TOWN OF NEWARK

1336 Newark Street
Newark, Vermont 05871

September 3, 2024

NOTICE OF PUBLIC HEARING

Notice is hereby given to the residents of the Town of Newark, in Caledonia County, Vermont that the Newark Planning Commission will hold a public hearing in the Newark Town Office on **Thursday, October 17, 2024 at 6:00 PM** for public review and comment on the proposed Newark Town Plan pursuant to Title 24 VSA, Chapter 117.

The purpose of the proposed Newark Town Plan is to establish a coordinated, comprehensive planning process to guide decisions made by the Town. The proposed Newark Town Plan, if and when adopted, will affect all lands within the Town of Newark.

NEWARK TOWN PLAN

1. Introduction
2. Statement of Objectives, Policies, and Programs
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Copies of the proposed Newark Town Plan, dated October 1, 2024, may be obtained at the Newark Town Office or on the Regional Planning Commission website: Newark Vermont (nvda.net). Comments may be submitted in writing to the Newark Planning Commission prior to the hearing date.

Dated in the Town of Newark: September 3, 2024
Newark Planning Commission

2024 Town Plan

Newark, Vermont

October 31, 2024

A Note to Readers

The 2024 Newark Town Plan makes extensive use of hyperlinks and is best viewed in its PDF form. The links to outside materials are cumbersome to display as URLs and in many cases, we have dispensed with them in favor of clickable descriptive text. We recognize that over the life of the Newark Town Plan some links to outside materials will cease to function. We endeavor to issue periodic updates to the plan to minimize the incidence of non-functional links.

Most chapters conclude with a discussion of goals. Each goal is followed by one or more actions that are intended to support the goal.

Newark Land Acknowledgement

The land that we know as the Town of Newark has been and continues to be the traditional home of the Abenaki people. Their communities have known, cared for, and utilized the earth, waters, and life of this region for many thousands of years—since they first named it *N'dakinna* [in-DAH-kee-NAH], 'our homeland'.

This land straddles an important geographic crossroads where river and stream passages provided important travel corridors between the Atlantic coast and lands to the south and east, and the St. Lawrence seaway and lands to the north and west. The East and West Branches of the Passumpsic River were vital routes for the movement of the Abenaki people as they hunted, traded, and moved across this region.

As we live upon this land, we acknowledge the rich human and natural history, and endeavor to respect the earth and its creatures, and steward them for future generations.

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1. Introduction

1.1. Newark Background and History

Newark is the northernmost town in Caledonia County (Map 1). It is bordered on the south by the Caledonia County towns of Burke and Sutton. Newark is bordered on the east and north by the Essex County towns of East Haven, Ferdinand, and Brighton. It is bordered on the west by the Orleans County town of Westmore (Map 2).

Newark was chartered on August 15, 1781, to William Wall along with 69 other shareholders by the Republic of Vermont. In 1791, Vermont was admitted into the Union as the 14th state.

James Ball is said to have been Newark's first European settler. He cleared land near the town's southern boundary with Burke in 1795 and settled there with his family in 1797. Soon thereafter, Eleazer Packer settled "some two miles deeper still in the forest." Ball Farm Road, Packer Mountain, and Packer Cemetery are familiar landmarks to Newark residents.

The town, with a population approaching 100, organized in 1809. Newark reached its peak population of 679 in 1880 (Figure 1-1).

An 1875 map of Newark (Map 3) shows 13 schools in the town and a more extensive road network than exists today. It also shows maple syrup operations, sawmills, a few "hops yards," and a handful of starch factories, which provided a market for Newark potato farmers. Farmers also grew wheat for the town's grist mill and raised pigs, sheep, and cattle. Newark forests supplied wood for no fewer than six water-powered sawmills and a shingle mill. The town supported a store and a hotel.

The roads that would become VT Routes 114 and 5A were built in 1842 and 1853. These roads enabled travelers to bypass the little hill town of Newark and may have inhibited the town's growth.

The village area at the crossing of Newark Street and Schoolhouse Road has, at times, been referred to as "Newark Street," leading to occasional confusion about whether the name "Newark Street" referred to the street, the village area, or the entire town.

In *The Nature of Vermont*, Charles Johnson describes the Vermont of this era as being deforested and ill-farmed. Wildlife had become scarce, and fish had pretty much disappeared.

People began abandoning Vermont for more fertile lands.[1] The population of Newark began to drop, hitting a low of 144 in 1970.

The town's population then began to rebound through the 1970s. Some of this population growth was due to young people seeking a simpler way of life, close to the land. Many of these back-to-the-land settlers are still here—not so young anymore. Evidence of this past can be seen in places like the abandoned commune in Bean Hollow.

