District has the highest percentage of properties with existing on-site septic systems greater than 20 years old, which broadly indicates the highest need for Town-owned wastewater implementation.

Refer also to the District Comparison Analysis Memo in Appendix 3-1 for discussion and analysis of district parcel sizes and site constraints for future development or replacement systems.

3.2. Aging Infrastructure

There is no publicly-owned wastewater management system in the Town of Greensboro, with residents and businesses instead relying on privately-owned septic systems and leach fields. The typical service life of a septic system can vary from 15-40 years and is dependent on many factors. Refer to Table 3.1 for replacement septic system information in Greensboro from 2000-2020.

Table 3.1: *Septic system replacement info in Greensboro from 2000-2020*

District	Total # of Properties	# of Replacement Systems	% of Properties with Replacement Systems <20 years old
Caspian Lake	294	43	14.6%
Village	106	8	7.5%
Bend	82	13	15.9%

Source: Town of Greensboro

Assuming a typical service life of 20 years it is reasonable to anticipate that septic systems not replaced during the past 20 years are likely to require replacement during the next 20 years as further indicated in Table 3.2.

Table 3.2: *Estimated number of septic systems likely to require replacement between 2020 and 2040*

District	Total # of Properties	% of Properties with On-Site Systems >20 years old	# of Properties likely to require replacement systems 2020-2040
Caspian Lake	294	85.4%	251
Village	106	92.5%	98
Bend	82	84.1%	69

3.3. Reasonable Growth

While the Town of Greensboro has had little to no growth for decades, its natural beauty and expanding tourism opportunities are drawing greatly increased numbers to the town. Hill Farmstead Brewery and Jasper Hill Farm have been drawing increasing and significant numbers of tourists to the community in recent years as the two businesses have become huge names in the craft beer and cheese markets, respectively. With this seasonal growth the need for publicly-owned wastewater treatment systems is increasing, since land constraints and high costs for individual businesses have prevented expansion of private wastewater management systems, effectively putting a cap on their growth. Since broadening tourism within the town is one of the primary focuses of the Greensboro Town Plan, implementation of a publicly-owned wastewater treatment system is essential for maximization of the potential for visitors.

Jasper Hill Farm is a local growing specialty dairy business located in Greensboro. Owner Mateo Kehler has indicated that 20 new employees with families were hired in 2020, a significant increase in jobs in Greensboro. However, none of the families have been able to find a home to purchase or rent in Greensboro. All commute from out of Town to work in Greensboro. Housing suitable for growing families is needed in Greensboro.

The Town of Greensboro, through the Greensboro Bend Revitalization Initiative was recently awarded a $30,000 grant to investigate potential economic growth, business, recreation and streetscape improvement opportunities associated with the construction of the Lamoille River Valley Rail Trail through Greensboro Bend.

3.3.1. Current Wastewater Flows

Existing wastewater flows were determined for each of the service areas of the Caspian Lake, Greensboro Village, and Greensboro Bend Districts by examining GIS parcel data to determine land uses and the existing and potential future number of residences/businesses for each parcel. This information was used to create an inventory of the number of equivalent dwelling units (EDUs) or accessory dwelling units (ADUs) on each property. From this inventory, wastewater design flow rates as per the State of Vermont, Environmental Protection Rules, Chapter 1, Wastewater System and Potable Water Supply Rules, dated April 12, 2019, were applied to the land use categories.

Caspian Lake District

294 parcels are contained within the Caspian Lake District with a typical Design Flow of 245 gpd per Living Unit. It is assumed that there is one Living Unit per property. Therefore, a total Caspian Lake District existing wastewater average daily design flow of 72,030 gpd is anticipated.

Greensboro Village District

The Greensboro Village District holds 106 properties. With a typical design flow of 245 gpd per Living Unit and one Living Unit per property, the anticipated total Greensboro Village District existing average daily wastewater design flow is 25,970 gpd.

Table 3.3, shown below, lists the average daily water consumption in the Greensboro Village potable water system for each of the last three years.

Table 3.3: *Average daily consumption in Greensboro Village District potable water system since 2017*

Year	Avg Daily Water Consumption (gpd)
2017	27,671
2018	25,539
2019	30,783
Avg	27,998

The potable water system in the Greensboro Village serves 190 customers. From 2017 to 2019, the average daily water consumption for each customer was approximately 147 gpd.

A minimum of one 30,000 gpd treated effluent infiltration area would be needed to serve the District. This would provide 4,030 gpd 20-Year Future Design Flow, enough to serve approximately 16 typical single family homes with 245 gpd average daily design flow.

Greensboro Bend District

The Greensboro Bend District includes 82 individual properties. Given the typical Design Flow of 245 gpd per Living Unit and an assumed one Living Unit per property, a total District average daily existing wastewater flow of 20,090 gpd would be anticipated. A minimum of one 25,000 gpd treated effluent infiltration area would be needed to serve the Greensboro Bend District. 25,000 gpd capacity would be adequate to serve the existing 20,090 gpd average daily design flow plus 4,030 gpd 20-Year Future Design Flow, enough to serve approximately 16 typical single family homes with 245 gpd average daily design flow. This would provide an equivalent level of capacity to the proposed Greensboro Village District.

3.3.2. Summary of Design Flows

Refer to Table 3.4, shown below, for a summary of current and future average daily wastewater design flows in each of the three Greensboro Districts.

Table 3.4: *Summary table of current and future average daily wastewater design flows by district*

District	Total # of Properties	Design Flow per Living Unit (gpd)	Total Existing Average Daily Wastewater Design Flow (gpd)
Caspian Lake	294	245	72,030
Village	106	245	25,970
Bend	82	245	20,090

3.4. Comparative Costs of Municipal Wastewater Implementation

Generalized, conceptual-level total project cost information for municipal wastewater collection, conveyance, treatment and effluent infiltration were developed to compare the relative costs of wastewater implementation between the three districts. In addition, municipal wastewater implementation cost per property served was also estimated in each of the three districts. This information will be used by the Town to compare the potential relative costs of wastewater implementation in each of the three districts along with other need criteria to

assist the Town in deciding which of the three districts the Town will select to complete additional more in-depth preliminary engineering investigations to implement municipal wastewater in the selected district. Refer to the District Comparison Memo in Appendix 3-1 for further detail.

It should be noted that the purpose of the District Comparison Memo is not to establish total project costs of wastewater implementation for the purposes of project budget setting. The actual costs of wastewater implementation will be higher or lower than described herein.

Greensboro Village District: It was assumed that wastewater implementation would include a 30,000 gpd community septic tank treatment and treated effluent infiltration area to serve existing needs and reasonable growth.

Greensboro Bend District: It was assumed that wastewater implementation would include a 25,000 gpd community septic tank treatment and treated effluent infiltration area to serve existing needs and reasonable growth.

Caspian Lake District: It was assumed that wastewater implementation would include three 25,000 gpd community septic tank treatment and treated effluent infiltration areas to serve existing needs and very limited but reasonable growth.

The results of the development of the comparative costs of municipal wastewater implementation indicate the following:

1. As indicated in the Initial Soils Infiltration Area Screening Memorandum, dated December 2, 2020, (Appendix 1-4), no potential treated effluent infiltration area sites were located within the Caspian Lake District that did not have significant barriers to feasible economic treated effluent infiltration areas development due to:

    1. Shallow depth to bedrock of 20-40”.
    2. Low capacity of 0.01-2.00 in/hr capacity to transmit water.
    3. Limited available land area.
    4. Proximity to small streams.
    5. Low compatibility with existing Caspian Lake District land uses.

There may be better potential for development of several smaller, say 6,500 gpd, treated effluent areas to serve a cluster of approximately 27 typical homes. Further still, even better potential for development may exist to serve even smaller system capacity sizes, less than 6,500 gpd. Since the economic and technical feasibility of implementing three 30,000 gpd community wastewater systems is so low, comparative potential total project costs for wastewater implementation were not developed for the Caspian Lake District.

2. The comparative total project cost of wastewater implementation in the Greensboro Bend District is approximately $76,000 per property.

3. The comparative total project cost of wastewater implementation in the Greensboro Village District is approximately $63,000 per property.

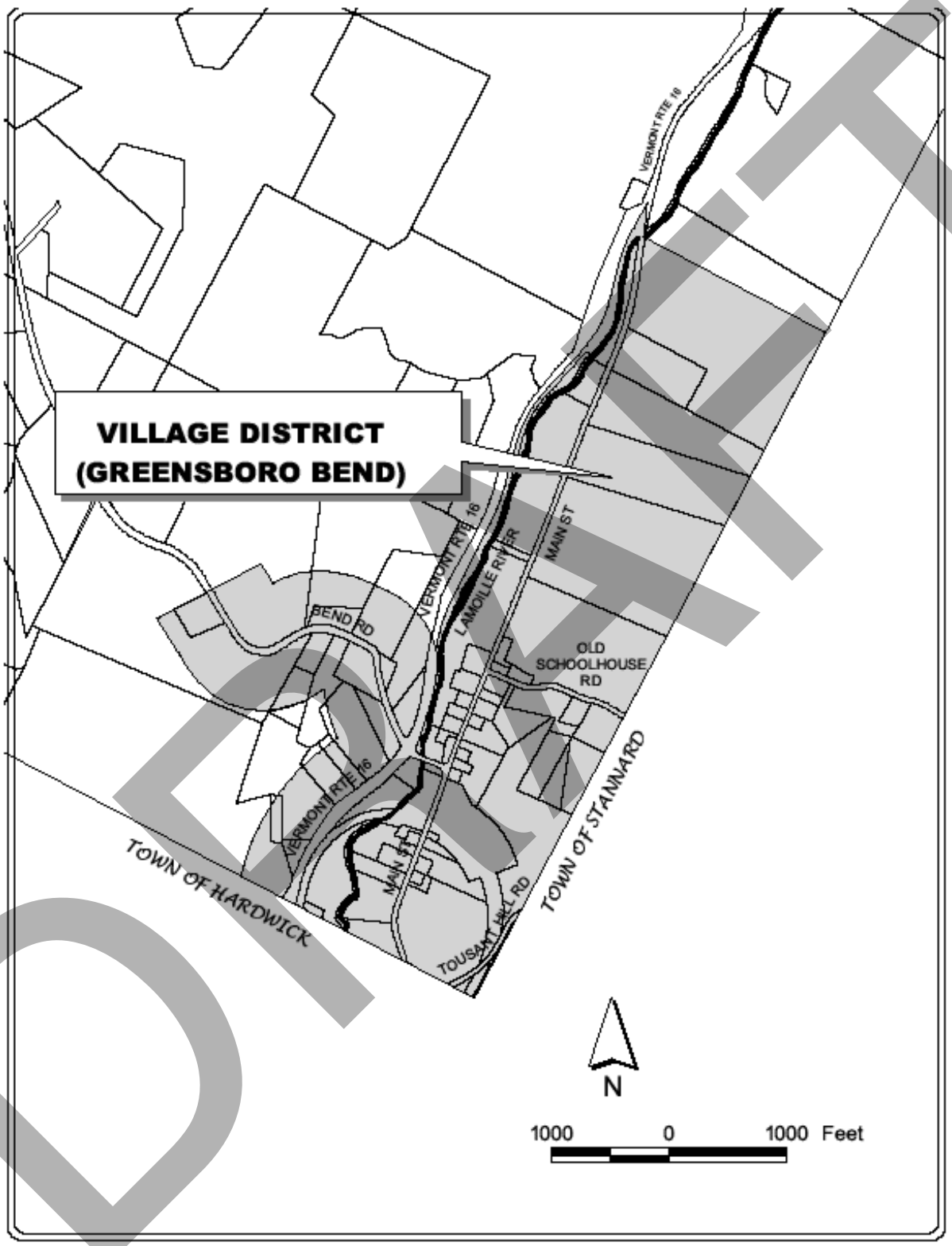
4. For the purposes of this report, the Greensboro Village District comparative total project cost of $63,000 per property is approximately 17% less than the Greensboro Bend District comparative total project cost of $76,000 per property.

5. Only one potential treated effluent infiltration area was identified with soils classified as well suited for onsite sewage disposal in the Greensboro Village District. So, if the Greensboro Village District were selected the Town would be putting all their eggs in one basket, so to speak.

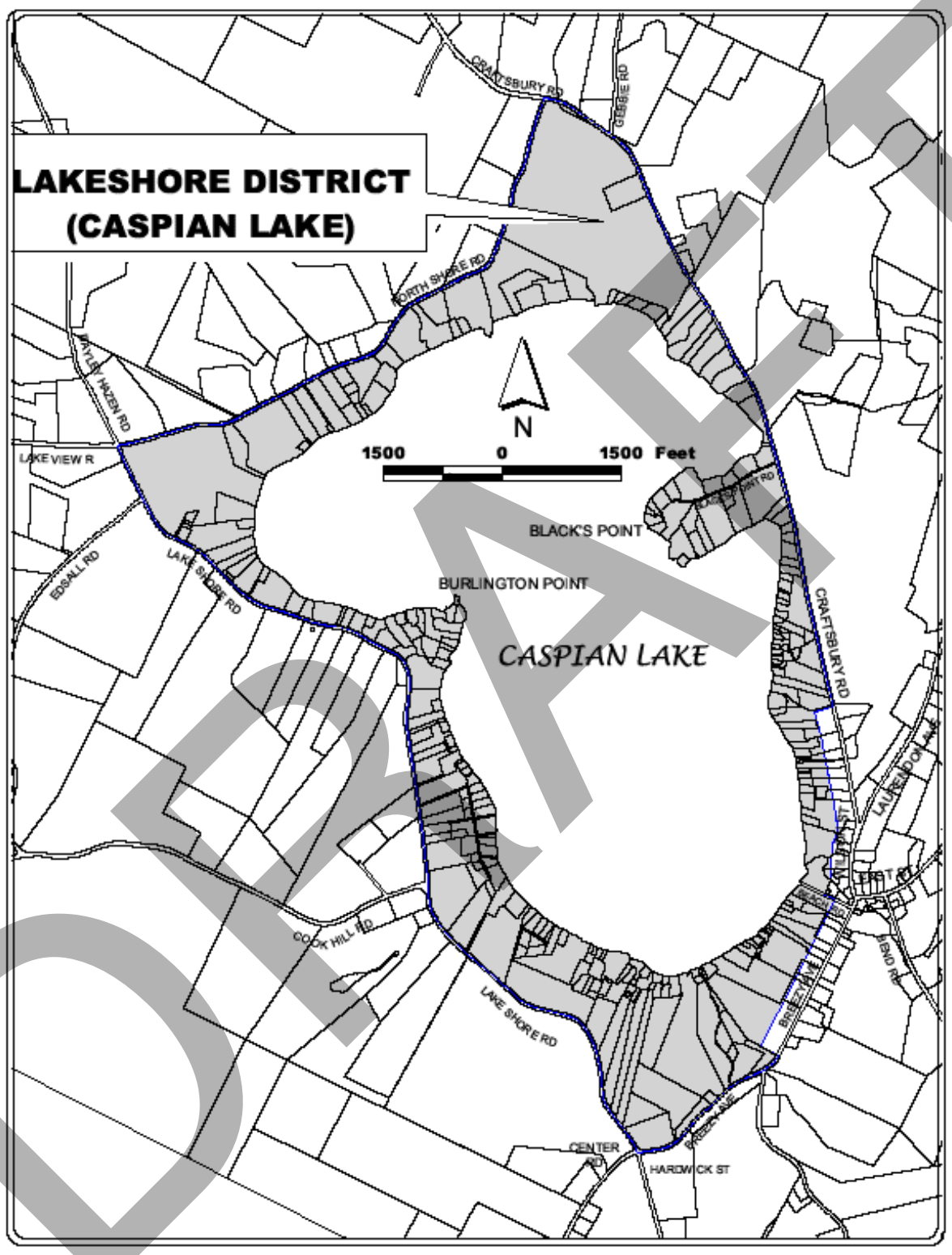
6. Only two potential treated effluent infiltration areas were identified with soils classified as well suited for onsite sewage disposal in the Greensboro Bend that did not have other barriers to development.

4. Appendices

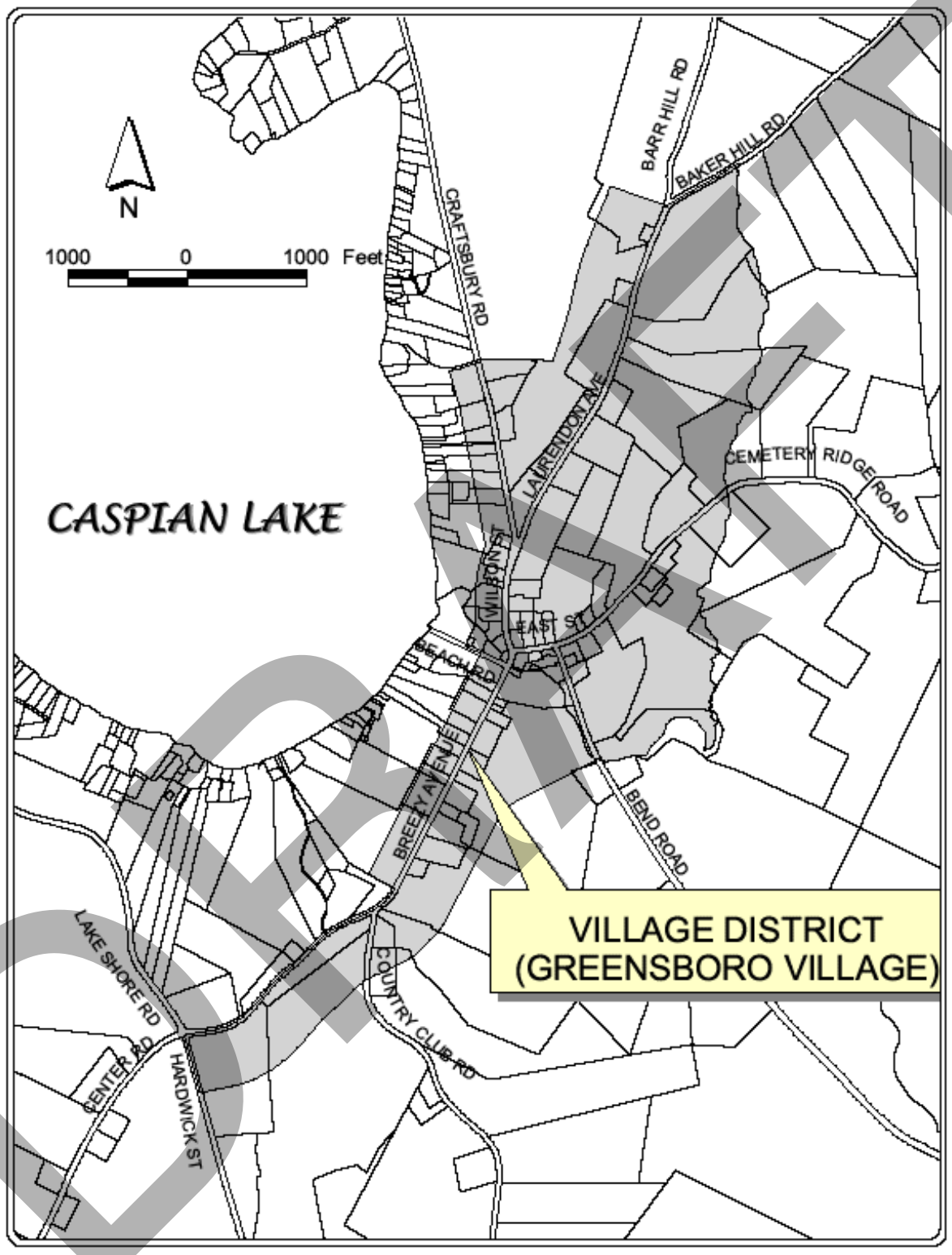
Bend District



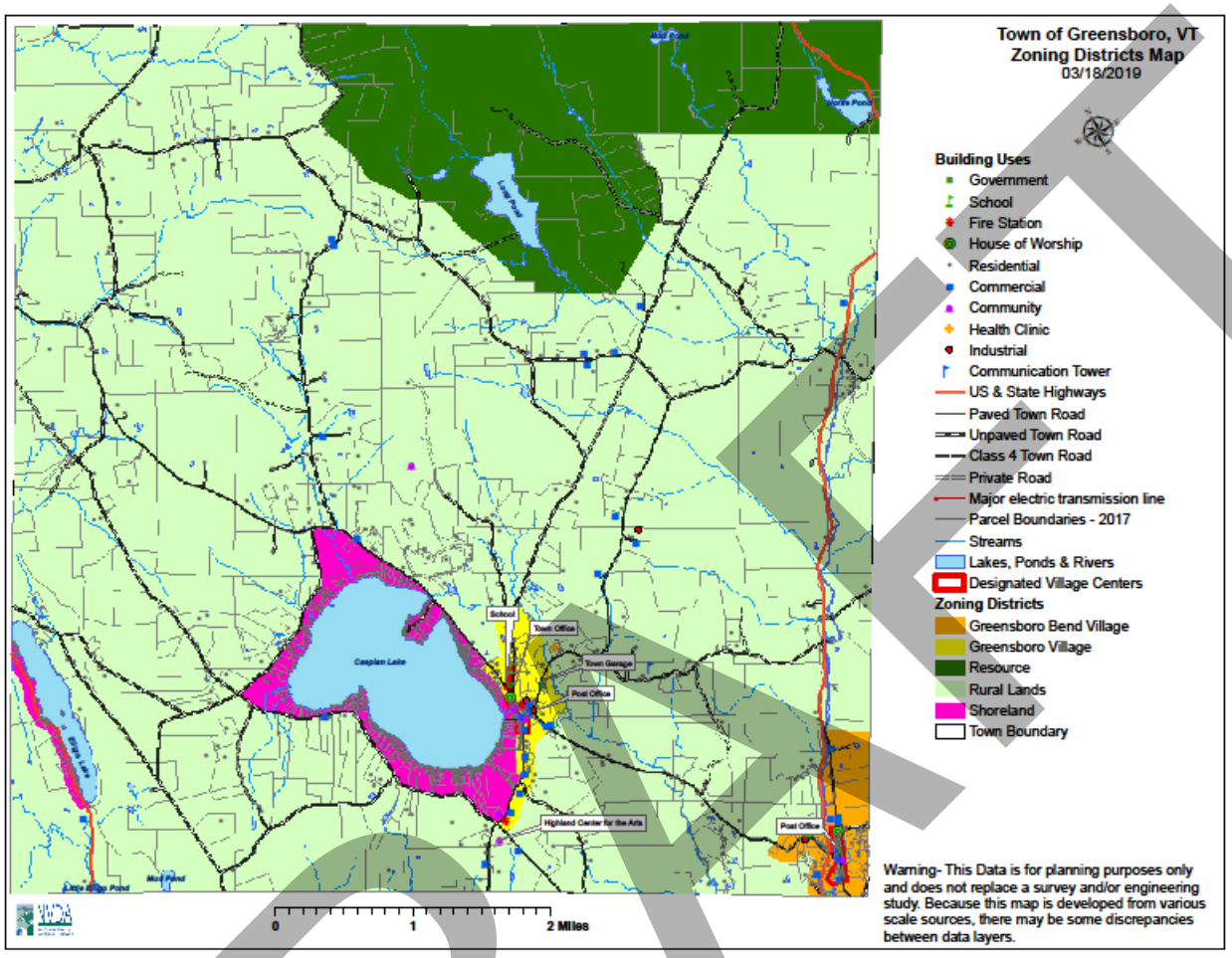
Caspian Lake District



Village District



Zoning Districts



VERMONT

Greensboro Bend District - Topo

Vermont Center for Geographic Information

vermont.gov

LEGEND

- Airports
- Rail Lines
- Town Boundaries
- County Boundaries
- Buildings
- Village Boundaries
- Buildings footprints
- VT State Boundary

NOTES

This map was created with the VT Interactive Map Viewer.

1: 10,000

December 9, 2020

0.32 0 0.16 0.32 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

THIS MAP IS NOT TO BE USED FOR NAVIGATION

DISCLAIMER: This map is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. VCGI and the State of Vermont make no representations of any kind, including but not limited to, the warranties of merchantability, or fitness for a particular use, nor are any such warranties to be implied with respect to the data on this map.

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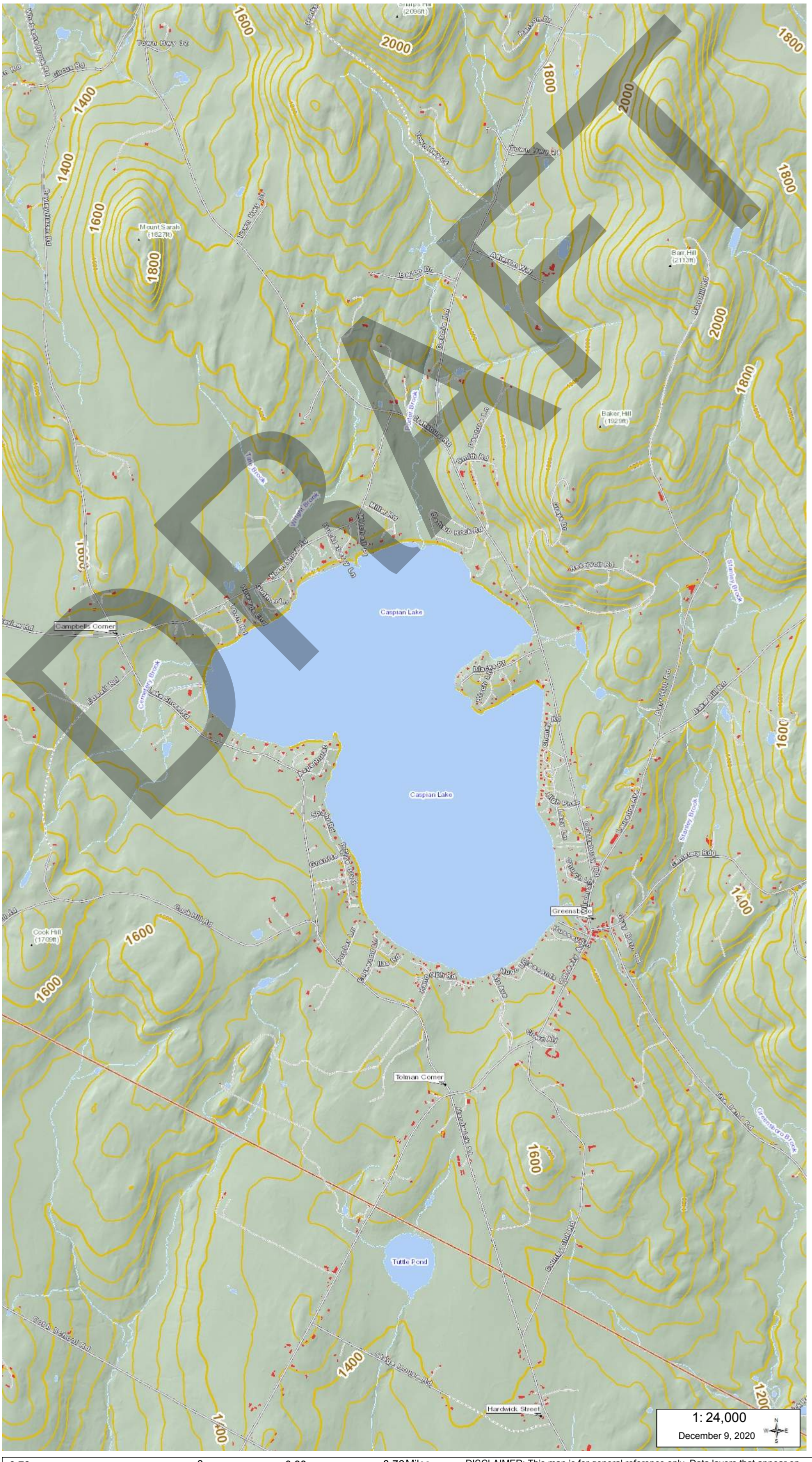
VERMONT

Caspian Lake District - Topo

Vermont Center for Geographic Information

vermont.gov



LEGEND

- Airports
- Rail Lines
- Town Boundaries
- County Boundaries
- Buildings
- Village Boundaries
- Buildings footprints
- VT State Boundary

NOTES

This map was created with the VT Interactive Map Viewer.

1: 24,000

December 9, 2020

0.76 0 0.38 0.76 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

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VERMONT

Greensboro Village District - Topo

Vermont Center for Geographic Information

vermont.gov

LEGEND

- Airports
- Rail Lines
- Town Boundaries
- County Boundaries
- Buildings
- Village Boundaries
- Buildings footprints
- VT State Boundary

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1: 10,000

December 9, 2020

0.32 0 0.16 0.32 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

THIS MAP IS NOT TO BE USED FOR NAVIGATION

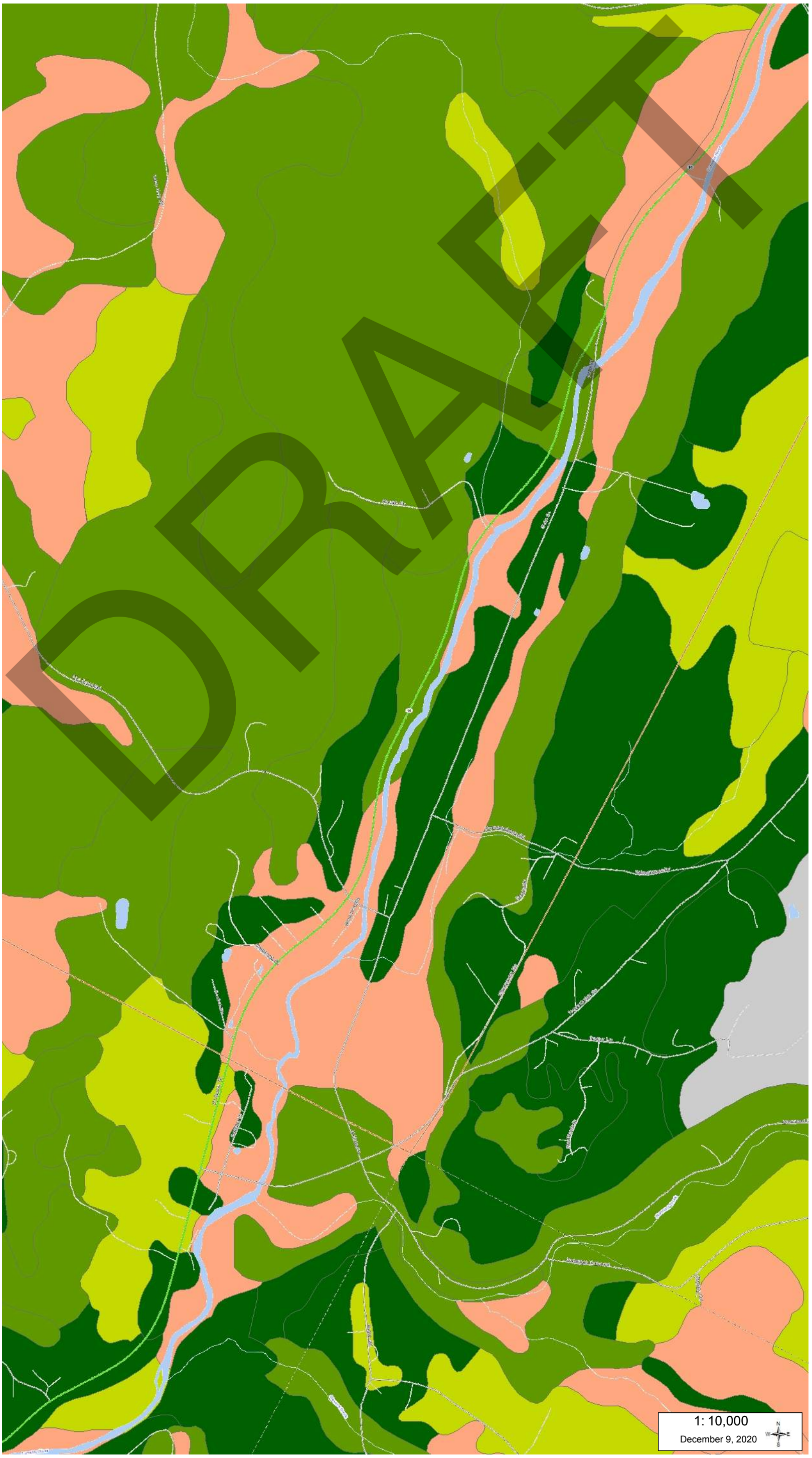
VCGI

VERMONT

Greensboro Bend - Wastewater Disposal Rating

Vermont Center for Geographic Information

vermont.gov



LEGEND

- Airports
- Rail Lines
- Town Boundaries
- County Boundaries
- Buildings
- Village Boundaries
- Soils - Onsite sewage disposal
  - Class I - WELL SUITED
  - Class II - MODERATELY SUITED
  - Class III - MARGINALLY SUITED
  - Class IV - NOT SUITED
  - Class V - NOT RATED
  - NULL
- VT Significant Wetlands Invent
- National Wetlands Inventory
- Buildings footprints
- VT State Boundary

NOTES

This map was created with the VT Interactive Map Viewer.

0.32 0 0.16 0.32 Miles

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THIS MAP IS NOT TO BE USED FOR NAVIGATION

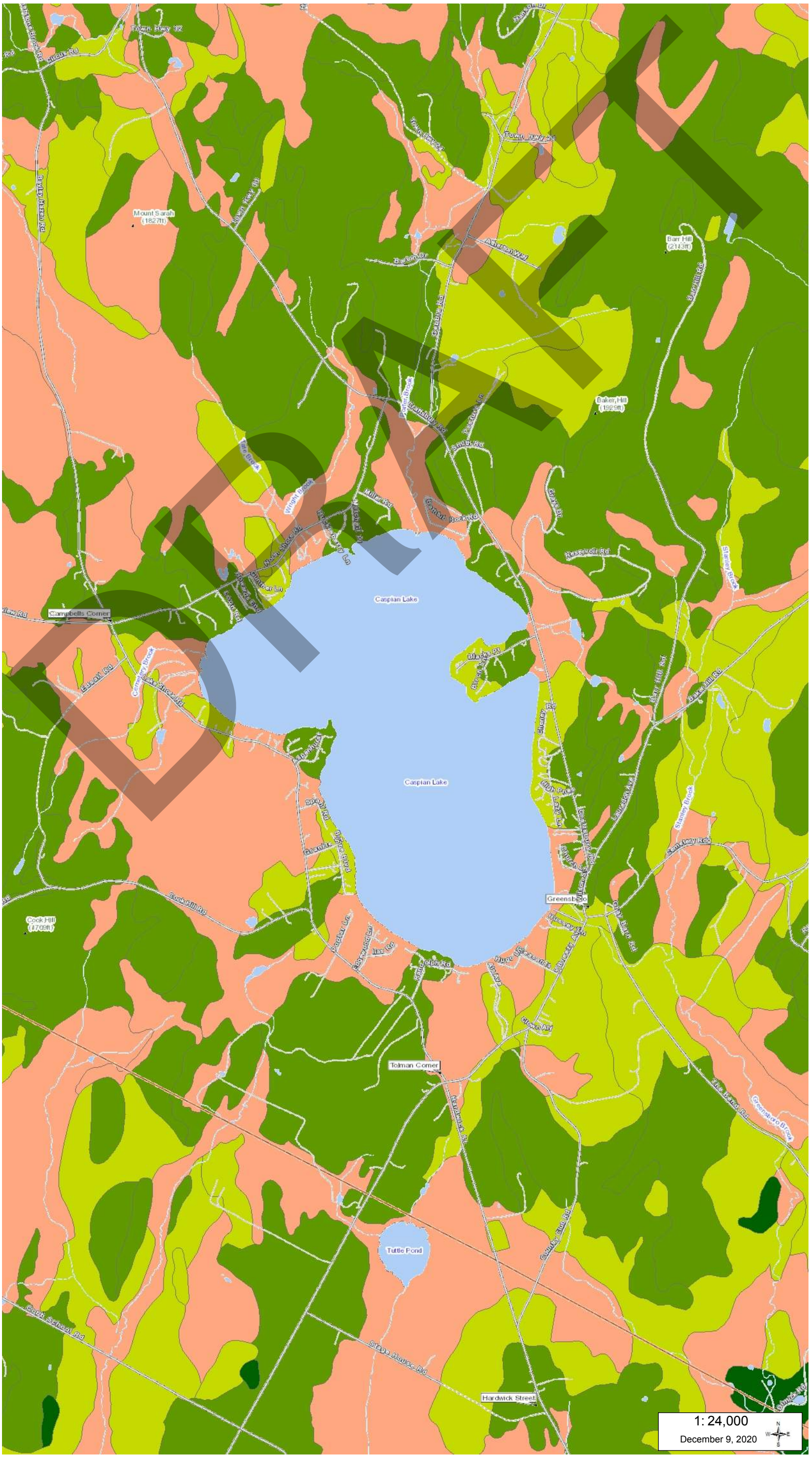
VCGI

VERMONT

Caspian Lake - Wastewater Disposal Rating

Vermont Center for Geographic Information

vermont.gov



LEGEND

- Airports
- Rail Lines
- Town Boundaries
- County Boundaries
- Buildings
- Village Boundaries
- Soils - Onsite sewage disposal
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0.76 0 0.38 0.76 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

THIS MAP IS NOT TO BE USED FOR NAVIGATION

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VERMONT

Greensboro Village - Wastewater Disposal Rating

Vermont Center for Geographic Information

vermont.gov

LEGEND

- Airports
- Rail Lines
- Town Boundaries
- County Boundaries
- Buildings
- Village Boundaries
- Soils - Onsite sewage disposal
  - Class I - WELL SUITED
  - Class II - MODERATELY SUITED
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1: 10,000

December 9, 2020

0.32 0 0.16 0.32 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

THIS MAP IS NOT TO BE USED FOR NAVIGATION

VCGI

Hoyle, Tanner & Associates, Inc.

To: File
Project: Town of Greensboro, Vermont
Wastewater Implementation Preliminary Engineering Report
Subject: Initial Soils Infiltration Area Screening
Author: John D. Reilly, PE, Senior Engineer
Date: December 2, 2020

Introduction

The Town of Greensboro, Vermont desires to determine the feasibility and potential cost of constructing a Town owned wastewater collection, conveyance, treatment and disposal system to serve the Caspian Lake, Village and Bend Districts. With a clearer understanding of the potential cost to serve each of the three Districts, the Town will select one district to focus on developing Town owned wastewater. Currently, properties in these Districts are served by on-site septic systems. Some of these properties are served by the public potable water system. The Caspian Lake, Village and Bend Districts include 294, 106 and 82 properties, respectively.

An initial screening of potential soil based treated wastewater effluent infiltration areas was completed based upon the following data provided by the State of Vermont Interactive Map Viewer website:

1. Soils – NRCS soil survey
2. Soils – Onsite sewage disposal ratings Class I – Well Suited
3. Parcels
4. Contours (1 foot)
5. Wetlands
6. Streams
7. Black and white imagery
8. Color imagery
9. Cached Basemap (Rivers)
10. Public Well Head Protection Areas

Existing Conditions

Refer to Table 1 for replacement septic system information during the 20-year period from 2000-2020

Table 1

District	Total # Properties	# Replacement Systems	% of Properties with Replacement Systems < 20 years old
Caspian Lake	294	43	15%
Village	106	8	7.5%
Bend	82	13	16%

Growth

The Vermont Populations Projections 2010-2030, dated August 2013, produced by Ken Jones, Ph.D., Vermont Agency of Commerce and Community Development projects a Greensboro population change of -2.6% during the period from 2010-2020 and -6.4% from 2020-2030. This document does not include population change in the Lake Caspian, Village and Bend Districts. The Town Plan – Greensboro, Vermont, adopted by the Greensboro Selectboard June 12, 2019, indicates the following:

> *"The American Community Survey (part of the Census Bureau) and the Vermont Agency for Commerce and Community Development make population projections. However, because Greensboro is such a small town, these projections are not credible. The growth of Greensboro is likely quite slow, or even stagnant, given that the population did not change from 2000 to 2010."*

The Housing Needs Assessment, Greensboro, Vermont prepared by the Town of Greensboro and the Greensboro Planning Commission by John Ryan and Jenifer Lenz, Development Cycles o fEast Montpelier, VT, December 2019 indicates a total of 20 one- and two-bedroom rental, ownership and age-appropriate ownership housing for seniors is needed in 2019.

For the purposes of this initial soil screening, it is assumed that treated effluent infiltration areas for each of the three districts will need capacity to handle a typical residential flow of 245 gpd per living unit and that there is one living unit on each property in the District.

Caspian Lake District

With 294 properties in the Caspian Lake District, and a typical Design Flow of 245 gpd per Living Unit and one Living Unit per property, a total District wastewater existing average daily design flow of 72,030 gpd would be anticipated. A minimum of three 25,000 gpd treated effluent infiltration areas would be needed to serve the Caspian Lake District.

Village District

With 106 properties in the Village District, and a typical Design Flow of 245 gpd per Living Unit and one Living Unit per property, a total Village District wastewater existing average daily design flow

of 25,970 gpd would be anticipated. Average daily water consumption in the Village potable water system follows in Table 2:

Table 2

Year	Average Daily Water Consumption (gpd)
2017	27,671
2018	25,539
2019	30,783
Average	**27,998**

The Village potable water system serves 190 customers. During the three year period from 2017-2019, the average daily water consumption of 27,998 for the 190 customers was 147 gpd.

A minimum of one 25,000 gpd treated effluent infiltration area and one 6,500 gpd treated effluent infiltration area would be needed to serve the District. It is assumed that two treated effluent infiltration areas would be needed to serve the District.

Bend District

With 82 properties in the Bend District, and a typical Design Flow of 245 gpd per Living Unit and one Living Unit per property, a total District wastewater existing average daily design flow of 20,090 gpd would be anticipated. The Bend has a potable water supply utility that is separate from the Town. The Town did not receive a reply to a request for Bend potable water consumption information. A minimum of one 25,000 gpd treated effluent infiltration area would be needed to serve the Bend District.

Potential Treated Effluent Infiltration Areas

The State of Vermont Interactive Map Viewer and Web Soil Survey provided by the United States Department of Agriculture, Natural Resources Conservation Services were utilized to complete an initial soil screening for potential treated effluent infiltration areas to serve the Caspian Lake, Village and Bend Districts. The United States Department of Agriculture, Natural Resources Conservation Service, Soil-based Residential Wastewater Disposal Ratings (02/21/2008) are included in Attachment 7.1. These ratings categorize soil suitability for residential wastewater disposal into suitability groups.

Group I soils are well suited to soil-based wastewater disposal systems. Good performance and low maintenance can be expected. The soils in this group are sandy and gravelly soils that formed in outwash and that have rapid permeability in the substratum and well drained soils that formed in till and that have a friable substratum with moderate permeability. Slopes generally are less than 20 percent.

Group II soils are moderately suited to soil-based wastewater disposal systems. The group includes soils with moderately slow to very slow permeability; complexes in which one or more of the soils have bedrock at a moderate depth (20 to 40 inches); soils that would qualify for inclusion in group

I but have slopes of more than 20 percent; soils that are subject to flooding; and soils that have a seasonal high-water table at a depth of 18 inches or more.

Groups III units are marginally suited. Group IV units are not suited and Group V units are not rated for wastewater disposal systems.

Soil suitability groups are further categorized into subgroups a-d, for example, Group Ia soils are the more suitable then Group II d soils for wastewater disposal.

Caspian Lake District

The State of Vermont Interactive Map Viewer and the Web Soil Survey were utilized to complete an initial treated effluent infiltration area soil screening for the Caspian Lake district to determine the potential to develop treated effluent infiltration areas with 25,000 gpd capacity. Note that there are no Class I – WELL SUITED Soils for onsite sewage disposal near the Caspian Lake District. Refer to Attachment 1 which depicts the Caspian Lake District on-site soils suitability and the general location of 8 potential treated effluent infiltration areas near the Caspian Lake District. These 8 areas are located on Class II – MODERATELY SUITED Soils for onsite sewage disposal. Refer to Attachment 2 for the Summary of Initial Screening Soil Areas - Significant Factors to Treated Effluent Infiltration Area Development. Attachment 2 indicates that these 8 potential treated effluent areas have significant barriers to feasible economic treated effluent area development including:

1. Shallow depth to bedrock of 20-40".
2. Low capacity of 0.01-2.00 in/hr capacity to transmit water.
3. Limited available land area.
4. Proximity to small streams.
5. Low compatibility with existing Lake Caspian District land uses.

Although these 8 areas may have the above-described significant barriers to feasible economic treated effluent areas development to serve a community sized 25,000 gpd capacity to serve approximately 100 typical homes. There may be better potential for development of several smaller, say 6,500 gpd, treated effluent areas to serve a cluster of approximately 27 typical homes. Further still even better potential for development may exist to serve of even smaller system capacity sizes, less than 6,500 gpd. Refer to Attachment 3 for detailed soil information regarding these 8 areas.

Village District

The State of Vermont Interactive Map Viewer and the Web Soil Survey were utilized to complete an initial treated effluent infiltration area soil screening for the Village District to determine the potential to develop treated effluent infiltration areas with 25,000 gpd capacity. Note that there are no Class I – WELL SUITED Soils for onsite sewage disposal located within the Village District, however Area 6, located approximately 1.25 miles downgradient along the Bend Road from the

Village Post Office intersection is designated as a Class I – WELL SUITED Soils area. Refer to Attachment 4 which depicts the Village District on-site soils suitability and the general location of 6 potential treated effluent infiltration areas near the Village District. Five of the six areas (herein after referred to as the Village 5 Areas) are located on Class II – MODERATELY SUITED Soils for onsite sewage disposal. Refer to Attachment 2 for the Summary of Initial Screening Soil Areas - Significant Factors to Treated Effluent Infiltration Area Development. Village Area 6 is located outside the Village District boundary. Attachment 2 indicates that the Village 5 Areas potential have significant barriers to feasible economic treated effluent area development generally including:

1. Shallow depth to bedrock.
2. Low capacity of 0.01-2.00 in/hr capacity to transmit water.
3. Proximity to small streams.