Newark had a population of 584 according to the 2020 census.[2]

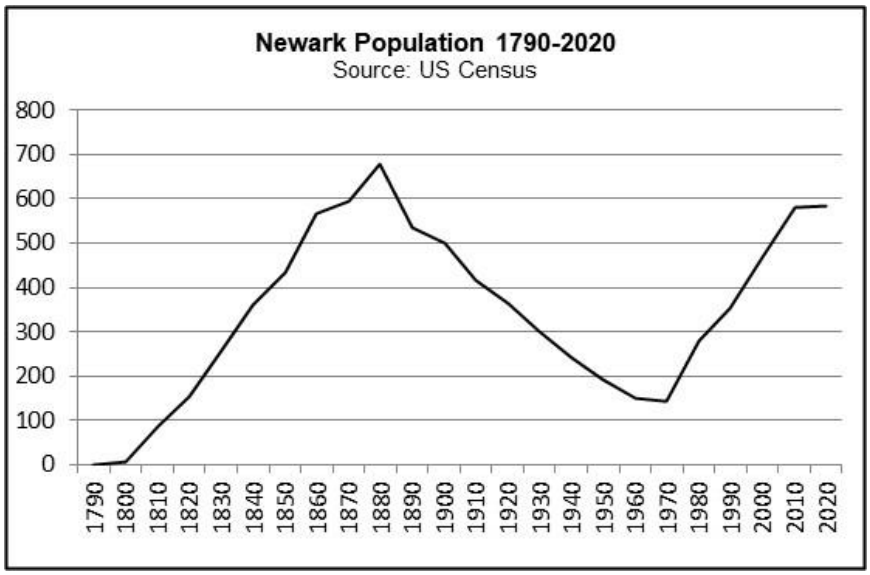


Figure 1-1 Newark's population over time

1.2. Government

Newark is governed by a three member Selectboard: volunteers elected to staggered terms by the voters at Town Meeting.

Town Meeting, held on the first Tuesday of March, is a democratic tradition in Vermont; townspeople gather to elect town officials, make decisions on local issues, budgets, ordinances, and other matters affecting the town. A highlight of Town Meeting Day in Newark is a fabulous potluck lunch.

The Selectboard is responsible for preparing the town's budget, setting policy, administering town finances, and performing a variety of related duties. The town has a part-time Town Clerk/Treasurer as well as an Assistant Clerk/Treasurer, hired by the Town Clerk. The Town Clerk maintains regular hours in the town office building. The town is also served by Road Foreman (hired by the Selectboard), who is assisted by one full-time and one part-time employee.

Like most small Vermont communities, Newark is heavily dependent on volunteers to carry out many governmental duties. The planning commission, made up of volunteers appointed by the Selectboard, is perhaps the most active. The Newark Town Plan is its major work product.

[1] Charles W. Johnson, *The Nature of Vermont* (State of Vermont, 1980), p. 44.

[2] The 2020 Census does not reflect population changes that may have been brought about by the COVID-19 pandemic.

Many other residents are elected or appointed to serve on boards and committees and to represent Newark on state and regional boards and associations. This dedication and sense of duty helps define our community and keeps local institutions open and accessible. The annual Newark Town Report contains a complete list of elected and appointed positions. Copies of the report are available at the Newark Town Clerk's Office.

Newark has also been served by a Conservation Commission responsible for:

- identifying, promoting, and implementing the conservation goals of the Town Plan
- monitoring and stewarding Newark's lands and natural resources
- coordinating the annual Green-Up Day activities
- maintaining the Center Pond Trail
- sponsoring citizen-science projects.

The Conservation Commission stopped meeting during the COVID pandemic. The Newark Selectboard and Planning Commission are discussing options for relaunching it.

The Newark Building Committee is developing options for improving the Town Offices and the Town Garage (used by the town's road crew and the Newark Volunteer Fire Department).

Vermont carried out its legislative reapportionment process (i.e., redistricting) in 2022. Newark is now part of the Caledonia-3 House District. The district, which also includes the towns of Lyndon, Sheffield, Sutton, and Wheelock elects two members to the Vermont House of Representatives. On the Senate side, Newark is now part of the single-seat Orleans Senate District, which includes towns from Orleans, Caledonia, and Franklin Counties.

Newark is a member of the Northeastern Vermont Development Association (NVDA), which serves as both the planning commission and the development association for Vermont's Northeast Kingdom.[3] Newark has a seat on the NVDA's board of directors. The town also participates in the Vermont League of Cities and Towns (VLCT), a nonprofit, nonpartisan organization that serves Vermont's municipal officials. Newark is often represented on VLCT committees, usually sends a representative to the league's biennial meeting, attends VLCT seminars and training sessions, and frequently makes use of the VLCT's Municipal Assistance Center.

[3] Governor George Aiken is credited with giving the name Northeast Kingdom to Caledonia, Essex, and Orleans Counties on a 1949 visit to Lyndonville. "Northeast Kingdom" is commonly abbreviated "NEK."

1.3. The Newark Town Plan

Newark does not have zoning and the Newark Town Plan does not constitute zoning. However, the Town Plan may be dispositive in certain Act 250[4] proceedings and will receive "substantial deference" in Section 248[5] proceedings.

The Newark Town Plan presents a clear, written community standard. A reader who has never visited Newark should, on reading the plan, understand what Newark is like, what its residents want, and what future they are working toward. The Newark Town Plan represents the public good at the most local of levels.