Village Area 6, although located approximately 1.25 miles from the Village center, is located on a Class I – WELL SUITED Soils area with good characteristics to infiltrate treated water into the soil.

Although the Village 5 Areas may have the above-described significant barriers to feasible economic treated effluent area development to serve a community sized 25,000 gpd capacity to serve approximately 100 typical homes. There may be better potential for development of several smaller, say 6,500 gpd, treated effluent areas to serve a cluster of approximately 27 typical homes. Further still even better potential for development may exist to serve even smaller system capacity sizes, less than 6,500 gpd. Refer to Attachment 6 for detailed soil information regarding these 6 areas.

Bend District

The State of Vermont Interactive Map Viewer and the Web Soil Survey were utilized to complete an initial treated effluent infiltration area soil screening for the Bend District to determine the potential to develop treated effluent infiltration areas with 25,000 gpd capacity. Refer to Attachment 6 which depicts the Bend District on-site soils suitability and the general location of 10 potential treated effluent infiltration areas within the Bend District. All 10 areas are located on Class I – WELL SUITED Soils for onsite sewage disposal. Refer to Attachment 2 for the Summary of Initial Screening Soil Areas - Significant Factors to Treated Effluent Infiltration Area Development. Attachment 2 indicates that the Bend 10 Areas have good potential for feasible economic treated effluent area development generally including:

1. Deep well drained soils
2. Proximity to existing nonforested developed and undeveloped land.
3. Proximity to existing infrastructure.
4. Proximity to the Lamoille River with large drainage basin.

The Bend 10 Areas have the above-described significant attributes for feasible economic treated effluent area development to serve a community sized 25,000 gpd capacity to serve approximately 100 typical homes. There may be better potential for development of several smaller, say 6,500

gpd, treated effluent areas to serve a cluster of approximately 27 typical homes. Further still even better potential for development may exist to serve even smaller system capacity sizes, less than 6,500 gpd. Refer to Attachment 7 for detailed soil information regarding these 10 areas.

Bend Soil Areas 2-9 are located within the Bend Public Water Well Head Protection Area (WHPA) however, this does not necessarily preclude development of a treated effluent infiltration area especially if an economical alternative well location can be found in a suitable location. Refer to Attachment 8 for a depiction of the Bend Public Water Well Head Protection Area location.

Conclusions

Refer to Table 3 for the ranking of potential for treated effluent infiltration area development in each of the three Districts. The Bend District is ranked with the highest treated effluent infiltration area potential because it includes the largest area of well suited soils compared to the Village and Caspian Lake Districts.

Table 3

District	Ranking of Treated Effluent Infiltration Area Development Potential
Bend	1
Village	2
Caspian Lake	3

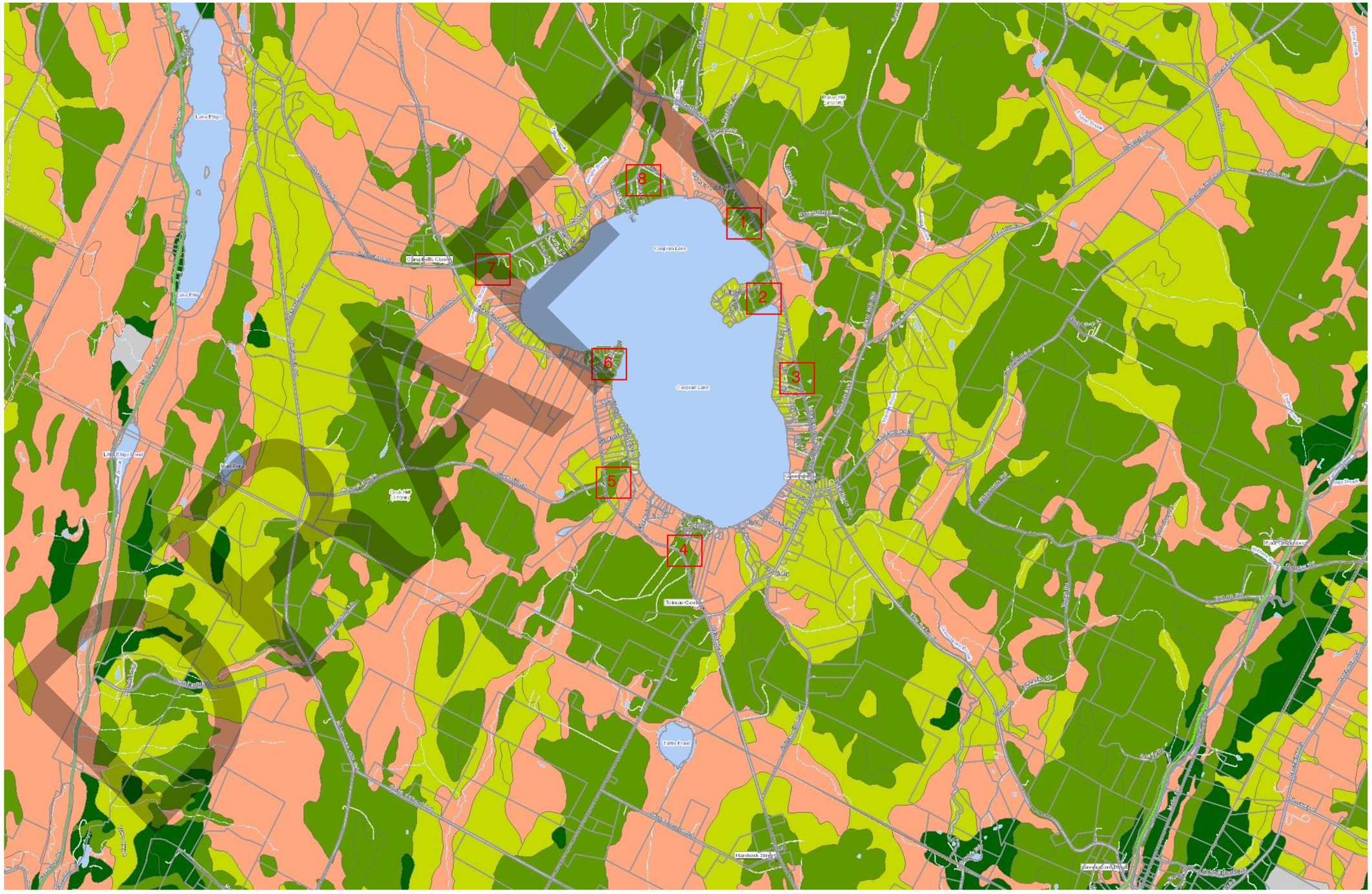
VERMONT

Lake District - On-Site Soils Suitability

VT Center for Geographic Information

Attachment 1

vermont.gov



LEGEND

- Parcel polygons
- Inactive parcels
- Airports
- Roads - Major Roads
  - Intestate Highway
  - US Highway
  - State Highway
  - Local Road
- Rail Lines
- Town Boundaries
- County Boundaries
- Village Boundaries
- Soils - Onsite sewage disposal ratings
  - Class I - WELL SUITED
  - Class II - MODERATELY SUITED
  - Class III - MARGINALLY SUITED
  - Class IV - NOT SUITED
  - Class V - NOT RATED
  - NULL
- Buildings footprints
- VT State Boundary

1: 32,107

December 2, 2020

0.76 0 0.38 0.76 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

VCGI

NOTES

This map was created with the VT Interactive Map Viewer.

Attachment 2

Summary of Initial Screening Soil Areas - Significant Factors to Treated Effleunt Infiltration Area Development										
Lake Caspian District Soils Area Number	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**		
Land percent slope	8-15	8-15	8-15	10-15	5-10	8-15	10-15	3-8		
Existing Tree Cover (as per Google 2020 Aerial Imagery)	Forested	Nonforested	Forested	Forested	Nonforested	Nonforested	Forested & Nonforested	Nonforested		
Apparent available area score (1= Poor, 10 = Very Good)? (as per Google 2020 Aerial Imagery)	7	5	7	6	9	4	6	8		
Likely Receiving Water	Lake Caspian	Lake Caspian	Lake Caspian	Lake Caspian	Lake Caspian	Lake Caspian	Cemetary Brook	Porter Brook		
Soil Map Unit	Vershire-Lombard complex, 8 to 15 percent slopes, very stony - 6C	Vershire-Lombard complex, 8 to 15 percent slopes, rocky - 2C	Vershire-Lombard complex, 8 to 15 percent slopes, rocky - 2C	Vershire-Lombard complex, 3 to 8 percent slopes, rocky - 3B	Vershire-Lombard complex, 8 to 15 percent slopes, rocky - 2C	Vershire-Lombard complex, 8 to 15 percent slopes, rocky - 2C	Vershire-Lombard complex, 15 to 25 percent slopes, rocky - 3D	Vershire-Lombard complex, 3 to 8 percent slopes, rocky - 3B		
Capacity of most limiting layer to tranmist water (Ksat in in/hr)	0.01-2.00	0.01-2.00	0.01-2.00	0.01-2.00	0.01-2.00	0.01-2.00	0.01-2.00	0.01-2.00		
Soil properties and qualities:	20-40" inches to lithic bedrock	20-40" inches to lithic bedrock	20-40" inches to lithic bedrock	60-72" inches to lithic bedrock	20-40" inches to lithic bedrock	20-40" inches to lithic bedrock	60-72" inches to lithic bedrock	60-72" inches to lithic bedrock		
Depth to water table	> 80"	> 80"	> 80"	> 80"	> 80"	> 80"	> 80"	> 80"		
Located within Public Water Well Head Protection Area?	No	No	No	No	No	No	No	No		
Rank of potential viability as treated effluent infiltration site	5	7	6	1	4	8	2	3		
Village District Soils Area Number	**1**	**2**	**3**	**4**	**5**	**6**				
Land percent slope	0-5	0-5	5-10	5-10	5-10	5-10				
Existing Tree Cover (as per Google 2020 Aerial Imagery)	Nonforested	Nonforested	Nonforested	Nonforested	Nonforested	Forested				
Apparent available area score (1= Poor, 10 = Very Good)? (as per Google 2020 Aerial Imagery)	7	6	7	7	9	9				
Likely Receiving Water	Lake Caspian/Greensboro Brook/Stanley Brook	Lake Caspian	Mackin Pond	Mackin Pond	Lake Caspian	Greensboro Brook				
Soil Map Unit	Vershire-Lombard complex, 3 to 8 percent slopes, rocky - 3B	Vershire-Glover complex, 15 to 35 percent slopes, very rocky - 94D	Vershire-Glover complex, 15 to 35 percent slopes, very rocky - 94D	Vershire-Glover complex, 15 to 35 percent slopes, very rocky - 94D	Vershire-Glover complex, 15 to 35 percent slopes, very rocky - 94D	Monadnock fine sandy loam, 8 to 15 percent slopes - 92C				
Capacity of most limiting layer to tranmist water (Ksat in in/hr)	0.01-2.00	0.01-2.00	0.01-2.00	0.01-2.00	0.01-2.00	0.14-14.03				
Soil typical profile notes:	60-72" inches to lithic bedrock	20-40" inches to lithic bedrock	20-40" inches to lithic bedrock	20-40" inches to lithic bedrock	20-40" inches to lithic bedrock	Gravelly loamy sand 22-65" below grade				
Depth to water table	> 80"	> 80"	> 80"	> 80"	> 80"	> 80"				
Located within Public Water Well Head Protection Area?	No	No	No	No	No	No				
Rank of potential viability as treated effluent infiltration site	2	3	5	6	4	1				
Bend District Soils Area Number	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Land percent slope	0-5	5-10	0-5	0-5	5-10	3-8	3-8	3-8	3-8	8-12
Existing Tree Cover (as per Google 2020 Aerial Imagery)	Forested	Forested	Nonforested	Nonforested	Nonforested	Nonforested	Nonforested	Nonforested	Nonforested	Nonforested
Apparent available area score (1= Poor, 10 = Very Good)? (as per Google 2020 Aerial Imagery)	8	6	7	7	9	6	7	7	7	7
Likely Receiving Water	Lamoille River	Lamoille River	Tributary to Lamoille River	Tributary to Lamoille River	Lamoille River	Lamoille River	Lamoille River	Lamoille River	Tributary to Lamoille River	Lamoille River
Soil Map Unit	Monadnock fine sandy loam, 15 to 35 percent slopes, very stony - 93D	Monadnock fine sandy loam, 15 to 35 percent slopes, very stony - 93D	Monadnock fine sandy loam, 15 to 35 percent slopes, very stony - 93D	Colton-Duxbury complex, 3 to 8 percent slopes - 38B	Colton-Duxbury complex, 3 to 8 percent slopes - 38B	Colton-Duxbury complex, 3 to 8 percent slopes - 38B	Colton-Duxbury complex, 3 to 8 percent slopes - 38B	Colton-Duxbury complex, 3 to 8 percent slopes - 38B	Colton-Duxbury complex, 3 to 8 percent slopes - 38B	Monadnock fine sandy loam, 8 to 15 percent slopes - 93C
Capacity of most limiting layer to tranmist water (Ksat in in/hr)	0.14-14.03	0.14-14.03	0.14-14.03	2-99	2-99	2-99	2-99	2-99	2-99	0.14-14.03
Soil typical profile notes:	18-36" to strongly contrasting textural stratification	18-36" to strongly contrasting textural stratification	18-36" to strongly contrasting textural stratification	> 80" to restrictive layer	> 80" to restrictive layer	> 80" to restrictive layer	> 80" to restrictive layer	> 80" to restrictive layer	> 80" to restrictive layer	15-30" to strongly contrasting textural stratification
Depth to water table	> 80"	> 80"	> 80"	> 80"	> 80"	> 80"	> 80"	> 80"	> 80"	> 80"
Located within Public Water Well Head Protection Area?	No	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No
Rank of potential viability as treated effluent infiltration site	9	10	7	3	1	5	2	4	6	8

Lake Area 1

Orleans County, Vermont

6C—Vershire-Lombard complex, 8 to 15 percent slopes, very stony

Map Unit Setting

National map unit symbol: 9j0q
Elevation: 490 to 2,460 feet
Mean annual precipitation: 36 to 46 inches
Mean annual air temperature: 38 to 44 degrees F
Frost-free period: 110 to 135 days
Farmland classification: Not prime farmland

Map Unit Composition

Vershire, very stony, and similar soils: 50 percent
Lombard, very stony, and similar soils: 35 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Vershire, Very Stony

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy till

Typical profile

O1 - 0 to 2 inches: moderately decomposed plant material
H1 - 2 to 5 inches: very fine sandy loam
H2 - 5 to 19 inches: very fine sandy loam
H3 - 19 to 22 inches: very fine sandy loam
R - 22 to 32 inches: unweathered bedrock

Properties and qualities

Slope: 8 to 15 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: C
Hydric soil rating: No

Description of Lombard, Very Stony

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy till over saprolite

Typical profile

O1 - 0 to 2 inches: moderately decomposed plant material
H1 - 2 to 8 inches: very fine sandy loam
H2 - 8 to 31 inches: very fine sandy loam
H3 - 31 to 61 inches: fine sandy loam
R - 61 to 71 inches: unweathered bedrock

Properties and qualities

Slope: 8 to 15 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: 60 to 72 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 8.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Cabot, very stony

Percent of map unit: 4 percent
Landform: Drainageways, hills, depressions
Hydric soil rating: Yes

Dummerston, very stony

Percent of map unit: 4 percent
Landform: Hills
Hydric soil rating: No

Buckland, very stony

Percent of map unit: 4 percent
Landform: Depressions, drainageways, hills

Hydric soil rating: No

Glover, very stony

Percent of map unit: 2 percent
Landform: Hills
Hydric soil rating: No

Rock outcrop

Percent of map unit: 1 percent
Landform: Hills
Hydric soil rating: Unranked

Data Source Information

Soil Survey Area: Orleans County, Vermont
Survey Area Data: Version 28, Jun 4, 2020

Lake Area 2, 3, 5, 6

Orleans County, Vermont

3C—Vershire-Lombard complex, 8 to 15 percent slopes, rocky

Map Unit Setting

National map unit symbol: 9hzb
Elevation: 490 to 2,460 feet
Mean annual precipitation: 36 to 46 inches
Mean annual air temperature: 38 to 44 degrees F
Frost-free period: 110 to 135 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Vershire, rocky, and similar soils: 50 percent
Lombard, rocky, and similar soils: 35 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Vershire, Rocky

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy till

Typical profile

H1 - 0 to 8 inches: very fine sandy loam
H2 - 8 to 19 inches: very fine sandy loam
H3 - 19 to 22 inches: very fine sandy loam
R - 22 to 32 inches: unweathered bedrock

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 3.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C

Hydric soil rating: No

Description of Lombard, Rocky

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy till over saprolite

Typical profile

H1 - 0 to 8 inches: very fine sandy loam
H2 - 8 to 31 inches: very fine sandy loam
H3 - 31 to 61 inches: fine sandy loam
R - 61 to 71 inches: unweathered bedrock

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: 60 to 72 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 7.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Cabot, rocky

Percent of map unit: 4 percent
Landform: Hills, depressions, drainageways
Hydric soil rating: Yes

Buckland, rocky

Percent of map unit: 4 percent
Landform: Drainageways, depressions, hills
Hydric soil rating: No

Dummerston, rocky

Percent of map unit: 4 percent
Landform: Hills
Hydric soil rating: No

Glover, rocky

Percent of map unit: 2 percent

Landform: Hills
Hydric soil rating: No

Rock outcrop
Percent of map unit: 1 percent
Landform: Hills
Hydric soil rating: Unranked

Data Source Information

Soil Survey Area: Orleans County, Vermont
Survey Area Data: Version 28, Jun 4, 2020

Lake Area 4, 8

Orleans County, Vermont

3B—Vershire-Lombard complex, 3 to 8 percent slopes, rocky

Map Unit Setting

National map unit symbol: 9hz9
Elevation: 490 to 2,460 feet
Mean annual precipitation: 36 to 46 inches
Mean annual air temperature: 38 to 44 degrees F
Frost-free period: 110 to 135 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Vershire, rocky, and similar soils: 50 percent
Lombard, rocky, and similar soils: 35 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Vershire, Rocky

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy till

Typical profile

H1 - 0 to 8 inches: very fine sandy loam
H2 - 8 to 19 inches: very fine sandy loam
H3 - 19 to 22 inches: very fine sandy loam
R - 22 to 32 inches: unweathered bedrock

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 3.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Hydric soil rating: No

Description of Lombard, Rocky

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy till over saprolite

Typical profile

H1 - 0 to 8 inches: very fine sandy loam
H2 - 8 to 31 inches: very fine sandy loam
H3 - 31 to 61 inches: fine sandy loam
R - 61 to 71 inches: unweathered bedrock

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 60 to 72 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 7.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Buckland, rocky

Percent of map unit: 4 percent
Landform: Hills, depressions, drainageways
Hydric soil rating: No

Dummerston, rocky

Percent of map unit: 4 percent
Landform: Hills
Hydric soil rating: No

Cabot, rocky

Percent of map unit: 4 percent
Landform: Hills, drainageways, depressions
Hydric soil rating: Yes

Glover, rocky

Percent of map unit: 2 percent
Landform: Hills

Hydric soil rating: No

Rock outcrop

Percent of map unit: 1 percent
Landform: Hills
Hydric soil rating: Unranked

Data Source Information

Soil Survey Area: Caledonia County, Vermont
Survey Area Data: Version 27, Jun 4, 2020

Soil Survey Area: Orleans County, Vermont
Survey Area Data: Version 28, Jun 4, 2020

Lake Area 7

Orleans County, Vermont

3D—Vershire-Lombard complex, 15 to 25 percent slopes, rocky

Map Unit Setting

National map unit symbol: 9hzc
Elevation: 490 to 2,460 feet
Mean annual precipitation: 36 to 46 inches
Mean annual air temperature: 38 to 44 degrees F
Frost-free period: 110 to 135 days
Farmland classification: Not prime farmland

Map Unit Composition

Vershire, rocky, and similar soils: 50 percent
Lombard, rocky, and similar soils: 35 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Vershire, Rocky

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy till

Typical profile

H1 - 0 to 8 inches: very fine sandy loam
H2 - 8 to 19 inches: very fine sandy loam
H3 - 19 to 22 inches: very fine sandy loam
R - 22 to 32 inches: unweathered bedrock

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 3.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C

Hydric soil rating: No

Description of Lombard, Rocky

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy till over saprolite

Typical profile

H1 - 0 to 8 inches: very fine sandy loam
H2 - 8 to 31 inches: very fine sandy loam
H3 - 31 to 61 inches: fine sandy loam
R - 61 to 71 inches: unweathered bedrock

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: 60 to 72 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 7.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Dummerston, rocky

Percent of map unit: 4 percent
Landform: Hills
Hydric soil rating: No

Buckland, rocky

Percent of map unit: 4 percent
Landform: Depressions, drainageways, hills
Hydric soil rating: No

Cabot, rocky

Percent of map unit: 4 percent
Landform: Drainageways, hills, depressions
Hydric soil rating: Yes

Glover, rocky

Percent of map unit: 2 percent

Landform: Hills
Hydric soil rating: No

Rock outcrop
Percent of map unit: 1 percent
Landform: Hills
Hydric soil rating: Unranked

Data Source Information

Soil Survey Area: Orleans County, Vermont
Survey Area Data: Version 28, Jun 4, 2020

VERMONT

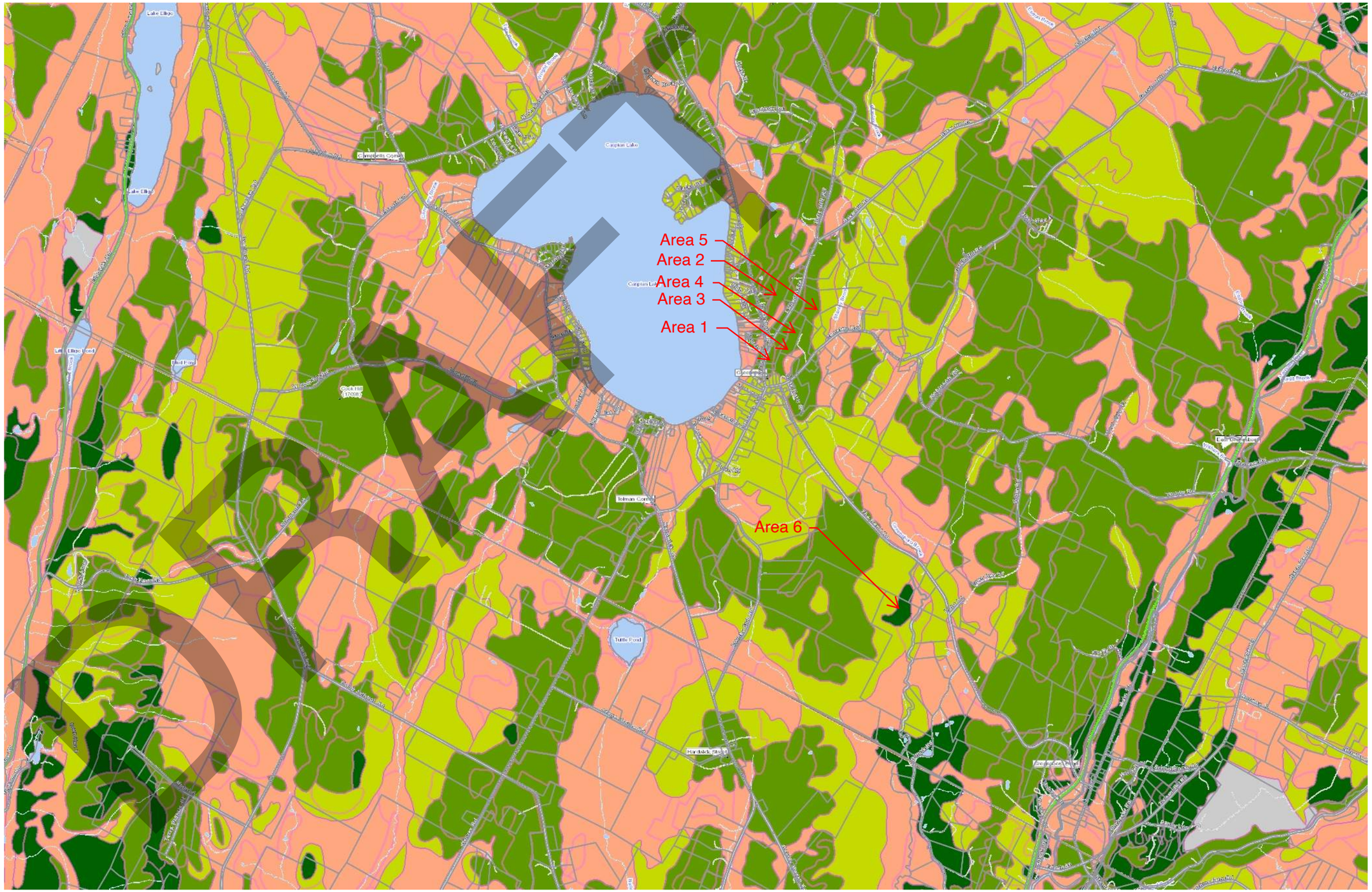
VT Interactive Map Viewer

VT Center for Geographic Information

Attachment 4

Village District On-Site Soils Suitability Areas

vermont.gov



LEGEND

- Parcel polygons
- Inactive parcels
- Airports
- Roads - Major Roads
  - Intestate Highway
  - US Highway
  - State Highway
  - Local Road
- Rail Lines
- Town Boundaries
- County Boundaries
- Village Boundaries
- Soil units
- Soils - Onsite sewage disposal ratings
  - Class I - WELL SUITED
  - Class II - MODERATELY SUITED
  - Class III - MARGINALLY SUITED
  - Class IV - NOT SUITED
  - Class V - NOT RATED
  - NULL
- Buildings footprints
- VT State Boundary

1: 32,107

December 2, 2020

0.76 0 0.38 0.76 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

VCGI

NOTES

This map was created with the VT Interactive Map Viewer.

Village Area 1

Orleans County, Vermont

3B—Vershire-Lombard complex, 3 to 8 percent slopes, rocky

Map Unit Setting

National map unit symbol: 9hz9
Elevation: 490 to 2,460 feet
Mean annual precipitation: 36 to 46 inches
Mean annual air temperature: 38 to 44 degrees F
Frost-free period: 110 to 135 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Vershire, rocky, and similar soils: 50 percent
Lombard, rocky, and similar soils: 35 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Vershire, Rocky

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy till

Typical profile

H1 - 0 to 8 inches: very fine sandy loam
H2 - 8 to 19 inches: very fine sandy loam
H3 - 19 to 22 inches: very fine sandy loam
R - 22 to 32 inches: unweathered bedrock

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 3.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Hydric soil rating: No

Description of Lombard, Rocky

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy till over saprolite

Typical profile

H1 - 0 to 8 inches: very fine sandy loam
H2 - 8 to 31 inches: very fine sandy loam
H3 - 31 to 61 inches: fine sandy loam
R - 61 to 71 inches: unweathered bedrock

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 60 to 72 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 7.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Buckland, rocky

Percent of map unit: 4 percent
Landform: Hills, depressions, drainageways
Hydric soil rating: No

Dummerston, rocky

Percent of map unit: 4 percent
Landform: Hills
Hydric soil rating: No

Cabot, rocky

Percent of map unit: 4 percent
Landform: Hills, drainageways, depressions
Hydric soil rating: Yes

Glover, rocky

Percent of map unit: 2 percent
Landform: Hills

Hydric soil rating: No

Rock outcrop

Percent of map unit: 1 percent
Landform: Hills
Hydric soil rating: Unranked

Data Source Information

Soil Survey Area: Caledonia County, Vermont
Survey Area Data: Version 27, Jun 4, 2020

Soil Survey Area: Orleans County, Vermont
Survey Area Data: Version 28, Jun 4, 2020

Village Areas 2, 3, 4, 5

Orleans County, Vermont

94D—Vershire-Glover complex, 15 to 35 percent slopes, very rocky

Map Unit Setting

National map unit symbol: 9j1t
Elevation: 490 to 2,460 feet
Mean annual precipitation: 36 to 46 inches
Mean annual air temperature: 38 to 44 degrees F
Frost-free period: 110 to 135 days
Farmland classification: Not prime farmland

Map Unit Composition

Vershire, very rocky, and similar soils: 43 percent
Glover, very rocky, and similar soils: 35 percent
Minor components: 22 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Vershire, Very Rocky

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy till

Typical profile

O1 - 0 to 2 inches: moderately decomposed plant material
H1 - 2 to 5 inches: very fine sandy loam
H2 - 5 to 19 inches: very fine sandy loam
H3 - 19 to 22 inches: very fine sandy loam
R - 22 to 32 inches: unweathered bedrock

Properties and qualities

Slope: 15 to 35 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: C
Hydric soil rating: No

Description of Glover, Very Rocky

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy till

Typical profile

O1 - 0 to 1 inches: moderately decomposed plant material
H1 - 1 to 4 inches: very fine sandy loam
H2 - 4 to 18 inches: very fine sandy loam
R - 18 to 28 inches: unweathered bedrock

Properties and qualities

Slope: 15 to 35 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Somewhat excessively drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 3.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Lombard, very rocky

Percent of map unit: 7 percent
Landform: Hills
Hydric soil rating: No

Dummerston, very rocky

Percent of map unit: 6 percent
Landform: Hills
Hydric soil rating: No

Buckland, very rocky

Percent of map unit: 4 percent
Landform: Depressions, drainageways, hills
Hydric soil rating: No

Cabot, very rocky

Percent of map unit: 3 percent
Landform: Hills, depressions, drainageways
Hydric soil rating: Yes

Rock outcrop

Percent of map unit: 2 percent
Landform: Hills
Hydric soil rating: Unranked

Data Source Information

Soil Survey Area: Orleans County, Vermont
Survey Area Data: Version 28, Jun 4, 2020

Village Area 6

Orleans County, Vermont

92C—Monadnock fine sandy loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2wlm4
Elevation: 390 to 1,640 feet
Mean annual precipitation: 31 to 95 inches
Mean annual air temperature: 27 to 55 degrees F
Frost-free period: 90 to 150 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Monadnock and similar soils: 81 percent
Minor components: 19 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Monadnock

Setting

Landform: Hills, mountains
Landform position (two-dimensional): Backslope, summit, shoulder
Landform position (three-dimensional): Mountainflank, mountainbase, side slope, nose slope, interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy supraglacial meltout till derived from phyllite and/or granite and gneiss and/or mica schist over sandy and gravelly supraglacial meltout till derived from phyllite and/or granite and gneiss and/or mica schist

Typical profile

Ap - 0 to 7 inches: fine sandy loam
Bs1 - 7 to 9 inches: fine sandy loam
Bs2 - 9 to 19 inches: gravelly fine sandy loam
BC - 19 to 22 inches: gravelly fine sandy loam
2C1 - 22 to 42 inches: gravelly loamy sand
2C2 - 42 to 65 inches: gravelly loamy sand

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: 15 to 30 inches to strongly contrasting textural stratification
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.03 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water capacity: Low (about 3.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Berkshire

Percent of map unit: 10 percent
Landform: Hills, mountains
Landform position (two-dimensional): Backslope, summit, shoulder
Landform position (three-dimensional): Mountainflank, mountainbase, side slope, nose slope, interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Skerry

Percent of map unit: 6 percent
Landform: Mountains, hills
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Mountainflank, mountainbase, interfluve, side slope, nose slope
Microfeatures of landform position: Closed depressions, closed depressions, open depressions, open depressions
Down-slope shape: Convex, concave
Across-slope shape: Linear, concave
Hydric soil rating: No

Cabot

Percent of map unit: 2 percent
Landform: Hills, mountains
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Mountainflank, mountainbase, interfluve, nose slope, side slope
Microfeatures of landform position: Closed depressions, open depressions, closed depressions, open depressions
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Tunbridge

Percent of map unit: 1 percent
Landform: Hills, mountains
Landform position (two-dimensional): Backslope, summit, shoulder
Landform position (three-dimensional): Mountainflank, mountainbase, side slope, nose slope, interfluve
Down-slope shape: Convex
Across-slope shape: Convex

Hydric soil rating: No

Data Source Information

Soil Survey Area: Orleans County, Vermont
Survey Area Data: Version 28, Jun 4, 2020

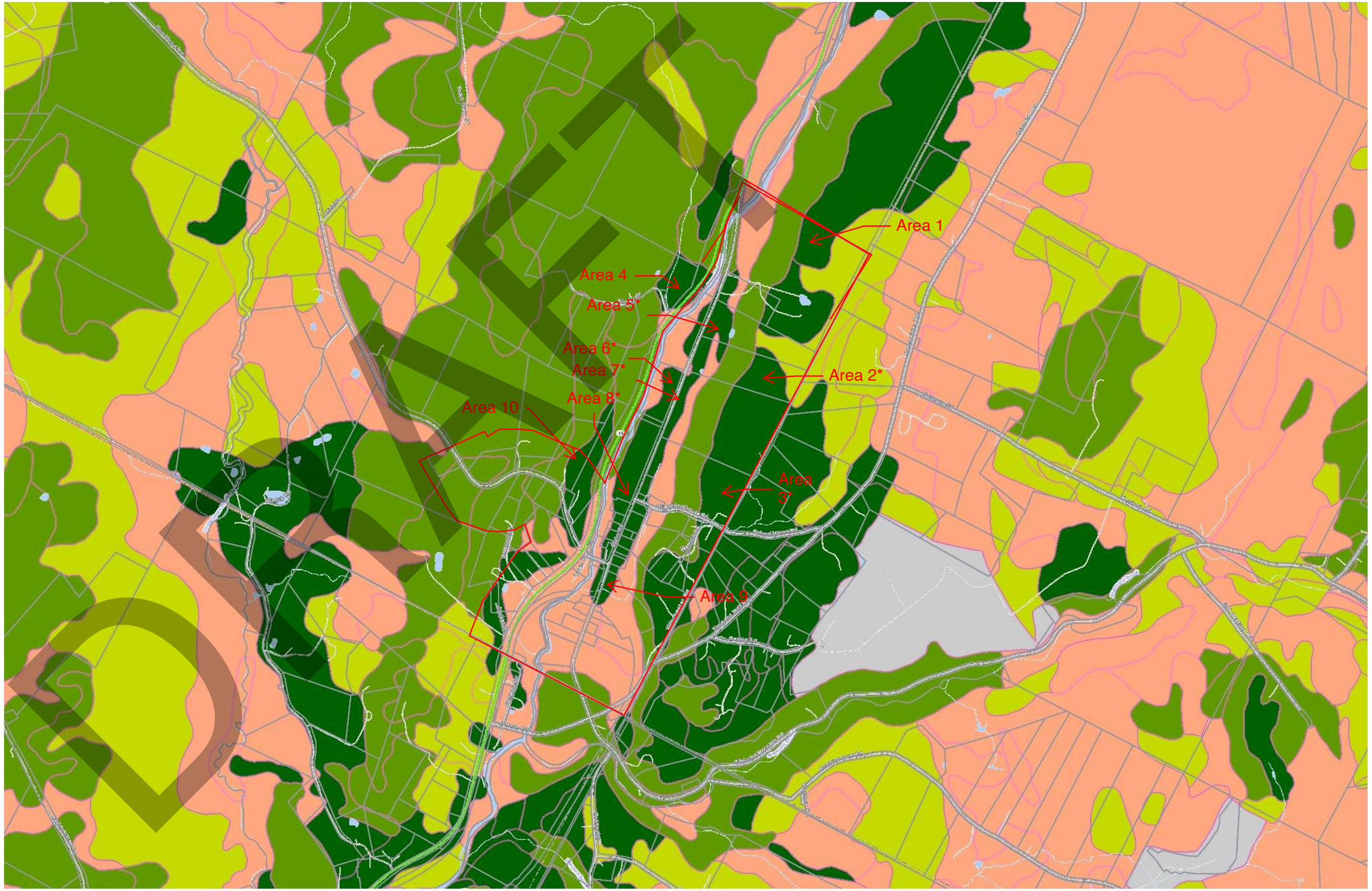
VERMONT

Bend District Soils Suitability

Attachment 6

VT Center for Geographic Information

vermont.gov



LEGEND

- Parcel polygons
- Inactive parcels
- Airports
- Rail Lines
- Town Boundaries
- County Boundaries
- Buildings
- Village Boundaries
- Soil units
- Soils - Onsite sewage disposal ratings
  - Class I - WELL SUITED
  - Class II - MODERATELY SUITED
  - Class III - MARGINALLY SUITED
  - Class IV - NOT SUITED
  - Class V - NOT RATED
  - NULL
- Buildings footprints
- VT State Boundary

* - Areas denoted with * are located within the existing Bend Public Well Head Protection Area

1: 16,054

December 3, 2020

0.76 0 0.38 0.76 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

VCGI

NOTES

This map was created with the VT Interactive Map Viewer.

Bend - Areas 1-3

Orleans County, Vermont

93D—Monadnock fine sandy loam, 15 to 35 percent slopes, very stony

Map Unit Setting

National map unit symbol: 2wlm9
Elevation: 390 to 1,770 feet
Mean annual precipitation: 31 to 95 inches
Mean annual air temperature: 27 to 55 degrees F
Frost-free period: 90 to 150 days
Farmland classification: Not prime farmland

Map Unit Composition

Monadnock, very stony, and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Monadnock, Very Stony

Setting

Landform: Hills, mountains
Landform position (two-dimensional): Backslope, summit, shoulder
Landform position (three-dimensional): Mountainflank, side slope, nose slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy supraglacial meltout till derived from phyllite and/or granite and gneiss and/or mica schist over sandy and gravelly supraglacial meltout till derived from phyllite and/or granite and gneiss and/or mica schist

Typical profile

Oe - 0 to 3 inches: moderately decomposed plant material
E - 3 to 8 inches: fine sandy loam
Bs1 - 8 to 10 inches: fine sandy loam
Bs2 - 10 to 12 inches: fine sandy loam
Bs3 - 12 to 22 inches: gravelly fine sandy loam
BC - 22 to 25 inches: gravelly fine sandy loam
2C1 - 25 to 45 inches: gravelly loamy sand
2C2 - 45 to 65 inches: gravelly loamy sand

Properties and qualities

Slope: 15 to 35 percent
Surface area covered with cobbles, stones or boulders: 1.1 percent
Depth to restrictive feature: 18 to 36 inches to strongly contrasting textural stratification
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.03 in/hr)
Depth to water table: More than 80 inches

Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water capacity: Low (about 4.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Berkshire, very stony

Percent of map unit: 10 percent
Landform: Mountains, hills
Landform position (two-dimensional): Backslope, summit, shoulder
Landform position (three-dimensional): Mountainflank, side slope, nose slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Tunbridge, very stony

Percent of map unit: 5 percent
Landform: Mountains, hills
Landform position (two-dimensional): Backslope, summit, shoulder
Landform position (three-dimensional): Mountainflank, side slope, nose slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Sunapee, very stony

Percent of map unit: 3 percent
Landform: Hills, mountains
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Mountainflank, side slope, nose slope
Microfeatures of landform position: Open depressions, open depressions
Down-slope shape: Convex, concave
Across-slope shape: Convex, concave
Hydric soil rating: No

Cabot, very stony

Percent of map unit: 2 percent
Landform: Hills, mountains
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Mountainflank, side slope, nose slope
Microfeatures of landform position: Open depressions, open depressions
Down-slope shape: Concave

Across-slope shape: Concave
Hydric soil rating: Yes

Data Source Information

Soil Survey Area: Caledonia County, Vermont
Survey Area Data: Version 27, Jun 4, 2020

Soil Survey Area: Orleans County, Vermont
Survey Area Data: Version 28, Jun 4, 2020

Bend Area 4

Orleans County, Vermont

38C—Colton-Duxbury complex, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 9hz6
Elevation: 490 to 1,800 feet
Mean annual precipitation: 36 to 46 inches
Mean annual air temperature: 38 to 44 degrees F
Frost-free period: 110 to 135 days
Farmland classification: Not prime farmland

Map Unit Composition

Colton and similar soils: 45 percent
Duxbury and similar soils: 35 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Colton

Setting

Landform: Outwash plains, outwash terraces
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy and gravelly glaciofluvial deposits

Typical profile

H1 - 0 to 9 inches: fine sandy loam
H2 - 9 to 13 inches: very gravelly loamy sand
H3 - 13 to 22 inches: gravelly coarse sand
H4 - 22 to 65 inches: very gravelly coarse sand

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High to very high (2.00 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Very low (about 2.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: A
Hydric soil rating: No

Description of Duxbury

Setting

Landform: Outwash plains, outwash terraces
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy and gravelly glaciofluvial deposits

Typical profile

H1 - 0 to 16 inches: fine sandy loam
H2 - 16 to 28 inches: gravelly loamy fine sand
H3 - 28 to 65 inches: very gravelly sand

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 6.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Adams

Percent of map unit: 10 percent
Landform: Outwash plains, outwash terraces
Hydric soil rating: No

Moosilauke

Percent of map unit: 5 percent
Landform: Depressions, drainageways, outwash plains, outwash terraces
Hydric soil rating: Yes

Irasburg

Percent of map unit: 5 percent
Landform: Outwash plains, outwash terraces, depressions, drainageways

Hydric soil rating: No

Data Source Information

Soil Survey Area: Orleans County, Vermont
Survey Area Data: Version 28, Jun 4, 2020

Bend Areas 5-9

Orleans County, Vermont

38B—Colton-Duxbury complex, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9hz5
Elevation: 490 to 1,800 feet
Mean annual precipitation: 36 to 46 inches
Mean annual air temperature: 38 to 44 degrees F
Frost-free period: 110 to 135 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Colton and similar soils: 37 percent
Duxbury and similar soils: 35 percent
Minor components: 28 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Colton

Setting

Landform: Outwash terraces, outwash plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy and gravelly glaciofluvial deposits

Typical profile

H1 - 0 to 9 inches: fine sandy loam
H2 - 9 to 13 inches: very gravelly loamy sand
H3 - 13 to 22 inches: gravelly coarse sand
H4 - 22 to 65 inches: very gravelly coarse sand

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High to very high (2.00 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Very low (about 2.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: A
Hydric soil rating: No

Description of Duxbury

Setting

Landform: Outwash terraces, outwash plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy and gravelly glaciofluvial deposits

Typical profile

H1 - 0 to 16 inches: fine sandy loam
H2 - 16 to 28 inches: gravelly loamy fine sand
H3 - 28 to 65 inches: very gravelly sand

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 6.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Adams

Percent of map unit: 13 percent
Landform: Outwash terraces, outwash plains
Hydric soil rating: No

Sheepscot

Percent of map unit: 8 percent
Landform: Outwash plains, outwash terraces, depressions, drainageways
Hydric soil rating: No

Irasburg

Percent of map unit: 6 percent
Landform: Depressions, drainageways, outwash plains, outwash terraces
Hydric soil rating: No

Moosilauke

Percent of map unit: 1 percent

Landform: Drainageways, depressions, outwash plains, outwash terraces
Hydric soil rating: Yes

Data Source Information

Soil Survey Area: Caledonia County, Vermont
Survey Area Data: Version 27, Jun 4, 2020

Soil Survey Area: Orleans County, Vermont
Survey Area Data: Version 28, Jun 4, 2020

Bend Area 10

Orleans County, Vermont

92C—Monadnock fine sandy loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2wlm4
Elevation: 390 to 1,640 feet
Mean annual precipitation: 31 to 95 inches
Mean annual air temperature: 27 to 55 degrees F
Frost-free period: 90 to 150 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Monadnock and similar soils: 81 percent
Minor components: 19 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Monadnock

Setting

Landform: Hills, mountains
Landform position (two-dimensional): Backslope, summit, shoulder
Landform position (three-dimensional): Mountainflank, mountainbase, side slope, nose slope, interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy supraglacial meltout till derived from phyllite and/or granite and gneiss and/or mica schist over sandy and gravelly supraglacial meltout till derived from phyllite and/or granite and gneiss and/or mica schist

Typical profile

Ap - 0 to 7 inches: fine sandy loam
Bs1 - 7 to 9 inches: fine sandy loam
Bs2 - 9 to 19 inches: gravelly fine sandy loam
BC - 19 to 22 inches: gravelly fine sandy loam
2C1 - 22 to 42 inches: gravelly loamy sand
2C2 - 42 to 65 inches: gravelly loamy sand

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: 15 to 30 inches to strongly contrasting textural stratification
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.03 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water capacity: Low (about 3.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Berkshire

Percent of map unit: 10 percent
Landform: Hills, mountains
Landform position (two-dimensional): Backslope, summit, shoulder
Landform position (three-dimensional): Mountainflank, mountainbase, side slope, nose slope, interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Skerry

Percent of map unit: 6 percent
Landform: Mountains, hills
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Mountainflank, mountainbase, interfluve, side slope, nose slope
Microfeatures of landform position: Closed depressions, closed depressions, open depressions, open depressions
Down-slope shape: Convex, concave
Across-slope shape: Linear, concave
Hydric soil rating: No

Cabot

Percent of map unit: 2 percent
Landform: Hills, mountains
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Mountainflank, mountainbase, interfluve, nose slope, side slope
Microfeatures of landform position: Closed depressions, open depressions, closed depressions, open depressions
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Tunbridge

Percent of map unit: 1 percent
Landform: Hills, mountains
Landform position (two-dimensional): Backslope, summit, shoulder
Landform position (three-dimensional): Mountainflank, mountainbase, side slope, nose slope, interfluve
Down-slope shape: Convex
Across-slope shape: Convex

Hydric soil rating: No

Data Source Information

Soil Survey Area: Orleans County, Vermont
Survey Area Data: Version 28, Jun 4, 2020

Attachment 7.1

Soil-based Residential Wastewater Disposal Ratings (VT)

Caledonia County, Vermont

[These ratings are based on a review of criteria set forth in the Vermont 2007 Environmental Protection Rules]

Suitability subgroup	Map symbol	Soil map unit name
IVa	3A	Charles silt loam, 0 to 2 percent slopes, frequently flooded
IVa	4A	Medomak mucky silt loam, 0 to 2 percent slopes, frequently flooded
Ia	6A	Adams loamy fine sand, 0 to 3 percent slopes
Ia	6B	Adams loamy fine sand, 3 to 8 percent slopes
Ia	6C	Adams loamy fine sand, 8 to 15 percent slopes
Ib	6D	Adams loamy fine sand, 15 to 25 percent slopes
IIe	6E	Adams loamy fine sand, 25 to 60 percent slopes
Ic	7B	Salmon very fine sandy loam, 3 to 8 percent slopes
Ic	7C	Salmon very fine sandy loam, 8 to 15 percent slopes
Id	7D	Salmon very fine sandy loam, 15 to 25 percent slopes
IIf	7E	Salmon very fine sandy loam, 25 to 50 percent slopes
IIh	8A	Nicholville very fine sandy loam, 0 to 3 percent slopes
IIh	8B	Nicholville very fine sandy loam, 3 to 8 percent slopes
IIh	8C	Nicholville very fine sandy loam, 8 to 15 percent slopes
IIIe	8D	Nicholville very fine sandy loam, 15 to 25 percent slopes
IVa	9A	Roundabout silt loam, 0 to 3 percent slopes
IIh	11A	Sheepscot gravelly fine sandy loam, 0 to 3 percent slopes
IIh	11B	Sheepscot gravelly fine sandy loam, 3 to 8 percent slopes
IVa	12A	Moosilauke very fine sandy loam, 0 to 3 percent slopes
IIc	14B	Vershire-Lombard complex, 3 to 8 percent slopes, rocky
IIc	14C	Vershire-Lombard complex, 8 to 15 percent slopes, rocky
IId	14D	Vershire-Lombard complex, 15 to 25 percent slopes, rocky
IVb	14E	Vershire-Lombard complex, 25 to 35 percent slopes, rocky
Ic	16B	Dummerston very fine sandy loam, 3 to 8 percent slopes
Ic	16C	Dummerston very fine sandy loam, 8 to 15 percent slopes
Id	16D	Dummerston very fine sandy loam, 15 to 25 percent slopes
IIf	16E	Dummerston very fine sandy loam, 25 to 35 percent slopes
Ic	17B	Dummerston very fine sandy loam, 3 to 8 percent slopes, very stony
Ic	17C	Dummerston very fine sandy loam, 8 to 15 percent slopes, very stony
Id	17D	Dummerston very fine sandy loam, 15 to 35 percent slopes, very stony
IIf	17E	Dummerston very fine sandy loam, 35 to 60 percent slopes, very stony
IIIc	20B	Buckland fine sandy loam, 3 to 8 percent slopes
IIId	20C	Buckland fine sandy loam, 8 to 15 percent slopes
IIIe	20D	Buckland fine sandy loam, 15 to 25 percent slopes
IIIc	21B	Buckland fine sandy loam, 3 to 8 percent slopes, very stony

Soil-based Residential Wastewater Disposal Ratings (VT)

Caledonia County, Vermont

Suitability subgroup	Map symbol	Soil map unit name
IIId	21C	Buckland fine sandy loam, 8 to 15 percent slopes, very stony
IIIe	21D	Buckland fine sandy loam, 15 to 35 percent slopes, very stony
IVd	21E	Buckland fine sandy loam, 35 to 60 percent slopes, very stony
IVa	22B	Cabot silt loam, 3 to 8 percent slopes
IIId	22C	Cabot silt loam, 8 to 15 percent slopes
IVa	23B	Cabot silt loam, 0 to 8 percent slopes, very stony
IIId	23C	Cabot silt loam, 8 to 15 percent slopes, very stony
IVa	24A	Peacham muck, 0 to 3 percent slopes, very stony
IVa	27A	Bucksport muck, 0 to 2 percent slopes
IIIg	30A	Ondawa-Sunday complex, 0 to 2 percent slopes, occasionally flooded
IIIb	31A	Podunk fine sandy loam, 0 to 2 percent slopes, occasionally flooded
Ia	32A	Colton-Duxbury complex, 0 to 3 percent slopes
Ia	32B	Colton-Duxbury complex, 3 to 8 percent slopes
Ia	32C	Colton-Duxbury complex, 8 to 15 percent slopes
Ib	32D	Colton-Duxbury complex, 15 to 25 percent slopes
IIe	32E	Colton-Duxbury complex, 25 to 60 percent slopes
IIh	38A	Croghan loamy fine sand, 0 to 3 percent slopes
IIh	38B	Croghan loamy fine sand, 3 to 8 percent slopes
IVa	42A	Rumney fine sandy loam, 0 to 2 percent slopes, frequently flooded
IIIc	46B	Lamoine silt loam, 3 to 8 percent slopes
IIId	46C	Lamoine silt loam, 8 to 15 percent slopes
IIIe	46D	Lamoine silt loam, 15 to 25 percent slopes
IVd	46E	Lamoine silt loam, 25 to 50 percent slopes
IVa	47A	Scantic silt loam, 0 to 3 percent slopes
IVa	50A	Wonsqueak and Pondicherry mucks, 0 to 2 percent slopes
IIc	56B	Vershire-Glover complex, 3 to 8 percent slopes, very rocky
IIc	56C	Vershire-Glover complex, 8 to 15 percent slopes, very rocky
IId	56D	Vershire-Glover complex, 15 to 35 percent slopes, very rocky
IVb	56E	Vershire-Glover complex, 35 to 60 percent slopes, very rocky
IIc	58B	Tunbridge-Lyman complex, 0 to 8 percent slopes, rocky
IIc	58C	Tunbridge-Lyman complex, 8 to 15 percent slopes, rocky
IId	58D	Tunbridge-Lyman complex, 15 to 25 percent slopes, rocky
IIc	61B	Tunbridge-Lyman complex, 3 to 8 percent slopes, very rocky
IIc	61C	Tunbridge-Lyman complex, 8 to 15 percent slopes, very rocky
IId	61D	Tunbridge-Lyman complex, 15 to 35 percent slopes, very rocky
IVb	61E	Tunbridge-Lyman complex, 35 to 60 percent slopes, very rocky

Soil-based Residential Wastewater Disposal Ratings (VT)

Caledonia County, Vermont

Suitability subgroup	Map symbol	Soil map unit name
IIc	63B	Tunbridge-Monadnock complex, 3 to 8 percent slopes, rocky
IIc	63C	Tunbridge-Monadnock complex, 8 to 15 percent slopes, rocky
IId	63D	Tunbridge-Monadnock complex, 15 to 25 percent slopes, rocky
IIIc	72B	Colonel-Cabot complex, 3 to 8 percent slopes
IIId	72C	Colonel-Cabot complex, 8 to 15 percent slopes
IIIe	72D	Colonel-Cabot complex, 15 to 25 percent slopes
IIIc	73B	Colonel-Cabot complex, 3 to 8 percent slopes, very stony
IIId	73C	Colonel-Cabot complex, 8 to 15 percent slopes, very stony
IIIe	73D	Colonel-Cabot complex, 15 to 35 percent slopes, very stony
Ic	74B	Monadnock fine sandy loam, 3 to 8 percent slopes
Ic	74C	Monadnock fine sandy loam, 8 to 15 percent slopes
Id	74D	Monadnock fine sandy loam, 15 to 25 percent slopes
Ic	75B	Monadnock fine sandy loam, 3 to 8 percent slopes, very stony
Ic	75C	Monadnock fine sandy loam, 8 to 15 percent slopes, very stony
Id	75D	Monadnock fine sandy loam, 15 to 35 percent slopes, very stony
IIf	75E	Monadnock fine sandy loam, 35 to 60 percent slopes, very stony
IVc	81D	Ricker-Londonderry-Stratton complex, 15 to 35 percent slopes, very rocky
IVb	81E	Ricker-Londonderry-Stratton complex, 35 to 60 percent slopes, very rocky
IVb	82F	Ricker-Londonderry-Rock outcrop complex, 60 to 90 percent slopes
IIh	85C	Dixfield sandy loam, 3 to 15 percent slopes, extremely bouldery
IIIe	85D	Dixfield sandy loam, 15 to 35 percent slopes, extremely bouldery
IVd	85E	Dixfield sandy loam, 35 to 60 percent slopes, extremely bouldery
IIId	86C	Cabot silt loam, 3 to 15 percent slopes, extremely bouldery
IIId	87C	Colonel-Cabot complex, 3 to 15 percent slopes, extremely bouldery
Ic	88C	Houghtonville fine sandy loam, 8 to 15 percent slopes, very stony
IIIa	92D	Hogback-Rawsonville complex, 15 to 35 percent slopes, very rocky
IVb	92E	Hogback-Rawsonville complex, 35 to 60 percent slopes, very rocky
Id	93E	Houghtonville fine sandy loam, 15 to 60 percent slopes, rubbly
Id	94D	Houghtonville fine sandy loam, 15 to 35 percent slopes, very bouldery
V	100	Pits, sand and Pits, gravel
V	102	Pits, quarry-Dumps, mine complex
V	104B	Urban land-Adams-Nicholville complex, 0 to 8 percent slopes
V	104C	Urban land-Adams-Nicholville complex, 8 to 15 percent slopes
V	104D	Urban land-Adams-Nicholville complex, 15 to 25 percent slopes
V	104E	Urban land-Adams-Nicholville complex, 25 to 60 percent slopes

Soil-based Residential Wastewater Disposal Ratings (VT)

Caledonia County, Vermont

Suitability subgroup	Map symbol	Soil map unit name
IVc	105D	Lyman-Rock outcrop complex, 15 to 35 percent slopes, very stony
IVb	105E	Lyman-Rock outcrop complex, 35 to 60 percent slopes, very stony
IVb	105F	Lyman-Rock outcrop complex, 60 to 90 percent slopes, very stony
IVa	120A	Moosilauke very fine sandy loam, 0 to 3 percent slopes, very stony
IIh	159B	Dixfield sandy loam, 3 to 8 percent slopes
IIh	159C	Dixfield sandy loam, 8 to 15 percent slopes
IIIe	159D	Dixfield sandy loam, 15 to 25 percent slopes
IIh	160B	Dixfield sandy loam, 3 to 8 percent slopes, very stony
IIh	160C	Dixfield sandy loam, 8 to 15 percent slopes, very stony
IIIe	160D	Dixfield sandy loam, 15 to 35 percent slopes, very stony
IVd	160E	Dixfield sandy loam, 35 to 60 percent slopes, very stony
IIc	163B	Tunbridge-Monadnock complex, 3 to 8 percent slopes, very stony
IIc	163C	Tunbridge-Monadnock complex, 8 to 15 percent slopes, very stony
IId	163D	Tunbridge-Monadnock complex, 15 to 35 percent slopes, very stony
IVb	163E	Tunbridge-Monadnock complex, 35 to 60 percent slopes, very stony
Ic	175C	Monadnock fine sandy loam, 3 to 15 percent slopes, extremely bouldery
Id	175D	Monadnock fine sandy loam, 15 to 35 percent slopes, extremely bouldery
IIf	175E	Monadnock fine sandy loam, 35 to 60 percent slopes, extremely bouldery
IIc	207C	Salmon-Adamant complex, 8 to 15 percent slopes, very rocky
IId	207D	Salmon-Adamant complex, 15 to 25 percent slopes, very rocky
IVb	207E	Salmon-Adamant complex, 25 to 50 percent slopes, very rocky
IIc	214B	Vershire-Lombard complex, 3 to 8 percent slopes, very stony
IIc	214C	Vershire-Lombard complex, 8 to 15 percent slopes, very stony
IId	214D	Vershire-Lombard complex, 15 to 35 percent slopes, very stony
IVb	214E	Vershire-Lombard complex, 35 to 60 percent slopes, very stony
IIh	250A	Irasburg loamy fine sand, 0 to 3 percent slopes
IIh	250B	Irasburg loamy fine sand, 3 to 8 percent slopes
IIh	250C	Irasburg loamy fine sand, 8 to 15 percent slopes
IIIe	250D	Irasburg loamy fine sand, 15 to 25 percent slopes
IVd	250E	Irasburg loamy fine sand, 25 to 50 percent slopes
V	260F	Udorthents, 60 to 90 percent slopes, very rubbly
IVa	270A	Bucksport peat, 0 to 2 percent slopes
IIIf	301C	Tunbridge-Dixfield complex, 3 to 15 percent slopes, extremely bouldery
IIIf	301D	Tunbridge-Dixfield complex, 15 to 35 percent slopes, extremely bouldery
IIIf	362B	Tunbridge-Dixfield complex, 3 to 8 percent slopes, rocky
IIIf	362C	Tunbridge-Dixfield complex, 8 to 15 percent slopes, rocky

Soil-based Residential Wastewater Disposal Ratings (VT)

Caledonia County, Vermont

Suitability subgroup	Map symbol	Soil map unit name
IIIf	362D	Tunbridge-Dixfield complex, 15 to 25 percent slopes, rocky
IIIf	363B	Tunbridge-Dixfield complex, 3 to 8 percent slopes, very stony
IIIf	363C	Tunbridge-Dixfield complex, 8 to 15 percent slopes, very stony
IIIf	363D	Tunbridge-Dixfield complex, 15 to 35 percent slopes, very stony
IVb	363E	Tunbridge-Dixfield complex, 35 to 60 percent slopes, very stony
V	900	Area not Surveyed, Access Denied
V	W	Water

Soil-based Residential Wastewater Disposal Ratings (VT)

This table indicates the suitability of the soils in the survey area for residential onsite waste disposal systems. The ratings in the table are based on the 2007 Vermont Environmental Protection Rules (Vermont Department of Environmental Conservation, Agency of Natural Resources). This rating system replaces that in the publication "Ancillary Soil Interpretation Ratings for On-site Sewage Disposal in Vermont," published in January 1997 by the Natural Resources Conservation Service.

Included in onsite waste disposal systems are absorption fields, also known as leach fields, or trenches in which effluent from a septic tank is distributed into the soil through subsurface tiles or perforated pipe. There must be unsaturated soil material beneath the absorption field to filter the effluent effectively. Unsatisfactory performance, including excessively slow absorption of effluent, surfacing of effluent, and hillside seepage, can affect public health.

The ratings are represented by symbols for five interpretive groups and their subgroups. These groups and subgroups are described in the following paragraphs.

Group I soils are well suited to soil-based wastewater disposal systems. Good performance and low maintenance can be expected. The soils in this group are sandy and gravelly soils that formed in outwash and that have rapid permeability in the substratum and well drained soils that formed in till and that have a friable substratum with moderate permeability. Slopes generally are less than 20 percent.

• Map units in subgroup Ia have rapid permeability and slopes of less than 20 percent.

• Map units in subgroup Ib have rapid permeability and have slopes that range to more than 20 percent.

• Map units in subgroup Ic have moderate permeability and slopes of less than 20 percent.

• Map units in subgroup Id have moderate permeability and have slopes that range to more than 20 percent.

Group II soils are moderately suited to soil-based wastewater disposal systems. The group includes soils with moderately slow to very slow permeability; complexes in which one or more of the soils have bedrock at a moderate depth (20 to 40 inches); soils that would qualify for inclusion in group I but have slopes of more than 20 percent; soils that are subject to flooding; and soils that have a seasonal high water table at a depth of 18 inches or more.

• Map units in subgroup IIa have moderately slow to very slow permeability and slopes of less than 20 percent.

• Map units in subgroup IIb have moderately slow to very slow permeability and have slopes that range to more than 20 percent.

• Map units in subgroup IIc have bedrock at a moderate depth (20 to 40 inches) in some areas and have slopes of less than 20 percent.

• Map units in subgroup IId have bedrock at a moderate depth (20 to 40 inches) and have slopes that range to more than 20 percent.

• Map units in subgroup IIe have rapid permeability and slopes of more than 20 percent.

• Map units in subgroup IIf have moderate permeability and slopes of more than 20 percent.

• Map units previously assigned to subgroup IIg have been re-assigned to subgroup IIIg.

• Map units in subgroup IIh have a seasonal high water table at a depth of 18 inches or more and have slopes of less than 20 percent.

Group III map units are marginally suited to soil-based wastewater disposal systems. Intensive onsite investigation may be needed to locate suitable areas, or special design, extra maintenance, or costly alteration may be needed to overcome the soil-related limitations. In areas where the water table is at a shallow depth, seasonal onsite monitoring of the water table may be needed to determine whether the site is suitable. Some areas of any of the map units in group III may not be suitable for onsite waste disposal systems.

• Map units in subgroup IIIa have bedrock at a depth of less than 10 inches in some areas. Some map units are limited by slopes that range to more than 20 percent.

• Map units in subgroup IIIb are subject to flooding and have a seasonal high water table at a moderate depth.

• Map units in subgroup IIIc have a seasonal high water table at a depth of 1 foot or less and have slopes of 8 percent or less.

• Map units in subgroup IIId have a seasonal high water table at a depth of 1 foot or less and have slopes of 8 to 20 percent.

• Map units in subgroup IIIe generally have a seasonal high water table within a depth of 2 feet and have slopes that range to more than 20 percent.

• Map units in subgroup IIIf have a seasonal high water table and limited depth to bedrock. Some map units have slopes that range to more than 20 percent.

• Map units in subgroup IIIg are subject to flooding.

Group IV map units are not suited to soil-based wastewater disposal systems because of such limitations as wetness, depth to bedrock, restricted permeability, or slope.

• Map units in subgroup IVa are subject to excessive wetness.

• Map units in subgroup IVb are limited by the depth to bedrock and by slopes of more than 20 percent.

• Map units in subgroup IVc are not suited because of a very limited depth to bedrock and the slope.

• Map units in subgroup IVd have moderately slow to very slow permeability and have slopes of more than 20 percent. Some map units have a seasonal high water table.

Group V map units are not rated for soil-based wastewater disposal systems. This group includes miscellaneous areas that have been filled, excavated, regraded, or otherwise disturbed by human activities; areas that are mapped above the series level, such as Udorthents; and areas of water. The miscellaneous areas and the areas mapped above the series level have a wide range of soil properties. Onsite investigation is needed to determine the suitability of these areas for onsite waste disposal.

The ratings in this report are based on the installation of a new septic system for a new single-family home on a lot subdivided on or after June 14, 2002, in a municipality that has planning and zoning bylaws. The ratings do not necessarily apply to the siting of a replacement system for an existing residence. The ratings for lots subdivided before June 14, 2002, are based on a slope limitation of 30 percent, whereas the ratings in this table are based on a slope limitation of 20 percent. The ratings in this table do not take into consideration some site factors that can affect the placement of septic systems, such as wellhead and source protection areas, isolation distances, and the size of the parcel.

This table is intended for general planning purposes only and is not intended to replace or supercede an onsite soil investigation. These ratings apply only to land within the State of Vermont.

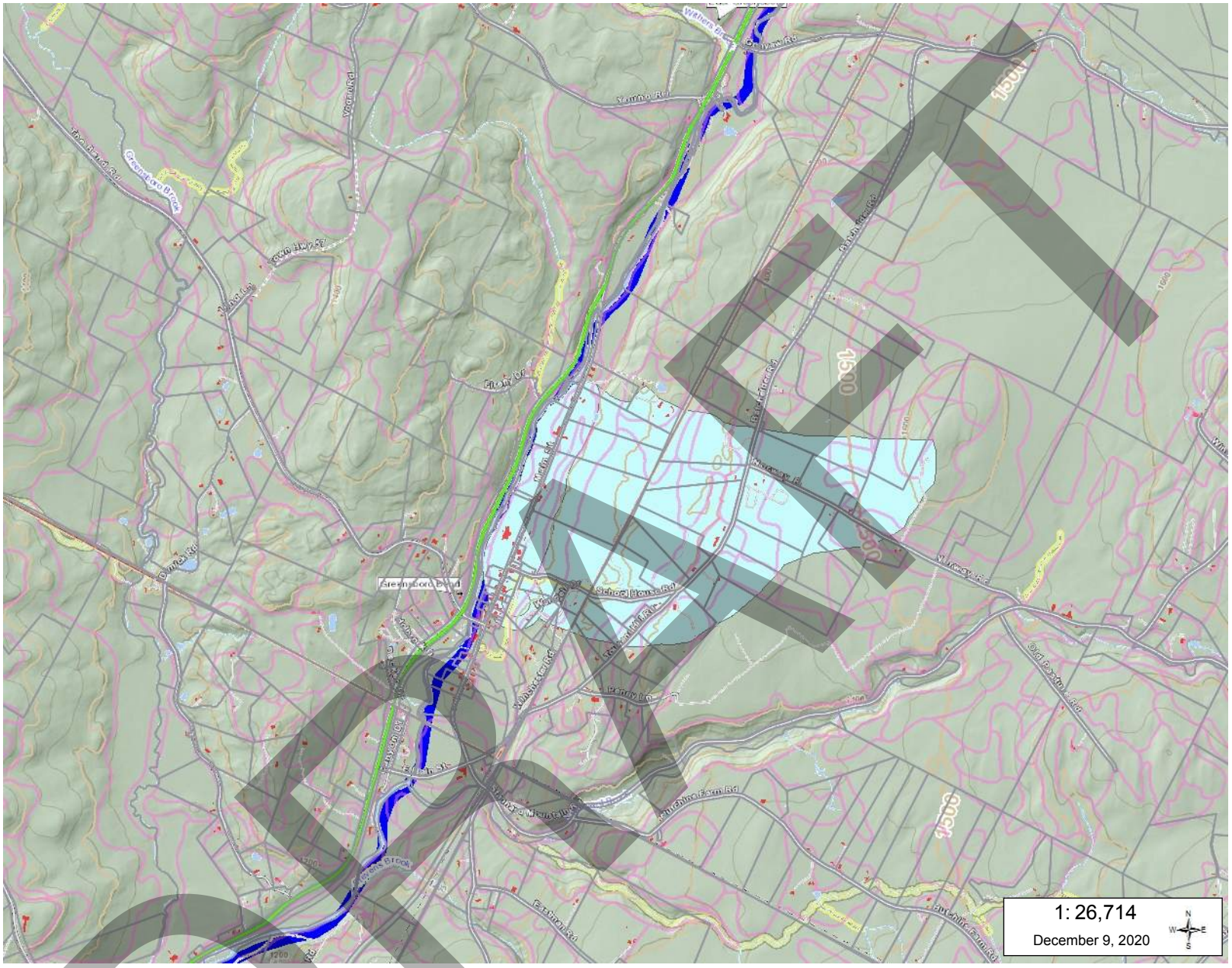
Attachment 8

VERMONT

Bend Area Public Well Head Protection Area

Vermont Center for Geographic Information

vermont.gov



LEGEND

- Parcel polygons
- Inactive parcels
- Airports
- Rail Lines
- Town Boundaries
- County Boundaries
- Village Boundaries
- Soil units
- Buildings footprints
- .5 - 2 sqmi.
- .25-.5 sqmi.
- Groundwater
  - Active
  - Interim
  - Proposed
- Surface water
  - Active
  - Interim
  - Proposed
- Whitewater Rivers
- VT State Boundary

VCGI

NOTES

This map was created with the VT Interactive Map Viewer.

0.84 0 0.42 0.84 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

THIS MAP IS NOT TO BE USED FOR NAVIGATION

DISCLAIMER: This map is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. VCGI and the State of Vermont make no representations of any kind, including but not limited to, the warranties of merchantability, or fitness for a particular use, nor are any such warranties to be implied with respect to the data on this map.

VERMONT

Greensboro Bend - Wetlands

Vermont Center for Geographic Information

vermont.gov

LEGEND

- Parcel polygons
- Inactive parcels
- Airports
- Rail Lines
- Town Boundaries
- County Boundaries
- Buildings
- Village Boundaries
- VT Significant Wetlands Invent
- National Wetlands Inventory
- Buildings footprints
- Imagery
  - High : 255
  - Low : 0
- VT State Boundary

NOTES

This map was created with the VT Interactive Map Viewer.

1: 10,000

December 9, 2020

0.32 0 0.16 0.32 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

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VCGI

VERMONT

Caspian Lake - Wetlands

Vermont Center for Geographic Information

vermont.gov

LEGEND

- Parcel polygons
- Inactive parcels
- Airports
- Rail Lines
- Town Boundaries
- County Boundaries
- Buildings
- Village Boundaries
- VT Significant Wetlands Invent
- National Wetlands Inventory
- Buildings footprints
- Imagery
  - High : 255
  - Low : 0
- VT State Boundary

NOTES

This map was created with the VT Interactive Map Viewer.

0.76 0 0.38 0.76 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

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VCGI

VERMONT

Greensboro Village - Wetlands

Vermont Center for Geographic Information

vermont.gov

LEGEND

- Parcel polygons
- Inactive parcels
- Airports
- Rail Lines
- Town Boundaries
- County Boundaries
- Buildings
- Village Boundaries
- VT Significant Wetlands Invent
- National Wetlands Inventory
- Buildings footprints
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December 9, 2020

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VCGI

VERMONT

Greensboro Bend - Endangered Species

Vermont Center for Geographic Information

vermont.gov

LEGEND

- Parcel polygons
- Inactive parcels
- Airports
- Rail Lines
- Town Boundaries
- County Boundaries
- Buildings
- Village Boundaries
- VT Significant Wetlands Invent
- National Wetlands Inventory
- Buildings footprints
- Endangered Species and Sign Communities
  - Endangered
  - Threatened
- VT State Boundary

NOTES

This map was created with the VT Interactive Map Viewer.

1: 10,000

December 9, 2020

0.32 0 0.16 0.32 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

THIS MAP IS NOT TO BE USED FOR NAVIGATION

VCGI

VERMONT

Caspian Lake - Endangered Species

Vermont Center for Geographic Information

vermont.gov

LEGEND

- Parcel polygons
- Inactive parcels
- Airports
- Rail Lines
- Town Boundaries
- County Boundaries
- Buildings
- Village Boundaries
- VT Significant Wetlands Invent
- National Wetlands Inventory
- Buildings footprints
- Endangered Species and Sign Communities
  - Endangered
  - Threatened
- VT State Boundary

NOTES

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December 9, 2020

0.76 0 0.38 0.76 Miles

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VCGI

VERMONT

Greensboro Village - Endangered Species

Vermont Center for Geographic Information

vermont.gov

LEGEND

- Parcel polygons
- Inactive parcels
- Airports
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- Town Boundaries
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NOTES

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1: 10,000

December 9, 2020

0.32 0 0.16 0.32 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

THIS MAP IS NOT TO BE USED FOR NAVIGATION

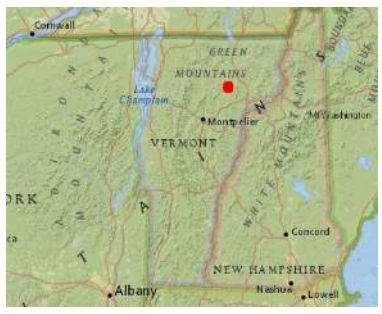
VCGI

VERMONT

Bend District - Hazardous Waste Sites

Vermont Agency of Natural Resources

vermont.gov



LEGEND

- Hazardous Site
- Hazardous Waste Generators
- Parcels (standardized)
- Roads
  - Interstate
  - US Highway; 1
  - State Highway
  - Town Highway (Class 1)
  - Town Highway (Class 2,3)
  - Town Highway (Class 4)
  - State Forest Trail
  - National Forest Trail
  - Legal Trail
  - Private Road/Driveway
  - Proposed Roads
- Stream/River
  - Stream
  - Intermittent Stream
- Town Boundary

NOTES

Map created using ANR GIS mapping techology.

508.0 0 254.00 508.0 Meters

WGS_1984_Web_Mercator_Auxiliary_Sphere 1" = 833 Ft. 1cm = 100 Meters

THIS MAP IS NOT TO BE USED FOR NAVIGATION

Village District - Hazardous Waste Sites

Vermont Agency of Natural Resources

vermont.gov

LEGEND

- Hazardous Site
- Hazardous Waste Generators
- Parcels (standardized)
- Roads
  - Interstate
  - US Highway; 1
  - State Highway
  - Town Highway (Class 1)
  - Town Highway (Class 2,3)
  - Town Highway (Class 4)
  - State Forest Trail
  - National Forest Trail
  - Legal Trail
  - Private Road/Driveway
  - Proposed Roads
- Stream/River
  - Stream
  - Intermittent Stream
- Town Boundary

NOTES

Map created using ANR GIS mapping techology.

508.0 0 254.00 508.0 Meters

WGS_1984_Web_Mercator_Auxiliary_Sphere 1" = 833 Ft. 1cm = 100 Meters

THIS MAP IS NOT TO BE USED FOR NAVIGATION

Greensboro Town Garage

State of Vermont

Department of Fish and Wildlife
Department of Forests, Parks and Recreation
Department of Environmental Conservation
State Geologist
RELAY SERVICE FOR THE HEARING IMPAIRED
1-800-253-0191 TDD>Voice
1-800-253-0195 Voice>TDD

AGENCY OF NATURAL RESOURCES
Department of Environmental Conservation
Waste Management Division
103 South Main Street/West Office
Waterbury, Vermont 05671-0404
(802) 241-3888
FAX (802) 241-3296

April 17, 1996

MS BRIDGET COLLIER
TOWN OF GREENSBORO
BOX 115
GREENSBORO VT 05841

RE: Site Management Activity Completed (Site #93-1550)

Dear Ms. Collier:

The Vermont Department of Environmental Conservation, Sites Management Section (SMS) has reviewed the four quarterly reports from Griffin International regarding the sampling of the Hislop supply well which is adjacent to the Greensboro Town Garage site. During the tank removals, petroleum contamination was found. Additional work was requested to assess the limits of contamination and it was determined that there was limited soil contamination by diesel fuel, gasoline, and tetrachloroethene. Your consultant suggested that the nearby supply well on the Hislop's property be sampled for four consecutive quarters to document any potential contamination to the bedrock aquifer by the contamination discovered at this site. Griffin International has sampled this supply as suggested and at no point was contamination from the site found. Based on the current conditions at this site, the SMS has determined that this site is now eligible for a SMAC (Site Management Activity Completed) designation. This means that the SMS has determined the following:

- the diesel and gasoline USTs have been removed from the ground, and are no longer a continuing source of petroleum contamination at this site;
- groundwater exists only in the bedrock aquifer and the closest bedrock supply well had no detectable volatile organic compounds (VOCs);
- there is a bedrock ridge between the Town Garage and the Hislop property and a test pit which was excavated in the area of this ridge (10' north of detected contamination in TP-5) had no detectable VOCs;
- all petroleum contaminated soil remain in the subsurface, however, the contamination is limited to the immediate vicinity of the tank pit; and
- any residual contamination does not pose an unacceptable risk to human health or the environment based on the groundwater sampling which was performed over the course of the year following the tank removal.

Based on these findings, the SMS has determined that site management activities have been completed. The completion of these activities does not release the Town of Greensboro of any past or future liability which may arise from the petroleum contamination discovered to have originated from the USTs at the Greensboro Town Garage site. It does mean that the SMS is not requiring any additional work be performed in response to the contamination discovered at this site.

If you have any questions or comments, please feel free to contact either me or Tim Cropley at (802)241-3888.

Sincerely,

George Desch, Chief
Sites Management Section

cc: Greensboro Selectboard
DEC St. Johnsbury Regional Office
Kevin McGraw, Griffin International

GD/tc/SMS/mao.931550

NE Telephone - Greensboro

State of Vermont

AGENCY OF NATURAL RESOURCES
Department of Environmental Conservation
Waste Management Division
103 South Main Street/West Office
Waterbury, Vermont 05671-0404
(802) 241-3888
FAX (802) 241-3296
mattm@dec.anr.state.vt.us

Department of Fish and Wildlife
Department of Forests, Parks and Recreation
Department of Environmental Conservation
State Geologist
RELAY SERVICE FOR THE HEARING IMPAIRED
1-800-253-0191 TDD>Voice
1-800-253-0195 Voice>TDD

April 25, 2001

GARY SCHMITZ
VERIZON COMMUNICATIONS
7 GRAHAM DRIVE
NASHUA NH 03062-5203

RE: Site Management Activity Completed (SMAC), Greensboro Verizon (former Bell Atlantic) facility Greensboro, Vermont (Site #93-1435)

Dear Mr. Schmitz:

The Vermont Department of Environmental Conservation, Sites Management Section (SMS) has reviewed EMCON's July 6, 1999, *"Investigation"* report in which a petition was made for providing a Site Management Activity Completed (SMAC) designation. Upon review of the report and the site file, it has been determined that a SMAC designation is appropriate. This conclusion is based upon the following information:

- the 500 gallon No. 2 fuel oil underground storage tank (UST) was permanently closed in 1993, and is no longer a source of contamination at the site;
- the one cubic yard of petroleum contaminated soils that were excavated during the UST removal was shipped under manifest for disposal by Clean Harbors Environmental Services in August 1993;
- no petroleum contamination was detected in the soil borings, including the laboratory analyses of soil samples;
- no petroleum contamination was detected by laboratory analysis of groundwater samples;
- any residual soil or groundwater contamination is limited to the immediate vicinity of the former UST.
- the area is served by municipally served drinking water, and no potential sensitive receptors were identified as being threatened by the fuel oil release; and
- the site no longer poses a significant risk to either human health or to the environment.

Based on the above, it appears that petroleum contamination was confined to the former UST location and does not pose an unreasonable risk to human health and safety or the environment. Therefore, the SMS is assigning this site a Site Management Activity Completed (SMAC) designation. This SMAC designation does not release Verizon Communications of any past or future liability associated with the petroleum contamination remaining in the ground from the removed UST. It does, however, mean that the SMS is not requesting any additional work at this time.

(Over)

If the monitoring wells are no longer used or maintained, then they must be properly closed to eliminate a possible conduit for contaminant migration into the subsurface. This closure typically involves filling the wells with a grout material to prevent fluid migration in the borehole. Specific requirements for well closure are outlined in Section 12.3.5 in Appendix A of the Vermont Water Supply Rule-Chapter 21. Also, the road box or stand-up well guard for a monitoring well must be removed before well closure is considered complete. Please have your consultant submit a plan for the monitoring wells within 15 days of your receipt of this letter.

If you have any questions or comments, please feel free to contact either me or Matt Moran at 802-241-3888.

Sincerely,

George Desch, Chief
Sites Management Section

c: Greensboro Selectboard
Greensboro Health Officer
DEC Regional Office

mattm/wp/931435samac

Smith's Store

State of Vermont

AGENCY OF NATURAL RESOURCES
Department of Environmental Conservation
Waste Management Division
103 South Main Street/West Office
Waterbury, Vermont 05671-0404
(802) 241-3888
FAX (802) 241-3296

Department of Fish and Wildlife
Department of Forests, Parks, and Recreation
Department of Environmental Conservation
State Geologist
RELAY SERVICES FOR THE HEARING IMPAIRED
1-800-253-0191 TDD>Voice
1-800-253-0195 Voice>TDD

November 7, 2005

Ms. Mary Thompson
PO Box 88
Greensboro Bend, VT 05842

RE: Sites Management Activities Completed designation
Site: Smith's Store (SMS Site #89-0392)

Dear Ms. Thompson:

The Sites Management Section (SMS) has received the Site Investigation Report for the above referenced site, which was submitted by John Thetford & Associates and dated October 11, 2005. This investigation was conducted to further define contamination documented at the site in relation to several former underground storage tanks (USTs). After review of the report and the information contained in the site file, the SMS has concluded the following:

- On July 17, 1989, two 3,000-gallon gasoline tanks were removed from the site. Soils screened directly under the tank had photoionization detector (PID) readings as high as 200 parts per million (PID). No free phase product or groundwater was encountered in the excavation. One groundwater monitoring well was installed near the tank grave.

- Groundwater monitoring was conducted at the site by the SMS from August, 1989 until September, 1992. The final sampling round found elevated levels of MTBE and benzene. A letter from the SMS dated October 1, 1992 stated that despite elevated levels of these two constituents, no additional work was required at the site.

- On May 12, 1997, one 1,000-gallon diesel tank was removed from the property. This tank was found to be in good condition. An average PID reading of 26 ppm was recorded in the soils surrounding the tank. Petroleum sheens were noted on the groundwater surface, which was encountered at 8.5 feet below grade. Two monitoring wells were installed in the area of the tank to facilitate compliance monitoring.

- On February 1, 2000, two monitoring wells surrounding the diesel tank were sampled using EPA Method 8021B. The results showed no detection of target volatile organic compounds (VOCs) exceeding the minimum laboratory detection limits. These two monitoring wells were destroyed when a new store was constructed above them in 2000.

- On May 6, 2003 and May 20, 2003, two 3,000-gallon USTs were removed from the property. These tanks had served as the replacement tanks for those removed in 1989. The exteriors of the tanks were both in excellent condition, though the interstitial space of each tank had failed. During the removal of the tanks, PID readings as high as 495 ppm were recorded in soils above the tanks. These high readings were said to be the result of a spill incident that was not reported to the Waste Management Division. Several PID readings taken from the bottom of

(over)

both tanks were at 0 ppm. Groundwater was encountered in the excavation at a depth of 6.5 feet, and showed no visual or olfactory evidence of contamination.

- This site has been surveyed for sensitive receptors. All properties in the area are served by the Greensboro Water Department, which obtains water from a bedrock well located 500-feet from the Smith's Store. On September 27, 2005 the water system operator reported that petroleum-related contaminants had never been detected in the water supply. The Store is surrounded by a mix of undeveloped land, residences and commercial properties. A small brook is located 75-feet from the property. The store has a slab on-grade foundation. The Lamoille River is 1/8 of a mile from the site.

- On September 30, 2005, John Thetford conducted a limited site investigation at the property. Four soil borings were advanced to depths ranging from 6 to approximately 9 feet below grade in close proximity to the former 3,000-gallon gasoline tanks. There is one 3,000-gallon gasoline tank and one 4,000-gallon gasoline tank currently located in this area. PID readings taken from each of the borings showed a maximum VOC concentration of three parts per million. No groundwater or bedrock was encountered in any of the four borings. Confirmatory samples taken from the bottom of each boring and analyzed using EPA Methods 8260 and 8015 showed no detection of target petroleum compounds or total petroleum hydrocarbons exceeding the minimum laboratory detection limits. The conclusion of the consultant was that the site was clean and required no further testing or monitoring.

- No unacceptable risk to human health or the environment is present due to the residual contamination remaining in the ground at the Smith's Store, which was encountered during the removal of two 3,000-gallon gasoline USTs in 1989, a 1,000-gallon diesel UST in 1997, and two 3,000-gallon USTs in 2003.

Based on the details above, the SMS is assigning this site a Site Management Activity Completed (SMAC) designation. The SMAC designation will not release the Smith's Store from any past or future liability associated with the petroleum contamination at the site. It does, however, mean that the SMS is not requesting any additional work in response to removal of the four petroleum USTs described above.

Please feel free to call with any questions. I can be reached at (802) 241-3491.

Sincerely,

George Desch, Chief, P.E.
Sites Management Section

C: DEC Regional Office w/o enclosure
John Thetford, Consulting Engineer
Greensboro Health Officer
Greensboro Select Board

Hoyle, Tanner & Associates, Inc.

To: File
Project: Town of Greensboro, Vermont
Wastewater Implementation Preliminary Engineering Report
Subject: Hazardous Waste Site Discussion
Author: Aidan Short, EIT, Staff Engineer
Date: December 16, 2020

Author and John Reilly, PM had discussion with James Donaldson of the Vermont Department of Environmental Conservation on December 16, 2020. Discussion was focused on hazardous waste sites located within project limits for the three Greensboro zoning districts being considered for wastewater treatment implementation. James addressed site and spill history, potential design concerns for new development, updated requirements for state funding resource.

Meeting Attendee List

James Donaldson, VTDEC

Aidan Short, Hoyle, Tanner

John Reilly, Hoyle, Tanner

Notes

- 5 spill sites in Bend and Village Districts
  - Multiple additional generators, but the presence of a generator does not necessarily constitute a spill event
- Greensboro Town Garage had underground petroleum storage tanks removed following spill, which led to limited contamination
  - Water vapors sampled four times, site was closed when contaminant concentrations reached acceptable levels, SMAC designation, no longer any concerns at this location
- New England Telephone had a heating oil spill
  - James indicated no design concerns at this location, SMAC designation
- Greensboro Garage – petroleum odors in basement of adjacent property
  - Site has yet to reach SMAC designation
  - Groundwater flow away from roadway toward brook leading to Caspian Lake
  - Remains some concern for potential contamination, but James indicated site is nearing closure
- Smith's Store has had multiple spills in the past
  - 2005 investigation was most recent/detailed
  - Low concern for contamination, SMAC designation

- Final site was location of former Greensboro Bend Store
    - Eligible for closure/SMAC designation in 2012, but paperwork was not completed
    - Little to no concern for contamination
- Petroleum Cleanup Fund (PCF)
    - Provides funding for cleanup and restoration of contaminated soils and groundwater caused by aboveground and underground storage tank (AST and UST) petroleum releases
    - Guidelines for PCF in the process of being updated, changes will roll out to the public in the near future
    - Can be used in conjunction with State Revolving Fund (SRF)?
    - New guidelines will include completion of soil investigation to confirm presence or absence of contaminants
    - Recommended use of photoionization detector (PID) to detect for gas at test pits, sample for contamination as needed
    - PCF submission leads to desktop review for HMA?
    - James referred us to Hugo Martínez Cazón, who is working on setting new guidelines for PCF

VERMONT

Greensboro Bend - Prime Agricultural Soils

Vermont Center for Geographic Information

vermont.gov

LEGEND

- Airports
- Rail Lines
- Town Boundaries
- County Boundaries
- Buildings
- Village Boundaries
- Soils - Prime Agriculture
  - Local
  - Local (b)
  - Prime
  - Prime (b)
  - Prime (f)
  - Statewide
  - Statewide (a)
  - Statewide (b)
  - Statewide (c)
- Buildings footprints
- VT State Boundary

1: 10,000

December 9, 2020

NOTES

This map was created with the VT Interactive Map Viewer.

0.32 0 0.16 0.32 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

THIS MAP IS NOT TO BE USED FOR NAVIGATION

VCGI

VERMONT

Caspian Lake - Prime Agricultural Soils

Vermont Center for Geographic Information

vermont.gov

LEGEND

- Airports
- Rail Lines
- Town Boundaries
- County Boundaries
- Buildings
- Village Boundaries
- Soils - Prime Agriculture
  - Local
  - Local (b)
  - Prime
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  - Prime (f)
  - Statewide
  - Statewide (a)
  - Statewide (b)
  - Statewide (c)
- Buildings footprints
- VT State Boundary

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December 9, 2020

0.76 0 0.38 0.76 Miles

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VCGI

VERMONT

Greensboro Village - Prime Agricultural Soils

Vermont Center for Geographic Information

vermont.gov

LEGEND

- Airports
- Rail Lines
- Town Boundaries
- County Boundaries
- Buildings
- Village Boundaries
- Soils - Prime Agriculture
  - Local
  - Local (b)
  - Prime
  - Prime (b)
  - Prime (f)
  - Statewide
  - Statewide (a)
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- Buildings footprints
- VT State Boundary

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December 9, 2020

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VCGI

Appendix 1-11: Greater Greensboro Community Visit Report

Greater Greensboro Community Visit

Report and Action Plan ~ November 2019

Produced by the Vermont Council on Rural Development
in partnership with the Vermont Community Foundation

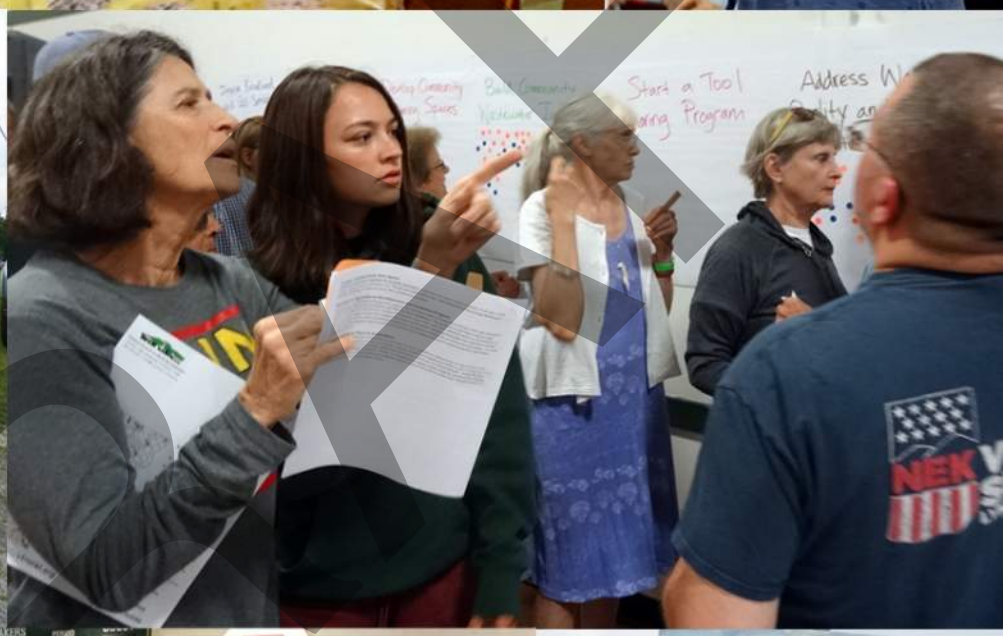
Table of Contents

Vermont Council on Rural Development
PO Box 1384, Montpelier, VT 05601-1384
802-223-6091 | info@vtrural.org | www.vtrural.org

Jon Copans, *Climate Economy Model Communities Program Director*
Paul Costello, *Executive Director*
Margaret Gibson McCoy, *Operations and Communications*
Jenna Koloski, *Community and Policy Manager*

Front and back cover photos courtesy of Kyle Gray


Community Visit
Meeting HERE


Start a Tool
Address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VIOLATORS WILL BE PROSECUTED

I. Introduction

There is no community in the world like Greensboro. Greensboro is a place that captures people's hearts – where families have settled for generations and where visitors fall in love with the town and return year after year. Greensboro is a quiet rural community with a long tradition of local gatherings and celebrations and a remarkable economic base of businesses that are well-known and celebrated locally, across the State, and even globally. From the historic buildings and general stores that characterize the Village and the Bend, to the lakes, the forested landscape, the rolling back roads, and recreation trails, Greensboro is a place of beauty, tranquility, tenacity, and community connection and pride.