1.3.1. The Purpose of Town Plans

Towns are not required to adopt town plans, so the question is sometimes asked, "Why spend the time and effort to write a town plan?" Town plans can be useful in a number of ways, from serving as a simple source of information to providing a foundation for future planning activities. Ultimately, the residents themselves will determine the uses of the Newark Town Plan.

Potential uses include:

- *A source of information:* Town plans are a valuable source of information for local boards, commissions, citizens, and businesses. The information in a plan can serve to familiarize residents, potential residents, and development interests about a town and its resources.
- *A basis for community programs and decision making:* Town plans can be used as a guide for recommendations contained in capital budgets and programs, for proposed community development programs, and for the direction and content of local initiatives such as farmland protection, recreation planning, and housing.
- *A source for planning studies:* Few town plans can address every issue in complete detail. Thus, town plans record and discuss not only what is known about the resources and residents of the town, but also what is not known. Therefore, many plans will recommend further studies to develop courses of action on specific needs.
- *A standard for review at the state and regional levels:* Act 250, Section 246, Section 248, and other state regulatory processes identify town plans as a standard for review of development applications. Town plans are important to the development of regional plans as well as to regional and inter-municipal programs. In addition, state proposals

[4] Act 250 (10 V.S.A. Chapter 151) is Vermont's land use and development law.
[5] Section 248 of Title 30 requires companies to obtain a Certificate of Public Good from the Public Utility Commission (PUC) before beginning site preparation or construction of electric transmission facilities, electric generation facilities and certain gas pipelines within Vermont.

(including the purchase of state land for parks and recreation) must comply with town plans.

- *A long-term guide:* A town plan is a long-term guide by which to measure and evaluate public and private proposals that affect the physical, social, and economic environment of the community.
- *Fulfillment of an eligibility requirement for state and federal grants:* While town plans in and of themselves are not required, the state began requiring towns to adopt town plans in 2000 in order to be eligible for most grants and low-interest loans. Planning grants, water and wastewater grants, community development grants, historic preservation grants, and other key sources of funding all now require town plans to have been adopted. While many private funding sources do not require town plans for eligibility, having a town plan that documents the need for funding will generally strengthen the application.
- *A basis for regulatory action:* A town plan can help serve as a foundation and guide for the creation of needed ordinances and policies that may be considered important by the town, relating to issues like health, junk, speed limits, signing, and road standards.

It is important for the citizens of Newark to understand that the Newark Town Plan does not represent or include zoning bylaws or development regulations. Likewise, it is important to know that all energy-generation and transmission-development plans linked to the electrical grid are approved and regulated by the State of Vermont's Public Utility Commission under Title 30 V.S.A. Section 248. The preparation of a detailed town plan and town participation in the state's review process are the best ways to ensure that the Town of Newark's goals and objectives are considered and weighed by the Vermont Public Utility Commission during the decision process.

After the town plan is approved (locally by the Selectboard and regionally by the NVDA), the Newark Town Plan will become an important tool in protecting the town's interests in development hearings (under Act 250) and utility hearings (under Sections 246 and 248) to which the town is a party.

1.3.2. Statutory Requirements

Vermont towns are authorized to create town plans under Title 24 V.S.A. Section 4381. The state statute requires that certain topics be discussed. All local plans in Vermont, regardless of whether they are for rural or urban towns, must include the following 12 components, as outlined in Title 24 V.S.A. Section 4382. These represent the minimum requirements of the Vermont Municipal and Regional Planning and Development Act:

- A statement of objectives, policies, and programs of the town, both to guide the future growth and development of land, public services, and facilities and to protect the environment (Section 2).
- A land-use plan (Section 3) and map (Map 4).
- A transportation plan (Section 4) and map (Map 22).
- A utility and public facility plan (Section 5) and map (Map 20).
- A statement of town policies for the preservation of rare and irreplaceable natural areas, scenic and historic features, and resources (Section 6).
- An educational facilities plan (Section 7) and map (Map 20).
- A statement of how the plan relates to adjacent town plans and the regional plan (Section 12).
- An energy plan, including policies and programs to implement those policies (Section 8).
- A housing element, including a recommended program for addressing low- and moderate-income persons' needs as identified in the regional plan (Section 9).
- An economic development element that describes present economic conditions and the location, type, and scale of desired economic development and that identifies policies and programs necessary to foster economic growth (Section 10).
- A flood-resilience plan (Section 11).
- A recommended program for the implementation of the objectives of the development plan (Section 13).

Title 24 V.S.A. Section 4302 describes additional goals that a municipal plan must address.

1.3.3. Development of Newark's Town Plan

Newark has maintained its town plan for several decades. The process for developing each revision of the Newark Town Plan has involved:

- Solicitation of public input.
- Review of the plans of neighboring towns.
- Review of the Northeast Kingdom Regional Plan.
- Consultations with relevant experts.
- Dozens of warned planning commission meetings.
- Public hearings.
- Review and approval by the Newark Selectboard.
- Review and approval by the NVDA (required in order to receive "substantial deference" under Section 248.