Greensboro leadership and residents invited a Community Visit process to build on the special qualities that exist in Greensboro to attract new residents and families, ensure residents today from *all* parts of the community and of *all* ages have what they need to thrive, and to determine and advance a strong economic future for the Town. The community named this process "Greater Greensboro" to reflect that desire to build closer connection, bring in residents from all walks of life, and recognize the community strength already in place today as they set their path towards the future.

It is not easy to choose priorities, and there are many good ideas for action listed in the 'opportunities' section of this report that can inform the ongoing work of the Task Forces, but in the end, Greensboro selected four priorities for action that will protect critical assets and help to build the future vitality of the community and the economy. These initiatives lay out a challenging body of work for the year(s) ahead, but Greensboro is a town with strong human capacity and a tradition and culture of volunteerism and optimism. With over 175 local people from all parts of the community participating in the process and 60 volunteers now engaged in active Task Forces to advance priorities, it is clear that there is great energy in Greensboro for forward momentum and progress.

We look forward to working with the Greater Greensboro Task Forces as they get to work on the priority projects identified in the process:

- **Build Community Wastewater Infrastructure**
- **Improve Community Walkability and Bike-ability**
- **Address Water Quality and Lake Protection**
- **Improve Broadband and Cell Service**

The Task Forces advancing these issues are already hard at work—please support their efforts, or join them by reaching out to their chairs (listed in the work plan section of this report).

The Vermont Council on Rural Development helps Vermont citizens build prosperous and resilient communities through democratic engagement, marshalling resources, and collective action. VCRD is prepared to support the efforts of Greensboro as it moves forward and to provide follow up help to the Greensboro Task Forces as called upon. VCRD will also serve as an advocate for Greensboro projects with appropriate agencies and organizations in Vermont. Call on us, and on Visiting Team members, when we can be of help. VCRD provides leadership to facilitate the Community Visit process in partnership with the **Vermont Community Foundation** which is devoted to the progress of Vermont communities; VCF supports and helps guide visits, and provides significant resources to community projects throughout Vermont.

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There are many people to thank for making this Community Visit effort possible.

We would like to thank the Greensboro Selectboard who initially invited this process. We also deeply appreciate the work and leadership of the Steering Committee who helped guide the process from the beginning including; Trish Alley, Becky Arnold, Devin Burgess, Chris Codair, Dave Ducharme, Kim Greaves, Nancy Hill, Robbie Hurst, Erika Karp, Andy Kehler, Joann Lacasse, Jenn MacLean, Bobbie Nisbet, Dan Predpal, Peter Romans, Victoria VonHessert, Anna Weisenfeld, Larelei Wheeler, and Sister Gail Worcelo. Thank you also to all of the community leaders, groups, and organizations who worked together to spread the word about the event and made sure everyone in town was invited and encouraged to participate!

We are very thankful for the use of the Greensboro United Church of Christ, the Greensboro Free Library, and Lakeview Union School for the use of their space for Greater Greensboro meetings and for local volunteers who lined up a delicious community potluck and live music at the kickoff event.

Michael Moser and the UVM Center for Rural Studies are terrific allies in our efforts and we appreciate their help building a briefing profile for the VCRD Community Visit Team.

Thanks must also go to USDA Rural Development, Vermont Agency of Commerce and Community Development and the Vermont Community Foundation who contributed funding to make this process possible.

VCRD calls state, federal and non-profit leaders to participate in Community Visit processes. We are proud of the partners we get to work with—and especially the Greater Greensboro Visiting Team—they are the best of Vermont's public servants. Team members are listed in the back of this report with contact information—call on them for help!

Getting things done is all about leadership, and all of Greensboro should be grateful to those who've stepped up to serve as chairs of the task forces: Naomi Ranz-Schleiffer, Community Walkability and Bike-ability; John Stone, Broadband and Cell; Joann Hanowski and June Bascom, Lake Protection and Water Quality, and Peter Romans who will get the wastewater infrastructure task force started.

VCRD especially wants to thank Victoria Von Hessert for stepping up to lead this process as the Community Visit Chair. Victoria cares deeply about the future of Greensboro – the strength of the community, the future of the school, the quality of life, and the economic vitality. Victoria has a knack for community convening and for finding the balance point that helps to bring people together and help them move forward. It was a pleasure to work with Victoria and we are confident that she will be a collaborative leader that will help the task forces to come together, trouble shoot, connect to the resources they need, and succeed.

At VCRD, we are so proud each day that we work in a place where community is real and strong, and where local residents work together to get things done to make their communities the best they can possibly be. It was a great pleasure to work with the residents of Greensboro who stand up for the town and who are lined up for the common good and best future for this wonderful community. We are eager to continue following and supporting your success!

II. The Greater Greensboro Community Visit Process

The Vermont Council on Rural Development (VCRD) Community Visit Program is a structured process that enables a community to identify and prioritize goals, fosters local leadership, and serves as a catalyst for the development and realization of concrete, achievable action plans. **The program in Greensboro consisted of three phases depicted here:**

COMMUNITY STEERING COMMITTEE
06/13/19
21 community members representing diverse interests of the community met once to brainstorm Community Visit Day Forum topics, logistics, and outreach strategies.

COMMUNITY MEMBERS
Over 175 community members participated in the process and 60 have joined task force groups to move the work forward.

VISTING TEAM
36 Visiting Team members attended, listened to the community, and signed on to serve as resources for the Greensboro task forces. Many can be partners in the work going forward and others can be great sources of advice or connection to other resources. They are listed with contact information in Part VIII. Their recommendations in support of Greensboro's work are listed in Part V.

Step 1 Community Visit Day
07/19/19

Visiting team members heard testimony from over **140** Greensboro residents in six focus group areas that had earlier been identified by the local steering committee. Notes and issues raised in these sessions are detailed in Part VI. Based on the testimony received, VCRD identified an initial list of the key opportunities before the community (pp 5-8).

Step 2 Community Meeting Day
08/22/19

Over **75** Greensboro residents gathered at the Lakeview Union School for the second phase of the Community Visit when VCRD presented the opportunities list and facilitated the review and prioritization of these issues by town residents. The resulting list of priorities (Part IV) were then the focus of the formation of four new Task Forces established to build plans that would address them.

Step 3 Community Resource Day
10/02/19

In the third phase of the Community Visit, over **60** residents joined 4 Task Forces which held their first meetings at the Lakeview Union School with a second Visiting Resource Team to get organized, build action steps, and consider state, federal, non-profit, and private sector resources that may be available to support their work. The resulting Task Force Work Plans are listed in Part V.

III. Vision for Greensboro's Future

These points of vision were compiled from vision statements that were shared during Community Visit Meetings and supported by the majority of participants at the Resource Meeting and an online survey. The statements represent broad hopes that the majority of responding residents have for the long term good of the Greater Greensboro community.

Greensboro residents look to a future for the community where:

- Greensboro is a place of safety, trust and respect.
- Greensboro is a diverse community by age, from children to elderly, ethnicity and income—Greensboro is a vibrant, alive community.
- The town has an upward and positive trajectory with new growing businesses and more students in the school.
- We live in sustainable harmony with our natural environment.
- Greensboro Bend and Greensboro Village are connected and recognized as parts of the same greater community.
- Lake Caspian is the cleanest lake in all of Vermont.
- Greensboro has fast reliable internet and cell service.
- Greensboro is a place where seniors are safe—walking, visiting and living in this beautiful town.
- For all residents Greensboro is a great place to live, learn, work, play and age.
- Greensboro expands beyond being just a seasonal community and builds year-round activities to become more vibrant.
- Greensboro is a place where employees of local businesses can live and people can move to with young families.
- We have a path for walking and riding around the lake.
- Both villages have viable septic systems.
- The small sustainable farms are thriving and collaborate with diverse small businesses.

IV. Greater Greensboro Priorities

Determined by Greensboro residents at the Greater Greensboro Community Meeting, August 22, 2019

Proving that those who live, work and raise their families in a community are best qualified to understand its needs and potential, Greensboro community members whittled down a list of 20 issues through discussion, reasoned arguments and thoughtful reflection. In the end, voting with red and blue stickers, over 75 participants chose four action ideas that offer opportunities to enhance existing resources, and to strengthen the town through exciting new ventures. Residents concluded the August 22nd meeting by signing up for Task Forces in the selected areas.

Greensboro residents selected four priorities for future action:

✓ Build Community Wastewater Infrastructure

Greensboro lacks the wastewater infrastructure needed for new businesses and homes in the village centers, and many residents believe that developing this infrastructure will be essential to a sustainable economic future. A group could come together to develop a plan for a new wastewater treatment system for the villages of Greensboro, potentially including at least part of the lake. The task force could work with regional, state, and federal partners to survey current needs, evaluate what is needed water quality for desired growth in village centers, identify funding sources, and work with the Selectboard to design and implement Greensboro wastewater solutions.

✓ Improve Community Walkability and Bike-ability

A task force could form to develop community paths and walkways in Greensboro. The group could identify, plan, and build a network of walking and biking paths throughout the community and build a connecting trail between the Bend and the Village as well as around the Lake and along rivers and brooks in town. The group could also work with the Town to build and improve sidewalks, install bike lanes on key roads, and improve traffic flow and safety to make the Village and Bend more walkable, safe, and inviting for residents and visitors. The task force could also work with regional and state organizations to complete the section of the Lamoille Valley Rail Trail that could bring visitors to the Bend and provide recreation opportunities for local residents.

✓ Address Water Quality and Lake Protection

Many residents believe that Greensboro could become a model community for water and lake quality. To do this, Greensboro residents could form a committee that would focus on education, monitoring, enforcement, and innovation to encourage best practices by property owners and ensure the current and future water quality in Caspian Lake and other bodies of water in town.

✓ Improve Broadband and Cell Service

A task force could form to improve cell and broadband service in Greensboro by collecting data on existing coverage, connecting with resources and providers to explore possibilities, and accessing funding and support to improve connection. The group could connect with and learn from other communities that have improved services such as Craftsbury and avail state and federal services and supports to expand coverage for the community.

Other Key Opportunities identified by the community:

Along with the four chosen priorities, the key opportunities listed below reflect other potential ideas for action that community members shared on Community Visit Day. Though these opportunities weren't chosen as priority projects through this process, community members may find the list useful as they look to expand on current projects or take on new ones.

Develop Community Gathering Spaces

Greensboro is an active and connected community, but some feel that space is limited to bring the community together for programming and events, especially in the winter months. A task force could form to identify, develop, and/or revitalize a community space for multi-generational programs and activities including music, dances, community meals, a collective arts space, and more. One particular opportunity that many residents shared is the redevelopment of the Grange Hall into a community space for events, an expanded Giving Closet, an arts studio, or other uses to promote community togetherness and vitality.

Create Educational and Skill Training Opportunities

Greensboro residents would like to see more opportunities for community members of all ages to access education and skills training. A task force could develop a community "university" that would draw on local talents and skills to provide workshops and trainings to other residents. The group could also build a mentorship and apprenticeship program for adults and youth to connect with and learn from area business owners and entrepreneurs, writers, artists, tradespeople, and others to provide lifelong learning opportunities.

Improve Public Transportation

Expanded transportation options in Greensboro could better accommodate commuters as well as improve access for individuals, families, and students to key services, the Village, the Bend, schools, recreation, and local and regional events. A Task Force could identify ways to increase public transportation options such as working with RCT to expand routes and services. The group could also explore creative alternatives such as a car sharing or Uber-like model and opportunities to increase pedestrian safety and access.

Develop and Improve Housing

Many residents see a crucial need for more affordable housing for young people, employees of local businesses, and seniors. A Housing Committee is already hard at work to address this challenge. Greensboro could prioritize this initiative to add volunteers and galvanize support for the group to assess current needs and explore options to increase affordable housing options that fit within the character of the community and its two village centers. Options could include new development in the Village or the Bend, revitalization of vacant properties in the Bend, co-housing or home-sharing, tiny homes, or other multi-family units that could offer affordable housing for mixed-age and incomes. Some residents would also like to explore renovations of older homes into small multi-family units, improving rental housing options. This committee could also help to bring resources and training to the community to assist current and first-time homeowners with financing, repair, maintenance, weatherization, and other needs. The group could also work with the Town to address challenges that the current zoning may present to housing development.

Attract New Residents and Businesses to Greensboro

Greensboro could launch a marketing and story-telling campaign to attract new residents, young families, entrepreneurs, and businesses to the town. A task force could develop and share local stories to showcase the unique assets Greensboro has to offer and work with the State to broadcast that message beyond the community. The group could also work to develop incentives and support for new residents and creative businesses and entrepreneurs to relocate to Greensboro.

Start a Tool Sharing Program

Greensboro could start a tool sharing program. Residents with tools to share could contribute, or funding could be raised to purchase tools for community members to borrow as needed.

Attract or Develop Places to Eat in Greensboro

Many residents expressed a need for a place to gather and eat out in town. A group could form to develop a community café or attract or cultivate a local entrepreneur to start a pub, café, restaurant, or food truck to serve locals and visitors to the town.

Greensboro Village Improvements

A group could form to focus on improvements to the Village including signage and parking to improve access and accessibility. Additionally, the group could work to improve the Town Green with a covered structure or pavilion for gatherings and events as well as public restrooms to accommodate visitors, events, and the public beach. The group could also work with the Town to ensure the improvement and maintenance of the Village sidewalks to improve walkability and accessibility to Village amenities and services.

Build and Improve Year-Round Recreation and Trails

A task force could form to develop and promote year-round recreation in the community. The group could work with the Craftsbury Outdoor Center, which has expressed interest in partnering, to expand and connect their trail networks through to Greensboro Bend. Additionally, the group could look at other opportunities for year-round recreation including expanding and promoting Barr Hill trails, working with landowners to expand and connect other trail network. Other recreational opportunities the task force could evaluate include a public skating rink or kayak and boat rentals.

Address Zoning Challenges

Many residents expressed concerns that current zoning regulations have become a hindrance to housing and business development. A group could work closely with the Town planning commission, in consultation with regional and state experts, to redesign zoning regulations that meet the current and future needs and desires for Greensboro's community and economy—preserving village character, protecting the land, but also setting the stage for village housing and economic innovation.

Boost Winter Gatherings and Events

Greensboro residents are interested in developing more ways to come together as a community during the winter months. A group could form to initiate new winter traditions including a "chase away winter" event and parade, a winter arts event, concerts, or a public skating rink.

Advance Community Energy and Efficiency

An energy and efficiency task force could form to promote alternative energy options and to help residents save energy and money through weatherization and other efficiency improvements. This climate action group could develop a community solar project, install EV charging stations, and provide education and support to help residents explore and implement alternative energy and heating options. The group could work to ensure that all residents have the opportunity to access efficiency and energy resources and could connect with local youth to support and inform the work. This team could evaluate ways that the town could generate more of its own energy, and could also support economic innovation by negotiating for better business rates with Hardwick Electric.

Create a Cooperative Arts Space

A group could come together to develop and build a collective arts space where residents of all ages could create, teach, learn, and share art. The group could explore the redevelopment of the Grange Building or another building in town to serve this community purpose.

Improve Community and Town Communications

Greensboro residents would like to better communicate with each other and to stay more deeply connected to what is going on in town. A Communications Task Force could develop a platform for community communications including online forums such as social media or Front Porch Forum, a community calendar, and a newsletter or bulletin. The group could work with the Town to improve communication and social media and web presence.

Develop an Agricultural Development and Incubation Program

A task force could form to foster and support the next generation of Greensboro farmers through education programming, financial incentives, and land for farm incubation. This program could help to attract and support new farmers and foster creative innovation, new crops, and value added products in Greensboro to drive economic opportunity and support the future of the town's working landscape. The task force would work with land-owners who would potentially host young farm enterprises on low or no cost leases. It could also look into the opportunity to build a Greensboro farm enterprise fund to seed young farm and value-added operations.

Support Aging in Place in Greensboro

Many Greensboro residents would like to see more services available to allow seniors to age in place and continue to and participate in the community. A group could come together to explore ways to improve senior housing, transportation and mobility, gathering and events, and access to critical services – much like the national "Village to Village Network" model. A comprehensive aging in place program would better engage and include elders as well as make it possible for them to stay in Greensboro rather than having to leave or travel long distances to meet their needs.

V. Task Force Action Plans

Resource Meeting, October 2, 2019

Greensboro Task Forces are comprised of community members and an appointed chairperson. On Resource Day committee members worked closely with a facilitator and a visiting resource team to develop step-by-step action plans and a list of human and financial resources to help achieve their goals. This final phase of the program marks the time when residents truly take ownership of the work, and begin the exciting process of turning ideas into action.

✓ Build Community Wastewater Infrastructure

Community Chair: **Peter Romans**
Facilitator: **Ben Doyle**, *Community and Economic Development Specialist*, USDA Rural Development
Resource Team Members: **Rebecca Schrader,** *Community Programs Specialist,* USDA Rural Development
Lynnette Whitney Claudon, *Chief Pollution Control Design Engineer*

Greensboro lacks the wastewater infrastructure needed for new businesses and homes in the village centers, and many residents believe that developing this infrastructure will be essential to a sustainable economic future. A group could come together to develop a plan for a new wastewater treatment system for the villages of Greensboro, potentially including at least part of the lake. The task force could work with regional, state, and federal partners to survey current needs, evaluate what is needed water quality for desired growth in village centers, identify funding sources, and work with the Selectboard to design and implement Greensboro wastewater solutions.

Action Steps

1. Engage a community conversation about wastewater. Host meetings in different venues and settings ("septic socials") and conduct a community wide survey to determine interest and need.
2. Develop examples to illustrate possibilities. Look at what other communities have done. Connect to resources/experts to help understand what is possible.
3. Get a clear picture of the money and resources available and the technical tool box to support the work.
4. Identify funding to conduct a feasibility/preliminary engineering report (PER) to identify the best option for the community and anticipated costs.
5. Now that an option has been identified, go back to step 1 – now engage the community in order to "sell" the option for Greensboro. Walk through the steps to engage the community, connect to experts and resources, and work towards implementation.

Resources

Experts/Technical Support

- Mark Johnson at RCAP Solutions Contact: 802-505-1037 mjohnson@rcapsolutions.org.
- Northeastern Vermont Development Association Contact: Dave Snedeker at dsnedeker@nvda.org or
- Jon Harries and Eric Law, USDA Rural Development 802-828-6035 or
- Lynnette Claudon at Department of Environmental Conservation. Contact: Lynnette.claudon@vermont.gov or 802-490-6226
- Danielle Owczarski, Basin Planner, VT Department of Environmental Conservation danielle.owczarski@vermont.gov.

Planning Funds

- USDA Rural Development Search Grants. $30,000 for feasibility/needs assessment
- Agency of Commerce and Community Development Municipal Planning Grant
- Department of Environmental Conservation Planning Advance
- Clean Water State Revolving Fund – Repay ½ at 0%.

Design and Construction (following completion of the PER/feasibility) Funds

- A bond vote could be a potential source of funds
- USDA RD
- Clean Water State Revolving Fund
- Northern Borders Regional Commission
- Community Development Block Grants
- Philanthropy?

Partners/Stakeholders

- Greensboro Association
- Willey's Store
- Highland Lodge
- Miller Stone
- School
- Nursing Home
- Library
- Theater
- Preschool at the Bend
- Churches
- Smith's Store
- Other communities that have or are working on developing systems

Task Force Signups

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Visiting Resource Team Recommendations

After Community Meeting Day, Resource Team members, representing a wide array of professionals from across the state, submitted their recommendations for other potential actions and resources the task force might consider as it moves forward. These recommendations encompass their experience, past success, and consideration of the community's unique assets and needs.

Action Step Recommendations

Review recently adopted Greensboro Municipal Plan to find references to the need for a community wastewater system (there are several) – this will strengthen any application for funding to conduct a feasibility study.

Contact the Department of Environmental Conservation's Village Wastewater Program and map out process using Wolcott/Burke wastewater process pilot program for example. A full system map of procedures-process and scope will allow for better planning of funding and time. The Village Wastewater Initiative, recently launched by the Dept. of Environmental Conservation (DEC) is designed to pilot and provide guidance to communities to address this need. Lynette Claudon, DEC's coordinator of the Village Wastewater Initiative, can be reached at Lynnette.Claudon@vermont.gov, 802-490-6226 for more information on the process, timeline and resources. Resources may be available to towns in the form of engineering planning advances, which are loans to communities to explore the feasibility of developing or expanding public water source and decentralized wastewater solutions.

One item to consider long-term related to educational opportunities is integrating the concept of ecosystem services into fully understanding the value of land in Greensboro specifically forestland as it relates to clean water. Greensboro is mostly forested, and this forestland plays a critical role in water filtration. Although not directly related to wastewater infrastructure, it is an important part of the story to consider down the road, when educating residents on the various benefits of the working landscape.

The group could review and connect with case studies of similar towns and projects. Some examples include Westford, Burke, and Wolcott.

The task force could convene a funders meeting with the Northern Border Regional Commission, the Department of Environmental Conservation's wastewater program, and USDA Rural Development's Water and Environmental Program, RCAP Solutions, and the Vermont Rural Water Association to explore possibilities and potential support.

The group could explore coordinating with the University of Vermont or other institution for possible project with the civil engineering college.

It would be helpful if the task forces thought about the type of growth that they want to have now and in the next 20 years so that the system they plan for will be able to accommodate their needs. I heard people say they wanted to be able to have a brewery which takes significant wastewater but also attracts tourism and other businesses to come.

Hire a consultant to assess needs; be prepared to ask questions and provide information about expectations (of residents and businesses), development and population forecasts, etc.

Technical Assistance/Peer Connection Recommendations

If interested in the long-term educational idea of helping residents fully understand ecosystem service values of the working landscape, I would encourage you to contact Sarah Damsell of the Orleans County Natural

Resource Conservation Service (sarah.damsell@vt.nacdnet.net), Sarah recently worked with a number of partners in Craftsbury to highlight ecosystem services provided by the working landscape.

The Village Wastewater Initiative, in addition to developing village wastewater plans for the three villages of East Burke, West Burke and Wolcott, is designed to create guidance for rural village facing similar challenges. The approach taken by this initiative is to develop and support a local committee to engage residents at all stages of the process from initial concept and needs statement to final design and funding. This initiative is tailor made to address Greensboro's needs. It should be noted that the development of a plan can be a multi-year effort, with additional time and commitment needed to finally construction the solution desired by the community. Information on this initiative is being posted to a dedicated website to provide easy access for all interested persons. Visit the site at: https://dec.vermont.gov/village-wastewater.

USDA RD: Water and Environmental Program. Contact Rebecca Schrader, Community Programs Specialist, Rebecca.schrader@usda.gov or 802-424-3151.

Northern Borders Regional Commission grant program. Contact Tim Tierney, Vermont Program Manager, tim.tierney@vermont.gov, 505 5496. This program could provide up to $500k in grants for infrastructure.

Contact the Vermont Rural Water Association for training and technical assistance. Contact Liz Royer, Executive Director, at lroyer@vtruralwater.org or at 802-660-4988 x336.

Mark Johnson is the Vermont State Lead at RCAP-Solutions and can provide technical assistance around the development of water and wastewater systems. Contact Mark at mjohnson@rcapsolutions.org or 505-1037.

✓ Improve Community Walkability and Bike-ability

Community Chair:	**Naomi Ranz-Schleifer**
Facilitator:	**Richard Amore**, *Planning and Project Manager*, VT Department of Housing and Community Development
Resource Team Members:	**Ollie Burruss,** *Mountain Bike Program and Nordic Race Director,* Craftsbury Outdoor Center
	Jon Kaplan, *Bicycle and Pedestrian Program Manager*, VT Agency of Transportation
	Doug Morton, *Senior Transportation Planner,* NVDA

A task force could form to develop community paths and walkways in Greensboro. The group could identify, plan, and build a network of walking and biking paths throughout the community and build a connecting trail between the Bend and the Village as well as around the Lake and along rivers and brooks in town. The group could also work with the Town to build and improve sidewalks, install bike lanes on key roads, and improve traffic flow and safety to make the Village and Bend more walkable, safe, and inviting for residents and visitors. The task force could also work with regional and state organizations to complete the section of the Lamoille Valley Rail Trail that could bring visitors to the Bend and provide recreation opportunities for local residents.

Action Steps

1. Develop a bicycle and pedestrian master plan to identify existing infrastructure, gaps, destinations, and priorities. This planning should be townwide.
2. Develop a parking plan for the Village and the Bend.
3. Strategize for town meeting day to seek funding from the Selectboard to focus on improving walkability and bike-ability. Identify outside grant funding as well to support the work and leverage outside investment.
4. Reapply for the Better Connections Grant Program. A proposal in collaboration with East Hardwick failed, but was at the top of the list.
5. Build out and explore new opportunities for off-road non-motorized recreation. Explore class 4 roads for 4-season trails.
6. Review the Local Motion plan and determine areas for implementation. Build a plan to pilot and test ideas through demonstration and popup projects that could calm traffic and improve safety. Work with Local Motion to partner or solicit guidance.
7. Coordinate transportation investments and planning with wastewater and road pavement schedule. Ensure this is considered when developing the bicycle and pedestrian master plan.

Other Potential Action Steps:

- Map a path around the Lake
- Improve wayfinding with signs and maps
- Evaluate parking lot and crosswalk at Willey's and a handicap parking spot
- Identify private landowners to expand and connect the trail network
- Explore other routes from Willey's to the Lake
- Explore parallel parking on Beach Road
- Explore the "old road" behind Willey's stores
- Develop bike lanes on roads
- Investigate improvements to the 4-way intersection by the ball field
- Improve winter maintenance to improve walking in the Villages year-round

Resources

- NVDA could help with technical assistance including grant writing, traffic counts, corridor studies, mapping, etc. Contact Doug Morton at dmorton@nvda.net or 748-1224.
- NBRC is a potential funding source to learn more contact Tim Tierney at tim.tierney@vermont.gov or 505-5496.
- VTrans has bike and pedestrian grants. They are smaller scale with a 20% match that could support signage, wayfinding, trail building, etc. Transportation Alternative grants are due in November. Jon Kaplan is the contact there at jon.kaplan@vermont.gov or 828-0059.
- Local Motion could be a key resource. They have shared the plan the worked on with Greensboro and the region which Jenna Koloski will share with the group. The contact there is Allegra Williams allegra@localmotion.org.
- ACCD could support with municipal planning grants or the Better Connections Grant program. Contact Richard Amore at richard.amore@vermont.gov or 828-5229. The Village Designation Program can provide technical support.
- AARP-VT has done some work around placemaking and streetscape redevelopment. Kelly Stoddard Poor could be a key resource. Contact her at kstoddardpoor@aarp.org or 951-1313.
- Craftsbury Outdoor Center can be a key partner around land owner support, trail design and development, and orienteering maps. Contact Ollie Burruss at ollie.burruss@craftsbury.com.

Task Force Signup

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Emily Stone	emily.guertin@gmail.com	617-413-2370
Jerilyn Virden	jvirden@jvirdenceramics.com	802-793-3177
Sister Gail Worcelo	srgail@together.net	802-533-7056

Visiting Resource Team Recommendations

After Community Meeting Day, Resource Team members, representing a wide array of professionals from across the state, submitted their recommendations for other potential actions and resources the task force might consider as it moves forward. These recommendations encompass their experience, past success, and consideration of the community's unique assets and needs.

Action Step Recommendations

Identify key stakeholders: community members/groups, Local Motion, LVRT stakeholders (Friends of LVRT, VAST, NVDA etc.), NVDA for traffic studies and planning, etc.

Reach out to Saint Albans and Johnson to discuss planning/resources used for their streetscape improvement projects: Chip Sawyer Director of Planning & Development 802-524-1500 x259 c.sawyer@stalbansvt.com Johnson Planning Commission General Contact Info: 802-635-2611 susant@townofjohnson.com. Also, connect with Bethel regarding Bethel Better Block project: bethelrevitalizationinitiative@gmail.com.

An important first step is fully understanding the current state of the existing trail network. Does a comprehensive map exist that shows all existing recreation trails (Highland Lodge Trails, Craftsbury Outdoor Center Trails, VAST trails, TNC Trails, etc.)? The Agency of Natural Resources Atlas (https://anrmaps.vermont.gov/websites/anra5/) is a good first step, but local trail systems will need to be added. Once existing trails are mapped, you can then prioritize key connectivity corridors (i.e. how to easily get from the Village and Lake to Barr Hill). Additionally, it is important to identify key destinations and businesses that should be connected to existing trail systems.

Improve recreation and pedestrian resources through understanding and marketing what exists, exploring current gaps, and developing strategies to improve current and new facilities and/or infrastructure.

As the plans for walkways and paths are formed, explore possibilities for including art and creative design. The Vermont Arts Council Animating Infrastructure grants are offered every other year and can be used to support this sort of thing. https://www.vermontartscouncil.org/grants-and-programs/organizations/animating-infrastructure.

The Towns of Greensboro and Hardwick submitted a joint application to the Better Connections grant program in 2019 for planning along the LVRT and connecting transportation routes. Although this application was ultimately not funded, this could be reworked for a new grant round, or for a consortium Municipal Planning Grant. Or, if the Town wanted to focus on a smaller component of that vision (such as a walking/bike path along Breezy Avenue to the ball field) that could also be the subject of a MPG. References in the recently adopted Greensboro Municipal Plan regarding bike/pedestrian needs should be cited in support of any grant application.

Contact NVDA and NEK Collaborative who have resources to plan and implement some of the projects. Contact Local Motion for Village walk-ability consultation.

Involve artists in your planning efforts for the village center from the beginning, so that art and creativity will be incorporated in genuine ways. Some towns have used art to improve their traffic calming signage and strategies.

Contact Michele Boomhower, Director of Policy, Planning and Intermodal Development, at the Agency of Transportation to raise awareness of issues to VTrans. Contact michele.boomhower@vermont.gov or 802-828-5753.

The town could consider requesting technical assistance from Local Motion to get ideas and inspiration on how to move forward. There may be some short-term, temporary installations of bike and pedestrian improvements that would keep the momentum while the long-term solutions are sorted out. Local Motion completed a plan with Greensboro and East Hardwick several years ago that could be a critical resource moving forward. Contact Allegra Williams at allegra@localmotion.org and 802-861-2700.

Connect with regional planning commissions, state legislators, and other town leaders to explore funding options for a new streetscape design. In the meantime, enlist community volunteer support to address easier temporary fixes, such as speed signs.

Technical Assistance/Peer Connection Recommendations:

Jon Kaplan manages the Bike and Pedestrian program at the Agency of Transportation and could provide technical assistance and has a couple of grant programs available. Contact jon.kaplan@vermont.gov and at 828-0059.

The Craftsbury Outdoor Center maintains an extensive trail network for skiing in the town of Greensboro. Ollie Burruss (ollie.burruss@craftsbury.com) is a good point of contact to discuss their existing trail system, and also discuss and key corridors of connectivity within or adjacent to the trail system they currently maintain.

NVDA is an important contact and partner. Contact Dave Snedeker at dsnedeker@nvda.net or at 748-8303 ext. 303. NVDA could help with for byway mapping, inventory, signage, transportation studies, counts, inventory, and more. NVDA will be happy to assist with the preparation of a Municipal Planning Grant or other appropriate grant programs if the Greensboro Planning Commission/Selectboard would like to pursue this.

If any trail work is to be built, the NorthWoods Stewardship Center (http://www.northwoodscenter.org/) has an excellent trail crew, and they are right in Orleans County.

A number of grants are available for towns to assist with trail development at the Department of Forest, Parks, and Recreation. Jessica Savage will be an excellent resource for information on funding sources available for trail expansion. Contact her at jessica.savage@vermont.gov or at 249-1230.

The Vermont Arts Council could be a funding source through their Animating Infrastructure Grant Program. Contact Michele Bailey at mbailey@vermontartscouncil.org or 828-3294.

Greensboro and Greensboro village are state-designated Village Centers which provide special incentives, grants, tax credits, and assistance to support village revitalization.

Vermont Building and General Services Building Communities Grants are available for education facilities, recreation, and economic development. Contact the Commissioner's Office at 802-828-3519 or visit https://bgs.vermont.gov/commissioner/building-communities-grants.

Other towns who have worked on this or are working on this: Hyde park: https://www.pps.org/projects/creating-a-vibrant-main-street-in-hyde-park-vt Bethel: http://bethelrevitalizationinitiative.org/street-safety-pilot. Northfield received one of those AARP grants to "connect downtown Northfield with the newly established, flood-resilient, Water Street River Park via a temporary, accessible and safe urban pedestrian route. This connection will be highlighted by a non-motorized parade from Downtown that leads to a community celebration in the park with food, games and educational programming." Not sure about official contacts, but I know that Colin Bright has been a part of these efforts. He's at: colin@colindraws.com.

The community could apply for a Northern Borders Regional Commission grant for building infrastructure. Contact Tim Tierney at tim.tierney@vermont.gov. NEK Collaborative and NVDA also have an NBRC for grant trail infrastructure. To learn more contact Katherine Sims at katherine@nekcollaborative.org.

USDA RD: Community Programs (financing for community facilities and essential services) – Rebecca Schrader, Community Programs Specialist, Rebecca.schrader@usda.gov, 802-424-3151.

Consider applying for an Animating Infrastructure grant from the Vermont Arts Council. The Animating Infrastructure grant program supports creative placemaking projects that integrate art into existing infrastructure projects – from solar arrays to bike paths to downtown streetscapes. Letters of intent are due in December, and Michele Bailey, senior program director at the Council, would be happy to answer questions and to discuss your project ideas. mbailey@vermontartscouncil.org. Michele can also suggest projects completed in other communities that might serve as useful models.

ACCD's Better Connections program is an ideal planning grant that can combine both traffic concerns with streetscape. Contact Richard Amore: 828-5229 and Richard.amore@vermont.gov.

The Municipal Planning Grant Program at the Agency of Commerce and Community Development encourages and supports planning and revitalization for local communities. Contact Jenni Lavoie at 828-1948 and jenni.lavoie@vermont.gov.

AARP has done some good work supporting walkable communities. They did a study in Jericho, a few years ago and worked with Bethel on their Better Blocks program. Contact Kelly Stoddard Poor at kstoddardpoor@aarp.org and 951-1313.

Bethel has done some nice work on streetscape beautification. Checking in with them as to how they planned and funded that would be useful. Contact Rebecca Sanborn Stone at rebecca@communityworkshopllc.com.

Investigate these funding sources to see if your projects are eligible for support:

- Municipal Planning Grants: The Vermont Department of Housing & Community Development Municipal Planning Grant Program includes a priority for placemaking projects, such as planning or implementation for revitalizing and programming public places in state-designated centers.
- Downtown Transportation Fund: The Downtown Transportation Fund is a financing tool which assists municipalities in paying for transportation-related capital improvements within or serving a Designated Downtown. Past projects include streetscape improvements, electric vehicle charging stations, parking facilities, rail or bus facilities, utility relocation, street lighting and wayfinding signage.
- NL Foundation Main Street Grant grants to downtown organizations to support a wide variety of initiatives that have a positive impact on community life.
- Vermont Community Foundation : SPARK grants: Connecting Community grant program puts building and nurturing community front and center. Grants that support people working and volunteering to help those in need and that help communities come together.
- National Endowment for the Arts Organization Grants (Art Works, Challenge America, Our Town—Project based grants for a variety of specific events/activities)

✓ Address Water Quality and Lake Protection

Community Chair: **Joann Hanowski (chair) June Bascom (Deputy Chair)**
Facilitator: **Paul Costello**, *Executive Director*, VCRD
Resource Team Members: **Emily Irwin**, *Land Treatment Planner and Nutrient Management*, Orleans County Natural Resources Conservation District
Danielle Owczarski, *Basin Planner,* VT Department of Environmental Conservation

Many residents believe that Greensboro could become a model community for water and lake quality. To do this, Greensboro residents could form a committee that would focus on education, monitoring, enforcement, and innovation to encourage best practices by property owners and ensure the current and future water quality in Caspian Lake and other bodies of water in town.

Action Already Happening

- Good work is already happening around Lake Caspian. Stew Arnold and the Greensboro Lake Association do 12 monitorings a year to evaluate water clarity and chlorophyll. Volunteers monitor for invasive species at the beach and boats access. Tributary monitoring and monitoring of lake levels is ongoing.
- The Planning commission is working to improve protections in a Lakeshore District Zone that would be within the circumnavigation road.
- Meanwhile, residents are concerned about increased mucky sediments, storm related washes into the lake, increases in algae. The community is fortunate to have a history of positive management and a caring culture, but many worry that short term rentals and B & B users may not understand best practices. There are also concerns around the lack of consistent communications between groups and landowners.

Action Steps

1. The Task Force can lead a communications strategy around lake quality issues and to share the work going forward with the larger community.
2. A "Lake Watershed Action Plan" can evaluate all stresses, roads, properties, farms to baseline current conditions and develop remediative action plans for each issue.
3. One of the efforts which can be part of the Action Plan is to flatten phosphorus with shoreline protection and buffer zones through the "Lakewise Program." Some of this effort will also connect by the leadership efforts made for the new town plan.
4. The Task Force will frame ways it can deepen communications with property owners and renters, with door to door, owner to owner campaigns, and "Septic Socials"—parties with a very down home theme!
5. The Team respects and appreciates the town road crew and plans to meet with the crew to think about their best practices and ideas to manage the roads with minimal water quality impacts.
6. The Team will also reach out to and communicate with farmers and landowners within the watershed to learn and support their best practices for manure management; supports could be encouragements or incentives to encourage these practices.
7. The group also plans to write grants (or work with partners who can write them), lead sessions for mutual education in water quality issues, and name themselves.

Resources

- The Clean Water Initiative at the Agency of Natural Resources can help lead the Lake Watershed Action Plan process. Danielle Owczarski, *Basin Planner,* VT Department of Environmental Conservation can act as point of contact.

- The Northeastern Vermont Development Association (NVDA) can help lead a Road Inventory (after the team has talked to the road crew), and the Better Roads Program at VTrans could be a good source of grant funding to improve the roads.
- The Orleans Conservation District could also help with a Roadworks Analysis. Emily Irwin could be the first contact for the team.
- The Lakewise Program at the Department of Environmental Conservation could also provide support. Commissioner Emily Boedeker could be a point of contact.
- Watersheds United VT is another resource which has grant information and training.
- NVDA might be able to help with grant writing assistance. Contact David Snedeker.
- The VT Department of Agriculture, Natural Resources Conservation Program and Lake Champlain Basin Program could also lend advice or technical assistance.
- The Greensboro Association is an incredible resource for people, support and potentially funding for small projects or matches to leverage larger grants when needed.

Task Force Signup

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John Stone	jcstone@gmail.com	617-686-7305

Visiting Resource Team Recommendations

After Community Meeting Day, Resource Team members, representing a wide array of professionals from across the state, submitted their recommendations for other potential actions and resources the task force might consider as it moves forward. These recommendations encompass their experience, past success, and consideration of the community's unique assets and needs.

Action Step Recommendations

The formation of a committee with a clearly defined and focused goal for water quality is a perfect first step in improving and maintaining water quality in the town of Greensboro and the Caspian Lake watershed. Vermont utilizes a tactical basin planning approach, managed by the Dept. of Environmental Conservation, which identifies the projects or actions needed to protect or restore specific waters based on monitoring and assessment data, and identifies appropriate funding sources to complete the work. The DEC Basin Planners in coordination with DEC Lakes and Ponds Program recently put together a list of action items for a successful

water quality action plan. Several lake communities throughout VT are using this model to improve water quality around their lakes.

The committee should reach out to their Basin Planner, Danielle Owczarski, danielle.owczarski@vermont.gov, (802) 490-6176, to review the Action Items in the Basin 7: Lamoille River tactical basin plan and develop a customized plan for water quality that meets their needs.

To get a better sense of the process, resource commitments and goals such a group can pursue we recommend reaching out to other community leaders using this approach. Seymour Lake, Lake Elmore, Lake Eden, Lake Fairlee, Lake Morey are a few examples. Contacts can be identified through the RPC's or through the Vermont Federation of Lakes and Ponds (FOVLAP).

It may be useful for this task force to define what best practices by property owners entails. From this you can then begin to narrow what resources are available. The Dept of Environmental Conservation (DEC) Watershed Management Division (https://dec.vermont.gov/watershed/lakes-ponds) will be a critical partner for this task force. Beyond defining what best practices entail, it may be helpful to define who the target audience for any educational work is. Again, DEC has a number of resources available to assist with landowner education (see Lakeshores and Lake Wise programs (https://dec.vermont.gov/watershed/lakes-ponds/lakeshores-lake-wise). Another first step regarding monitoring, is a census of what monitoring work is already ongoing, historically has data been collected that no longer is collected? This will help reduce redundancy and also identify where gaps exist. Long-term, it may be helpful to articulate 50 years in the future, what does Caspian Lake look like? This will help set a target for what success looks like.

The Greensboro Association has taken the lead in the past on water quality programs to protect Caspian Lake. This organization might benefit from increased local membership. The Greensboro Association may be the logical group to make first contact with State and federal resources that can fund a feasibility study on a village wastewater system. This will ultimately protect water quality while allowing growth in the Village.

Technical Assistance/Peer Connection Recommendations:

Some action items can be funded through State and other programs, and the committee should also reach out to the Regional Planning Commission and Natural Resources Conservation District to understand what resources and assistance they can provide. In other watersheds the Natural Resource Conservation Districts are helping communities to apply for funding and to coordinate outreach. Caspian Lake is currently participating in Lake Tributary and In-Lake Lay Monitoring. The programs that fund and support water quality monitoring are the Vermont Lake Lay Monitoring Program and the LaRosa Monitoring Partnership. Funding for project development, watershed assessment, and design and implementation of projects may be funded by the VT Clean Water Initiative Program or the Lake Champlain Basin Program. Your local VT Basin Planner can also help connect the community to funding opportunities. Contact Danielle Owczarski, danielle.owczarski@vermont.gov, (802) 490-6176.

The Water Quality and Lake Protection Task Force developed an action plan at the Resource Meeting.

✓ Improve Broadband and Cell Service

Community Chair: **John Stone**
Facilitator: **Jenna Koloski**, *Community and Policy Manager*, VCRD
Resource Team Members: **Corey Chase,** *Telecommunications Analyst,* VT Dept of Public Service
Dave Snedeker, *Executive Director,* Northeastern VT Development Association

A task force could form to improve cell and broadband service in Greensboro by collecting data on existing coverage, connecting with resources and providers to explore possibilities, and accessing funding and support to improve connection. The group could connect with and learn from other communities that have improved services such as Craftsbury and avail state and federal services and supports to expand coverage for the community. Committee Workbook: https://docs.google.com/spreadsheets/d/1RqVcbxQNZgHrQndagr7KAsyNsd4f5mPoQxLtT6CBMD8/edit?usp=sharing.

Action Steps

Broadband

1. GET EDUCATED. Task force education and vocabulary lesson: familiarize the task force and community members around what "broadband" and "high speed" mean. Who are the providers in the area? What do they provide? What are the resources and tools out there to support the work? Develop the "lay of the land."
2. EXPLORE OPTIONS. Discuss and understand the options available to improve connectivity. Alternatives may include working as a town to take the lead on bringing Broadband to the community, joining the Consolidated Union District forming in support of connectivity (approving to join at Town Meeting), or other alternatives to be identified through meetings with providers. Work with resource experts to develop a protocol to determine the best alternative for the town. Based on the alternative chosen, develop a series of next steps to work towards success. Connect with NVDA and DPS for support identifying and implementing next steps. Explore the feasibility of a local "mesh" network, much like the work going on in Newport that could improve access to Wi-Fi at least in a critical section of the Village center.
3. ENGAGE COMMUNITY. Conduct a survey to determine the existing perception around connectivity in the community, interest in improvements to both cell and broadband connection, and willingness to pay for improved services.

Cell

1. GET EDUCATED. Assess and understand current coverage. Is there a provider better for the area? Are there ways to leverage purchasing power to bring better connection to the community? DPS can help connect to area providers.
2. EXPLORE OPTIONS. Identify feasible and allowable locations for cell towers. What does zoning allow? What is needed for providers to locate there? Work with the Planning Commission and NVDA. Michael Birnbaum of Kingdom Fiber may have more information as well. And connect with Peter Gebbie to understand and background around a potential tower on his property and how to proceed.
3. ENGAGE COMMUNITY. Share coverage maps with the community to develop interest and engagement. Survey the public to understand challenges and needs (see broadband survey above).

Resources

- Dave Snedeker at NVDA is a key partner to support understanding options to proceed, mapping and reviewing zoning restrictions/allowances, and navigating key next steps. Contact Dave at 748-8303 x303 or dsnedeker@nvda.net
- The Department of Public Service can support community work around broadband with technical assistance and perhaps with funding. Contact Clay Purvis at clay.purvis@vermont.gov or corey.chase@vermont.gov.
- Contact the Craftsbury group who worked to bring Broadband to their community to learn what worked. Contact Dave Stoner at davestoner@gmail.com or 586-6913.
- Michael Birnbaum of Kingdom Fiber can support the group's education efforts and can help to understand the pros and cons of different alternatives. Contact him at mb@kfiber.net or 272-1027.
- USDA Rural Development could be a funding source. Contact Ben Doyle at benjamin.doyle@vt.usda.gov or 828-6042.
- EDA could be a funding source. Learn more here https://www.eda.gov/funding-opportunities/ or work with Dave Snedeker at NVDA to identify potential funding opportunities.
- EC Fiber is an example of a successful regional collaboration to bring Broadband to the area. Chris Recchia, the Director of EC Fiber, could offer insight into how they achieved success. Contact him at chris.recchia@valley.net.
- The Northern Borders Regional Commission could also be a funding source. To learn more contact Tim Tierney at tim.tierney@vermont.gov or 505-5496.
- The Newport wireless mesh project could be a model to learn from. Learn more here: https://newportmesh.org/

Task Force Signups

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Sam Young	samyoung@thinkorsink.net	321-0356

Visiting Resource Team Recommendations

After Community Meeting Day, Resource Team members, representing a wide array of professionals from across the state, submitted their recommendations for other potential actions and resources the task force might consider as it moves forward. These recommendations encompass their experience, past success, and consideration of the community's unique assets and needs.

Action Step Recommendations

Look into joining a new or existing Communications Union District, which then can complete community surveys and feasibility studies.

Look at other communities that are/have dealt with the same issue.

Work with the Department of Public Service to map the areas of town with no cell service and inadequate broadband service.

Create a Wi-Fi zone in the two Villages.

Create a cell "hot spot" using a "COW" or mobile hot spot in downtown.

Connect with other towns that have tackled this problem directly and invite them to present to the task force.

Connect with alternative providers (Mansfield Community Fiber might be a good one) to see if they can meet the community's needs.

I would encourage the community to contact Dave Stoner from Craftsbury about the work they accomplished coming out of the VCRD process. I think FCIDC and the Northwest Vermont Regional Planning Association will be key partners so I would hope they could be at the table from the beginning.

Based on the service issues of other local cell phone services, I would recommend as this priority item states to convene all the parties above and work to gain coverage from reliable national/regional companies and explore innovative ways to attach the cell towers or find other ways that are feasible technically. There were three people in the area at the evening meeting that were very knowledgeable about this and were clearly motivated to participate.

Use regional needs to work together in coordinating partnerships. Boost framing as economic potential for residents and businesses, as well as vision (or reality) of Montgomery as a haven for remote workers. Explore newer wireless options.

Technical Assistance/Peer Connection Recommendations:

Katherine Sims, director of the NEK Collaborative: katherine@nekcollaborative.org, (802) 586-0099 Evan Carlson, "entrepreneur-in-residence" at Do North Coworking in Lyndon, evan@hjalmarcarlson.com.

Planning grants available through the Vermont Department of Public Service. Contact Clay Purvis at clay.purvis@vermont.gov.

USDA ReConnect and many other programs through RD, FSA, and other agencies (eConnectivity Toolkit can be downloaded at https://www.usda.gov/broadband).

Vermont's USDA Rural Development Telecom Field Representative: Timothy Brooks, PO Box 610, Glenrock, WY 82637-0610, Timothy.Brooks@usda.gov, 307-763-8900. States Covered: CT, MA, ME, NH, RI, VT.

USDA Rural Development has provided grant funding in the past to expand broadband coverage or create downtown Wi-Fi-zones (Lyndon and Craftsbury). The funding came through a Rural Business Development Grant. Contact Ben Doyle at benjamin.doyle@vt.usda.gov or 828-6042.

There are loans available through VEDA: https://www.veda.org/broadband-loan-program.

ECFiber could share their experience coming together to bring fiber to the region. Chris Recchia, the Director of EC Fiber, could offer insight into how they achieved success. Contact him at chris.recchia@valley.net. https://www.ecfiber.net/.

Dave Stoner, community activist in Craftsbury that helped get Kingdom Fiber going in his community, davestoner@gmail.com and 586-6913.

Leslie Nulty, Mansfield Community Fiber, 899-2044, leslie.nulty@mcfibervt.com.

Michael Birnbaum, Kingdom Fiber, https://kingdomfiber.com.

The Northern Borders Regional Commission could be a potential funding source. Contact Tim Tierney at tim.tierney@vermont.gov.

VIII. Greater Greensboro Town Forum Notes

Compiled from focus group discussions held with over 140 Greensboro residents and the VCRD Visiting Team on July 17th 2019

Although the prioritization work of the Greater Greensboro Community Visit Program requires a town to decide what is most important as it moves forward with Task Forces, nothing is lost in the process from the long list of concerns and ideas expressed in early community focus sessions. Many interesting and diverse thoughts are represented here, and are presented as a reminder of issues explored, and a possible foundation for future projects.

Infrastructure & Telecommunications

Visiting Team: Richard Amore (facilitator), Amy Cunningham, Jenna Koloski (scribe), Irene Nagle, Clay Purvis, Chris Saunders, Jessica Savage, Katherine Sims, Misty Sinsigalli, Tim Tierney

What are the Assets in this Area?

- The beauty of the area and a relief from congestion. More rural, quieter.
- Safe place for grandchildren to play.
- The lake
- Barr Hill
- The Greensboro Free Library
- The Greensboro United Church of Christ.
- There is a deep interest in social justice.
- The Rail Trail in Greensboro Bend
- Jasper Hill Cheese and other interesting entrepreneurs are a huge asset.
- Vibrant non-profit and for-profit organizations.
- Remarkable wildlife.
- We have worldwide connections – people that visit or live here part-time. Greensboro is the "center of the universe."
- Several generations back returning year after year.
- Residents engaged on many levels.
- Recreation on the lake – swimming and beauty.
- Close proximity to Greensboro nursing home and Craftsbury Care Center.
- The Hardwick Area Health Center is an important resource.
- We have a great rescue squad.
- We always pass our school budget! We care about children and education. We even write poems about it!
- This is a community of writers.
- Highland Center for the Arts.
- Circus Smirkus
- The Greensboro Land Trust
- Willey's Store
- The Walking Society – "underground communications system."
- The Miller's Thumb gallery
- Active churches
- The new Greensboro Gazette.
- The fabulous preschool in the Bend.
- I am struck by the connections between the summer and year round communities that adds to the strength of the community. It feels stronger than in other vacation communities.
- The community values incoming people who want to get away and keep it quiet and peaceful.
- We have a good road crew that takes good care of us in the winter. We even get our driveways plowed!
- We have a great golf course.
- Tennis courts.
- I come back here because of that lake. We keep it beautiful and it's the draw of the area. No milfoil and good water quality in the Lake.
- We are a central hub of places that are growing right now.
- The local planning commission is supportive of addressing the internet issue.
- The Giving Closet is a place where people can drop things off and volunteers arrange it and anyone can take things for free.

What are the Challenges?

- Cell phone access – many places do not have cell phone.
- High speed internet at a reasonable price is limited.
- Our landline phones don't work very well.
- If you have any Apple product in your home they are always refreshing. Consolidated makes you turn all of that off. It shuts everything down.
- Comcast comes to the top of French Hill and then it stops.
- Legacy noncompete laws are a statewide issue that impact rural areas more. There is enough competition now that it is actually a hindrance. For example – Comcast is allowed to provide internet service but not telephone here. They can never offer the triple play which is where they make their value.
- In Greensboro Bend we have phone, TV, and internet on Comcast. Bend has better service than the Village.

- Cell service impacts emergency services – we don't have the power in our system here to be able to utilize technology like Hardwick can.
- Dealing with Comcast is terrible. It is impossible to get any help. There is a huge problem with deferred maintenance in the line.
- There are so many power outages here! It's outrageous.
- The electrical industrial demand rate for small businesses is a third lower than other parts of the state. Once you go over 30kw/hr you are stuck with high pricing for a year. It is hard for businesses in this area to grow.
- AT&T service has decreased. They took service away from this area and did nothing to replace it.
- Lack of town septic makes any sort of business development (growing or starting) difficult.
- The dirt and paved roads need improvement.
- There is no real system of public access transportation. If you are not right in the Village – especially if you are older – you need to get help to get transportation other ways. There is an informal system now, but it isn't going to last forever.
- Senior transportation is a particular challenge.
- Driving from here to Highland Lodge is scary in the summer with bikes and pedestrians. No shoulder or biking path. Skiers in the winter!
- We have no public restroom facilities. We have some but not adequate for summer use.
- Lack of restaurants in town.
- Parking at Willey's in the summer is always iffy. People coming around the corner. It could be dangerous.
- Everyone wants amenities of a larger place but they don't want this small place to become large. That is a real conflict.
- It is nice to keep our rural nature, but it is an issue of safety. Washouts have not been repaired and it is dangerous with people walking – there is no place to get off the road. We have to have summer repairs and checks on dangerous issues.
- We don't have affordable housing for younger people.
- We need recreation to encourage folks to come here and stay here.
- We don't collaborate and build on a regional basis.
- State colleges are moving more to online – it is difficult to access educational resources when we don't have the internet infrastructure.
- The bus at the nursing home is broken down. It is not available anymore.

Opportunities: What Should Be Done?

- The top priority for many people is internet and cell service. The state can not make anything happen. They don't have control of the companies. It needs to be a grassroots effort to support internet and cell phone access.
- We need to start a campaign to work with Consolidated to improve service.
- We need better public policies in Montpelier. Our problems are similar to rural communities around the state. The voice of rural communities is quieted – we need to get more coordinated and work together to give rural VT a stronger voice in policy development.
- We should have a centralized person who is the point of contact to communicate issues to Consolidated and other companies. Someone who is plugged in to everything that is happening and can set up a tracking database to collect issues.
- There has got to be a business model to connect a lot of people to the high speed line.
- We should learn from other communities that have had some success and find out whether we can replicate that. How did other people get it done?
- There are regulators in the state that have greater power over these companies – let's put the pressure on the state regulators to do their job.
- Use Front Porch Forum or a similar service to collect data on outages.
- There will be some grant funding and loans available. We should pool funds here and connect to state funding to connect to Craftsbury provider. We could really make that happen here. EC Fiber did it with private fundraising as well as grants.
- We need a committee to find out how much town sewage would actually cost. That is something we are going to need so we need to start exploring feasibility.
- Build a community path from Village to the Highland Lodge
- We should develop a plan for a path and review the plan with the Town rather than just talk about it.
- We need a new Town Garage.
- We need to put these challenges in the larger perspective of climate change. 15-20 years from now, most everything will be electric. We need to think forward about that and Hardwick Electric is not. We are falling way behind on electricity.
- Do a data mining exercise of business and population growth in the Kingdom and potential business growth – provide to Consolidated a map of potential pathways of large gauge fiber pipes where branching becomes more feasible. They are not doing that themselves. Utilize regional partnerships to make a project more feasible.
- Greensboro is a giving town to the State. Maybe we can take $500,000 put it in escrow and then pay it back to the state when we have access.
- Collect data on the status of internet and cell access currently.
- We need a local commuter bus that runs to neighboring towns with resources. We need a steady route to places locally and to other necessities. A playgroup, library, Willey's, health centers – make it possible for families to get around that don't have multiple vehicles.
- Explore new revenue for the town to use for internet access development.
- In Lyndon, a few towns have formed together a cooperative to bring internet to the community.

- We should make the Grange Hall (owned by the Town) a combined visitor center/info center/public toilet. The idea has come up but got lost in the shuffle. It is still a valid idea. (the challenge was the septic issue – it is on a swamp).
- We should take the Giving Closet to the basement of the Grange to have a better display area and more space.
- We should put it an eco toilet like they did at the State Park. Composting toilet. Alternative septic.
- We should find some partners in Hardwick and get it on their town ballot – it's up for sale – maybe it's time for us to figure out how to get out of a small muni system.

Reflections of the Community Visit Team

- This is very similar to what we've heard in other communities. What is unique is how tight and connected you are. Your power is that you communicate so well. Out of this process, you'll see that your priorities will grow – you will come up with good solutions and you can do it.
- Infrastructure and internet access are critical aspects of the creative economy. The vibrancy of your community fabric is incredibly impressive. You are on a good track here.
- Greensboro just completed a great revision to their town plan so it is great that a lot of these issues have been identified in the plan. It is always good to have a plan to back up a grant application.
- One of the unique components here is the seasonal and year-round resident dynamic. Communities that are successful take what is happening at the town and leverage energy here – especially folks that don't spend the whole year here. Senator Leahy is very focused on this. Craftsbury has been leveraging federal funds that the Senator has been leveraging for VT – whatever ideas you have, we will make sure you have access to those resources.
- I love hearing that you're thinking about recreation and transportation together. Thinking about master planning and being a hub. It is an asset to show that the community has a well thought out vision – shows that you have put thought into how your community can look and feel in the future. Those clivus toilets do work!
- It struck me that there was a lot of discussion about multigenerational solutions and ensuring that you move together as residents and as a community and not separating between part-time/full-time. You'll need to look at things that are necessary and inevitable for future generations. What will bring you together to move forward together. USDA does have funds for a feasibility study to look at what it costs. Even if you have tried something in the past, keep plugging, things may have changed and there could be new opportunities.
- I love the idea of Greensboro as the center of the world – connected to each other and the word. It is a neat aspect of the community. I heard a lot of themes I have heard in other communities in the Kingdom – broadband, connectivity, transportation, wastewater – don't feel alone. There is a wealth of info in previous VCRD visits. Burke has been moving forward with wastewater. Craftsbury has built a fiber network. There are models and the NEK Collaborative is supporting regional conversations so communities don't have to do it alone.
- Many of the themes that have come up, I have heard in every town I have gone to. I have gone to dozens of towns to discuss this issue. Don't get discouraged – there are resources. Federal and State. DPS will be administering those. Know that there is money and people that will be able to come and help you.

Housing For All

Visiting Team: Chelsea Bardot Lewis, Emily Boedecker, Paul Costello (facilitator), Rebeca Ellis, Shaun Gilpin, Martin Hahn, Jenna Lapachinski, Seth Leonard, Katarina Lisaius, Michelle McCutcheon Schoer, Jared Nunery, Erin O'Farrell (scribe), Tracy Zschau

What are the Assets in this Area?

- Lauredon Apartments are senior housing in the area. They were built so members of community could stay in Greensboro, allowing for aging in place. The housing is independent living, but has an income cap, which sometimes hinders residents from living there.
- There is a nursing home in town.
- Greensboro Bend revitalization project exists.
- There is a new town ordinance for the destruction of deteriorating buildings.
- A Housing Committee exists, but is still in their info collecting/brainstorming phase.
- Housing committee in Greensboro has taken some steps to address housing issues, such as meeting with Rural Edge to think about building affordable housing.

What are the Challenges?

- There are a lack of "starter homes."
- Current zoning requires large 10 acre lots.
- Existing housing in the town is turning into housing owned by retirees.
- There is not enough affordable housing for people who work in Greensboro to live here.
- There is not enough affordable housing for new families/young people moving to area.
- Zoning restrictions are a big challenge for housing development.
- Cost effectiveness is an issue with building housing. It is difficult to think about building housing that pays off

because often times you need 20 units to be cost effective and it is hard to meet that number of units with Greensboro's size/population.
- There are no wastewater treatment facilities in town.
- Infrastructure challenges need to be addressed before moving forward with affordable housing.
- An us/them mentality sometimes exists between Greensboro Bend and other parts of town.
- The housing stock is aging, along with the people who live in it.
- Available housing is often used for AirBnb or other vacation rentals.
- There are no apartments to rent because they are often used as AirBnb-type rentals instead of long-term rentals.
- Even in the 10-acre current lot zoning is challenged, small lots sizes don't necessarily mean more affordable housing.
- There is a stigma around affordable housing in an affluent town.
- Buying a piece of land in Greensboro is difficult. Even if zoning changed, it might still be expensive to buy a plot of land.
- There is concern that if housing was made more affordable, summer residents would buy up land and it wouldn't help local residents/people seeking year-round residency.
- Many of the Greensboro Bend buildings are abandoned or almost abandoned. Many of the owners of these buildings live outside of Greensboro.
- There are very few paved roads in town and many class 3 and 4 roads that might be closed in future. There is concern that closing these roads would cut off access to some land and housing.
- There is a big question of the school closing and how that would affect the draw of families to Greensboro.
- There is a problem of losing students because families can't afford to stay in town.
- Climate migration in the future might lead to an expanding population.
- There are major broadband issues and a general lack of affordable internet.

Opportunities: What Should Be Done?

- The creation of market interruptions to create more fair/affordable housing prices.
- Retain old structures/houses and turn them into duplexes or apartments.
- Use VT Housing Trust/other organizations to help with guidance in the housing process.
- Use Lamoille Housing Partnership as a source of leadership.
- Raise money and get housing funders (affluent people with connections to Greensboro).
- Look to USDA and other organizations for funding and technical assistance.
- Discuss and look into the current 10-acre zoning and the possibility of changing it.
- Adopt an "apartments for life" idea and mix families and people of different ages and socio-economic statuses in housing.
- With changing zoning, there is a possibility of using an infill housing strategy and/or cluster housing.
- Find employment opportunities for young people. (The point was brought up that even if you create more jobs, it won't solve housing issue/lack of housing.)
- Create a survey for people who work but can't afford to live here. Ask them: "If you could live here, would you? What would you want/need housing to look like?"
- Marketing to encourage people to sell land/turn it over to housing/land trust in order to create affordable housing.
- Incentivize employers to provide opportunities for housing, transportation, etc. and hire people that actually live in town. Build a coalition to look holistically at these issues.
- Utilize the concept of home-sharing to help with aging in place and other issues. Look into the Homeshare Now non-profit organization in Barre.
- Incentivize home-sharing and converting barns, garages, other spaces into housing.
- Think outside box of regulated 20/30 units needed for affordable housing through Downstreet/Rural Edge type organizations to develop housing on smaller scale.
- Get more information of how much affordable housing is actually needed.
- There is a mill in Greensboro Bend whose owner is willing to transform space into commercial or residential space. Investigate how to best utilize that property.
- Survey current wastewater issues and investigate wastewater treatment options.
- Keep in mind that right-sizing infrastructure is important.
- In addressing the AirBnb issue, it is important to understand that tourism is a big income-driver of the community and it is often times easier to make money off AirBnb than with long-term rentals because of strict landlord laws in the state of VT.
- Partner with the State to encourage settlement in Greensboro.
- Need to keep quality of lake/water quality in mind throughout the whole process.
- Look at existing models such as the Scandinavian Living Center and Agrarian lifestyles.

Reflections of the Community Visit Team

- In this process, it is important to identify the "must hang-on to" things and things that can be changed.
- Greensboro has a strong foundation of values, which is a great starting place in this process.
- There is already lots of work being done, which is good. The community should keep ties with existing housing trusts as a resource. Housing trusts such as Woodstock Housing Trust can be looked to as an example of a small housing trust in small community that has been thinking outside of box in ways that might be useful to the Greensboro community.
- Consult model by-laws when considering changing zoning in the town.
- The conversation of creating revolving loan funds and keeping equity in housing in town should be continued.
- The existence of a housing committee is a great start. The committee should bring in resources and organizations to help them deal with these housing challenges.
- Look into Bristol and their co-housing project as an example of what can be done for housing issues.
- Just setting up housing commission isn't enough. There is a need to actually push toward funding and doing something about housing. The Greensboro community needs to create a vision and take ownership of that vision in order to make progress on housing issues.
- There is a need to define what affordable housing is and take into account what one might not initially think of as housing.
- It is encouraging that most of room has shared vision of where they want to see community go

Economic Development: Jobs & Recreation

Visiting Team: Richard Amore, Amy Cunningham, Jenna Koloski (facilitator), Irene Nagle, Clay Purvis, Chris Saunders, Jessica Savage, Katherine Sims, Misty Sinsigalli (scribe), Tim Tierney

What are the Assets in this Area?

- Lake with no milfoil
- Greensboro is connected to the hub of Center for an Agricultural Economy Non-Profit and For-Profit entrepreneurial place incubator space.
- Hill Farmstead
- Highland Center for the Arts
- Mountainview Country Club
- Greensboro Nursing Home
- Wonderarts
- Spark (coworking and incubator community)
- Wholeheart
- Highland Lodge and CC Ski Trails
- Elementary School
- We have a local preschool in town
- Borealis Glassworks
- Library
- Roads/Infrastructure
- Access to recreation such as Barr Hill trails
- Greensboro Garage
- Caspian Arts – 25-30 Local Artists
- Circus Smirkus
- The Monastery is a spiritual and community asset
- Hairdresser
- Low Income Housing – Apartments
- Day Lily Farm and local Nursery
- 9 Dairy Farms and active other farms
- Conserved Land Base
- Public Beach
- Atmosphere that encourages local involvement and encourages activism

What are the Challenges?

- Lack of affordable and available housing
- Lack of central infrastructure
- Poor internet connection
- Limited cell service
- Price of land and housing
- "Not in my back yard attitude"
- 10 acre zoning restrictions make development and housing difficultr.
- No incentives to move to Greensboro
- Increased traffic in the Village.
- Different districts restrict use of land
- We are worried about the elementary school closing due to the Act 46 forced merger.
- Not having full time well-paying jobs.
- Cannot take advantage of what we have for agricultural land.
- Parking in the Village Center.
- There are no restaurants here.
- Retaining employees is a challenge when they don't have a place to live here
- Highland Center for the Arts has great potential
- Changing the culture has proven to be difficult as there is an older generation that does not want to see things change. There is a younger generation of folks that have a vision for more connection and "fun" but they often feel pushback from people who don't want to see the place change.
- Ownership of the public beach – the dam is in need of a lot of work and if ownership is taken over then they would inherit the responsibility of fixing it. Right now it is owned by Hardwick.
- There is concern about water levels in the lake.

Opportunities: What Should Be Done?

- Build walking or bicycle paths that would make streets safer.
- Work with private land owners to allow for recreational use year round – extend winter easements to year round.
- Extend the Lamoille Valley Rail Trail to Greensboro Bend.
- Develop affordable housing. If there is an appetite to take this on we should think about Federal Funding options.
- Sidewalks (rebuild and build) to make it more accessible.
- Clear sidewalks in the winter time.
- Improve parking in the Village Center.
- Encourage alternative modes of transportation. Make the villages more "biker-friendly."
- Develop signage that points people in the right direction to the beach, trails, and other places in town.
- Eliminate cars – provide Rickshaws!
- Provide bikes, kayaks, boats rentals.
- Start an Uber/Taxi Service.
- Develop septic system and water in the Village.
- Create a walking path around brooks/rivers
- Attract or develop restaurants, a café, or food truck in town.
- Zoning laws need to be reviewed.
- Attracting employers/employees for other types of targeted jobs – such as artists, telecommuters. We should do a marketing campaign.
- Have something published to the wider community that gives people an idea of what the different needs/people/community are.
- Tell different stories about the people that live here. Change the narrative to showcase all types of Greensboro residents.
- Greensboro Historical Society – refocus some of their summer programs in documenting some of the changes that have happened throughout the years – especially more recently.
- Redevelop the Greensboro Grange Hall to be a community space where people can gather as a community center.
- Indoor space for recreation.
- The Fire House could be used for community space.
- Commitment to more fun together as a community!
- Connect trail systems year round. Connect Greensboro bend and Village
- Take over ownership of the public beach.
- Extend Craftsbury Outdoor Center trails. The OC is ready and willing to partner.
- Public Skating space for the community.
- Improve public transportation to recreation and services.

Sustainable Future: Energy, Water & Environment

Visiting Team: Chelsea Bardot Lewis, Emily Boedecker, Paul Costello (facilitator), Rebeca Ellis, Shaun Gilpin, Martin Hahn, Jenna Lapachinski, Seth Leonard, Katarina Lisaius, Michelle McCutcheon Schoer, Jared Nunery, Erin O'Farrell (scribe), Tracy Zschau

What are the Assets in this Area?

- Barr Hill
- Caspian Lake and its exceptional water quality.
- There are beautiful, starry night skies.
- 20% of the town's area is conserved land.
- There is a large block of intact forest in the town.
- Long Pond
- The human capacity that exists in the community.
- The Lamoille River
- Lake Elligo
- The potential for solar energy.
- The town is currently net-metering all the electricity from a solar array being built in East Hardwick.
- Unpaved roads
- Farmland
- Open land
- The opportunity to buy into VT Electric Solar Coop.
- Lots of wind potential
- Private homes with solar arrays
- Methane digester on Gebbie Farm
- Town water system for part of town
- Good recycling system
- Composting system and place to drop off compost
- Actively engaged agriculture as a part of working landscape
- Forest management organizations in town
- Loggers who live in Greensboro
- The wealth capacity of some residents
- An aquatic nuisance monitoring program for Lake Caspian
- Town meetings and democracy
- Giving Closet in town, which is used as a form of reusing clothing and other items
- Walking path along Caspian Lake (although parts have been closed off)
- 4 hiking trails
- A natural resources inventory is already happening to map resources in town of high conservation value.
- We have a student climate change committee at the school.

What are the Challenges?

- There is no town-managed/large scale wastewater treatment system. Wastewater treatment only exists on a household level.
- There is concern surrounding the deterioration of water quality in Caspian Lake.
- The integrity of the dam on Caspian Lake is an issue.
- There are no walking or biking paths along the main roads, which encourages driving over other, lower emission forms of transportation.
- There are areas of forest and farmland that aren't conserved.
- There is exploitation of summer cottages through short-term rental services (AirBnb, VRBO), which leads to increased traffic during summer months.
- There is no systematic conversation occurring in Greensboro regarding climate change, nor any committee or economic development plan to deal with climate-related issues that are/will be occurring.
- Soil conservation and erosion is an issue.
- The increased use of insecticides is a concern, especially around the shore/waterfront of Caspian Lake.
- There has been an increase of invasive plants along the roadside, as well as Japanese Knotweed on the lakeshore.
- There are growing tick populations, which has impacts to both animals and humans in the area.
- There has been increased flooding by lake, but little to be done about because the state controls the lake level through Hardwick Electric and their control of the dam.
- Winter salt runoff from the roads into the lake is a concern.
- The runoff of gravel from the roads into the watershed is a concern.
- Lakefront properties that were formerly seasonal residences but are now inhabited year-round impact the surrounding environment/wastewater treatment.
- There are external furnaces in Greensboro Bend which produce harmful emissions into the air and stay in the area since the Bend is located in a bowl.

Opportunities: What Should Be Done?

- The implementation of composting toilets in public areas.
- Direct democracy through events such as town meetings should be used.
- A goal for energy efficiency should be set in homes.
- USDA wastewater treatment grants/money.
- We should consider private solar farms and work together as a community toward a net-metered project in town.
- A watershed management plan should be created to address lake pollution.
- We should look into the possibility of having more control of the lake water level.
- Incentives to cost-justify installation of clean energy, such as the PACE Program, should be considered.
- There has been an Energy Committee in past that is no longer active but is now partnered with Craftsbury. They are working on a project with window inserts to increase efficiency in homes.
- We should consider the installation of charging stations for electric cars. This would help incentivize tourism in the town.
- We should conserve our way out of problems instead of producing our way out of problems. We should focus on reducing consumption.
- Expand the Giving Closet (sharing/reusing project in town).
- We should have more discussions of the creation of pathways and public transit options to decrease vehicle emissions and mileage. The Greensboro Association is currently looking into the idea of creating paths.
- Some human behavior needs to be changed as far as roads and their use in order to make it safer to walk along the roads.
- There is a need to educate visitors/tourists on the "rules" for lake houses, rentals, etc. because visitors are not necessarily invested in or know about the assets of the community and therefore don't know how to appropriately behave/act.
- We should better enforce regulations regarding the use of pesticides/herbicides and the cutting of trees near the lakefront.
- We should build and expand the lake quality monitoring system.
- We need more enforcement of lake regulations and zoning regulations.
- We should look into whether any regulations exist surrounding light pollution in order to ensure our beautiful night skies are preserved.
- There needs to be an increased education of current wastewater systems and how they function/can dysfunction, along with how to better manage your wastewater system and know when something's gone wrong. We should put together a town plan to do this and incentivize it and get more human capacity to work on this issue.
- A Greater Hardwick Youth Initiative exists. We should engage Greensboro Youth in this and expand youth engagement in general.
- The Greensboro Gazette newspaper is a monthly publication. We should use it to educate people on these issues.
- We should get in contact with students to collect their input and ideas for creating a more sustainable community.
- We need to create a climate change committee that includes summertime population to invite seasonal residents into conversations about sustainability and conservation.
- A vision for sustainability in Greensboro should be created. This should include plans such as weatherizing low-income houses for renters and property owners and creating a big vision around the lake
- We should be reinforcing the good things that are already happening in the community.
- We need to be model community for clean lake water processes and market ourselves as such.

- There is a need to get rid of external furnaces in Greensboro Bend and replace them with cleaner, healthier options.
- We should implement a LEED type "star" program for lakefront properties to help "green-certify Greensbor.o"
- We need to consider that this vision needs to be inclusive of parts of Greensboro other than the lake and consider income-equality in Greensboro.
- We should invest in more human capital (on mostly a volunteer basis).

Reflections of the Community Visit Team

- Greensboro can implement programs such as "Septic Socials" to engage and educate in issues like wastewater treatment.
- The town should continue to capitalize on the social capacity of the community.
- It is important to stay "ahead of the 8-ball" in engaging in the prevention of issues like lake quality degradation before they occur. It is cheaper and more effective to be intentional in the community's addressing of these issues before they arise.
- It is important to think about WHO is going to lead these initiatives and consider different levels of engagement and time to get lots of people involved and invested, but keep it manageable at the same time.
- There seems to be a common thread of the importance of lake resources and social resources in the community.
- The community should take opportunities to make efficiency improvements in the existing housing stock.
- Greensboro should consider branding a narrative of a town's love for the lake/other natural resources.
- It is important to keep thinking of environmental issues on a community level in order to keep environmental change tangible. The community should hold onto this and continue to show up for these issues.
- The town should keep forests in mind with their community conversations.
- A common stewardship ethic should be implemented, along with the need more education. Greensboro should consider working with local universities and organizations to organize educational opportunities, such as lecture series.
- Compliance can be achieved through personal responsibility. It is important to have an inclusive education on these environmental issues.
- Greensboro is in a good position to get ahead/be proactive about water quality issues. They should keep this up and work with organizations that can help in this regard.
- It is important to keep in mind the intersection between housing affordability and availability and water quality and wastewater
- Sustainable agriculture was not mentioned in the conversation. Is there potential there to engage in/keep engaging in local food consumption to reduce carbon emissions?

Building Community Vitality: Education, Arts & Aging in Place

Visiting Team: Richard Amore, Amy Cunningham, Jenna Koloski (facilitator), Irene Nagle, Clay Purvis, Chris Saunders, Misty Sinsigalli (scribe), Tim Tierney

What are the Assets in this Area?

- Green Mountain Monastery
- Caspian Lake
- People – friendship, community involvement, community connection
- We are a town where neighbors take care of neighbors.
- Greensboro Ladies Walking Group
- We have a childcare in town.
- Recreation opportunities
- Library
- Willey's Store
- Performance Arts Center
- Community Arts/Entertainment
- Lake Concerts
- Two Post Offices
- Parade – Funky Fourth
- Millers Thumb Gallery
- Caspian Arts
- GRACE – arts organization in Hardwick that serves the region
- We have a strong volunteer community – school boards, fire, EMS
- UCC Church acts as a community space. Fellowship Hall is used for the entire community.
- Greensboro Association protects the lake and has grown to embody the entire community. It now has a funding arm that supports community initiatives.
- Giving Closet
- Nursing home and affordable apartments for the seniors
- Circus Smirkus
- Highland Lodge Ski Trails and Lakeview Inn
- Greensboro Bend has a Village park and playground
- SPARK offers business support and highspeed internet
- Hill Farmstead Brewery
- Jasper Hill Farms
- Amazing number of artists that come to the community because it is an art community
- Wonderful elementary school
- Many local and seasonal authors
- Buffalo Mountain Coop is nearby in Hardwick.
- Pete's Greens
- Craftsbury General Store
- Vermont Council on Aging provides senior services in the area

What are the Challenges?

- We have an aging of population in Greensboro. This is a challenge for the future of the School.
- When summer ends some of the assets no longer remain assets for the people who are here full time. The winter community is different than the summer community.
- There is no vehicle that bring all entities together to connect. The school is an asset but what happens if it is no longer there?
- What do we do with the grange?
- Transportation is important for aging in place. How do you get to the doctor, shopping for food, getting around? Rural Community Transport is not providing the service they say they are going to provide.
- Attracting younger population is a challenge.
- Lack of cell service and high speed internet
- Physical accessibility of buildings in town.
- Not having cell service is a safety issue.
- Snow removal needs to be improved.
- Not being so insular and looking outwards so we can attract others in to the community.
- Connecting beyond the school lines – as a younger person in town without children in the school, it can be hard to connect.
- We need to work on tangible things.
- We need to focus on the older generation to ensure that we have the community that can accommodate and help the older generation age in place.
- There are no park benches or benches in the Village
- Social Isolation
- Student Voice – how do kids that are in high school become engaged with their community when they are sent out of town for school?

Opportunities: What Should Be Done?

- There is a large open space in Greensboro Bend that could potentially be turned into housing.
- Could we collaborate with other towns on housing?
- Start a Community support group
- Develop a rideshare program.
- Start a Social media hub for communications for the Town.
- There are models out there for connecting community such as the Virtual Village in Beacon Hill. We should look to those models and adapt them to use here.
- We need to think more about Greensboro connected to neighboring communities – think regionally.
- We should plan an event in the winter time that brings people together like Funky 4th in the Summit. A "chase winter away" event and/or Arts in the Park.
- Getting everyone together once a year – annual dinner that the public can attend.
- Establishing groups to help age in place.
- Develop a local skills training program modeled after Bethel University concept.
- Boost winter recreation.
- Mountainview Country Club: How should it be owned and managed?
- Update Town septic and zoning to allow for strategic development.
- How do you connect with students that are going outside of town for schooling? Create program that helps with flexible learning – mentoring with community. We have so many assets that can be used for this.
- Connect with students at Northern VT University to help with town initiatives or to connect with local high school students.
- There will be an opportunity for lifelong learning through Whole Heart Inc.
- There aren't studios where people of all ages can go in and have a space that they can create, teach, etc. We should start a collective studio cooperative space.
- We need more spaces that are open in the evening where people can go and congregate – especially in the winter time.
- Art/Coworker space like the Space on Main in Bradfo. Redevelop the Grange Hall for this.

The Future of the Working Landscape

Visiting Team: Paul Costello, Rebeca Ellis, Shaun Gilpin, Martin Hahn, Jenna Lapachinski, Seth Leonard, Katarina Lisaius, Michelle McCutcheon Schoer, Jared Nunery, Erin O'Farrell (scribe), Emilye Pelow-Corbett (facilitator), Abbey Willard, Tracy Zschau

What are the Assets in this Area?

- There is lots of conserved land.
- There are a lot of working farms and agriculture in the town.
- There is a vibrant cultural arts community, including the Highland Center for the Arts.
- There is a lot of value-added product production.
- The soil is of good quality.
- The climate is good for farming.
- There is an abundant customer base with the summer community, which creates a market and demand for products.
- There are woodland tracts of relatively large size in the town.
- There is a strong conservation capital and community members that fund conservation work.
- The town's proximity to Center for Ag. in Hardwick.
- UVM Extension support in technical assistance for ag. businesses has been helpful.

- There are many residents who work on and make their living off the land.
- VT has a strong farm-to-school program.
- There is a big draw of people who want to move/live here.

What are the Challenges?

- Keeping the lake clean from agricultural runoff is a challenge.
- In the transition of land ownership from one generation to next and to new owners, maintaining expectations for the type of land use you want on your property is difficult.
- There is a lack of interest/enthusiasm in farming from the younger generation.
- There is a lack of education connected to farming.
- There has been a big decline of dairy farms over time.
- There are economic challenges associated with conventional dairy and its prosperity.
- There are economic challenges with farms and their vitality in general, too.
- Pricing mechanisms exist that transfer wealth from rural communities to urban settings.
- The commodification of food is a larger systematic issue that impacts farms in Greensboro.
- The extractive nature of ag. has social costs, including rural isolation, that fuels larger issues like the opioid crisis.
- There is a current issue of the aging out of farmers and no clear transition of equipment, labor, or land ownership to the next generation.
- It is difficult to find or purchase affordable farmland in the area.
- There are larger concerns regarding the scale appropriateness of federal policies associated with agriculture.
- The international lumber trade in places like Canada prices loggers out of VT/Greensboro.
- There is concern regarding the introduction of invasive insects and diseases that comes with increased temperatures and climate change.
- The increase of natural hazards from climate change impacts the wellbeing of the working landscape.
- There is a lack of access to the local markets, especially with lower grade products.
- There is a concern with things such as value-added sprigs on logs that are used for some Jasper Hill cheese products and a lack of concern from the loggers harvesting these logs to keep these valuable, value-added parts of the tree intact.
- There exists a bigger question of whether there is future for agriculture as it exists for future generations.
- There is a longer-term question of whether the Greensboro school will exist in future and therefore whether education in the curriculum surrounding ag. would be valuable.
- Families who work for Jasper Hill don't live in Greensboro due to both housing availability and affordability problems.
- There are high utility rates in Greensboro, which prevents people from wanting to come and start small businesses or expand their existing small businesses in the town.

Opportunities: What Should Be Done?

- We should implement/build farm labor housing. The location of this housing should be considered, along with potential issues of transportation.
- There is a need to educate the younger generation on agricultural practices and the history of their community.
- It would be useful to aquire funds for farm labor experience for young people, including something like an apprenticeships program. This will help create new jobs that are guaranteed to have good employees because the employees have already been trained through their employer and are aware of expectations.
- We should re-visit the current town zoning to help create more affordable housing.
- The instillation of an incubator farm as way to educate and train farmers, create markets, and use/share equipment should be considered.
- We should work with the school curriculum and add more courses/education around farming and aim for a community-based curriculum in general.
- We should create a resource for conventional farmers and value-added producers to ensure their stories are heard and reach higher levels of decision-making.
- We should look into acquiring funds for incentivizing people to move to Greensboro.
- We should look into developing new products/processes, such as wood chip products, to bring forest industry back.
- We should consider installing a wood pellet facility in Greensboro.
- We should consider the production of hemp for products such as hempcrete.
- We should address the bigger systematic action of getting the state to incentivize moving to rural communities.
- We should consider deregulation of certain sectors, but keep in mind both the benefits and drawbacks of this. If we decide to deregulate things, we should enforce community regulation of sectors.
- We should consider working with the Landlink program to pair land with prospective farmers. The VT Land Trust also works toward similar efforts and we should consider working with them, as well.
- We should look into Mutual Benefit Enterprises (MBEs).
- We should engage in fundraising to support growing and prospective businesses.

- We should adopt the mentality of bringing the "culture" back into agriculture by engaging people in ag/farming through arts (music, theatre, celebration, etc.).
- We should consider the Working Lands Enterprise Board as a funding opportunity.
- We should use resources such as grant-writers and grant writing training to help community access loans and grants through these services.
- We should inspire youth to participate in the ag. economy through events like farm days, field trips, and after-school programs.
- Dealing with the high utility rates in the town needs to be a priority.
- We should consider collective power generation in the community to get around using the utility company and paying extremely high utility rates.
- We should try to get the Hardwick Electric board to better understand the needs of community.
- We should consider the potential of solar energy production, and look at Suncommon and other companies that help with clean energy.
- The importance of working against systematic issues should be emphasized. We should also partner with bigger organizations who have resources to help get people out of the issues we are facing.

Reflections of the Community Visit Team

- The community should know that there are many resources that exist to help with the issues they are discussing.
- Looking into model by-laws for housing development is a useful resource.
- Issues brought up in other forums, such as housing, should be kept in mind when moving forward with the working landscape forum.
- Ecotourism is a great way to build on the strengths of successful businesses to help the area's economy. It can be productive to accent strengths instead of trying to build new businesses and getting into new products.
- Look into USDA Farm Labor Housing loans to build new housing for/on farms.
- The lake wasn't mentioned as asset to community and economic development but seems to be a major asset to the area.
- Ag is changing, which is putting farms in a risky place, but VT has a strong reputation of innovation and quality production and Greensboro has the opportunity to build on this reputation.
- Highlighting the ag. tradition in Greensboro and marketing the town as place to come to celebrate these things might be useful in the town's future.
- The community should take advantage of existing resources, like VT Farm to School program and dairy programs that exist within schools, to further youth education of the working landscape.
- "Everyone benefits from VT working landscape, therefore everyone should contribute to its vitality."
- The community should look into a partnership with housing trusts.

Members of the community and the Visiting Team gathered for a potluck dinner at the Greensboro UCC church on Community Visit Day.

Additional Action Ideas

Here are the ideas residents contributed through a paper and online form

Opportunities: What Should Be Done?

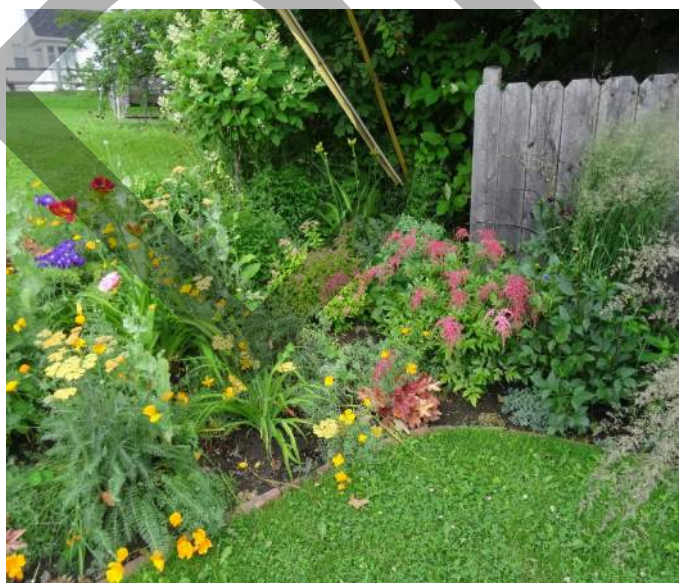
- Figure out how to communicate information for all of Greensboro. The church, Greensboro association, the bend, front porch forum communicate to only part of the summer or winter population. Move Willey's posters back by door. Figure out one online location for all Greensboro information.
- Be nice if the empty building in Greensboro Bend could be purchased and fixed up for people to rent. The old bend store use to have 4 apartments in there. So sad that the building is empty and not fixed up. The old garage could be finished torn down and a home probably could be built there. Might be able to get 4-6 apartments in that building site.
- Continue to engage.
- change the zoning so people can put up smaller houses on smaller plots
- allow Willeys to do the septic so they can make sandwiches
- For aging in place: Deferral of property tax payments until death or sale of property. To keep us from being forced out of our houses when we are in our 80s.
- Work to develop a Village Network model to support gaining in place. There are interesting variations of the Beacon Hill and other ones that are being created among a cluster of rural communities and a community with a large number of seasonal residents/those who retired to "vacationland."
- Caregiving is big.
- The State must recognize its impact on education for all those students not connected – the colleges are not solving the problems but asking for more internet work. As an instructor I do not have internet. Consolidated says "you are not eligible." I live on Center Road – a major road. I have to buy it from Verizon's Hot Spot program.
- The Café at HCA isn't inviting as a social gathering spot like a pub might be.
- It would be nice to see some sort of community arts/maker space with a wood shop, cnc machine, and pottery classes. People could come to make art, not just look at art.
- We should ban motorized boats on Caspian Lake.
- Learn how to assess your personal carbon footprint. Work with the Regional Youth Sustainability Initiative endorsed by the Hardwick Conservation Committee.
- We need to include the pollinators in our discretion about ag and life in general.
- The school is the soul of a community. The State Board of Education is mandating changes that would hinder bring younger families to town.
- Cohousing – either senior or intergenerational might be a great option to explore given the strength of the community and attachment to it.
- Renovation of existing houses.
- Tiny home buildup
- The café at HCA isn't inviting as a social gathering spot like a pub might be…
- Make Stanley Brooke into town accessible walking trail connected to other trails around Barr Hill.
- Build a roofed structure over the small village green opposite Willey's with tables for sitting, chatting, and drinking coffee, reading paper, etc. Add a portolet or compost toilet. Add a town septic system and a café – This would lead to a central place and Village regeneration!
- Develop the Lake Path into an informal recreation path for walking around the lake – avoiding the main roads with access at public beach.
- Connect to the Craftsbury Internet access project. Contact David Stoner who is a resident of both Craftsbury and Greensboro to explore connection.
- The HCA space is not fulfilling its potential because it is not warm to children and families…
- Build a bicycle path around the Lake or a path for bikes, walkers, and cross country skaters.
- Dedicated bike/walker paths not alongside roads.
- Welcome and support immigrants and new residents who can work on dairy farms and do other work such as painting, eldercare, carpentry where more workers are needed.
- Develop Wastewater treatment for both villages and around the lake.
- Improve fiberoptic access.
- Less restrictive zoning to encourage housing for younger families and aging folks.
- Enact policies that encourage business development and innovative/creative businesses.
- There was a ton of division in this town when the theater was imposed on us…
- Animate and renovate existing buildings in town for everything from the Town Hall (Spark) and Grange (maybe WonderArts – workshop/studio space) to other buildings to convert to apartments for housing.
- Rec trails throughout Greensboro that make our amazing natural resources accessible to everyone in Town.
- Wastewater and Internet.
- A paved, safe walking area may be possible on nursing home property (10 acres) for residents of the nursing home as well as community members.
- Community meals in the Bend or with Food Truck to help blend low income and Bend and Lake communities.
- A central rideshare site online.
- Help for low income folks to switch off fossil fuels – cars, transportation, and heating.
- More parking on Wilson Street in downtown.
- High Speed internet access throughout Town.
- Bike trail or walking trail along main roads.
- Imagine what we could do if the money we put into the 4th of July Fireworks were put into something useful.
- the foundation of this town's success is: lake water quality, maintaining quaintness of town, affordable high speed internet access for all and reliable cell service
- Petition the legislature to change the Wastewater permitting laws: Currently, many lake owners who convert their camps to winterized camps are not required to update legacy

wastewater systems that were in place before 2007, when the law changed. They skirt this/cheat to avoid the expense. We want the lake water quality--which is nosediving--to be saved. Every little bit counts. Too many homeowners are not good stewards of the lake --despite what they say--and the law allows this!!!