This 2024 Newark Town Plan retains much of the content of the 2016 Town Plan; it expands upon that content, includes updated statistics, meets current legislative requirements, and satisfies the criteria required to be accorded *substantial deference* under Vermont's Act 174. In particular:

- Revisions were made by the Vermont Legislature to Title 24 V.S.A. Chapter 117, which added new requirements for town plans (for example, plans must now address flood resilience). Important changes in the energy section were added (see section 8, Newark Energy Plan).
- New maps became available through the Agency of Natural Resources, the Agency of Transportation, and other sources.
- There was a need for more specificity and data to make the town plan more meaningful.
- There was a need to study and include additional detail in the economic development section, based on recent major development projects in the area.

In preparing the 2024 town plan, the Newark Planning Commission has considered the following factors:

- Existing land use
- Community facilities, services, and resources
- Natural resources (and the Newark Natural Resource Inventory)
- Population
- Past Newark town plans
- Input from Newark residents and taxpayers

The development of the 2024 Newark Town Plan began in 2019 and has involved dozens of public Planning Commission meetings (held in person and over Zoom) and hundreds of hours of work by the Planning Commission and Selectboard, and has been informed by:

- Review of the plans of neighboring towns.
- Review of the regional plan.
- Consultations with or review of materials from:
    - Northeastern Vermont Development Association (NVDA)
    - Beck Pond, LLC (author of the *Newark Natural Resource Inventory)*
    - Vermont Natural Resources Council
    - Vermont League of Cities and Towns
    - Vermont Agency of Commerce and Community Development

    - Vermont Agency of Natural Resources
- Three public hearings (one each conducted by the planning commission, the Selectboard, and NVDA).

In addition, the Newark Planning Commission sponsored a public meeting on August 3, 2022 in which Jens Hilke, from the Vermont Fish and Wildlife Department, described the Vermont Conservation Design and explained Newark's ecological importance.

2. Statement of Objectives, Policies, and Programs

2.1. Vision Statement

In preparing for recent town plans, the Newark Planning Commission conducted public meetings where the town's Vision Statement was reviewed and discussed. While the statement has remained virtually unchanged since it was first composed nearly two decades ago, a third paragraph has been added:

> **Newark is a quiet rural town with a beautiful setting. Woodlands, open fields, hills, scenic vistas, the sounds of nature, clean water and air, and clean streams and pristine ponds make Newark a unique and pleasant community to visit and live in. The environment is clean and healthy.**
>
> **It is these characteristics that the Town of Newark intends to protect and preserve.**
>
> **Our townspeople, while of independent spirit, share a strong sense of community and view their stewardship of Newark's lands as a serious responsibility. It is important to the citizens of Newark that the character of the town, its history, its sense of community, and its natural setting be preserved for the benefit and enjoyment of future generations.**

The primary purpose of this town plan is to describe the character of the town and to suggest ways that Newark can preserve its character and the natural resources heritage on which its character rests.

2.2. Growth and Development

Newark residents are pleased with the town's rural character and see little need for dramatic change, growth, or development. Newark has maintained its rural character and close-knit community feeling despite 45 years of population growth.

Preserving the character of the town may become more challenging as economic activity in the region increases.

2.3. Zoning, Subdivisions, and Nonregulatory Policies

Newark does not have zoning or subdivision regulations. The Newark Town Plan does not represent zoning or include zoning bylaws or development regulations.

3. Land Use

Newark's historic land use has been influenced by climate, topography, water, and soils.

The 1875 map (Map 3) suggests a very different, more developed Newark than we see today. Charles W. Johnson describes the Vermont of this period as a "biological wasteland" that was degraded by heavy logging and poor agricultural practices. The North American continent was huge and when the region's resources were depleted, people moved on. When the trees were gone, the loggers left. Farming families abandoned Vermont abruptly and headed west in an exodus.[6]

Newark has been mostly re-forested now, but reminders of the past are easy to find: old roads, stone walls, cellar holes, remnants of pasture fencing, and rusted pieces of farm equipment.

We now know that conservation and stewardship of our natural resources are vital to our health and prosperity—future land use in Newark must ensure the preservation of the town's cultural and natural heritage. Central to this imperative is the protection of Newark's large forest habitat blocks, which serve as essential connecting habitat that link important wildlife habitats across northeastern Vermont, northern New England, and adjacent Canada.

3.1 Climate

Newark lies in Vermont's northeast highlands, the coldest and snowiest region in the state. The USDA's latest Plant Hardiness Map shows that Newark lies in Zones 4a and 4b. These zones indicate low winter temperatures of -30 and -25 degrees Fahrenheit, respectively. The USDA notes a 4-degree temperature change from 2012 to 2023.[7]

Newark's growing season is short: between 90 and 120 days, beginning in late May or early June and ending in late September or early October. Low-elevation pockets can experience even shorter seasons.

Climate change has affected and will continue to affect Newark. The University of Vermont's 2021 Climate Assessment predicts wetter and warmer weather with a greater number of extreme weather events, shorter winters (already estimated to be 16 fewer freezing days each year), and longer growing seasons.[8] More severe rain events can contribute to flooding, erosion, water pollution, and blue-green algae blooms. Changes in climate will affect both human populations (i.e., climate refugees) and wildlife—whose ranges, habitats, food sources, and breeding habits may change with a warming climate.