- High speed internet...the lack of reliable and fast connection hurts both businesses and schools. While the quality of life, in general, is absolutely wonderful, the town will be left behind if it does not allow people to operate in the same way as the rest of the world. Internet is a utility.
- Health...Greensboro should encourage healthier lifestyles, bucking the direction that the rest of America seems to be going. Walking, biking, skiing should be encouraged and supported. Sidewalks and bike lanes on paved roads. Help the Lamoille Valley Rail Trail complete its work, connecting Greensboro Bend with both St. J. and Burlington.
- It would be great if the Greensboro area was more open and encouraging of small businesses and ways people can make a living in this area. The community needs to find ways to attract the younger population to this area.
- The future of the working landscape.
- I'd advocate for informal continuing education for the working age, year around population. This might mean a small business incubator/ maker space for adults with access to business and design software and help from local volunteers who have time and skills. The town has got to help younger people, especially those with school-age children to stay on with credible home employment opportunities. Vocational training/ apprenticeships with local tradespeople with emphasis on the latest knowledge on things like deep energy retrofits and Passive House for housing. Organizations like Taunton Press's Green Building Advisor, the Rocky Mountain Institute, The Passive House Institute, and Vermont's own BuildingGreen Inc. are there with mostly free help with this stuff.
- Better job opportunities
- Try not to lose the uniqueness of the community. Support the rural farmers, make the shopping more suitable for year around people, less for those who come summer only. Keep the ambiance of the community. There is nothing like a town that quiets down at 8 or 9!! Improve cell phone service. Try not to lose the ground to solar panels and windmills. Have you ever stood beneath windmills? If the ground is taken over by solar, how will food be produced?
- Develop senior services
- strengthen/clarify Development Review Board regulations
- Develop septic systems in village for more public buildings.
- I would love to see a bike trail (bicycle) to connect Greensboro with other towns maybe all the way north? Wouldn't that be just so much fun?
- Enforce state law making trash burning illegal.
- Develop a tool and equipment sharing program. Store seldom used items in a common space where other Greensboro residents can use them on a sign-out basis. Small fee would be needed.
- Improve access to high speed internet. Slow speeds are prohibitive to working remotely in Greensboro. On a lucky day, I might exceed 1MB/Second which is 4% of what is called "high speed." It may cost too much for the region to install high speed internet.
- Conduct an inventory of all tributaries of Caspian Lake with a plan to preserve a buffer zone along these tributaries to protect the lake from non-point sources of pollution.
- Broadband internet service both for jobs and public safety.
- Keep Greensboro rural and the economy based on tourism.
- Join our schools with Craftsbury and not Hardwick.
- One concern I have is the current and future ability of the town road crew to keep up with heavy rain events clogging culverts and washing out roadsides and ditches. Despite what some in town may claim, the road crew has struggled to keep up with the roadsides and ditches the past few years. I'm not sure if this is bad luck, not putting down enough material when they grade a road, lack of priority, lack of training, or something else. Fixing it may require changing the road crew priorities, adding training on best practices, adding resources to the road crew, or some combination thereof.
- I'm concerned that the road crew and the selectboard are not doing enough to ensure that the town meets the new stormwater requirements for the Department of Environmental Conservation's Municipal Roads General Permit. This is a set of rules and a multi-year plan to implement stormwater and erosion mitigation measures on town roads. Per Act 64, towns are required to be enrolled no later than 2021...that's only two years from now.
- There have been a lot of complaints about speeding around town. Some of this may be the perception that there's a speed limit when there really isn't...outside of the paved roads, Greensboro Bend, the central village area, and Lakeshore and North Shore Roads, there are no speed limits on town roads, so it defaults to the state's 50mph limit. The other contributing factor is the general lack of enforcement that is done. There are really only two proven ways to limit speeding. First is engineering....narrowing traffic lanes, adding curves or speed humps or the like. Doing this would require either additional resources to the town road crew or acquiring state aid grants from VTrans. The other proven way is consistent enforcement. Right now, the town pays the Hardwick Police Department for the equivalent of about 20 hours a week...that's less than 3 hours a day and you're not going to get much enforcement from that. Unfortunately for town residents, unless they're willing to pay more in taxes to increase the town's contribution to Hardwick Police, they're not going to get much more for traffic enforcement, let alone consistent enforcement.
- Once completed, the Lamoille Valley Rail Trail (LVRT) will stretch 93 miles from Swanton to St. J and will pass through the Greensboro Bend. This represents both an opportunity for the town and a challenge. Besides being a good bike/ped facility for recreation, exercise, and health, it presents the opportunity to bring some bike tourism to the town. But that's where the challenge comes in. There is no good way to bike from the future LVRT to the middle of town. While there are paved roads, they have no shoulders which requires bicyclists to ride in the roadway. Though it would require considerable resources to accomplish, one opportunity would be to build either a bike/ped path or widen and pave the shoulders (4 foot minimum, 6+foot optimal). This could either be done on

The Bend Road down to the Bend, or work with the Town of Hardwick to implement it on Hardwick Street down to East Hardwick. The Bend Road would be shorter and completely within Greensboro, though Hardwick Street has less of a hill grade.

- Sidewalks in the central Greensboro village area are poor to non-existent. All of the sidewalk are narrow...4 feet or less...which doesn't meet Americans with Disabilities Act requirements (5ft minimum), while many are in old/crumbling condition. There is also no sidewalk fully connecting to the Town Hall or beyond the Lakeview Inn on Breezy Ave. Optimally, we would find the funds to improve our existing sidewalks to a minimum of 5 feet and to construct additional sidewalks extending fully to Town Hall as well as to the Nursing Home, Lakeview Union, the beach, the ballfield, and the Highland Center. This would increase both pedestrian activity and safety in town, with is associated health benefits.
- Many areas of town lack cell service, which both requires houses to retain landlines and is also a public safety issue. If one breaks down or has another issue in one of these dead zones, they can't call for help easily.
- We need to convince the major cell companies to install a tower somewhere in town that would cover the dead zones. Micro-towers may be an alternative here, but doing nothing because a tower may "ruin the view" is not a viable option.
- We should address high speed internet. Current options here are limited-to-nonexistent due to the rural nature of our town. Only the Bend has cable. And while there's a fiber-optic line serving the Library, very few of the other areas of town have that. Many houses in town are so far removed from the telephone junction boxes that DSL is impossible or extremely slow...ours didn't even meet the old FCC definition of broadband (4 megabits down), let alone the new definition (25 megabits). In the past few years, VTel Wireless has built towers in nearby areas and offers wireless internet....that's what we currently have at our house. But while we meet the current FCC definition, not everybody has line-of-sight access to these towers, plus their package plans have a monthly bandwidth limitation which effectively prevents us from using streaming services. Solving this will likely have to be part of the broader statewide action on rural Internet bandwidth.



- Most organizations in Greensboro, including and in particular the town government, are not making effective use of social media to get the word out on events, issues, and soliciting comment. This is a huge missed opportunity for the town and its organizations. I've heard some argue that Front Porch Forum is fine...but that requires an account just to read it (let alone post/comment). Facebook and Twitter do not require an account in order to read public posts. Print media is also cited by many in town, but that is very much a dying media in this day and age of the Internet. The Town and the selectboard should take a more active role on social media. It would help the town with communicating to those residents who don't get newspapers or a Front Porch Forum account and would be a quick and easy way for them to solicit feedback from town residents.
- Internet access and speed.
- Affordable Housing and related zoning.
- Central business district Central Sewer System.
- Build a fiber optic network, Need affordable housing for young families
- Singletrack mountain bike trails and to make a recreation trail around the lake to get people off the road. The upper part of Breezy Ave and the Craftsbury Road are horrible places to walk, run or bike. Fixing Greensboro's portion of the Lamoille Valley rail trail. Clean up Caspian Lake, the water quality seems to be going down. What's with the green slime?
- Waste management needs to be considered as without it several of the priorities cannot be accomplished
- Housing, Infrastructure (including septic) and Network, and Economic Development
- A bicycle touring center based in Greensboro with guided road rides of varying efforts throughout the NEK to local attractions (e.g., breweries/farms/general stores). The center could start with just guides and an assortment of routes, and perhaps some mechanical capacity to tune/repair customers' bikes. If successful, retail operations could be added (e.g., t-shirts and other memorabilia) or even bicycle rentals and/or sales. Options for a staging site within Greensboro or the Bend would need to be evaluated.
- Close the elementary school. It is absurd to keep the school open for just 90 students. They money should go to infrastructure improvements instead.
- Improve DSL – it hasn't improved since first installed.
- Bike lanes on Craftsbury road to E Craftsbury. This is a dangerous road for cyclists.
- Low-range cell towers on telephone poles on Craftsbury road.
- More housing is a top priority.
- More land conservation with the Greensboro Land Trust as a contributor.
- Keep the school open.
- Ensure safety for kids, whatever it takes.
- Housing

VII. Greater Greensboro Community Visit Participants

Nancy Akley
Ricky Albores
Trish Alley
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Lise Armstrong
Becky Arnold
Stew Arnold
Emmett Avery
Frank Baker
June Bascom
Margaret Bellak
Anna Belle Loeb
Pal Bickford
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Tony Irwin
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Ken Johnston
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Carolyn Kehler
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David King
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Dylan Laflam
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Lou Lepping
Jake Lester
Peggy Lipscomb
John Loeb
J Dirk Lorenz
Marian Lorenz
Rick Lovett
Jennifer Lucas
John Mackin
Jenn MacLean
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Gwen Mann
Nicole Mann
Meaghan Meachem
Mary Metcalf
Mike Metcalf
Sheldon Miller
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Lucy Mitchell
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Melissa Moffatt
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James Murdock
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Ezra Ranz-Schleifer
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Adam Rosenberg
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Janet Showers
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Wilhelmina Smith
Mark Snyder
Doug Steely
Karl Stein
Anne Stevens
Emily Stone
John Stone
Dave Stoner
Ed Sunday-Winters
Patti Sunday-Winters
Tanya Thomas
Sean Thomson
Ginny Toner
Janet Travers
Jerilyn Virden
Victoria Von Hessert
Sally Wallace
Mary White
Bill Whitman
Juoy Whitman
Sister Gail Worcelo
Leslie Wright
Mary Young
Sam Young
Wayne Young
and many more…

Victoria Von Hessert, Chair of the Greater Greensboro Community Visit

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Members of the Visiting Team enjoyed a briefing luncheon at the Highland Lodge before Community Visit Day forums.


WELCOME
TO
GREENSBORO
GHLAND LODGE


watch
give help get help
too. think & choose
reflect
try. try again
pause
go slow step by step

Vermont Council on Rural Development

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http://vtrural.org

THE Vermont Community Foundation

3 Court St., Middlebury, VT 05753
802-388-3355 | info@vermontcf.org
http://vermontcf.org

Hoyle, Tanner & Associates, Inc.

To: File
Project: Town of Greensboro, Vermont
Wastewater Implementation Preliminary Engineering Report
Subject: Kickoff Meeting Attendee List
Author: Aidan Short, EIT, Staff Engineer
Date: December 16, 2020

Kick-Off Meeting Attendee List

Dan Prepdall

Ed Sunday-Winters

Mateo Kehler

Peter Romans

Tim Nisbet

Mike Metcalf

Lynnette Claudon, State of VT ANR

Aidan Short, Hoyle, Tanner

John Reilly, Hoyle, Tanner

Appendix 2-1: Location Maps

Bend District

2,500 Feet

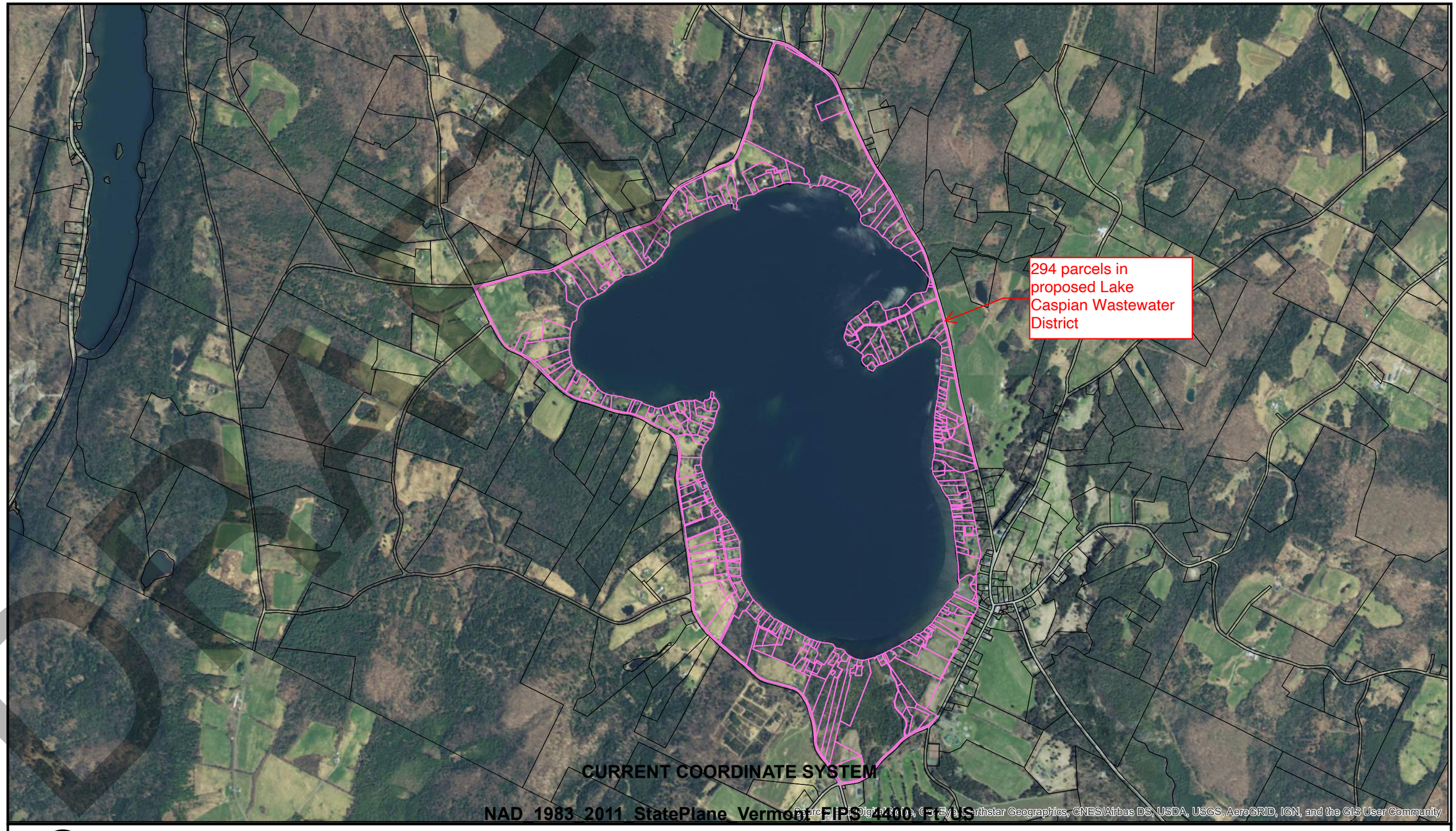
TOWN OF GREENSBORO, VERMONT
PROPOSED GREENSBORO BEND WASTEWATER DISTRICT

by: MMI

Hoyle, Tanner & Associates, Inc.

Date: July 21, 2020

Caspian Lake District



2,500 Feet

TOWN OF GREENSBORO, VERMONT
PROPOSED LAKE CASPIAN WASTEWATER DISTRICT

by: MMI

Hoyle, Tanner & Associates, Inc.

Date: July 21, 2020

Village District

2,500 Feet

TOWN OF GREENSBORO, VERMONT
PROPOSED VILLAGE WASTEWATER DISTRICT

by: MMI

Hoyle, Tanner & Associates, Inc.

Date: July 21, 2020

Hoyle, Tanner & Associates, Inc.

To: File
Subject: Town of Greensboro, Vermont
Wastewater Treatment Alternatives 60% PER
District Comparison Analysis Memo
Author: Aidan P. Short, EIT
Checked by: John D. Reilly, PE
Date: 3/15/2021

The Town of Greensboro, Vermont is considering municipal wastewater implementation in one of the following three Districts, the Caspian Lake District, the Village District, or the Bend District. Generalized, conceptual-level cost information for municipal wastewater collection, conveyance, treatment and effluent infiltration to serve each of the three districts will be developed herein. Municipal wastewater implementation cost per property served will also be estimated in each of the three districts. This information will be used by the Town to compare the potential relative costs of wastewater implementation in each of the three districts along with other need criteria to assist the Town in deciding which of the three districts the Town will select to complete additional more in-depth preliminary engineering investigations for implementation of municipal wastewater in the selected district.

The purpose of this memorandum is to develop potential comparative costs for wastewater implementation in each of the three Districts to assist the Town in deciding which District to select for further preliminary engineering efforts. It should be noted that the purpose of this memorandum is not to establish total project costs of wastewater implementation for the purposes of project budget setting. The actual costs of wastewater implementation will be higher or lower than described herein.

Municipal Wastewater Infrastructure Unit Cost Benchmark

As per the Town of Montgomery, Vermont – Wastewater and Streetscapes Preliminary Engineering Report – Supplement No. 1, dated June 19, 2020, prepared by Hoyle, Tanner & Associates, Inc., the Total Project Cost to construct a municipal community wastewater system to serve 165 parcels was estimated to be $11.8M. This wastewater system included grinder pump collection and conveyance, community septic tank treatment and treated effluent infiltration with a total capacity of 75,000 gpd. This municipal wastewater infrastructure project was used as a unit const benchmark because of the relative similarities between Montgomery and Greensboro. The Montgomery project collection and conveyance total project cost was

estimated to be $6,625,176, so the total project cost of treatment and effluent infiltration was estimated to be $5,174,824. The collection and conveyance infrastructure included 41,627 linear feet of collection and conveyance infrastructure. This indicates a collection and conveyance total project unit cost of approximately $159 per linear foot. The treatment and effluent infiltration total project cost was estimated to be approximately $69/gpd of wastewater capacity ($5,174,824/75,000 gpd = $69/gpd).

Wastewater Treatment and Treated Effluent Infiltration Infrastructure Total Project Cost Per Property Served in each District

The Village District has a proposed need of 30,000 gpd which corresponds to a treatment and effluent infiltration estimated total project cost of $2,070,000 at $69/gpd. Since the Village treated effluent infiltration area is approximately 1.25 miles southeast of the Village, a conveyance force main would be required at an additional estimated total project cost of $600,000. The total treatment and treated effluent infiltration estimated total project cost is therefore $2,670,000. With 106 properties, this corresponds to a total treatment and treated effluent infiltration estimated total project cost of approximately $25,000 per property.

The Bend District has a proposed need of 25,000 gpd which corresponds to a treatment and effluent infiltration estimated total project cost of $1,725,000. With 82 properties, this corresponds to a total treatment and treated effluent infiltration estimated total project cost of approximately $21,000 per property.

Parcel Size Analysis

The first district comparison was based on an analysis of parcel sizes. See below for Table 1, which contains parcel size summary statistics for each district.

Table 1: *Parcel size summary statistics for each of the three Greensboro districts*

Parcel Size Summary Statistics by District (in acres)							
District	Minimum	25th %ile	Median	Mean	75th %ile	Maximum	# of Parcels
Bend	0.141	0.513	1.54	6.48	5.11	64.0	76
Lake	0.013	0.381	0.90	2.80	2.05	135	277
Village	0.054	0.439	1.04	6.07	4.08	133	94

*Analysis excludes parcels with small minority of total area falling within District boundary

The Lake District evidently has the smallest average parcel size of the three districts as measured by both median and mean, though it also contains the single largest parcel in the entire study area. The Bend District has the largest average parcel size of the three districts as

measured by both median and mean, though its largest single parcel is smaller than those of the Lake and Village Districts. The Village District is in the middle for both measures of average parcel size, though the median size is much closer to the Lake District while the mean parcel size is nearly as high as the mean parcel size for the Bend District.

It should be noted that this analysis excluded parcels with only a small percentage of the area falling within each district. A good example of this is the properties along Stanley Brook on the northeast edge of the Village District. A number of properties had small sections falling within the district, though the large majority of their area (and any structures) did not fall within the district boundary. This explains the slight variation in parcel counts as compared to the district maps provided by the Town.

Smaller parcels would theoretically require shorter service connection lengths to wastewater conveyance within the town right-of-way (ROW). This analysis indicates that the Lake District would likely have the shortest average connection length, while the Bend District would have the longest average connection length. However, the greater number of parcels in the Lake District suggests that the total length of service connections would be much greater than the other two districts, which would be more likely to have a similar total connection length. A more detailed assessment of the estimated service connection lengths and costs is discussed below in the following section.

Service Connection Length and Cost Analysis

A GIS analysis was performed to estimate wastewater collection and conveyance lengths and costs for each of the three districts. Estimation of lengths of service connections (wastewater collection) was based on the distance between each individual building and the closest point on a road. Estimation of conveyance lengths for buried low pressure wastewater force mains in the Town ROW, was based on the total length of roads within each district multiplied by a factor of 0.8. The collection and conveyance lengths were summed together for each district and multiplied by a unit cost of $159/linear foot (LF) of pipe length. This unit cost is based on a completed design for a similar project. Summaries of the total costs and the connection lengths by district are shown below in Tables 2 and 3.

Table 2: *Summary of estimated collection and conveyance lengths and costs for each Greensboro district*

Wastewater Collection and Conveyance Cost Summary					
District	Total Connection Length (ft)	Town ROW Conveyance Length (ft)	Total Cost	# of Parcels	Cost per Parcel
Bend	13,240	15,361	$4,547,472	82	**$55,457**
Lake	33,119	48,433	$12,966,785	294	**$44,105**
Village	11,982	13,309	$4,021,361	106	**$37,937**

Table 3: *Summary statistics for service connection lengths in each Greensboro district*

Connection Length Summary Statistics (in ft)							
District	Minimum	25th %ile	Mean	Median	75th %ile	Maximum	# of Connections
Bend	30	60	118	82	130	467	111
Lake	7	62	132	102	159	863	249
Village	29	72	116	99	139	550	103

*Excludes any building footprints of <600 SF, assuming small buildings will not have service connections

This analysis indicates that implementing a wastewater collection system (excluding treatment) in the Lake District would be significantly more expensive than doing so in the other two districts, with a total estimated cost of nearly $13 million. The cost estimate for the Bend District is the second highest at approximately $4.55 million, while the Village District has the lowest estimated cost of just over $4 million. However, disparities in parcel counts between the districts means that the highest per parcel cost is actually in the Bend District at about $55,000/parcel. The Lake Caspian District has the second highest cost, at approximately $44,000/parcel, and the Village District has the lowest cost of approximately $38,000/parcel.

This analysis indicates that the prediction of the parcel size analysis that the Lake District would have the shortest service connections was proven to be untrue, and it would actually have the longest average service connection length. This is most likely due to building placement within parcels, with structures generally being more distant from roads than those of the other two districts. The Bend and Village Districts would have similar estimated average service connection lengths.

It is worth noting that the number of connections for this analysis is based on the number of total buildings in each district rather than the number of parcels. There are a number of parcels with multiple buildings and others with no buildings. To account for this, it was assumed that any building with a footprint area of less than 600 ft^2 would not receive a service connection, and all of those buildings were excluded from the analysis. This explains the disparity between the number of service connections for each district indicated in this section and the number of parcels for each district indicated in the previous section. While this was used for the total collection and conveyance cost in each district, the total number of parcels in each district as provided by the Town was used for the cost estimates per parcel.

Development Potential Analysis and Mapped Wetland Constraints

The potential for future development in parcels containing mapped wetlands was assessed for this final analysis section. This examined the potential for development in parcels which contain

mapped wetlands for each of the three Greensboro districts. The analysis was based on the National Wetlands Inventory (NWI). This is a publicly available resource from the US Fish and Wildlife Service (FWS) which provides detailed mapped wetlands information for the entire United States. The NWI was downloaded as a data set and analyzed using GIS for this assessment. It should be noted that these resources include mapped wetlands. Actual field delineation of wetlands would be required to more accurately assess the presence or absence of wetlands on specific properties.

See Tables 4 and 5, shown below, for a breakdown of wetlands information in each district.

Table 4: *Mapped wetlands analysis for parcels in each of the three Greensboro districts*

	Bend District	**Lake District**	**Village District**
Parcels with Mapped Wetlands	23	3	19
Total # Parcels	76	277	94
% Parcels with Mapped Wetlands	30.26%	1.08%	20.21%
	Bend District	**Lake District**	**Village District**
Parcels with >50% Mapped Wetlands	5	0	1
Total # Parcels	76	277	94
% Parcels with >50% Mapped Wetlands	6.58%	0.00%	1.06%
	Bend District	**Lake District**	**Village District**
Parcels with >25% Mapped Wetlands	11	0	5
Total # Parcels	76	277	94
% Parcels with >25% Mapped Wetlands	14.47%	0.00%	5.32%

Table 5: *Development constraints due to mapped wetlands for each of the three districts*

	Bend District	**Lake District**	**Village District**
Parcels with Lesser Constraints for Development	8	1	6.5
Parcels with Considerable Constraints for Development	15	2	12.5
Total # Parcels	76	277	94
% Parcels with Considerable Constraints due to Mapped Wetlands	19.74%	0.72%	13.30%

This analysis indicates that mapped wetlands are more prevalent in the Bend District than in the Village District, while there is very little presence of mapped wetlands in the Lake District. Approximately 30% of Bend District parcels, 20% of Village District parcels, and 1% of Lake District parcels contain some mapped wetlands area. Further analysis revealed that 14.5% of Bend District parcels were more than 25% mapped wetlands by area, while about 6.6% were more than 50% mapped wetlands by area. This is juxtaposed by approximately 5.3% of parcels with over 25% wetlands by area and 1.1% of mapped wetlands with over 50% mapped

wetlands by area in the Village District and no parcels with over 25% mapped wetlands by area in the Lake District.

For the purpose of this analysis, parcels containing mapped wetlands were considered suitable for residential development (lesser constraints) if they had less than 50% mapped wetlands by area, contained no existing building, and were zoned as 'Residential', 'Seasonal', or 'Mobile Home'. They were considered suitable for commercial development (lesser constraints) if they had less than 25% mapped wetlands by area, contained no existing building, and were zoned as 'Commercial'. This is based on the assumption that a commercial development would likely require more land area than a residential one. If any parcel satisfied the mapped wetlands area and zoning requirements but did contain an existing building, development was considered 'Possible'. This meant that they were weighted as equal to half of a suitable parcel, or that two 'Possible' parcels for development equaled one suitable parcel with lesser constraints. This analysis resulted in 15, 12.5, and 2 parcels not meeting any of these requirements and being considered as having considerable constraints for development in the Bend, Village, and Lake Districts, respectively. Overall, mapped wetlands are considerable constraints to development on approximately 20% of Bend District parcels, 13% of Village District parcels, and 1% of Lake District parcels.

Initial Soil Screening Memorandum

An initial analysis of soil suitability for treated effluent infiltration is described in the was discussed in the Initial Soils Infiltration Areas Screening Memorandum, dated December 2, 2020, prepared by Hoyle, Tanner & Associates, Inc. Further analysis indicates that the Bend District has by far the best potential soils for onsite sewage disposal, while the Village District soils are a distant second and the Caspian Lake District soils are even less suitable. See a breakdown of this below in Table 6.

Table 6: *Percentage of District area with each Onsite Sewage Disposal Rating*

Onsite Sewage Disposal Rating	**% of District Area by Rating**		
	Bend District	Lake District	Village District
I - Well Suited	37%	0%	0%
II - Moderately Suited	30%	33%	48%
III - Marginally Suited	5%	20%	38%
IV - Not Suited	28%	47%	13%
Total:	100%	100%	100%

Onsite sewage disposal rating, as shown in Table 6, takes into account soil type, permeability, and slopes, among several other factors, and assigns an overall rating. Class I – Well Suited

indicates the areas best suited for onsite sewage disposal, while Class IV – Not Suited indicates the areas that would not be appropriate for any type of onsite sewage disposal.

It is clear from this analysis that the Bend District has the most suitable mapped soils for onsite sewage disposal, with nearly 40% of its area being well suited and 30% being moderately suited, though nearly another 30% of the area is also unsuited for onsite sewage disposal. The Village District has the second most suitable mapped soils of the three districts, with moderately suited soils comprising nearly 50% of its area, marginally suited soils comprising nearly another 40%, and less than 15% being unsuitable for onsite sewage disposal. The Caspian Lake District is the least suited for onsite sewage disposal, with a little over 50% of its area being either moderately or marginally suited for onsite sewage disposal and nearly another 50% being unsuitable.

While the more suitable mapped soils in the Bend District potentially provide additional locations for possible municipal wastewater implementation, it also provides greater potential for individual properties to continue using individual on-site septic systems and/or construct replacement individual on-site septic systems. In the Village and the Caspian Lake Districts, the less suitable soils present higher constraints for business or homeowners who need to implement private wastewater management systems. This suggests a greater need for implementing municipal wastewater collection in these locations, which could provide development opportunity for parcels on which this is otherwise not feasible. This also means that development is more feasible without municipal wastewater in the Bend District, where business and property owners have a greater potential for implementing individual or cluster wastewater management systems.

While the Bend District has the most suitable soils, there is also a local wellhead protection area (WHPA) for a well which supplies public water. Municipal wastewater infiltration is not a good option within this area. Table 7, shown below, breaks down the WHPA and its impact on areas of onsite sewage disposal ratings within the Bend District.

Table 7: *WHPA within Bend District*

Onsite Sewage Disposal Rating	Total Area (ac)	Area within WHPA (ac)	Area outside WHPA (ac)	Area outside WHPA (%)
I - Well Suited	120	76	44	14%
II - Moderately Suited	96	31	65	20%
III - Marginally Suited	15	8	7	2%
IV - Not Suited	92	20	72	22%
Total:	323	135	188	58%

This analysis indicates that although Class I and II onsite sewage disposal rating areas make up the majority of the Bend District, about half of that area falls within the WHPA. Still, over one-third of the total Bend District area is either Well Suited or Moderately Suited for onsite sewage disposal and is also outside the WHPA. While the WHPA does present considerable constraints for municipal wastewater infiltration implementation, most of the district is still suitable for consideration of individual or cluster wastewater management systems.

Total Cost

As indicated in the Initial Soils Infiltration Areas Screening Memorandum, dated December 2, 2020, prepared by Hoyle, Tanner & Associates, Inc. no potential treated effluent infiltration areas were identified within the Caspian Lake District with suitable mapped soils for 25,000 gpd municipal wastewater implementation. As a result, its treatment cost was not estimated. See below for Table 8, which indicates that the potential comparative wastewater implementation cost for the Village District is approximately 17% less than the Bend District.

Table 8: *Estimated total costs for Bend and Village Districts*

District	Comparative Wastewater Implementation Total Cost per Parcel
Bend	$76,000
Village	$63,000

It should be reiterated that the purpose of this memorandum is to develop potential comparative costs for wastewater implementation in each of the three Districts to assist the Town in deciding which District to select for further preliminary engineering efforts. It should be noted that the purpose of this memorandum is not to establish total project costs of wastewater implementation for the purposes of project budget setting. The actual costs of wastewater implementation will be higher or lower than described herein.

Hoyle, Tanner & Associates, Inc.

To: Dan Predpall, Greensboro Sewer Committee
Project: Town of Greensboro, Vermont
Wastewater Study
Subject: Septic Survey Guidance
Author: John D. Reilly, PE, Project Manager
Date: August 21, 2020

1) Select sewer committee volunteers that have a good rapport with property owners in the proposed service area to complete the survey.
2) Clarify the following with property owners:
   a) The Town is completing a study to determine if it is feasible to build a Town owned wastewater system to replace failing or poorly functioning septic systems in the Lake, Village or Bend Districts.
   b) The Town is completing a septic survey to assess the performance of septic systems in these areas.
   c) The purpose of the survey is to determine the extent of problems. It is not to be used in enforcement action.
   d) To protect private property owner privacy, the Town will not share private property owner names, or specific addresses of survey respondents.
   e) If the Town discovers that malfunctioning or poorly performing septic systems are resulting in environmental or public health risks, then the costs of a Town owned wastewater system to replace septic systems could be eligible for up to 75% or more in grant funding.
3) The septic survey should be more of a conversation than asking explicit questions and recording answers. Consider the following to get the conversation started:
   a) Have you ever had any problems with your septic system?
   b) Have you or a member of your family ever observed wet areas in your lawn or property, particularly in the spring or after large family gatherings that may have resulted from your septic system? Is the water discolored?
   c) Have you or a member of your family ever observed foul odors that you wondered might be from your septic system.
   d) Have you ever experienced a clogged septic system?
   e) How often do you pump your septic tank?
   f) Have you ever had to have your septic system repaired?
   g) Do you know when your septic system was constructed?
   h) Can you describe the location and components of your septic system?
   i) Do you know what kind of septic system you have, eg. mound, leachfield?
   j) Have you ever considered replacing your septic system? If so, do you have a cost estimate for replacement? Do you think your property can support a replacement septic system that meets current septic system rules? What size property do you have?
   k) In consideration of how you would like to you use your property now and in the future, do you believe your septic system is adequate to serve your property now and in the future?

If an economical Town owned wastewater system could be planned, do you think it would be beneficial to you in how you would like to use your property?

l) Is there anyone else in your family that may be willing to share more information about your septic system performance?

4) Attached is an example septic system survey report prepared by sewer committee members of another community considering a Town owned wastewater system to replace failing septic systems on small lots. Note that property owner names are redacted but the general vicinity of the property is indicated. Notes regarding the relevant points of the conversation with each property owner are indicated, however, it is not simply a record of questions and answers, but rather, a conversation. Note the date of the interview.
5) Interviews of the Town Health Officer are also a good source of information, especially if a record of Health Officer reports of property visits are retained.

TOWN of Montgomery
Septic Status Interview Summary
Interviews conducted by Stercus Committee Members

[redacted] (Commercial, Main St., Center)—Property owner indicates past issues with tank/baffles allowing groundwater infiltration into system, combined with high water table resulting in regular surface pooling and seepage of effluent. Owner has new system engineered and permits in place, with replacement pending at cost of $65,000. System observed by interviewer, presently exposed with temporary steel cover.

[redacted] (Commercial, Main St. Center)—entire system replaced in 2018 with Peet Filter System (mound systems, effluent filter, tank, pump station). Business owner indicates they are still having issue with tanks fill too quickly, not allowing property drainage of effluent tank, causing gas to back up into the structure. Odors have been identified by both owner and patrons. *Interview date 4/8/20, odors noted by Interviewer*

[redacted](Municipal, Main St. Center)—unclear whether current 1000 gallon concrete tank is connected to a Leech Field or Dry Well. Owner indicates that no records of system are on file at town office. Interviewee suggested that the system may be been tied into former leech field of business referenced above, but existing paved lot precludes inspection. *Interview date 4/9/20*

[redacted](Residential, Rt. 58); direct discharge of effluent from pipe into river reported to town Health Officer Summer 2019. Flush dye testing determined this residence to be connected to pipe by process of elimination (working with adjacent owners), but property owner refused to allow entry to check system. Status/design of system still unknown. *Health Officer Interviewed April 5th* ***Note: exposed pipe drains into direct vicinity of Third Hole swimming hole(s) and natural area. Swimming areas are found both upstream and downstream of site.***

[redacted](Residential, Main St. Center)—Property owner indicates periodic pooling of discolored water/effluent on rear lawn every spring associated with smell. Assumes tank to be disconnected from leach field, but has not pursued due to prohibitive cost *Interview date 4/1/2020*

[redacted](Residential, North Main St. Center)—Property owner indicates odors during spring. Former gray water system is now tied into septic. Owner expressed concern over design capacity (adding sinks, washer, shower, etc. to system designed to handle lower volume). *Interview date 4/2/2020.* ***Note: Parcel with river frontage, located upstream from popular swimming hole, approximately 450 ft. downgradient from leech field.***

Note: this (gray water system now tied to septic) is likely the case with all six former mill homes found here as they were built at the same time with almost identical design specs.

[redacted](Commercial, Main St. Center)—Owner indicates that septic tank is tied to dry well, which is functional, however observes periodic leakage from second dry well which services floor drains during winter months (related to interior snow melt from machinery). *Interview date 4/7/2020*

[redacted](Residential, Deuso Road, Village)—Owner indicated that tank was disconnected from leech field in2005 and no longer functional. House not presently occupied, but is zoned for commercial or residential). *Interview date 4/7/2020*

[redacted](Commercial Lodging, Center)—Owner indicates that property has undersized (per # apartments/bedrooms) holding tank with no concrete baffle system in it. *Interview date 4/9/2020*

[redacted](Commercial Lodging, Center)—Owner indicates that design and status of the system is completely unknown, has noted periodic pooling of effluent on rear lawn every spring associated with smell. *Interview date 4/9/2020*

[redacted](Residential, Rt. 58, Center)—Owner indicates that system is comprised of drywell/seepage pit. Owner reports seepage of discolored water with odor when large volume of water is run at residence. *Interview date 4/9/2020*

[redacted](residential, North Main St., Center)—Owner indicates that leech field condition, size, and location unknown. System was one of few with river frontage not replaced after 1997 flood due to transitioning ownership status at the time. Owner has not pursued investigation due to potential cost. *Interview date 4/9/2020.* ***Note: Parcel is located directly adjacent popular swimming hole, approximately 250 ft. downgradient from structure.***

[redacted](municipal, North Main St., Center)—Owner indicates that system is comprised of holding tank with no leech field. Owner reports there is periodic odor during periods of heavy public use. *Interview date 4/9/2020.*

[redacted](Residential, Deuso Road, Village)—Owner indicates past issues with backing up into structure. Also expressed concern with apparent past discharge directly into adjacent brook noted during past flooding/high water events (Irene, Halloween 2019, etc.) *Interview date 4/6/2020.*

Appendix 3-3: Community Septic Survey Results

Bend District

Wastewater Survey

Difficulty of disposing of wastewater/septage has been identified as a major limiting factor to housing and commercial development in both Greensboro and Greensboro Bend villages and as a possible threat to water quality in Caspian Lake, Caspian Brook and the Lamoille River.

Federal and state grants are available to determine what systems might most efficiently address and mitigate these concerns. In order to apply for such grant-funding, we must do a preliminary survey about need and interest in the process. (Wolcott and Burke are among other local towns a few steps ahead of Greensboro in addressing these issues.)

The information gathered in this survey will be used to inform the feasibility study; as the process advances, it may be necessary to gather more specific information about each septic system in the target areas.

Please be as accurate as possible in responding. You may turn in this completed survey at town meeting (HCA, 3 March, 2020) or at the town clerk's office during office hours, or by mail at "Wastewater Survey, Greensboro Town Clerk, PO Box 119, Greensboro, VT 05841."

Please check *all* appropriate boxes.

Property

E 911 address of your property (street and number) 245 Canyon Dr.

The property is a ☐ business — How many people are regularly present on a business day? _____

The property is a ☒ year-around residence — How many live here? 1

☐ seasonal residence — How many live here, (when occupied)? _____

The property is ☐ vacant land

Septic System

☒ septic tank ☒ leach field ☐ dry well ☐ mound system ☐ unknown

Do you have it pumped regularly? Yes If known, when was it last pumped 4yrs

Do you favor the town investigating the feasibility of addressing wastewater issues? yes

If infrastructure was put in place, would you be interested in hooking up your property yes

Do you have concerns, issues, limitations? _____

Name: Kim Greaves

mailing address (if different from above) 245 Canyon Dr., Greensboro

phone number 802-533-2508 e-mail address craftg.com@comcast.net

Wastewater Survey

Difficulty of disposing of wastewater/septage has been identified as a major limiting factor to housing and commercial development in both Greensboro and Greensboro Bend villages and as a possible threat to water quality in Caspian Lake, Caspian Brook and the Lamoille River.

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Please check *all* appropriate boxes.

Property

E 911 address of your property (street and number) 312 MAIN ST. (GREENSBORO BEND)

The property is a ☐ business — How many people are regularly present on a business day? _____

The property is a ☑ year-around residence — How many live here? 4

☐ seasonal residence — How many live here, (when occupied)? _____

The property is ☐ vacant land

Septic System

☑ septic tank ☑ leach field ☐ dry well ☐ mound system ☐ unknown

Do you have it pumped regularly? Yes If known, when was it last pumped 01/2019

Do you favor the town investigating the feasibility of addressing wastewater issues? YES

If infrastructure was put in place, would you be interested in hooking up your property NO

Do you have concerns, issues, limitations? _____

Name: BARBARA BROOKE

mailing address (if different from above) _____

phone number _____ e-mail address zoebarbrooke@aol.com

Wastewater Survey

Difficulty of disposing of wastewater/septage has been identified as a major limiting factor to housing and commercial development in both Greensboro and Greensboro Bend villages and as a possible threat to water quality in Caspian Lake, Caspian Brook and the Lamoille River.

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Please check *all* appropriate boxes.

Property

E 911 address of your property (street and number) 1066 Main St. G-Bend

The property is a ☐ business — How many people are regularly present on a business day? _____

The property is a ☑ year-around residence — How many live here? 1

☐ seasonal residence — How many live here, (when occupied)? _____

The property is ☐ vacant land

Septic System

☐ septic tank ☑ leach field ☐ dry well ☐ mound system ☐ unknown

Do you have it pumped regularly? Yes If known, when was it last pumped 2 yrs

Do you favor the town investigating the feasibility of addressing wastewater issues? Yes

If infrastructure was put in place, would you be interested in hooking up your property Yes

Do you have concerns, issues, limitations? _____

Name: Mark Snyder

mailing address (if different from above) 1066 Main St. G-Bend

phone number 533 9939 e-mail address _____

Wastewater Survey

Difficulty of disposing of wastewater/septage has been identified as a major limiting factor to housing and commercial development in both Greensboro and Greensboro Bend villages and as a possible threat to water quality in Caspian Lake, Caspian Brook and the Lamoille River.

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Please check *all* appropriate boxes.

Property

E 911 address of your property (street and number) 1114 Main ST Greensboro Rd

The property is a ☐ business — How many people are regularly present on a business day? _____

The property is a ☑ year-around residence — How many live here? _____

☐ seasonal residence — How many live here, (when occupied)? _____

The property is ☐ vacant land

Septic System

☑ septic tank ☑ leach field ☐ dry well ☐ mound system ☐ unknown

Do you have it pumped regularly? yes If known, when was it last pumped fall 2019

Do you favor the town investigating the feasibility of addressing wastewater issues? yes

If infrastructure was put in place, would you be interested in hooking up your property Maybe

Do you have concerns, issues, limitations? _____

Name: Michelle Laflam

mailing address (if different from above) _____

phone number 802-696-9014 e-mail address michelle laflam@yahoo.com

Wastewater Survey

Difficulty of disposing of wastewater/septage has been identified as a major limiting factor to housing and commercial development in both Greensboro and Greensboro Bend villages and as a possible threat to water quality in Caspian Lake, Caspian Brook and the Lamoille River.

Federal and state grants are available to determine what systems might most efficiently address and mitigate these concerns. In order to apply for such grant-funding, we must do a preliminary survey about need and interest in the process. (Wolcott and Burke are among other local towns a few steps ahead of Greensboro in addressing these issues.)

The information gathered in this survey will be used to inform the feasibility study; as the process advances, it may be necessary to gather more specific information about each septic system in the target areas.

Please be as accurate as possible in responding. You may turn in this completed survey at town meeting (HCA, 3 March, 2020) or at the town clerk's office during office hours, or by mail at "Wastewater Survey, Greensboro Town Clerk, PO Box 119, Greensboro, VT 05841."

Please check *all* appropriate boxes.

Property

E 911 address of your property (street and number) 1160 Main St

The property is a ☑ business — How many people are regularly present on a business day? 45-50

The property is a ☐ year-around residence — How many live here? _____

☐ seasonal residence — How many live here, (when occupied)? _____

The property is ☐ vacant land

Septic System

☑ septic tank ☑ leach field ☐ dry well ☐ mound system ☐ unknown

Do you have it pumped regularly? Yes If known, when was it last pumped New system, fall 2019

Do you favor the town investigating the feasibility of addressing wastewater issues? _____

If infrastructure was put in place, would you be interested in hooking up your property No

Do you have concerns, issues, limitations? _____

Name: Four Seasons of Early Learning

mailing address (if different from above) 1160 Main St

phone number 533-2261 e-mail address _____

Bend

Wastewater Feasibility Survey

Difficulty of disposing of wastewater/septage has been identified as a major limiting factor to housing and commercial development in both Greensboro and Greensboro Bend villages and as a possible threat to water quality in Caspian Lake, Caspian Brook and the Lamoille River.

Greensboro is completing a study to determine if it is feasible to build a district-owned system to replace failing or poorly functioning septic systems in the two villages and areas around the south end of Caspian Lake.

The survey is intended to assess the performance of septic systems in these areas - and to determine the extent of the problems - it is not to be used for enforcement actions.

To protect property-owner privacy, the Town will not share owner names or specific addresses of survey respondents.

If the survey discovers that malfunctioning or poorly performing systems are resulting in environmental or public health risks, then the costs of a Town-owned wastewater system to replace septic systems could be eligible for up to 75% or more in grant-funding.