[6] Johnson, Nature of Vermont, 44
[7] 2023 USDA Plant Hardiness Zone Map | USDA Plant Hardiness Zone Map
[8] Vermont is Getting Warmer and Wetter: Climate Change Study (uvm.edu)

The preservation of Vermont's rural forested environments is seen as essential to protecting wildlife and wildlife habitats, lowering flood risks, mitigating drought, and enhancing climate resilience. Protecting Newark's natural assets is the most effective climate action available to residents.

3.1. Topography

Elevations in Newark range from slightly less than 1,100 feet (335 m) along the East Branch of the Passumpsic River to 2,362 feet (720 m) atop Abbott Hill in the northwest, just south of Job Mountain. The main topographical features in Newark are several north-south ridges, numerous rivers and streams, and several ponds (Map 5). The most prominent north-south ridge rises between the East Branch of the Passumpsic River and Bean and Sleeper Brooks and includes Packer and Walker Mountains and Hawk Rock. Hawk Rock and Walker Mountain have large cliff formations that are visible from VT Route 114, and Packer Mountain has large cliff formations visible from Newark Street and other town roads. A second ridge extends from the Abbott Hill area southeast toward Newark Hollow, and a third ridge extends from the southeast corner of Newark Pond through the center of town toward Maple Ridge Road. Between these three ridges flow the town's rivers and streams: the East and West Branches of the Passumpsic River; Bean, Sleeper, and Roundy Brooks; and numerous smaller tributaries. Finally, Newark is home to several ponds, including Newark, Center, Beck, Walker, and Sawdust Ponds, as well as a small part of Brown Pond.[9]

3.2. Geology, Bedrock, Soils, and Slopes

Newark is underlain by five formations of bedrock (Map 6). About half the town is underlain by Waits River Formation—primarily limestone, which may have formed along the shore of an ocean that existed 500 million years ago. Much of the rest of the town rests on various granite formations.[10] Limestone bedrock is easily soluble and contains minerals important to plant growth. Granite is less soluble and contains few minerals that promote plant growth. Much of the town's best agricultural soils are found atop the Waits River Formation bedrock.

The town's surface geology ranges from exposed granite bedrock on Packer Mountain and Hawk Rock to unsorted glacial till to peats and mucks in the town's wetlands.[11] The Soil Conservation Service[12] categorizes over half of Newark's land into one or more of the following four groups:

- Unfavorable depth to bedrock, less than 20 to 40 inches.

[9] Fritz Gerhardt; Natural Resource Inventory of the Town of Newark, Vermont; 2014; p. 4.
[10] Gerhardt, p. 5.
[11] Gerhardt., p. 7.
[12] Now the Natural Resources Conservation Service, it is part of the USDA and works with private landowners to conserve, maintain, and improve their natural resources.

- Excess soil wetness.
- Unfavorable topography, mainly excessively steep slopes.
- Unfavorable rate of movement of water through soil.

These factors leave relatively little acreage suitable for development (see Map 25).

Soils are "prime agricultural soils" if they meet national standards as having "the best combination of physical and chemical characteristics for producing food, feed fiber, forage, and oilseed crops and are also available for these uses."[13]

Prime agricultural soils meet conditions that relate to temperature and growing season, flooding, moisture, water table depth, drainage, rock content, acidity, slope, and depth.[14] Though small in area, Newark has significant tracts of prime agricultural soils as well as agricultural soils of statewide importance (see Map 18).

3.3. Forests and Wildlife Habitat

Newark is heavily forested, with 15 large areas of contiguous forest habitat. Deciduous, coniferous, and mixed forests cover approximately 20,927 acres, or about 88% of the town.[15] Map 12 shows these and other habitat blocks in Newark, representing areas of contiguous forest and other natural habitats unfragmented by roads, development, or agriculture. While primarily forests, these essential blocks also include wetlands, rivers and streams, lakes and ponds, cliffs, and rock outcrops.[16]

Mapping data prepared by the Vermont Agency of Natural Resources, over 62% of Newark lies within "highest priority forest" and another 25% lies within "high priority forest"(Map 13).[17]

The largest forest block is located between Center Pond Road and VT Route 114 and consists of 7,900 acres, encompassing Packer and Walker Mountains and Hawk Rock. Another large forest block in Newark, of 3,366 acres, includes much of the upper Bean Brook watershed between Center Pond Road and Newark Street. These blocks extend into the towns of Brighton and Westmore, respectively. Other Newark forests are connected to even larger forest blocks in Essex County (the second largest forest block in the state) and Westmore.

[13] NRCS Prime and other Important Farmlands (usda.gov)
[14] Vermont Soil Fact Sheet, Detailed Definitions and Explanations, USDA Natural Resources Conservation Service.
[15] Gerhardt, *Inventory*, p. 13.
[16] Vermont Agency of Natural Resources, BioFinder Component Extract—Landscapes/Habitat Blocks, http://biofinder.vermont.gov/
[17] Vermont Conservation Design Highest Priority Forest Blocks | Vermont Open Geodata Portal Your source for geospatial data

Newark's forests are part of a critical habitat corridor that links Vermont's northern Green Mountains with the forests of Essex County, northern New Hampshire, and beyond (Map 16, Map 17). This corridor has been identified by the Staying Connected Initiative (SCI) as one of six priority linkages in the northern Appalachian Mountain region. SCI is an international partnership of 21 governmental and nongovernmental organizations working to restore and enhance landscape connectivity across the Northern Appalachians.

The Vermont Conservation Design[18] is a comprehensive conservation planning framework developed by the Vermont Fish and Wildlife Department (VTFW) and its partners. The aim of the Vermont Conservation Design is to guide conservation efforts in the state by identifying priority areas for protection and restoration of natural habitats and ecosystems.

The Vermont Conservation Design's goal of protecting interior forest blocks is 'to conserve interior forest blocks across Vermont that support interior forest ecological processes as well as viable populations of Vermont's native fish and wildlife, including a variety of interior forest birds, wide ranging species… and form a network of lands and waters that include representation of the state's physical landscape diversity'.[19] Identifying and protecting Newark's interior forest blocks, priority connectivity blocks, and wildlife corridors not only protects forests and wildlife, it supports the forest industry, mitigates flooding and climate change, and preserves Newark's rural way of life.

3.4. Water Resources

Newark is rich in water resources; its rivers, streams, ponds, and wetlands are vital to the community and are unique, sensitive, and irreplaceable natural features.

3.4.1. Groundwater

Groundwater is an important natural resource in Vermont. Vermonters depend on groundwater for their drinking water supply, agriculture, manufacturing and to support aquatic habitat. Groundwater quantity and quality vary with climate, precipitation, overlying land use, and the rock and soil types through which it moves.[20]

[18] Vermont Fish and Wildlife Department. (2018). "Vermont Conservation Design." Vermont Conservation Design | Vermont Fish & Wildlife Department (vtfishandwildlife.com)
[19] Vermont Agency of Natural Resources, BioFinder Component Extract—Landscapes/Habitat Blocks, http://biofinder.vermont.gov/
[20] Groundwater Studies | Department of Environmental Conservation (vermont.gov)

The Department of Environmental Conservation has records for 247 water wells in Newark. They range in depth from 22 feet to over 700 feet (Map 7). Their yields, in gallons per minute, range from 1 to 200 (Map 8).

Vermont has a groundwater management program[21] and the state regulates the extraction of groundwater.[22]

3.4.2. Riparian Areas

A riparian area is "a zone of interaction and influence between aquatic and terrestrial ecosystems along streams, rivers, lakes, and wetlands. Riparian areas provide a host of physical, hydrological, and ecological functions including water temperature moderation, sediment and nutrient filtration and retention, large wood and organic material recruitment and retention, streambank, shoreline, and floodplain stability as well as habitat and travel ways for a wide variety of species." [23]

Riparian areas in Newark help protect the habitat and water quality of our ponds, rivers, streams, and wetlands. Forested buffers and intact riparian areas play a critical role in mitigating flooding and storm damage- roles that will be increasingly important as development pressure and severe climate events increase.

3.4.3. Headwater Areas

Headwaters are the seeps, wetlands, small pools, and tiny streams at heights of land that eventually make their way to larger valley-bottom rivers. If protected from development and intensive uses (such as logging, resource extraction, and some forms of recreation), these headwaters can contain the purest water in an entire river system. At the same time, degradation of these waters can degrade the entire downstream system. In Vermont, headwaters are afforded special protection, and development near headwaters is regulated.[24]

The federal Environmental Protection Agency recognizes three orders of headwaters. A zero-order headwater may be a wetland or a seep. A first-order headwater is the smallest stream that forms from one or more zero-order headwaters. A second-order headwater forms where

[21] Groundwater Protection, Management and Coordination | Department of Environmental Conservation (vermont.gov)
[22] Groundwater Withdrawal Reporting and Permitting | Department of Environmental Conservation (vermont.gov)
[23] Vermont Agency of Natural Resources. *Riparian Management Guidelines for Agency of Natural Resources Lands*. 2015.

[24] Act 250 Criteria 1, 1A, 1C, 1D, 1E, 1F Water Resources | Agency of Natural Resources (vermont.gov)

two first-order headwaters converge.[25] Newark has headwaters of all three orders, which feed each of the larger brooks and rivers that flow through the town. The health of these headwaters is critical to the health of the region's rivers.

Newark's headwaters are generally characterized by steep slopes and shallow soils. Headwater streams and ephemeral surface waters are highly vulnerable to erosion and man-made disturbance. Headwater seeps, located at higher elevations on the landscape, serve as the source for downslope streams and are protected in Vermont as Class II wetlands.

Protection of headwaters is an important priority for the Town of Newark. Development (and other activities) that could damage headwaters must be avoided.