Property Information

E 911 address of your property (street and number) 312 Main St, Bend

Contact person(s) Barbara Brooke

Contact phone number _____ E-mail address _____

Mailing Address _____

_____

The property is a ☐ business — How many people are regularly present on a business day? _____

The property is a ☐ year-around residence — How many live here? _____

☐ seasonal residence — How many live here, (when occupied)? _____

The property is ☐ vacant land

What is the size of the property (in acres)? _____

The questions on the back of this page are intended to start the discussion. You may attach additional pages of comments. As the committee gathers survey information, the identification of potential health risks can help qualify the Town for increased grant funding.

We will NOT be sharing private property names and addresses - this survey is intended to make our application for grant funding as persuasive as possible.

Thank You!

The septic survey should be more of a conversation than asking specific questions and recording of answers.

a) Have you ever had any problems with your septic system? Yes, with pipe from house to tank - caused by frost action

b) Have you or members of your family ever observed wet areas in your lawn or property - particularly in the spring or after large family gatherings - that could be tied to the septic system? Is the water discolored?
no

c) Have you ever observed foul odors that might be coming from the septic system? no

d) Have you ever experienced a clogged septic system? When? yes - 4 years (?)

e) How often do you pump your septic system? every 2 years

f) Have you ever had to have the septic system repaired? yes

g) Do you know when the septic system was constructed? 1998

h) Can you describe the location and components of the septic system? concrete tank / leach field

i) Do you know what kind of septic system you have? (mound, leachfield, holding tank) concret tank / leach field

j) Have you ever considered replacing your septic system? no If so, do you have a cost estimate for replacement? _____ Do you think your property can support a replacement system that would meet current septic system rules? yes

k) In consideration of how you would like to use your property now and in the future, do you believe your septic system is adequate to serve your property now and in the future?
yes

If an economical Town-owned wastewater system could be planned, do you think it could be beneficial to you in how you would like to use your property?
not probably

l) Is there anyone else in your family who may be willing to share more information about your septic system performance?
no

Bend

Wastewater Feasibility Survey

Difficulty of disposing of wastewater/septage has been identified as a major limiting factor to housing and commercial development in both Greensboro and Greensboro Bend villages and as a possible threat to water quality in Caspian Lake, Caspian Brook and the Lamoille River.

Greensboro is completing a study to determine if it is feasible to build a district-owned system to replace failing or poorly functioning septic systems in the two villages and areas around the south end of Caspian Lake.

The survey is intended to assess the performance of septic systems in these areas - and to determine the extent of the problems - it is not to be used for enforcement actions.

To protect property-owner privacy, the Town will not share owner names or specific addresses of survey respondents.

If the survey discovers that malfunctioning or poorly performing systems are resulting in environmental or public health risks, then the costs of a Town-owned wastewater system to replace septic systems could be eligible for up to 75% or more in grant-funding.

Property Information

E 911 address of your property (street and number) 245 Canyon Dr, Bend

Contact person(s) Kim Greaves

Contact phone number 533-2430 E-mail address _____

Mailing Address _____

_____

The property is a ☐ business How many people are regularly present on a business day? _____

The property is a ☐ year-around residence How many live here? _____

☐ seasonal residence How many live here, (when occupied)? _____

The property is ☐ vacant land

What is the size of the property (in acres)? _____

The questions on the back of this page are intended to start the discussion. You may attach additional pages of comments. As the committee gathers survey information, the identification of potential health risks can help qualify the Town for increased grant funding.

We will NOT be sharing private property names and addresses - this survey is intended to make our application for grant funding as persuasive as possible.

Thank You!

The septic survey should be more of a conversation than asking specific questions and recording of answers.

a) Have you ever had any problems with your septic system? Yes, with pipe from house to tank - caused by frost action

b) Have you or members of your family ever observed wet areas in your lawn or property - particularly in the spring or after large family gatherings - that could be tied to the septic system? Is the water discolored?
no

c) Have you ever observed foul odors that might be coming from the septic system? no

d) Have you ever experienced a clogged septic system? When? 2015

e) How often do you pump your septic system? every 4 years

f) Have you ever had to have the septic system repaired? yes

g) Do you know when the septic system was constructed? 2015

h) Can you describe the location and components of the septic system? concrete tank / leach field

i) Do you know what kind of septic system you have? (mound, leachfield, holding tank) concrete tank / leach field

j) Have you ever considered replacing your septic system? no If so, do you have a cost estimate for replacement? _____ Do you think your property can support a replacement system that would meet current septic system rules? yes

k) In consideration of how you would like to use your property now and in the future, do you believe your septic system is adequate to serve your property now and in the future?
yes

If an economical Town-owned wastewater system could be planned, do you think it could be beneficial to you in how you would like to use your property?
not probably

l) Is there anyone else in your family who may be willing to share more information about your septic system performance?
no

Bend

A town committee is investigating the potential for a community wastewater system. It is essential for new and existing businesses and residences that lack adequate options in both Greensboro and Greensboro Bend.

The Wastewater Committee is conducting a survey to gauge potential interest and need in both villages and along the southeastern Caspian lakeshore. This survey will assist in determining the best potential location for a system serving one of these three areas. Through a USDA-funded grant, we have hired an engineering firm to finalize this decision based on this survey, soils, available property, etc. This system would probably be a relatively discreet in-ground installation.

Answers to these questions will not be shared and are for information purposes only. There is no obligation. Thank you so much for helping us determine the best way to proceed. Please respond by Monday, February 22nd. Please answer and put it in our drop box outside the office door or at Smith's Store in Greensboro Bend. Again, thank you.

Street address of residence or business: 905 Main, Greensboro Bend

Owner, or preferred contact person: Rachelle & Lincoln Miller

Best way to contact (please include phone or email or postal address: 533-2477

1) This building is (please check your answer) : X year-round residence __ seasonal residence __ business

Typical number of occupants 2

If not full-time, do you rent when not occupying the home? no

If a business, how many employees are typically on site? _____

2) Do you know much about your existing septic system? YES

Are you experiencing any problems with your septic system? NO

3) Do you know when your system was built or repaired?

4) Have you priced a replacement septic system that complies with current state law? NO

5) In considering how you would like to use your property, do you believe that your septic system is adequate to serve the property - now and in the future?

Yes

6) If a community wastewater system is built, and the cost is reasonable, are you possibly interested in connecting to it?

Again, thank you so much for your response.

Caspian Lake District

Wastewater Survey

Difficulty of disposing of wastewater/septage has been identified as a major limiting factor to housing and commercial development in both Greensboro and Greensboro Bend villages and as a possible threat to water quality in Caspian Lake, Caspian Brook and the Lamoille River.

Federal and state grants are available to determine what systems might most efficiently address and mitigate these concerns. In order to apply for such grant-funding, we must do a preliminary survey about need and interest in the process. (Wolcott and Burke are among other local towns a few steps ahead of Greensboro in addressing these issues.)

The information gathered in this survey will be used to inform the feasibility study; as the process advances, it may be necessary to gather more specific information about each septic system in the target areas.

Please be as accurate as possible in responding. You may turn in this completed survey at town meeting (HCA, 3 March, 2020) or at the town clerk's office during office hours, or by mail at "Wastewater Survey, Greensboro Town Clerk, PO Box 119, Greensboro, VT 05841."

Please check *all* appropriate boxes.

Property

E 911 address of your property (street and number) 115 Cheney Rd

The property is a ☐ business — How many people are regularly present on a business day? _____

The property is a ☐ year-around residence — How many live here? _____

☑ seasonal residence — How many live here, (when occupied)? 2

The property is ☐ vacant land

Septic System

☑ septic tank ☐ leach field ☑ dry well ☐ mound system ☐ unknown

Do you have it pumped regularly? No If known, when was it last pumped will do this summer

Do you favor the town investigating the feasibility of addressing wastewater issues? Yes

If infrastructure was put in place, would you be interested in hooking up your property Yes

Do you have concerns, issues, limitations? _____

Name: Stew Arnold

mailing address (if different from above) _____

phone number 533-2356 e-mail address stewarnold@hotmail.ca

Wastewater Survey

Difficulty of disposing of wastewater/septage has been identified as a major limiting factor to housing and commercial development in both Greensboro and Greensboro Bend villages and as a possible threat to water quality in Caspian Lake, Caspian Brook and the Lamoille River.

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Please check *all* appropriate boxes.

Property

E 911 address of your property (street and number) 119 Cheney Road

The property is a ☐ business — How many people are regularly present on a business day? ~~0~~

The property is a ☑ year-around residence — How many live here? 2

☐ seasonal residence — How many live here, (when occupied)? _____

The property is ☐ vacant land

Septic System

☑ septic tank ☐ leach field ☑ dry well ☐ mound system ☐ unknown

Do you have it pumped regularly? Yes If known, when was it last pumped 2019

Do you favor the town investigating the feasibility of addressing wastewater issues? Yes!

If infrastructure was put in place, would you be interested in hooking up your property Yes!

Do you have concerns, issues, limitations? _____

Name: Stew Arnold

mailing address (if different from above) _____

phone number 533-2356 e-mail address stewarnold@hotmail.com

Wastewater Survey

Difficulty of disposing of wastewater/septage has been identified as a major limiting factor to housing and commercial development in both Greensboro and Greensboro Bend villages and as a possible threat to water quality in Caspian Lake, Caspian Brook and the Lamoille River.

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Please check *all* appropriate boxes.

Property

E 911 address of your property (street and number) 147 Cheney Rd

The property is a ☐ business — How many people are regularly present on a business day? _____

The property is a ☐ year-around residence — How many live here? _____

☑ seasonal residence — How many live here, (when occupied)? 2

The property is ☐ vacant land

Septic System

☑ septic tank ☐ leach field ☑ dry well ☐ mound system ☐ unknown

Do you have it pumped regularly? Yes If known, when was it last pumped 2019

Do you favor the town investigating the feasibility of addressing wastewater issues? Yes

If infrastructure was put in place, would you be interested in hooking up your property Yes

Do you have concerns, issues, limitations? _____

Name: Steve Arnold

mailing address (if different from above) _____

phone number 533-2356 e-mail address stevarnold@hotmail.com

Wastewater Survey

Difficulty of disposing of wastewater/septage has been identified as a major limiting factor to housing and commercial development in both Greensboro and Greensboro Bend villages and as a possible threat to water quality in Caspian Lake, Caspian Brook and the Lamoille River.

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Please check *all* appropriate boxes.

Property

E 911 address of your property (street and number) 164 Cheney Rd.

The property is a ☐ business — How many people are regularly present on a business day? _____

The property is a ☐ year-around residence — How many live here? _____

☑ seasonal residence — How many live here, (when occupied)? 5

The property is ☐ vacant land

Septic System

☑ septic tank ☑ leach field ☐ dry well ☐ mound system ☐ unknown

Do you have it pumped regularly? yes If known, when was it last pumped 2018

Do you favor the town investigating the feasibility of addressing wastewater issues? yes

If infrastructure was put in place, would you be interested in hooking up your property yes

Do you have concerns, issues, limitations? _____

Name: Victoria VonHesseA + Andy Kehler

mailing address (if different from above) PO Box 40 Greensboro 05841

phone number 533-2237 e-mail address _____

Wastewater Survey

Difficulty of disposing of wastewater/septage has been identified as a major limiting factor to housing and commercial development in both Greensboro and Greensboro Bend villages and as a possible threat to water quality in Caspian Lake, Caspian Brook and the Lamoille River.

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Please check *all* appropriate boxes.

Property

E 911 address of your property (street and number) 74 N. Randolph Rd

The property is a ☐ business — How many people are regularly present on a business day? _____

The property is a ☐ year-around residence — How many live here? _____

☒ seasonal residence — How many live here, (when occupied)? 4

The property is ☐ vacant land

Septic System

☒ septic tank ☐ leach field ☐ dry well ☐ mound system ☐ unknown

Do you have it pumped regularly? Yes If known, when was it last pumped 2016

Do you favor the town investigating the feasibility of addressing wastewater issues? Yes

If infrastructure was put in place, would you be interested in hooking up your property Yes

Do you have concerns, issues, limitations? _____

Name: MacNeil-Hunt LLC

mailing address (if different from above) _____

phone number _____ e-mail address _____

Wastewater Survey

Difficulty of disposing of wastewater/septage has been identified as a major limiting factor to housing and commercial development in both Greensboro and Greensboro Bend villages and as a possible threat to water quality in Caspian Lake, Caspian Brook and the Lamoille River.

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Please be as accurate as possible in responding. You may turn in this completed survey at town meeting (HCA, 3 March, 2020) or at the town clerk's office during office hours, or by mail at "Wastewater Survey, Greensboro Town Clerk, PO Box 119, Greensboro, VT 05841."

Please check *all* appropriate boxes.

Property

E 911 address of your property (street and number) 14 WINNMERE CIRCLE

The property is a ☐ business — How many people are regularly present on a business day? _____

The property is a ☐ year-around residence — How many live here? _____

☒ seasonal residence — How many live here, (when occupied)? 2-4

The property is ☐ vacant land

Septic System

☒ septic tank ☐ leach field ☐ dry well ☐ mound system ☐ unknown

Do you have it pumped regularly? As Needed If known, when was it last pumped 2015

Do you favor the town investigating the feasibility of addressing wastewater issues? YES

If infrastructure was put in place, would you be interested in hooking up your property YES

Do you have concerns, issues, limitations? _____

Name: FRED CARTER

mailing address (if different from above) P.O. Box 291,

phone number 533-9840 e-mail address carter.f@verizon.net

Gmail Kim Greaves <greensborovermont@gmail.com>

Re: Waste Water Committee Town Input

1 message

Pal Bickford <palbick@gmail.com> Fri, Feb 12, 2021 at 3:00 PM
To: Kim Greaves <greensborovermont@gmail.com>, Rob Hurst <rhurst@willeysstore.com>

For the cottage

On 2/12/21 2:05 PM, Kim Greaves wrote: Lakeshore

A town committee is investigating the potential for a community wastewater system. Both of our villa@stem may be essential for new and existing businesses and residences that lack adequate options.

The Wastewater Committee is conducting a survey to gauge potential interest and need in both villages and along the southeastern Caspian lakeshore. This survey will assist in determining the best potential location for a system serving one of these three areas. Through a USDA-funded grant, we have hired an engineering firm to finalize this decision based on this survey, soils, available property, etc. This system would probably be a relatively discreet in-ground installation.

Answers to these questions will not be shared and are for information purposes only. There is no obligation. Thank you so much for helping us determine the best way to proceed. Please respond by Monday, February 22nd. You can just reply to this email, or print it out and put it in our drop box. Whatever way that works for you. Again, thank you.

Street address of residence or business: 211 Randolph Rd

Owner, or preferred contact person: Palma Bickford

Best way to contact (please include phone or email or postal address: 617-212-9818 or palbick@gmail.com

1) This building is (please T): G year-round residence **G seasonal residence** G business

Typical number of occupants _____

If not full-time, do you rent when not occupying the home? n

If a business, how many employees are typically on site? _____

2) Do you know much about your existing septic system? yes

Are you experiencing any problems with your septic system? no

3) Do you know when your system was built or repaired? 1986 fully replaced

4) Have you priced a replacement septic system that complies with current state law? no

5) In considering how you would like to use your property, do you believe that your septic system is adequate to serve the property - now and in the future? yes

6) If a community wastewater system is built, and the cost is reasonable, are you possibly interested in connecting to it? yes

Kim Greaves
Greensboro Town Clerk
PO Box 119
81 Lauredon Ave
Greensboro Vermont 05841
802-533-2911

Gmail Kim Greaves <greensborovermont@gmail.com>

Re: Waste Water Survey

1 message

STUART OSULLIVAN1 <stuartos@earthlink.net> Wed, Mar 3, 2021 at 12:22 PM
To: Kim Greaves <townclerk@greensborovt.org>

Hi Kim, Lakeshore

Attached please find a filled out survey for the potential waste water system.

We have two camps on the lake and would be interested to know if the proposed system may reach as far as Randolph Rd. Rowdis Rd is a small lane off of N. Randolph.
Both camps have new 1,000 gallon tanks and have not had any septic issues over the last decade.

We did engage with Patrick Larsen, last Fall about future septic possibilities as we do believe that new treatment systems are the right thing to do for the future, but have not taken it
any further. If a community system is available, we would be interested in considering it.

Please reach out to me if you have any questions.

Many thanks,

Stuart

Stuart O'Sullivan
stuartos@earthlink.net
917-568-5096

On Mar 2, 2021, at 7:08 AM, Kim Greaves <townclerk@greensborovt.org> wrote:

A town committee is investigating the potential for a community wastewater system. It is essential for new and existing businesses and residences that lack adequate options in both Greensboro and Greensboro Bend.

The Wastewater Committee is conducting a survey to gauge potential interest and need in both villages and along the southeastern Caspian lakeshore. This survey will assist in determining the best potential location for a system serving one of these three areas. Through a USDA-funded grant, we have hired an engineering firm to finalize this decision based on this survey, soils, available property, etc. This system would probably be a relatively discreet in-ground installation.

To answer the survey, click reply and then you will be able to fill in the answers. If this does not work for you, please let me know and I will send an attached for which you can fill out and then scan and send or drop off. **Answers to these questions will not be shared and are for information purposes only. There is no obligation. Thank you so much for helping us determine the best way to proceed. Please respond as soon as you can.. Please answer and put it in our drop box outside the office door or at Smith's Store in Greensboro Bend. Again, thank you.**

Street address of residence or business: _____

Owner, or preferred contact person:_____

Best way to contact (please include phone or email or postal address:_____

_____

1) This building is (please check your answer) : __ year-round residence ___seasonal residence
___ business
Typical number of occupants _____

If not full-time, do you rent when not occupying the home? _____

If a business, how many employees are typically on site? _____

2) Do you know much about your existing septic system?

Are you experiencing any problems with your septic system?

3) Do you know when your system was built or repaired?

4) Have you priced a replacement septic system that complies with current state law?

5) In considering how you would like to use your property, do you believe that your septic system is adequate to serve the property - now and in the future?

6) If a community wastewater system is built, and the cost is reasonable, are you possibly interested in connecting to it?

Again, thank you so much for your response.

Kim Greaves
Greensboro Town Clerk
PO Box 119 - 82 Craftsbury Rd
Greensboro VT 05841
802-533-2911

Greensboro wastewater system.pdf
1250K

A town committee is investigating the potential for a community wastewater system. It is essential for new and existing businesses and residences that lack adequate options in both Greensboro and Greensboro Bend.

The Wastewater Committee is conducting a survey to gauge potential interest and need in both villages and along the southeastern Caspian lakeshore. This survey will assist in determining the best potential location for a system serving one of these three areas. Through a USDA-funded grant, we have hired an engineering firm to finalize this decision based on this survey, soils, available property, etc. This system would probably be a relatively discreet in-ground installation.

To answer the survey, click reply and then you will be able to fill in the answers. If this does not work for you, please let me know and I will send an attached for which you can fill out and then scan and send or drop off.
Answers to these questions will not be shared and are for information purposes only. There is no obligation. Thank you so much for helping us determine the best way to proceed. Please respond as soon as you can.. Please answer and put it in our drop box outside the office door or at Smith's Store in Greensboro Bend. Again, thank you.

Street address of residence or business: 41 Rowdis Rd, Greensboro and 62 North Randolph Rd, Greensboro 05841

Owner, or preferred contact person: Stuart O'Sullivan

Best way to contact (please include phone or email or postal address: 917-568-5096
Stuart05@earthlink.net

1) This building is (please check your answer) : __ year-round residence ✓ seasonal residence
___ business
Typical number of occupants 5

If not full-time, do you rent when not occupying the home? NO

If a business, how many employees are typically on site? _____

2) Do you know much about your existing septic system?
New tank w/ grandfathered leachfield
Are you experiencing any problems with your septic system?

NO

3) Do you know when your system was built or repaired?

2011 - new tank installed

4) Have you priced a replacement septic system that complies with current state law?
Have looked into it and have an approximate cost, but not an official quote

5) In considering how you would like to use your property, do you believe that your septic system is adequate to serve the property - now and in the future?
For 2 months of the year, I am confident of the system being adequate, but would like to put in a modern system in the future.

6) If a community wastewater system is built, and the cost is reasonable, are you possibly interested in connecting to it? YES.

Again, thank you so much for your response.

Gmail

Kim Greaves <greensborovermont@gmail.com>

Re: Waste Water Survey

1 message

COURTENAY LABSON <labsons@verizon.net>
To: Kim Greaves <townclerk@greensborovt.org>

Tue, Mar 2, 2021 at 7:14 AM

Lakeshore

On Mar 2, 2021, at 7:08 AM, Kim Greaves <townclerk@greensborovt.org> wrote:

A town committee is investigating the potential for a community wastewater system. It is essential for new and existing businesses and residences that lack adequate options in both Greensboro and Greensboro Bend.

The Wastewater Committee is conducting a survey to gauge potential interest and need in both villages and along the southeastern Caspian lakeshore. This survey will assist in determining the best potential location for a system serving one of these three areas. Through a USDA-funded grant, we have hired an engineering firm to finalize this decision based on this survey, soils, available property, etc. This system would probably be a relatively discreet in-ground installation.

To answer the survey, click reply and then you will be able to fill in the answers. If this does not work for you, please let me know and I will send an attached for which you can fill out and then scan and send or drop off. **Answers to these questions will not be shared and are for information purposes only. There is no obligation. Thank you so much for helping us determine the best way to proceed. Please respond as soon as you can.. Please answer and put it in our drop box outside the office door or at Smith's Store in Greensboro Bend. Again, thank you.**

Street address of residence or business: _____117 black's point_____
_____

Owner, or preferred contact person:_____Courtenay Labson_____

Best way to contact (please include phone or email or postal address:_____3017063870_____
_____

1) This building is (please check your answer) : __ year-round residence _x__ seasonal residence
___ business
Typical number of occupants _____

If not full-time, do you rent when not occupying the home? ___No_____

If a business, how many employees are typically on site? _____

2) Do you know much about your existing septic system? Not really

Are you experiencing any problems with your septic system? No

3) Do you know when your system was built or repaired? No, but probably many decades old

4) Have you priced a replacement septic system that complies with current state law? No

5) In considering how you would like to use your property, do you believe that your septic system is adequate to serve the property - now and in the future? Currently, it is adequate. But the uncertainty of having a major issue is something I would rather eliminate.

6) If a community wastewater system is built, and the cost is reasonable, are you possibly interested in connecting to it? Yes.

Again, thank you so much for your response.

Kim Greaves
Greensboro Town Clerk
PO Box 119 - 82 Craftsbury Rd
Greensboro VT 05841
802-533-2911

Gmail

Kim Greaves <greensborovermont@gmail.com>

Re: Waste Water Survey

1 message

Lakeshore

ilahunt@aol.com <ilahunt@aol.com>
Reply-To: ilahunt@aol.com
To: "townclerk@greensborovt.org" <townclerk@greensborovt.org>

Tue, Mar 2, 2021 at 7:14 AM

-----Original Message-----
From: Kim Greaves <townclerk@greensborovt.org>
To: Kim Greaves <townclerk@greensborovt.org>
Sent: Tue, Mar 2, 2021 7:08 am
Subject: Waste Water Survey

A town committee is investigating the potential for a community wastewater system. It is essential for new and existing businesses and residences that lack adequate options in both Greensboro and Greensboro Bend.

The Wastewater Committee is conducting a survey to gauge potential interest and need in both villages and along the southeastern Caspian lakeshore. This survey will assist in determining the best potential location for a system serving one of these three areas. Through a USDA-funded grant, we have hired an engineering firm to finalize this decision based on this survey, soils, available property, etc. This system would probably be a relatively discreet in-ground installation.

To answer the survey, click reply and then you will be able to fill in the answers. If this does not work for you, please let me know and I will send an attached for which you can fill out and then scan and send or drop off.
Answers to these questions will not be shared and are for information purposes only. There is no obligation. Thank you so much for helping us determine the best way to proceed. Please respond as soon as you can.. Please answer and put it in our drop box outside the office door or at Smith's Store in Greensboro Bend. Again, thank you.

Street address of residence or business: 26 Ila's Rd

Owner, or preferred contact person: Ila Hunt

Best way to contact (please include phone or email or postal address: Ilahunt@aol.com

1) This building is (please check your answer) : _x_ year-round residence ___ seasonal residence ___ business

Typical number of occupants 1

If not full-time, do you rent when not occupying the home? _____

If a business, how many employees are typically on site? _____

2) Do you know much about your existing septic system?

Are you experiencing any problems with your septic system?

1000 gallon cement tank. No problems with emptying every few years.

3) Do you know when your system was built or repaired?

Gmail

Kim Greaves <greensborovermont@gmail.com>

Re: Waste Water Survey

1 message

Lakeshore

Wendy Parrish <wmparrish@mac.com>
To: Kim Greaves <townclerk@greensborovt.org>

Tue, Mar 2, 2021 at 7:54 AM

On Mar 2, 2021, at 7:08 AM, Kim Greaves <townclerk@greensborovt.org> wrote:

A town committee is investigating the potential for a community wastewater system. It is essential for new and existing businesses and residences that lack adequate options in both Greensboro and Greensboro Bend.

The Wastewater Committee is conducting a survey to gauge potential interest and need in both villages and along the southeastern Caspian lakeshore. This survey will assist in determining the best potential location for a system serving one of these three areas. Through a USDA-funded grant, we have hired an engineering firm to finalize this decision based on this survey, soils, available property, etc. This system would probably be a relatively discreet in-ground installation.

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Answers to these questions will not be shared and are for information purposes only. There is no obligation. Thank you so much for helping us determine the best way to proceed. Please respond as soon as you can.. Please answer and put it in our drop box outside the office door or at Smith's Store in Greensboro Bend. Again, thank you.

Street address of residence or business: __9 E. Edgewood Lane and 34 E. Edgewood Lane_____

Owner, or preferred contact person: Bob & Wendy Parrish

Best way to contact (please include phone or email or postal address: email: wmparrish@mac.com _____

_____

1) This building is (please check your answer) : __ year-round residence __X_ seasonal residence ___ business

Typical number of occupants _____

If not full-time, do you rent when not occupying the home? ___NO____

If a business, how many employees are typically on site? _____

2) Do you know much about your existing septic system? Yes, we installed a Septi-Tech Advanced Waste-water Treatment system in 2007 and have it checked EVERY year.

Are you experiencing any problems with your septic system? NO

3) Do you know when your system was built or repaired? 2007

Gmail

Kim Greaves <greensborovermont@gmail.com>

Re: Waste Water Survey

1 message

Lake shore

Allie Graylin-Frey <allie.graylin@gmail.com> Tue, Mar 2, 2021 at 7:35 AM
To: Kim Greaves <townclerk@greensborovt.org>

Good morning Kim

Alexandra Graylin-Frey
allie.graylin@gmail.com

+1 845 546 3494 mobile

On Tue, Mar 2, 2021 at 7:09 AM Kim Greaves <townclerk@greensborovt.org> wrote:

A town committee is investigating the potential for a community wastewater system. It is essential for new and existing businesses and residences that lack adequate options in both Greensboro and Greensboro Bend.

The Wastewater Committee is conducting a survey to gauge potential interest and need in both villages and along the southeastern Caspian lakeshore. This survey will assist in determining the best potential location for a system serving one of these three areas. Through a USDA-funded grant, we have hired an engineering firm to finalize this decision based on this survey, soils, available property, etc. This system would probably be a relatively discreet in-ground installation.

To answer the survey, click reply and then you will be able to fill in the answers. If this does not work for you, please let me know and I will send an attached for which you can fill out and then scan and send or drop off.
Answers to these questions will not be shared and are for information purposes only. There is no obligation. Thank you so much for helping us determine the best way to proceed. Please respond as soon as you can.. Please answer and put it in our drop box outside the office door or at Smith's Store in Greensboro Bend. Again, thank you.

Street address of residence or business: __137 High Pines Rd_____
Owner, or preferred contact person:__Alexandra Graylin-Frey_____

Best way to contact (please include phone or email or postal address:___allie.graylin@gmail.com_
_____

1) This building is (please check your answer) : __ year-round residence __x_ seasonal residence ___ business

Typical number of occupants _____

If not full-time, do you rent when not occupying the home? __NO_____

If a business, how many employees are typically on site? _N/A_____

2) Do you know much about your existing septic system?

Are you experiencing any problems with your septic system?
We have owned the property since Nov 2017, and been seasonal occupants for three summers now. Always been VERY careful about the system, but no immediate problems

Waste Water Survey

From: Kim Greaves (townclerk@greensborovt.org)

To: townclerk@greensborovt.org

Date: Tuesday, March 2, 2021, 07:09 AM EST

A town committee is investigating the potential for a community wastewater system. It is essential for new and existing businesses and residences that lack adequate options in both Greensboro and Greensboro Bend.

The Wastewater Committee is conducting a survey to gauge potential interest and need in both villages and along the southeastern Caspian lakeshore. This survey will assist in determining the best potential location for a system serving one of these three areas. Through a USDA-funded grant, we have hired an engineering firm to finalize this decision based on this survey, soils, available property, etc. This system would probably be a relatively discreet in-ground installation.

To answer the survey, click reply and then you will be able to fill in the answers. If this does not work for you, please let me know and I will send an attached for which you can fill out and then scan and send or drop off.
Answers to these questions will not be shared and are for information purposes only. There is no obligation. Thank you so much for helping us determine the best way to proceed. Please respond as soon as you can.. Please answer and put it in our drop box outside the office door or at Smith's Store in Greensboro Bend. Again, thank you.

Street address of residence or business: 761 Craftsbury Road

Owner, or preferred contact person: Doug Jordan

Best way to contact (please include phone or email or postal address: 610-291-8428 OR DJORDAN51@YAHOO.COM

1) This building is (please check your answer) : __ year-round residence ✓ seasonal residence ___ business

Typical number of occupants 4

If not full-time, do you rent when not occupying the home? No

If a business, how many employees are typically on site? —

2) Do you know much about your existing septic system? YES

Are you experiencing any problems with your septic system? NO

3) Do you know when your system was built or repaired? 90s

4) Have you priced a replacement septic system that complies with current state law? No

5) In considering how you would like to use your property, do you believe that your septic system is adequate to serve the property - now and in the future?

Adequate for now given the ~~estimated~~ use.

Waste Water Survey

From: Kim Greaves (townclerk@greensborovt.org)

To: townclerk@greensborovt.org

Date: Tuesday, March 2, 2021, 07:09 AM EST

A town committee is investigating the potential for a community wastewater system. It is essential for new and existing businesses and residences that lack adequate options in both Greensboro and Greensboro Bend.

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To answer the survey, click reply and then you will be able to fill in the answers. If this does not work for you, please let me know and I will send an attached for which you can fill out and then scan and send or drop off.
Answers to these questions will not be shared and are for information purposes only. There is no obligation. Thank you so much for helping us determine the best way to proceed. Please respond as soon as you can.. Please answer and put it in our drop box outside the office door or at Smith's Store in Greensboro Bend. Again, thank you.

Street address of residence or business: 763 Craftsbury Road

Owner, or preferred contact person: Doug Jordan

Best way to contact (please include phone or email or postal address: 610-271-8428 OR DJORDANSKI@yahoo.com

1) This building is (please check your answer) : __ year-round residence ✓ seasonal residence ___ business

Typical number of occupants 4

If not full-time, do you rent when not occupying the home? No

If a business, how many employees are typically on site? —

2) Do you know much about your existing septic system? YES. Built Recently in 2014

Are you experiencing any problems with your septic system? NO

3) Do you know when your system was built or repaired? 2014

4) Have you priced a replacement septic system that complies with current state law? Current system complies

5) In considering how you would like to use your property, do you believe that your septic system is adequate to serve the property - now and in the future? Adequate for seasonal use, but it involves holding tanks, so expensive to pump if it is used for more of the year.

Gmail

William Nicely <wanicely27@gmail.com>

Waste Water Survey

1 message

Kim Greaves <townclerk@greensborovt.org>
To: Kim Greaves <townclerk@greensborovt.org>

Tue, Mar 2, 2021 at 5:08 AM

A town committee is investigating the potential for a community wastewater system. It is essential for new and existing businesses and residences that lack adequate options in both Greensboro and Greensboro Bend.

The Wastewater Committee is conducting a survey to gauge potential interest and need in both villages and along the southeastern Caspian lakeshore. This survey will assist in determining the best potential location for a system serving one of these three areas. Through a USDA-funded grant, we have hired an engineering firm to finalize this decision based on this survey, soils, available property, etc. This system would probably be a relatively discreet in-ground installation.

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Answers to these questions will not be shared and are for information purposes only. There is no obligation. Thank you so much for helping us determine the best way to proceed. Please respond as soon as you can.. Please answer and put it in our drop box outside the office door or at Smith's Store in Greensboro Bend. Again, thank you.

Lake

Street address of residence or business: COTTAGE 133 & 135, HIGH PINES, CRAFTSBURY ND

Owner, or preferred contact person: WILLIAM NICELY

Best way to contact (please include phone or email or postal address: wanicely27@gmail.com

1) This building is (please check your answer) : __ year-round residence ✓ seasonal residence ___ business

Typical number of occupants 2-5

If not full-time, do you rent when not occupying the home? NO

If a business, how many employees are typically on site? _____

2) Do you know much about your existing septic system? NO

Are you experiencing any problems with your septic system?

NO

3) Do you know when your system was built or repaired? 2 systems

cottage 133 – repaired 1975 (approximate)
cottage 135 – " 1995

4) Have you priced a replacement septic system that complies with current state law?

NO

5) In considering how you would like to use your property, do you believe that your septic system is adequate to serve the property - now and in the future? yes

6) If a community wastewater system is built, and the cost is reasonable, are you possibly interested in connecting to it? yes

Again, thank you so much for your response.

Kim Greaves
Greensboro Town Clerk
PO Box 119 - 82 Craftsbury Rd
Greensboro VT 05841
802-533-2911

Village District

Wastewater Survey

Difficulty of disposing of wastewater/septage has been identified as a major limiting factor to housing and commercial development in both Greensboro and Greensboro Bend villages and as a possible threat to water quality in Caspian Lake, Caspian Brook and the Lamoille River.

Federal and state grants are available to determine what systems might most efficiently address and mitigate these concerns. In order to apply for such grant-funding, we must do a preliminary survey about need and interest in the process. (Wolcott and Burke are among other local towns a few steps ahead of Greensboro in addressing these issues.)

The information gathered in this survey will be used to inform the feasibility study; as the process advances, it may be necessary to gather more specific information about each septic system in the target areas.

Please be as accurate as possible in responding. You may turn in this completed survey at town meeting (HCA, 3 March, 2020) or at the town clerk's office during office hours, or by mail at "Wastewater Survey, Greensboro Town Clerk, PO Box 119, Greensboro, VT 05841."

Please check *all* appropriate boxes.

Property

E 911 address of your property (street and number) 91 Breezy Ave

The property is a ☐ business — How many people are regularly present on a business day? 1

The property is a ☒ year-around residence — How many live here? _____

☐ seasonal residence — How many live here, (when occupied)? _____

The property is ☐ vacant land

Septic System

☒ septic tank ☐ leach field ☐ dry well ☐ mound system ☐ unknown

Do you have it pumped regularly? V If known, when was it last pumped ?

Do you favor the town investigating the feasibility of addressing wastewater issues? Yes

If infrastructure was put in place, would you be interested in hooking up your property YES

Do you have concerns, issues, limitations? _____

Name: Jennifer Ranz

mailing address (if different from above) _____

phone number 533-9281 e-mail address _____

Wastewater Survey

Difficulty of disposing of wastewater/septage has been identified as a major limiting factor to housing and commercial development in both Greensboro and Greensboro Bend villages and as a possible threat to water quality in Caspian Lake, Caspian Brook and the Lamoille River.

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Please check *all* appropriate boxes.

Property

E 911 address of your property (street and number) 29 Breezy Avenue

The property is a ☒ business (historical society) How many people are regularly present on a business day? _____

The property is a ☐ year-around residence How many live here? _____

☐ seasonal residence How many live here, (when occupied)? _____

The property is ☐ vacant land ☒ Other - town property

Septic System

☒ septic tank ☐ leach field ☐ dry well ☐ mound system ☐ unknown

Do you have it pumped regularly? Yes If known, when was it last pumped Aug. 26, 2019

Do you favor the town investigating the feasibility of addressing wastewater issues? Yes Yes Yes

If infrastructure was put in place, would you be interested in hooking up your property _____

Do you have concerns, issues, limitations?

We at The Greensboro Historical Society would be very happy if Greensboro had a wastewater disposal system. We have a small tank that must be pumped every 2 years. We were unable to have a mound system because it would take space that may be needed by Lauredon Apartments next door. (Feeling guilty every time we wash our hands, etc.!)

Name: Greensboro Historical Society

mailing address (if different from above) PO Box 151, Greensboro, VT 05841

phone number for Nancy Hill, co-president: 802-533-2609

e-mail address nancydhill@gmail.com

1) This building is (please check your answer) : X year-round residence __ seasonal residence __ business

Typical number of occupants 1

If not full-time, do you rent when not occupying the home? ____

If a business, how many employees are typically on site? ____

I'm Living in Greensboro village.

2) Do you know much about your existing septic system? yes

Are you experiencing any problems with your septic system? NO

3) Do you know when your system was built or repaired?

4) Have you priced a replacement septic system that complies with current state law?

No - my system is fine

5) In considering how you would like to use your property, do you believe that your septic system is adequate to serve the property - now and in the future?

Yes

? There is no "reasonable" cost anymore!!

6) If a community wastewater system is built, and the cost is reasonable, are you possibly interested in connecting to it?

No, not interested

Again, thank you so much for your response.

Leave my septic system Alone!!!

Paying enuf taxes as it is!!!

Wastewater Survey

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Please check *all* appropriate boxes.

Property

E 911 address of your property (street and number) 102 Breezy Av

The property is a ☐ business — How many people are regularly present on a business day? 1

The property is a ☒ year-around residence — How many live here? 2

☐ seasonal residence — How many live here, (when occupied)? _____

The property is ☐ vacant land

Septic System

☒ septic tank ☐ leach field ☐ dry well ☐ mound system ☐ unknown

Do you have it pumped regularly? _____ If known, when was it last pumped _____

Do you favor the town investigating the feasibility of addressing wastewater issues? _____

If infrastructure was put in place, would you be interested in hooking up your property _____

Do you have concerns, issues, limitations? _____

Name: Janet Travers

mailing address (if different from above) PO Bx 94

phone number 533-7192 e-mail address jtravers.vt@gmail.com

Wastewater Survey

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Please check *all* appropriate boxes.

Property

E 911 address of your property (street and number) 329 Cemetery Rdg.

The property is a ☐ business — How many people are regularly present on a business day? _____

The property is a ☒ year-around residence — How many live here? 2

☐ seasonal residence — How many live here, (when occupied)? _____

The property is ☐ vacant land

Septic System

☒ septic tank ☐ leach field ☐ dry well ☐ mound system ☐ unknown

Do you have it pumped regularly? 5 yrs. If known, when was it last pumped 2014

Do you favor the town investigating the feasibility of addressing wastewater issues? yes

If infrastructure was put in place, would you be interested in hooking up your property _____

Do you have concerns, issues, limitations? _____

Name: Jeanne Eisner

mailing address (if different from above) _____

phone number 802 533-2556 e-mail address _____

Wastewater Survey

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Please check *all* appropriate boxes.

Property

E 911 address of your property (street and number) 618 EAST ST

The property is a ☐ business — How many people are regularly present on a business day? ____

The property is a ☑ year-around residence — How many live here? 2

☐ seasonal residence — How many live here, (when occupied)? ____

The property is ☐ vacant land

Septic System

☑ septic tank ☑ leach field ☐ dry well ☐ mound system ☐ unknown

Do you have it pumped regularly? YES If known, when was it last pumped 2005

Do you favor the town investigating the feasibility of addressing wastewater issues? YES

If infrastructure was put in place, would you be interested in hooking up your property YES

Do you have concerns, issues, limitations? ____

Name: JOHN MACKIN

mailing address (if different from above) POB 186

phone number 533-2576 e-mail address MACKINVT@HOTMAIL.COM

Wastewater Survey

Difficulty of disposing of wastewater/septage has been identified as a major limiting factor to housing and commercial development in both Greensboro and Greensboro Bend villages and as a possible threat to water quality in Caspian Lake, Caspian Brook and the Lamoille River.

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Please check *all* appropriate boxes.

Property

E 911 address of your property (street and number) 72 Lauredon Ave

The property is a ☐ business — How many people are regularly present on a business day? 1

The property is a ☒ year-around residence — How many live here? 1

☐ seasonal residence — How many live here, (when occupied)? _____

The property is ☐ vacant land

Septic System

☒ septic tank ☐ leach field ☐ dry well ☐ mound system ☐ unknown

Do you have it pumped regularly? ? If known, when was it last pumped _____

Do you favor the town investigating the feasibility of addressing wastewater issues? Maybe

If infrastructure was put in place, would you be interested in hooking up your property 2

Do you have concerns, issues, limitations?

We just spent almost 20K getting the measured

Not feeling enthusiastic about increased taxes!

Name: Rosann Hickey Cook

mailing address (if different from above) PO B 85

phone number 802-533-7087 e-mail address rosann.hickey@gmail.com

Wastewater Survey

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Please check *all* appropriate boxes.

Property

E 911 address of your property (street and number) 315 ~~Parkhill~~ Lauredon Ave

The property is a ☐ business — How many people are regularly present on a business day? _____

The property is a ☒ year-around residence — How many live here? 1

☐ seasonal residence — How many live here, (when occupied)? _____

The property is ☐ vacant land

Septic System

☐ septic tank ☐ leach field ☐ dry well ☐ mound system ☒ unknown

Do you have it pumped regularly? _____ If known, when was it last pumped _____

Do you favor the town investigating the feasibility of addressing wastewater issues? Yes

If infrastructure was put in place, would you be interested in hooking up your property Yes

Do you have concerns, issues, limitations? _____

Name: Laurette Perron

mailing address (if different from above) _____

phone number _____ e-mail address _____

Wastewater Survey

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Please check *all* appropriate boxes.

Property

E 911 address of your property (street and number) 42 WILSON

The property is a ☒ business — How many people are regularly present on a business day? 3

The property is a ☒ year-around residence — How many live here? 3

☐ seasonal residence — How many live here, (when occupied)? _____

The property is ☐ vacant land

Septic System

☒ septic tank ☐ leach field ☐ dry well ☐ mound system ☐ unknown

Do you have it pumped regularly? ✓ If known, when was it last pumped 2 YRS. AGO

Do you favor the town investigating the feasibility of addressing wastewater issues? YES

If infrastructure was put in place, would you be interested in hooking up your property YES

Do you have concerns, issues, limitations? LOTS

Name: DEVIN BURGESS

mailing address (if different from above) _____

phone number 793.3179 e-mail address _____

GREENSBORO NURSING HOME.

Wastewater Survey

Difficulty of disposing of wastewater/septage has been identified as a major limiting factor to housing and commercial development in both Greensboro and Greensboro Bend villages and as a possible threat to water quality in Caspian Lake, Caspian Brook and the Lamoille River.

Federal and state grants are available to determine what systems might most efficiently address and mitigate these concerns. In order to apply for such grant-funding, we must do a preliminary survey about need and interest in the process. (Wolcott and Burke are among other local towns a few steps ahead of Greensboro in addressing these issues.)

The information gathered in this survey will be used to inform the feasibility study; as the process advances, it may be necessary to gather more specific information about each septic system in the target areas.

Please be as accurate as possible in responding. You may turn in this completed survey at town meeting (HCA, 3 March, 2020) or at the town clerk's office during office hours, or by mail at "Wastewater Survey, Greensboro Town Clerk, PO Box 119, Greensboro, VT 05841."

Please check *all* appropriate boxes.

Property

E 911 address of your property (street and number) 47 MAGGIES POND RD, GREENSBORO, VERMONT 05841

The property is a ☑ business — How many people are regularly present on a business day? 50

The property is a ☑ year-around residence — How many live here? 30

☐ seasonal residence — How many live here, (when occupied)? _____

The property is ☐ vacant land

Septic System

☑ septic tank ☐ leach field ☐ dry well ☑ mound system ☐ unknown

Do you have it pumped regularly? YES If known, when was it last pumped 01/06/2020

Do you favor the town investigating the feasibility of addressing wastewater issues? YES

If infrastructure was put in place, would you be interested in hooking up your property YES

Do you have concerns, issues, limitations? QUESTION LOCATION OF THE SYSTEM; BUILDING PERMITS?; MONTHLY COST + INITIAL COST TO CONNECT/USE SERVICE; COST OF LAYING PIPES ON OUR PROPERTY. AFFECTED BY POWER OUTAGES.

Name: BRIAN LABELLE (ADMINISTRATOR).

mailing address (if different from above) SAME AS ABOVE

phone number (802) 533-7051 e-mail address BLABELLE@VTGBNH.ORG

Gmail

Wastewater Committee Town Input

Kim Greaves <greensborovermont@gmail.com> Mon, Feb 15, 2021 at 10:18 AM
To: Kim Greaves <townclerk@greensborovt.org>
Bcc: hwknoxxx@gmail.com

Due to some issues with the previous email sent regarding the Wastewater Survey, I am resending it with corrections. Please click reply and you should be able to enter your answers and then send it. If you have questions, or concerns, or want to just answer by phone, please feel free to call me at 802-533-2911. You can leave a message and I could return the call also. You can also print it out and put it in our drop box. Thank you for taking the time to answer this as soon as you can.

A town committee is investigating the potential for a community wastewater system. It is essential for new and existing businesses and residences that lack adequate options in both Greensboro and Greensboro Bend.

The Wastewater Committee is conducting a survey to gauge potential interest and need in both villages and along the southeastern Caspian lakeshore. This survey will assist in determining the best potential location for a system serving one of these three areas. Through a USDA-funded grant, we have hired an engineering firm to finalize this decision based on this survey, soils, available property, etc. This system would probably be a relatively discreet in-ground installation.

Answers to these questions will not be shared and are for information purposes only. There is no obligation. Thank you so much for helping us determine the best way to proceed. Please respond by Monday, February 22nd. You can just reply to this email, or print it out and put it in our drop box. Whatever way that works for you. Again, thank you.

Street address of residence or business: 532 Breezy

Owner, or preferred contact person: Hugh Knox

Best way to contact (please include phone or email or postal address: email hwknoxxx@gmail.com

1) This building is (please check your answer): ✓ year-round residence ___seasonal residence ___ business

Typical number of occupants _____

If not full-time, do you rent when not occupying the home? _____

If a business, how many employees are typically on site? _____

2) Do you know much about your existing septic system? A know a little.

Are you experiencing any problems with your septic system? No

3) Do you know when your system was built or repaired? 2004 new

4) Have you priced a replacement septic system that complies with current state law? No. Existing system was about $20,000

5) In considering how you would like to use your property, do you believe that your septic system is adequate to serve the property - now and in the future? Yes

6) If a community wastewater system is built, and the cost is reasonable, are you possibly interested in connecting to it? No

Again, thank you so much for your response.

81 Lauredon Ave
Greensboro Vermont 05841

Waste Water Committee Town Report

Greensboro Free Library (GFL)

Street address of residence or business: 53 Wilson Street

Owner, or preferred contact person: Town of Greensboro

Best way to contact (please include phone or email or postal address:_____

_____

1) This building is (please check your answer): __ year-round residence ___seasonal residence _X__ business (Public Library)

Typical number of occupants:

5-10 (not counting ad hoc meetings of up to 49 people in community conference room)

If not full-time, do you rent when not occupying the home? _____

If a business, how many employees are typically on site?

3

2) Do you know much about your existing septic system?

The current system includes six visible manhole covers (essentially occupying the library's entire back yard) for inspection of manholes in an "ameration chamber" system.

Are you experiencing any problems with your septic system?

No

3) Do you know when your system was built or repaired?

In late 2017, when the need for repairs was discovered, the pump control box contained an electrical diagram sheet dated "1972."

Two septic tank pumps were replaced in 2018 for which the Town paid $3,673 in FY 2019.

A blockage, also in 2018, affecting one of the toilets was cleared up by replacing the cast iron pipe with a PVC pipe.

4) Have you priced a replacement septic system that complies with current state law?

No

5) In considering how you would like to use your property, do you believe that your septic system is adequate to serve the property - now and in the future?

Yes

6) If a community wastewater system is built, and the cost is reasonable, are you possibly interested in connecting to it?

The GFL Board of Trustees encourages the Town to connect to a community system.

Gmail Kim Greaves <greensborovermont@gmail.com>

RESPONSE / Wastewater Committee Town Input

1 message

N Sullivan <nsully220@gmail.com> Mon, Feb 15, 2021 at 1:06 PM
To: Kim Greaves <greensborovermont@gmail.com>

Due to some issues with the previous email sent regarding the Wastewater Survey, I am resending it with corrections. Please click reply and you should be able to enter your answers and then send it. If you have questions, or concerns, or want to just answer by phone, please feel free to call me at 802-533-2911. You can leave a message and I could return the call also. You can also print it out and put it in our drop box. Thank you for taking the time to answer this as soon as you can.

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Street address of residence or business: 225 BREEZY AVE., 05841

Owner, or preferred contact person: NANCY SULLIVAN or LENNY SCHIAVONE

Best way to contact (please include phone or email or postal address): nsully220@gmail.com (pleae do not publish)

1) This building is (please check your answer): XXXX year-round residence

Typical number of occupants 2-3

If not full-time, do you rent when not occupying the home? _____

If a business, how many employees are typically on site? _____

2) Do you know much about your existing septic system? YES

Are you experiencing any problems with your septic system? NO

3) Do you know when your system was built or repaired? YES

4) Have you priced a replacement septic system that complies with current state law? NO

5) In considering how you would like to use your property, do you believe that your septic system is adequate to serve the property - now and in the future? YES

Gmail Kim Greaves <greensborovermont@gmail.com>

Re: Waste Water Committee Town Input

1 message

Rosann Hickey <rosann.hickey@gmail.com> Fri, Feb 12, 2021 at 4:17 PM
To: Kim Greaves <greensborovermont@gmail.com>

treet address of residence or business: ___72 Lauredon Ave_____

Owner, or preferred contact person:_____Rosann Hickey_____

Best way to contact (please include phone or email or postal address:___POB 85_____

_____

1) This building is (please T): G year-round residence
Typical number of occupants ___1____

If not full-time, do you rent when not occupying the home? _____

If a business, how many employees are typically on site? _____

2) Do you know much about your existing septic system? Brand new Mound system for 5 (!) bedrooms as mandated by the state. installed in 2017

Are you experiencing any problems with your septic system? No

3) Do you know when your system was built or repaired? 2017

4) Have you priced a replacement septic system that complies with current state law? this one came close to 20K

5) In considering how you would like to use your property, do you believe that your septic system is adequate to serve the property - now and in the future? Yup

6) If a community wastewater system is built, and the cost is reasonable, are you possibly interested in connecting to it? Not right now

Hope that's all you need.

On Fri, Feb 12, 2021 at 2:03 PM Kim Greaves <greensborovermont@gmail.com> wrote:

> A town committee is investigating the potential for a community wastewater system. Both of our villa@stem may be essential for new and existing businesses and residences that lack adequate options.
>
> The Wastewater Committee is conducting a survey to gauge potential interest and need in both villages and along the southeastern Caspian lakeshore. This survey will assist in determining the best potential location for a system serving one of these three areas. Through a USDA-funded grant, we have hired an engineering firm to finalize this decision based on this survey, soils, available property, etc. This system would probably be a relatively discreet in-ground installation.
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> **Answers to these questions will not be shared and are for information purposes only. There is no obligation. Thank you so much for helping us determine the best way to proceed. Please respond by Monday, February 22nd. You can just reply to this email, or print it out and put it in our drop box. Whatever way that works for you. Again, thank you.**

Gmail Kim Greaves <greensborovermont@gmail.com>

Fw: Wastewater Committee Town Input

1 message

Dan Predpall <galaxydan222@yahoo.com> Tue, Feb 16, 2021 at 2:51 PM
To: Kim Greaves <greensborovermont@gmail.com>

Kim

Here is my form. Thanks for getting these out!

Dan

----- Forwarded Message -----
From: Kim Greaves <greensborovermont@gmail.com>
To: Kim Greaves <townclerk@greensborovt.org>
Sent: Monday, February 15, 2021, 10:15:21 AM EST
Subject: Wastewater Committee Town Input

Due to some issues with the previous email sent regarding the Wastewater Survey, I am resending it with corrections. Please click reply and you should be able to enter your answers and then send it. If you have questions, or concerns, or want to just answer by phone, please feel free to call me at 802-533-2911. You can leave a message and I could return the call also. You can also print it out and put it in our drop box. Thank you for taking the time to answer this as soon as you can.

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Street address of residence or business: ___274 Craftsbury Road_____
_____

Owner, or preferred contact person:_____Dan Predpall_____

Best way to contact (please include phone or email or postal address:____805-451-7658_____
_____

1) This building is (please check your answer): __ year-round residence __x_ seasonal residence ___ business

Typical number of occupants ____2__

If not full-time, do you rent when not occupying the home? ___no_____

If a business, how many employees are typically on site? _____

2) Do you know much about your existing septic system?

Are you experiencing any problems with your septic system? No.

Gmail Kim Greaves <greensborovermont@gmail.com>

RE: Waste Water Committee Town Input

1 message

Mike Metcalf <MMetcalf@myfairpoint.net> Tue, Feb 16, 2021 at 4:26 PM
To: Kim Greaves <greensborovermont@gmail.com>

A town committee is investigating the potential for a community wastewater system. It is essential for new and existing businesses and residences that lack adequate options in both Greensboro and Greensboro Bend.

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Street address of residence or business: **203 Craftsbury Road**

Owner, or preferred contact person: **Mike + Mary Metcalf**

Best way to contact (please include phone or email or postal address

PO Box 132, Greensboro or **mmetcalf@myfairpoint.net**

1) This building is (please check your answer) : __ **year-round residence**

(and why are you swearing?)

Typical number of occupants **2**

If not full-time, do you rent when not occupying the home? **N/A**

If a business, how many employees are typically on site? **N/A**

2) Do you know much about your existing septic system? **Yes**

Are you experiencing any problems with your septic system? **No**

3) Do you know when your system was built or repaired? **Yes – 1970; rebuilt, 2016**

4) Have you priced a replacement septic system that complies with current state law? **No**

5) In considering how you would like to use your property, do you believe that your septic system is adequate to serve the property - now and in the future?

Yes

6) If a community wastewater system is built, and the cost is reasonable, are you possibly interested in connecting to it?

Possibly - will there be an incentive to sign up early (if unneeded)?

Again, thank you so much for your response.

From: Kim Greaves [mailto:greensborovermont@gmail.com]
Sent: Tuesday, February 16, 2021 4:09 PM
To: Mike Metcalf
Cc: Peter Romans
Subject: Re: Waste Water Committee Town Input

Hi Mike,

Here is the paper version so you can drop it off in our drop box.

Kim

Kim Greaves
Greensboro Town Clerk

PO Box 119

Re: Waste Water Committee Town Input

1 message

Pal Bickford <palbick@gmail.com> Fri, Feb 12, 2021 at 2:57 PM
To: Kim Greaves <greensborovermont@gmail.com>, Rob Hurst <rhurst@willeysstore.com>

Hi Kim and Rob

I will be filling this out twice -- once for the house and once for the cottage

I sent along an option for review to Dan and then to Stew. Neither responded so I don't know if they have reviewed or if it went to Junk. Your Committee and your contractor might want to consider this system

++++++++++++++++++++++++++++++
Hello Dan

A neighbor on Randolph Road, Chuck Haynes and Martha Haynes, renovated a cottage into a house on North Randolph several years ago. The land is particularly tiny, even for our small spaces there, and luckily he was (he died a couple years ago) a civil engineer from North Montpelier who knew who to call in the business of alternative/compact septic systems. Here is his response to my question about his innovative septic system:

"Hi Pal: It is a Setpitech System. The engineer I had design mine now works for the State and the contractor that built is has retired. I suggest you contact Jared Willey, the owner of Advanced Onsite Services . He is the person who does my annual inspection of the system. and he is very knowledgble about all sorts of systems. His phone days is 802-999-7819"

Jarad's rather slim website is here -- https://www.aoservices.biz/. Doesn't appear as if he would be a large enough operation to work on a village level but he might have some interesting insights.

I did a tad of research and there is another company working on Lake Sunapee systems and other larger projects. The company is called Advanced Onsite Solutions. Same technology, more or less. http://aosne.com/

Since land availability is tight in Greensboro, some alternatives to the standard pits and drainfields might be helpful. Plus Phase 2 of your committee's work might be less expensive with different drainage requirements.

Regards
Pal Bickford
211 Randolph Rd & 52 Cemetery Ridge
++++++++++++++++++++++++++++++++++++

Subject: Wastewater Commission question
Date: Thu, 4 Feb 2021 11:47:09 -0500
From: Pal Bickford <palbick@gmail.com>
To: Dan Predpall <dpredpall@greensborovt.org>

On 2/12/21 2:05 PM, Kim Greaves wrote:

> A town committee is investigating the potential for a community wastewater system. Both of our villa@stem may be essential for new and existing businesses and residences that lack adequate options.
>
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>
> **Answers to these questions will not be shared and are for information purposes only. There is no obligation. Thank you so much for helping us determine the best way to**

proceed. Please respond by Monday, February 22nd. You can just reply to this email, or print it out and put it in our drop box. Whatever way that works for you. Again, thank you.

Palma Bickford

Street address of residence or business: ____52 Cemetery Ridge
Owner, or preferred contact person:_____

Best way to contact (please include phone or email or postal address:____617-212-9818 or palbick@gmail.com_____

_____

_____

1) This building is (please T): **G year-round residence** G seasonal residence G business

Typical number of occupants ___2___

If not full-time, do you rent when not occupying the home? _____

If a business, how many employees are typically on site? _____

2) Do you know much about your existing septic system? yes

Are you experiencing any problems with your septic system? no

3) Do you know when your system was built or repaired? 2006 mound system

4) Have you priced a replacement septic system that complies with current state law? no

5) In considering how you would like to use your property, do you believe that your septic system is adequate to serve the property - now and in the future? yes

6) If a community wastewater system is built, and the cost is reasonable, are you possibly interested in connecting to it? yes

Kim Greaves
Greensboro Town Clerk
PO Box 119
81 Lauredon Ave
Greensboro Vermont 05841
802-533-2911

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Street address of residence or business: 83 Cemetery Ridge

Owner, or preferred contact person: BJ Gray

Best way to contact (please include phone or email or postal address: bjwgray@gmail.com

1) This building is (please check your answer) : ✓ year-round residence __ seasonal residence __ business

Typical number of occupants 3

If not full-time, do you rent when not occupying the home? yes

If a business, how many employees are typically on site? X

2) Do you know much about your existing septic system?

Are you experiencing any problems with your septic system? No

3) Do you know when your system was built or repaired?

repaired - 2000, 2020 - Roebic Septic System
holding tank pumped yearly

4) Have you priced a replacement septic system that complies with current state law? No

5) In considering how you would like to use your property, do you believe that your septic system is adequate to serve the property - now and in the future?

Would like improvement. Worried about proximity to low land.

6) If a community wastewater system is built, and the cost is reasonable, are you possibly interested in connecting to it? Yes

Again, thank you so much for your response.

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Street address of residence or business: 29 East St.

Owner, or preferred contact person: Nancy Riege

Best way to contact (please include phone or email or postal address): _____

1) This building is (please check your answer) : ✓ year-round residence __ seasonal residence __ business

Typical number of occupants 2

If not full-time, do you rent when not occupying the home? _____

If a business, how many employees are typically on site? _____

2) Do you know much about your existing septic system? it is a mound system

Are you experiencing any problems with your septic system?

3) Do you know when your system was built or repaired?

4) Have you priced a replacement septic system that complies with current state law?

no

5) In considering how you would like to use your property, do you believe that your septic system is adequate to serve the property - now and in the future?

would love to extend its use - and include a graywater system -

6) If a community wastewater system is built, and the cost is reasonable, are you possibly interested in connecting to it?

yes — if there is room - the biggest need is locations that have inadequate septic. like Millers Thumb - many residences that possibly go into the river / lake

Again, thank you so much for your response.

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Street address of residence or business: 329 Cemetery Rdg.

Owner, or preferred contact person: Bill & Jeanne Eisner

Best way to contact (please include phone or email or postal address: 533-2556, 473-6586, Wallace.macleod.0@gmail.com billyjeanne@myfairpoint.net

1) This building is (please check your answer): ✓ year-round residence __ seasonal residence __ business

Typical number of occupants 2

If not full-time, do you rent when not occupying the home? _____

If a business, how many employees are typically on site? _____

2) Do you know much about your existing septic system? yes

Are you experiencing any problems with your septic system?

worried about it's age

3) Do you know when your system was built or repaired? 1980

4) Have you priced a replacement septic system that complies with current state law? No

5) In considering how you would like to use your property, do you believe that your septic system is adequate to serve the property - now and in the future?

concerned about the age of the tank

6) If a community wastewater system is built, and the cost is reasonable, are you possibly interested in connecting to it? yes

Again, thank you so much for your response.

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Street address of residence or business: 2621 The Bend Rd

Owner, or preferred contact person: Scott Harbour

Best way to contact (please include phone or email or postal address: Scott.M.harbour@gmail.com

1) This building is (please check your answer) : X year-round residence __ seasonal residence __ business

Typical number of occupants 2

If not full-time, do you rent when not occupying the home? _____

If a business, how many employees are typically on site? _____

2) Do you know much about your existing septic system?

I know where it is and what shape it is in. I'd rather not dig much further into it.

Are you experiencing any problems with your septic system?

No

3) Do you know when your system was built or repaired?

Assume when the new house was built in 1974?

4) Have you priced a replacement septic system that complies with current state law?

NO

5) In considering how you would like to use your property, do you believe that your septic system is adequate to serve the property - now and in the future?

The system works presently and with proper maintenance it should keep on going. If it were to fail it would be a real problem for me, I assume, because of the shape of the lot, location of the brook, and setbacks from the road.

6) If a community wastewater system is built, and the cost is reasonable, are you possibly interested in connecting to it?

yes,

Again, thank you so much for your response.

Gmail Kim Greaves <greensborovermont@gmail.com>

Re: Wastewater Committee Town Input

1 message

Michele Mackin <mackinvt@hotmail.com> Tue, Feb 16, 2021 at 10:04 AM
To: Kim Greaves <greensborovermont@gmail.com>

From: Kim Greaves <greensborovermont@gmail.com>
Sent: Monday, February 15, 2021 10:18 AM
To: Kim Greaves <townclerk@greensborovt.org>
Subject: Wastewater Committee Town Input

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Street address of residence or business: 61 East Street

Owner, or preferred contact person: John and Michele Mackin

Best way to contact (please include phone or email or postal address:___802-533-2576 or P.O. Box 186, 05841

1) This building is (please check your answer): _x_ year-round residence ___seasonal residence ___ business

Typical number of occupants _____

If not full-time, do you rent when not occupying the home? _____

If a business, how many employees are typically on site? _____

2) Do you know much about your existing septic system?

Are you experiencing any problems with your septic system? No

3) Do you know when your system was built or repaired? Yes

Re: Wastewater Committee Town Input

1 message

Michele Mackin <mackinvt@hotmail.com> Tue, Feb 16, 2021 at 10:06 AM
To: Kim Greaves <greensborovermont@gmail.com>

From: Kim Greaves <greensborovermont@gmail.com>
Sent: Monday, February 15, 2021 10:18 AM
To: Kim Greaves <townclerk@greensborovt.org>
Subject: Wastewater Committee Town Input

Due to some issues with the previous email sent regarding the Wastewater Survey, I am resending it with corrections. Please click reply and you should be able to enter your answers and then send it. If you have questions, or concerns, or want to just answer by phone, please feel free to call me at 802-533-2911. You can leave a message and I could return the call also. You can also print it out and put it in our drop box. Thank you for taking the time to answer this as soon as you can.

A town committee is investigating the potential for a community wastewater system. It is essential for new and existing businesses and residences that lack adequate options in both Greensboro and Greensboro Bend.

The Wastewater Committee is conducting a survey to gauge potential interest and need in both villages and along the southeastern Caspian lakeshore. This survey will assist in determining the best potential location for a system serving one of these three areas. Through a USDA-funded grant, we have hired an engineering firm to finalize this decision based on this survey, soils, available property, etc. This system would probably be a relatively discreet in-ground installation.

Answers to these questions will not be shared and are for information purposes only. There is no obligation. Thank you so much for helping us determine the best way to proceed. Please respond by Monday, February 22nd. You can just reply to this email, or print it out and put it in our drop box. Whatever way that works for you. Again, thank you.

Street address of residence or business: __5 Cemetery Ridge, Greensboro_____
_____

Owner, or preferred contact person:____John and Michele Mackin
_____

Best way to contact (please include phone or email or postal address:_____8025332576 or P.O. Box 186, 05841_____
_____

1) This building is (please check your answer): _x_ year-round residence ___seasonal residence ___ business

Typical number of occupants ___3____

If not full-time, do you rent when not occupying the home? _____

If a business, how many employees are typically on site? _____

2) Do you know much about your existing septic system?

Are you experiencing any problems with your septic system? no

3) Do you know when your system was built or repaired? yes

4) Have you priced a replacement septic system that complies with current state law?
no

5) In considering how you would like to use your property, do you believe that your septic system is adequate to serve the property - now and in the future?

no

6) If a community wastewater system is built, and the cost is reasonable, are you possibly interested in connecting to it? yes

Again, thank you so much for your response.

Kim Greaves
Greensboro Town Clerk
PO Box 119
81 Lauredon Ave
Greensboro Vermont 05841
802-533-2911

Re: Wastewater Committee Town Input

1 message

Michele Mackin <mackinvt@hotmail.com>
To: Kim Greaves <greensborovermont@gmail.com>

Tue, Feb 16, 2021 at 10:04 AM

From: Kim Greaves <greensborovermont@gmail.com>
Sent: Monday, February 15, 2021 10:18 AM
To: Kim Greaves <townclerk@greensborovt.org>
Subject: Wastewater Committee Town Input

Due to some issues with the previous email sent regarding the Wastewater Survey, I am resending it with corrections. Please click reply and you should be able to enter your answers and then send it. If you have questions, or concerns, or want to just answer by phone, please feel free to call me at 802-533-2911. You can leave a message and I could return the call also. You can also print it out and put it in our drop box. Thank you for taking the time to answer this as soon as you can.

A town committee is investigating the potential for a community wastewater system. It is essential for new and existing businesses and residences that lack adequate options in both Greensboro and Greensboro Bend.

The Wastewater Committee is conducting a survey to gauge potential interest and need in both villages and along the southeastern Caspian lakeshore. This survey will assist in determining the best potential location for a system serving one of these three areas. Through a USDA-funded grant, we have hired an engineering firm to finalize this decision based on this survey, soils, available property, etc. This system would probably be a relatively discreet in-ground installation.

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Street address of residence or business: 61 East Street
_____

Owner, or preferred contact person:_John and Michele Mackin
_____

Best way to contact (please include phone or email or postal address:___802-533-2576 or P.O. Box 186, 05841_____
_____

1) This building is (please check your answer): _x_ year-round residence ___seasonal residence ___ business

Typical number of occupants _____

If not full-time, do you rent when not occupying the home? _____

If a business, how many employees are typically on site? _____

2) Do you know much about your existing septic system?

Are you experiencing any problems with your septic system? No

3) Do you know when your system was built or repaired? Yes

4) Have you priced a replacement septic system that complies with current state law? No

5) In considering how you would like to use your property, do you believe that your septic system is adequate to serve the property - now and in the future? Yes

6) If a community wastewater system is built, and the cost is reasonable, are you possibly interested in connecting to it? Yes

Again, thank you so much for your response.

Kim Greaves
Greensboro Town Clerk
PO Box 119
81 Lauredon Ave
Greensboro Vermont 05841
802-533-2911

Gmail

Kim Greaves <greensborovermont@gmail.com>

Re: Wastewater Committee Town Input

1 message

Sandra MacLeod <sailingsandi@gmail.com> Mon, Feb 15, 2021 at 1:31 PM
To: Kim Greaves <greensborovermont@gmail.com>

Sent from my iPhone

> On Feb 15, 2021, at 07:15, Kim Greaves <greensborovermont@gmail.com> wrote:
>
> Due to some issues with the previous email sent regarding the Wastewater Survey, I am resending it with corrections. Please click reply and you should be able to enter your answers and then send it. If you have questions, or concerns, or want to just answer by phone, please feel free to call me at 802-533-2911. You can leave a message and I could return the call also. You can also print it out and put it in our drop box. Thank you for taking the time to answer this as soon as you can.
>
> A town committee is investigating the potential for a community wastewater system. It is essential for new and existing businesses and residences that lack adequate options in both Greensboro and Greensboro Bend.
>
> The Wastewater Committee is conducting a survey to gauge potential interest and need in both villages and along the southeastern Caspian lakeshore. This survey will assist in determining the best potential location for a system serving one of these three areas. Through a USDA-funded grant, we have hired an engineering firm to finalize this decision based on this survey, soils, available property, etc. This system would probably be a relatively discreet in-ground installation.
>
> **Answers to these questions will not be shared and are for information purposes only. There is no obligation. Thank you so much for helping us determine the best way to proceed. Please respond by Monday, February 22nd. You can just reply to this email, or print it out and put it in our drop box. Whatever way that works for you. Again, thank you.**
>
> Street address of residence or business:_

43 East St

_____

> Owner, or preferred contact person:_

Sandra MacLeod

_____

> Best way to contact (please include phone or email or postal address

802-535-7042 (best, prefer text))
sailingsandi@gmail.com
POB 174

> 1) This building is (please check your answer):

Year round

> year-round residence ___seasonal residence ___ business
> Typical number of occupants ___

If not full-time, do you rent when not occupying the home?_

No

If a business, how many employees are typically on site? _____

2) Do you know much about your existing septic system?

Yes

Are you experiencing any problems with your septic system?

Yes

3) Do you know when your system was built or repaired

2005-built

2015-repaired

4) Have you priced a replacement septic system that complies with current state law?

Yes, VERY costly

5) In considering how you would like to use your property, do you believe that your septic system is adequate to serve the property - now and in the future?

Absolutely not

6) If a community wastewater system is built, and the cost is reasonable, are you possibly interested in connecting to it?

Absolutely yes

Again, thank you so much for your response.

Kim Greaves
Greensboro Town Clerk
PO Box 119
81 Lauredon Ave
Greensboro Vermont 05841
802-533-2911

Re: Wastewater Committee Town Input

1 message

Elizabeth Hasen <elizhasen@gmail.com> Mon, Feb 15, 2021 at 4:56 PM
To: Kim Greaves <greensborovermont@gmail.com>

208 Breezy Ave -- between the Manns and the McMurtries....

I answered the questions in the email I sent you....

Thanks!

Elizabeth

On Mon, Feb 15, 2021 at 4:55 PM Kim Greaves <greensborovermont@gmail.com> wrote:

> Where is your property located, Elizabeth. I was given the list by another committee member. I am attaching the survey here.
> Kim
> Kim Greaves
> Greensboro Town Clerk
> PO Box 119
> 81 Lauredon Ave
> Greensboro Vermont 05841
> 802-533-2911

On Mon, Feb 15, 2021 at 4:20 PM Elizabeth Hasen <elizhasen@gmail.com> wrote:

> Hi Kim -- I never got the email you sent first nor the correction today. Can you make sure I am on your list? Nancy Sullivan forwarded it on to me.....
>
> Elizabeth

On Mon, Feb 15, 2021 at 12:38 PM N Sullivan <nsully220@gmail.com> wrote:

> Here is corrected form. nas
>
> ---------- Forwarded message ----------
> From: **Kim Greaves** <greensborovermont@gmail.com>
> Date: Monday, February 15, 2021
> Subject: Wastewater Committee Town Input
> To: Kim Greaves <townclerk@greensborovt.org>
>
> Due to some issues with the previous email sent regarding the Wastewater Survey, I am resending it with corrections. Please click reply and you should be able to enter your answers and then send it. If you have questions, or concerns, or want to just answer by phone, please feel free to call me at 802-533-2911. You can leave a message and I could return the call also. You can also print it out and put it in our drop box. Thank you for taking the time to answer this as soon as you can.
>
> A town committee is investigating the potential for a community wastewater system. It is essential for new and existing businesses and residences that lack adequate options in both Greensboro and Greensboro Bend.
>
> The Wastewater Committee is conducting a survey to gauge potential interest and need in both villages and along the southeastern Caspian lakeshore. This survey will assist in determining the best potential location for a system serving one of these three areas. Through a USDA-funded grant, we have hired an engineering firm to finalize this decision based on this survey, soils, available property, etc. This system would probably be a relatively discreet in-ground installation.
>
> **Answers to these questions will not be shared and are for information purposes only. There is no obligation. Thank you so much for helping us determine the best way to proceed. Please**

respond by Monday, February 22nd. You can just reply to this email, or print it out and put it in our drop box. Whatever way that works for you. Again, thank you.

Street address of residence or business: __208 Breezy Avenue_____
_____

Owner, or preferred contact person:__Elizabeth Hasen_____

Best way to contact (please include phone or email or postal address:_____home in South Burlington (till mid-May). 802-497-1809_____
____Cell phone. 509-389-6689_____Email: Elizhasen@gmail.com_____

1) This building is (please check your answer): __ year-round residence __X_seasonal residence ___ business
Typical number of occupants ____1__

If not full-time, do you rent when not occupying the home? __No_____

If a business, how many employees are typically on site? _____

2) Do you know much about your existing septic system?
No I don't know much at all -- Previous owner (Pal Bickford) had no idea when septic tank was last pumped out
Are you experiencing any problems with your septic system? No

3) Do you know when your system was built or repaired? No

4) Have you priced a replacement septic system that complies with current state law?
No.

5) In considering how you would like to use your property, do you believe that your septic system is adequate to serve the property - now and in the future? Yes

6) If a community wastewater system is built, and the cost is reasonable, are you possibly interested in connecting to it? Yes -- depending on the cost.

Again, thank you so much for your response.

Kim Greaves
Greensboro Town Clerk
PO Box 119
81 Lauredon Ave
Greensboro Vermont 05841
802-533-2911

Re: Wastewater Committee Town Input

1 message

Griff Hays <haysgs@hotmail.com>
To: Kim Greaves <greensborovermont@gmail.com>

Sun, Feb 21, 2021 at 8:57 AM

Sent from my iPad

On Feb 15, 2021, at 10:15 AM, Kim Greaves <greensborovermont@gmail.com> wrote:

Due to some issues with the previous email sent regarding the Wastewater Survey, I am resending it with corrections. Please click reply and you should be able to enter your answers and then send it. If you have questions, or concerns, or want to just answer by phone, please feel free to call me at 802-533-2911. You can leave a message and I could return the call also. You can also print it out and put it in our drop box. Thank you for taking the time to answer this as soon as you can.

A town committee is investigating the potential for a community wastewater system. It is essential for new and existing businesses and residences that lack adequate options in both Greensboro and Greensboro Bend.

The Wastewater Committee is conducting a survey to gauge potential interest and need in both villages and along the southeastern Caspian lakeshore. This survey will assist in determining the best potential location for a system serving one of these three areas. Through a USDA-funded grant, we have hired an engineering firm to finalize this decision based on this survey, soils, available property, etc. This system would probably be a relatively discreet in-ground installation.

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Street address of residence or business: _267 Breezy Ave_____

Owner, or preferred contact person:__James Hays_____

Best way to contact (please include phone or email or postal address:_haysgs@hotmail.com. 513-218-9001_____

_____

_____

1) This building is (please check your answer): __ year-round residence __x_seasonal residence ___ business

Typical number of occupants ___2

If not full-time, do you rent when not occupying the home? _We may in the future___

If a business, how many employees are typically on site? _____

2) Do you know much about your existing septic system? Enough

Are you experiencing any problems with your septic system? No

3) Do you know when your system was built or repaired? Not sure

4) Have you priced a replacement septic system that complies with current state law? No

5) In considering how you would like to use your property, do you believe that your septic system is adequate to serve the property - now and in the future? I believe so

6) If a community wastewater system is built, and the cost is reasonable, are you possibly interested in connecting to it? Yes

Again, thank you so much for your response.

Kim Greaves
Greensboro Town Clerk
PO Box 119
81 Lauredon Ave
Greensboro Vermont 05841
802-533-2911

Gmail janet travers <jtravers.vt@gmail.com>

Wastewater Committee Town Input

1 message

Kim Greaves <greensborovermont@gmail.com> Mon, Feb 15, 2021 at 10:18 AM
To: Kim Greaves <townclerk@greensborovt.org>
Bcc: Jtravers.vt@gmail.com

Due to some issues with the previous email sent regarding the Wastewater Survey, I am resending it with corrections. Please click reply and you should be able to enter your answers and then send it. If you have questions, or concerns, or want to just answer by phone, please feel free to call me at 802-533-2911. You can leave a message and I could return the call also. You can also print it out and put it in our drop box. Thank you for taking the time to answer this as soon as you can.

A town committee is investigating the potential for a community wastewater system. It is essential for new and existing businesses and residences that lack adequate options in both Greensboro and Greensboro Bend.

The Wastewater Committee is conducting a survey to gauge potential interest and need in both villages and along the southeastern Caspian lakeshore. This survey will assist in determining the best potential location for a system serving one of these three areas. Through a USDA-funded grant, we have hired an engineering firm to finalize this decision based on this survey, soils, available property, etc. This system would probably be a relatively discreet in-ground installation.

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Street address of residence or business: 102 Breezy Ave

Owner, or preferred contact person: Janet Travers

Best way to contact (please include phone or email or postal address: jtravers.vt@gmail.com

1) This building is (please check your answer): ✓ year-round residence ___seasonal residence ___ business

Typical number of occupants 2

If not full-time, do you rent when not occupying the home? _____

If a business, how many employees are typically on site? _____

2) Do you know much about your existing septic system? No

Are you experiencing any problems with your septic system? No

3) Do you know when your system was built or repaired? about 1969 or 70

4) Have you priced a replacement septic system that complies with current state law? No

5) In considering how you would like to use your property, do you believe that your septic system is adequate to serve the property - now and in the future? yes

6) If a community wastewater system is built, and the cost is reasonable, are you possibly interested in connecting to it? possibly, but the price would have to be very reasonable

Again, thank you so much for your response.

Kim Greaves
Greensboro Town Clerk
PO Box 119
81 Lauredon Ave
Greensboro Vermont 05841
802-533-2911

WASTE WATER SURVEY

A town committee is investigating the potential for a community wastewater system. It is essential for new and existing businesses and residences that lack adequate options in both Greensboro and Greensboro Bend.

The Wastewater Committee is conducting a survey to gauge potential interest and need in both villages and along the southeastern Caspian lakeshore. This survey will assist in determining the best potential location for a system serving one of these three areas. Through a USDA-funded grant, we have hired an engineering firm to finalize this decision based on this survey, soils, available property, etc. This system would probably be a relatively discreet in-ground installation.

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Street address of residence or business: 181 Breezy

Owner, or preferred contact person: NAT SMITH

Best way to contact (please include phone or email or postal address: 533,2257

1) This building is (please check your answer): X year-round residence ___ seasonal residence ___ business

Typical number of occupants 2

If not full-time, do you rent when not occupying the home? _____

If a business, how many employees are typically on site? _____

2) Do you know much about your existing septic system?

Are you experiencing any problems with your septic system? No

3) Do you know when your system was built or repaired? ~ 1948 and repaired in 1994

4) Have you priced a replacement septic system that complies with current state law? yes

5) In considering how you would like to use your property, do you believe that your septic system is adequate to serve the property - now and in the future? yes

6) If a community wastewater system is built, and the cost is reasonable, are you possibly interested in connecting to it?

yes

Gmail

Janet Long <janetlyleslong@gmail.com>

Wastewater Committee Town Input

1 message

Kim Greaves <greensborovermont@gmail.com>
To: Kim Greaves <townclerk@greensborovt.org>
Bcc: janetlyleslong@gmail.com

Mon, Feb 15, 2021 at 10:18 AM

Due to some issues with the previous email sent regarding the Wastewater Survey, I am resending it with corrections. Please click reply and you should be able to enter your answers and then send it. If you have questions, or concerns, or want to just answer by phone, please feel free to call me at 802-533-2911. You can leave a message and I could return the call also. You can also print it out and put it in our drop box. Thank you for taking the time to answer this as soon as you can.

A town committee is investigating the potential for a community wastewater system. It is essential for new and existing businesses and residences that lack adequate options in both Greensboro and Greensboro Bend.

The Wastewater Committee is conducting a survey to gauge potential interest and need in both villages and along the southeastern Caspian lakeshore. This survey will assist in determining the best potential location for a system serving one of these three areas. Through a USDA-funded grant, we have hired an engineering firm to finalize this decision based on this survey, soils, available property, etc. This system would probably be a relatively discreet in-ground installation.

Answers to these questions will not be shared and are for information purposes only. There is no obligation. Thank you so much for helping us determine the best way to proceed. Please respond by Monday, February 22nd. You can just reply to this email, or print it out and put it in our drop box. Whatever way that works for you. Again, thank you.

Street address of residence or business: 11 Wilson St.

Owner, or preferred contact person: Janet Long

Best way to contact (please include phone or email or postal address: all okay — 533-2611; janetlyleslong@gmail.com

1) This building is (please check your answer): ✓ year-round residence ___seasonal residence ___ business
Typical number of occupants _____

If not full-time, do you rent when not occupying the home? _____

If a business, how many employees are typically on site? _____

2) Do you know much about your existing septic system? a bit

Are you experiencing any problems with your septic system? No

3) Do you know when your system was built or repaired? prior to August 2002; repaired (new tank) by Jeff Putvain

4) Have you priced a replacement septic system that complies with current state law?

no

5) In considering how you would like to use your property, do you believe that your septic system is adequate to serve the property - now and in the future?

fine for 1 person; probably not for more full-time.

6) If a community wastewater system is built, and the cost is reasonable, are you possibly interested in connecting to it?

yes

Again, thank you so much for your response.

Kim Greaves
Greensboro Town Clerk
PO Box 119
81 Lauredon Ave
Greensboro Vermont 05841
802-533-2911

A town committee is investigating the potential for a community wastewater system. It is essential for new and existing businesses and residences that lack adequate options in both Greensboro and Greensboro Bend.

The Wastewater Committee is conducting a survey to gauge potential interest and need in both villages and along the southeastern Caspian lakeshore. This survey will assist in determining the best potential location for a system serving one of these three areas. Through a USDA-funded grant, we have hired an engineering firm to finalize this decision based on this survey, soils, available property, etc. This system would probably be a relatively discreet in-ground installation.

Answers to these questions will not be shared and are for information purposes only. There is no obligation. Thank you so much for helping us determine the best way to proceed. Please respond by Monday, February 22nd. Please answer and put it in our drop box outside the office door or at Smith's Store in Greensboro Bend. Again, thank you.

Street address of residence or business: 96 Wilson Street

Owner, or preferred contact person: GORDON STONER + CINDY ROSE

Best way to contact (please include phone or email or postal address: gstoner9559@comcast.net

1) This building is (please check your answer) : __ year-round residence X seasonal residence __ business

Typical number of occupants 2

If not full-time, do you rent when not occupying the home? NO

If a business, how many employees are typically on site? N/A

2) Do you know much about your existing septic system?

Are you experiencing any problems with your septic system? NO

3) Do you know when your system was built or repaired? NO

4) Have you priced a replacement septic system that complies with current state law? NO

5) In considering how you would like to use your property, do you believe that your septic system is adequate to serve the property - now and in the future? Yes

6) If a community wastewater system is built, and the cost is reasonable, are you possibly interested in connecting to it? Yes

Again, thank you so much for your response.

Gmail Kim Greaves <greensborovermont@gmail.com>

RE: Wastewater Committee Town Input

1 message

Brian Labelle <blabelle@vtgbnh.org> Mon, Feb 15, 2021 at 1:01 PM
To: Kim Greaves <greensborovermont@gmail.com>
Cc: Bobbie <brnisbet@gmail.com>, Virginia Jenkins <Virginiascottjenkins@gmail.com>, Rosann Hickey <rosann.hickey@gmail.com>

Thank you, Kim. See responses below.

Brian Labelle NHA, OTR/L

Administrator

Greensboro Nursing Home

47 Maggies Pond Rd,

Greensboro, VT 05841

(802)533-7051 facility

(802)238-1316 cell

From: Kim Greaves <greensborovermont@gmail.com>
Sent: Monday, February 15, 2021 10:19 AM
To: Kim Greaves <townclerk@greensborovt.org>
Subject: Wastewater Committee Town Input

Due to some issues with the previous email sent regarding the Wastewater Survey, I am resending it with corrections. Please click reply and you should be able to enter your answers and then send it. If you have questions, or concerns, or want to just answer by phone, please feel free to call me at 802-533-2911. You can leave a message and I could return the call also. You can also print it out and put it in our drop box. Thank you for taking the time to answer this as soon as you can.

A town committee is investigating the potential for a community wastewater system. It is essential for new and existing businesses and residences that lack adequate options in both Greensboro and Greensboro Bend.

The Wastewater Committee is conducting a survey to gauge potential interest and need in both villages and along the southeastern Caspian lakeshore. This survey will assist in determining the best potential location for a system serving one of these three areas. Through a USDA-funded grant, we have hired an engineering firm to finalize this decision based on this survey, soils, available property, etc. This system would probably be a relatively discreet in-ground installation.

Answers to these questions will not be shared and are for information purposes only. There is no obligation. Thank you so much for helping us determine the best way to proceed. Please respond by Monday, February 22nd. You can just reply to this email, or print it out and put it in our drop box. Whatever way that works for you. Again, thank you.

Nursing Home

Street address of residence or business: ____47 Maggie's Pond Rd., Greensboro, VT 05841_____

Owner, or preferred contact person:_____Brian Labelle (Administrator)_____

Best way to contact (please include phone or email or postal address:_____

_____blabelle@vtgbnh.org_____

_____

1) This building is (please check your answer): _X_ year-round residence ___seasonal residence _X_ business

Typical number of occupants __25-30 residents and 5-20 staff members.

If not full-time, do you rent when not occupying the home? ____N/A___

If a business, how many employees are typically on site? __5 – 20, depending on what shift__

2) Do you know much about your existing septic system? Yes

Are you experiencing any problems with your septic system? No

3) Do you know when your system was built or repaired? Repaired/rebuild in 2020

4) Have you priced a replacement septic system that complies with current state law? The cost of Repair/Rebuild in 2020 was approx. $55,000.

5) In considering how you would like to use your property, do you believe that your septic system is adequate to serve the property - now and in the future?

No, our census and size of building is limited by our septic capacity, to 30-32 residents.

6) If a community wastewater system is built, and the cost is reasonable, are you possibly interested in connecting to it? Yes.

Again, thank you so much for your response.

Kim Greaves
Greensboro Town Clerk

PO Box 119

81 Lauredon Ave

Greensboro Vermont 05841
802-533-2911

Answers to these questions will not be shared and are for information purposes only. There is no obligation. T best way to proceed. Please respond by Monday, February 22nd. You can just reply to this email, or print it ou works for you. Again, thank you.

Elementary School

Street address of residence or business: 189 Lauredon Ave, Greensboro

Owner, or preferred contact person: Lorelei Wheeler admin assist.

Best way to contact (please include phone or email or postal address: 533-7066
lwheeler@ossu.org or Street address

1) This building is (please check your answer): __ year-round residence ___seasonal residence ___ business
Typical number of occupants _____ 52 - school @ certain days/times

If not full-time, do you rent when not occupying the home? _____

If a business, how many employees are typically on site? _____

2) Do you know much about your existing septic system?

Are you experiencing any problems with your septic system? no

3) Do you know when your system was built or repaired? 2000

4) Have you priced a replacement septic system that complies with current state law? yes 2017/18

5) In considering how you would like to use your property, do you believe that your septic system is adequate to serve t
if we had more students and on-site meal prep as well as meal service, it might not be.

[FWD: Waste Water Committee Town Input]
From: info@greensborogarage.com
Sent: Mon, Feb 15, 2021 at 2:54 pm
To: Tim Nisbet

-------- Original Message --------
Subject: Waste Water Committee Town Input
From: Kim Greaves <greensborovermont@gmail.com>
Date: Fri, February 12, 2021 2:05 pm
To: Rob Hurst <rhurst@willeysstore.com>

A town committee is investigating the potential for a community wastewater system. Both of our villa@stem may be essential for new and existing businesses and residences that lack adequate options.

The Wastewater Committee is conducting a survey to gauge potential interest and need in both villages and along the southeastern Caspian lakeshore. This survey will assist in determining the best potential location for a system serving one of these three areas. Through a USDA-funded grant, we have hired an engineering firm to finalize this decision based on this survey, soils, available property, etc. This system would probably be a relatively discreet in-ground installation.

Answers to these questions will not be shared and are for information purposes only. There is no obligation. Thank you so much for helping us determine the best way to proceed. Please respond by Monday, February 22nd. You can just reply to this email, or print it out and put it in our drop box. Whatever way that works for you. Again, thank you.

Street address of residence or business: Greensboro Garage 103 Beggy Ave

Owner, or preferred contact person: Tim Nisbet

Best way to contact (please include phone or email or postal address: YellowBarn@UTLink.net 802-533-7727

1) This building is (please T): G year-round residence G seasonal residence G business

Typical number of occupants 6

If not full-time, do you rent when not occupying the home? _____

If a business, how many employees are typically on site? 5

2) Do you know much about your existing septic system?

Are you experiencing any problems with your septic system?

NO

3) Do you know when your system was built or repaired? UPGRADED LEACHFIELD 2009?

LAST PUMPED NOVEMBER 2017

4) Have you priced a replacement septic system that complies with current state law?

NO

5) In considering how you would like to use your property, do you believe that your septic system is adequate to serve the property - now and in the future? BUT NOT FOR A CHANGE OF USE. OK FOR NOW

6) If a community wastewater system is built, and the cost is reasonable, are you possibly interested in connecting to it? YES - DEFINITELY!

Kim Greaves
Greensboro Town Clerk
PO Box 119
81 Lauredon Ave
Greensboro Vermont 05841
802-533-2911

A town committee is investigating the potential for a community wastewater system. It is essential for new and existing businesses and residences that lack adequate options in both Greensboro and Greensboro Bend.

The Wastewater Committee is conducting a survey to gauge potential interest and need in both villages and along the southeastern Caspian lakeshore. This survey will assist in determining the best potential location for a system serving one of these three areas. Through a USDA-funded grant, we have hired an engineering firm to finalize this decision based on this survey, soils, available property, etc. This system would probably be a relatively discreet in-ground installation.

Answers to these questions will not be shared and are for information purposes only. There is no obligation. Thank you so much for helping us determine the best way to proceed. Please respond by Monday, February 22nd. Please answer and put it in our drop box outside the office door or at Smith's Store in Greensboro Bend. Again, thank you.

Street address of residence or business: 719 East Craftsbury Road

Owner, or preferred contact person: Gordon Stoner + Cindy Rose

Best way to contact (please include phone or email or postal address: gstoner9559@comcast.net

1) This building is (please check your answer) : _ year-round residence X seasonal residence __ business

Typical number of occupants 2

If not full-time, do you rent when not occupying the home? Only occasionally

If a business, how many employees are typically on site? N/A

2) Do you know much about your existing septic system?

Are you experiencing any problems with your septic system? No

3) Do you know when your system was built or repaired? No

4) Have you priced a replacement septic system that complies with current state law? No

5) In considering how you would like to use your property, do you believe that your septic system is adequate to serve the property - now and in the future? Yes

6) If a community wastewater system is built, and the cost is reasonable, are you possibly interested in connecting to it? Yes

Again, thank you so much for your response.