3.4.4. Rivers, Streams, and Surface Waters

Newark's rivers and streams are important assets to our community, providing recreational and aesthetic functions as well as supporting plentiful and diverse fisheries and aquatic species. The surface waters host unique aquatic natural communities and support diverse species, ranging from freshwater mussels to brook trout to common loon to river otter. Newark's watersheds are shown in Map 9 and the acreage for each is shown in Table 1.

Newark's Watersheds		
Watershed	**Acres**	**Pct of Newark Acreage**
Bean Brook	10,905	46%
East Branch Passumpsic River	7,531	32%
West Branch Passumpsic River	4,860	20%
Clyde River	537	2%
Total	23,833	100%

Table 3-1 Watersheds in Newark (source: Vermont ANR)

In addition to many smaller streams and waterbodies, Newark counts among its water resources portions of the East and West Branch Passumpsic River and Bean and Sleepers Brooks as well as Newark Pond and Center Pond. The East Branch Passumpsic River has its headwaters in neighboring Brighton, but it flows approximately 5 miles through the eastern portion of Newark before continuing through East Haven and Burke to join with the West Branch in Lyndon. The West Branch rises on the slopes of Mt. Pisgah in Westmore but is also fed from the outlet of Newark Pond. It flows approximately 0.8 mile through the very western corner of Newark before passing into Sutton and Burke and joining with the East Branch in Lyndon to

[25] Stream Corridor Structure | Watershed Academy Web | US EPA

form the main-stem Passumpsic River. The Passumpsic joins the Connecticut River in Barnet and flows southward to Long Island Sound.

Sleepers Brook and Bean Brook drain a large area of Newark. Bean Brook[26] drains Bald Hill Pond in Westmore and flows over 6 miles eastward across Newark, joining the East Branch Passumpsic River just beyond the Newark/East Haven town boundary. Sleepers Brook drains the northern portion of town and passes through Center Pond before joining Bean Brook near Newark Hollow. These brooks have no roads running along them, they flow through land that is largely undeveloped, and they are spectacular ecological assets that merit the strongest protections.

A small portion of Newark's northernmost area drains toward Job's Pond, Cold Brook, and the Clyde River, where it continues to Lake Memphremagog and the St. Lawrence Seaway. Newark also contains much of the headwaters of Roundy Brook, which flows through Burke Hollow and joins the West Branch Passumpsic.

Newark's ponds are highly valued for their scenic and recreational qualities, and parcels with frontage on Center Pond and Newark Pond have the highest per-acre values in town. Center Pond, so named because it sits near the geographic center of town, is roughly 80 acres in size and has a maximum depth of 72 feet. It is a cold-water fishery with lake trout and brook trout.

Newark Pond is located on the western edge of town and is roughly 163 acres. It has a maximum depth of 31 feet. Its diverse fishery includes bullhead, rainbow trout, smallmouth bass, and yellow perch.

Both Center Pond and Newark Pond are home to nesting loons during most summers.

Other small ponds in Newark, both in the northern part of town, include Walker Pond and Sawdust Pond, which (according to *Vermont Place Names*, 1977) is said to have gotten its name because a sawmill located there nearly filled the pond with sawdust at one time.

The ponds and streams within Newark's borders are irreplaceable assets. Preservation of their purity and aesthetic beauty is important to Newark residents. Development along the waterways may result in pollution, sedimentation caused by a lack of riparian forest buffers, reduced public and wildlife access to lakeshores, and the introduction of invasive exotic flora or fauna. Protecting water quality is a high priority in the Town of Newark. Impacts from logging on steep slopes or near the water's edge, development close to the water, runoff from gravel roads, and cutting of vegetation along shorelines all negatively affect the quality of water.

[26] On the 1875 map (Map 3), Bean Brook is labeled "West Branch Passumpsic River."

The Vermont Shoreland Protection Act (2014) regulates activities within 250 feet of the mean water level of lakes larger than 10 acres. The intent of the act is to allow reasonable development of shorelands on lakes and ponds while protecting aquatic habitat and water quality and maintaining the natural stability of shorelines. Standards for the creation of impervious surfaces (such as buildings and driveways) and cleared areas within the shoreland area are intended to preserve functioning lake and pond ecosystems, protect water quality and bank stability, conserve aquatic and wildlife habitat, and further the economic benefits of lakes and their shorelands. New, stricter shoreland protection legislation was enacted in 2015. A handbook for shoreland development, including new legal requirements, is available online[27] and at the Newark Town Clerk's Office.

3.4.5. Wetlands and Vernal Pools

Wetlands are important natural resource areas that provide erosion protection and shoreline stabilization, recharge underground aquifers, enable natural purification of water, and provide necessary habitats for many species of fish, wildlife, migratory birds, and plants. Wetlands provide scenic areas for hunting, fishing, canoeing, kayaking, and other forms of recreation. They are also important locations for environmental education and research.

Beavers, once nearly extinct in Vermont, have created valuable wetlands along both the East Branch Passumpsic River and Bean Brook. Beaver dams have created a series of upland ponds and wetlands that cascade down the western face of Packer Mountain. These areas provide essential habitat for a wide variety of species and must be protected from the effects of development. Vermont's Agency of Natural Resources (ANR) recommends encouraging beaver activity and protecting beaver ponds with a buffer of at least 400 feet. Residents and road crews should seek alternatives to beaver-dam removal.[28]

Vernal pools are small wetland areas—generally located within upland forests—that are critical seasonal habitats for amphibians such as spotted salamander and wood frog. These unique and sensitive areas were added to the state's Class II wetland designation in 2010, and a statewide inventory of vernal pools using color infrared aerial photography and field surveys was completed about the same time. A small number of vernal pools have been mapped in Newark[29] (Map 11). However, the *Natural Resource Inventory* of Newark suggests that "the relative paucity of vernal pools in Newark may reflect limited search effort, and additional efforts should be undertaken to identify and map any vernal pools in the Town of Newark."[30]

[27] Shoreland Permitting | Department of Environmental Conservation (vermont.gov)
[28] Vermont Agency of Natural Resources, *Conserving Vermont's Natural Heritage*, 2013, p. 65.
[29] VPAtlas
[30] Gerhardt, *Inventory*, p. 20.

The Vermont Wetland Rules provide wetland classifications and outline protective measures for Class I and Class II wetlands. Class I wetlands are considered irreplaceable. Class II wetlands are important and require protection.[31] (There are no Class I wetlands in Newark.)

3.5. Present and Prospective Land Use

The 1875 map of Newark referred to in Section 1 shows Newark's settlement and development patterns when the town's population was at its greatest. At that time, there were more roads, more industry, more agriculture, more settled areas, and more schools than exist in present-day Newark. Newark's current land use is shown in Map 4.

A small number of Newark residents still work in the woods, produce maple sugar, or grow hay. Other residents operate home-based businesses based on arts and crafts or leveraged by the internet. Today, Newark is primarily a bedroom community whose residents work in schools, commerce, or industry in larger neighboring towns and cities. Newark is also a vacation destination, having about 200 camps and second homes, some of which are available for vacation rental.

Public response to the Newark Planning Commission's outreach efforts have delivered a consistent message: residents like Newark just as it is. In keeping with that sentiment, Newark's land-use plan, as described in the following sections, is based on a few fundamental goals:

- Protect the town's natural resources.
- Enhance the town's natural flood-resilience assets.
- Preserve the town's rural character.
- Maintain the viability of Newark's working lands by protecting them from fragmentation and by discouraging the introduction of incompatible uses.

3.5.1. Public Lands

3.5.1.1. Town Parcels

Newark owns two properties located on Newark Street near the center of town. The Town Garage and Fire Station occupy a 7.13-acre parcel. The old Town Hall and Town Clerk's Office occupy the other .38-acre parcel. The town buildings are described in Section 5.1. (The Newark Street School's 5.55-acre campus lies between these two parcels and includes parking, play areas, ball fields, and community gardens.)

[31] http://www.vtwaterquality.org/wetlands/docs/wl_st_reg.pdf

The town also owns 117 acres, with 950 feet of shoreline, on the north end of Center Pond. In conjunction with the Vermont Land Trust and the Vermont Housing and Conservation Board, these lands and development rights on the entire east side of Center Pond were acquired in 1995 as part of the Center Pond Project to provide open spaces, a beach, camping areas, and hunting areas for present and future generations of Newark residents. The protected area includes 700 acres, with 4,800 feet of shoreline. The town also holds an easement on the eastern shoreline that permits the construction of a foot trail. This area had been overseen by the Center Pond Natural Resources Committee, but the committee is currently inactive.

Additionally, the Town owns a landlocked parcel, approximately 6.6 acres in size, adjacent to the state-owned Willoughby State Forest 'Newark Block' on the east side of Abbott Hill.

3.5.1.2. State of Vermont Parcels

The Bald Hill Wildlife Management Area (WMA) is a 700-acre tract of land surrounding the Bald Hill Fish Culture Station in Newark. It is owned by the State of Vermont and managed by the Vermont Fish and Wildlife Department. It includes 14-acre Sawdust Pond and much of the headwaters of Bean Brook. An additional 232 acres is in the adjacent area of Westmore.

The Bald Hill Fish Culture Station raises coldwater fish species including trout and walleye. The hatchery is also the home of Vermont's landlocked Atlantic salmon broodstock. Every fall the large mature salmon are artificially spawned. Thousands of eggs are collected from each female fish and fertilized to supply eggs to other state and federal hatcheries.[32]

Willoughby State Forest surrounds much of Lake Willoughby (a National Natural Landmark[33]) and is managed for many uses, particularly recreation. It is located predominantly in the neighboring towns of Sutton and Westmore and is approximately 7,682 acres in size. A 52-acre parcel of the forest lies within Newark, on Newark Street in the northern portion of town near Job's Pond. The "Newark Block" includes a 45-acre Norway Spruce Plantation. The parcel is governed by the Willoughby State Forest Long Range Management Plan (last updated in 2012[34]).

The State of Vermont also owns three public fishing-access areas in Newark, managed by the Vermont Fish and Wildlife Department. These are a 0.6-acre gravel access on the west side of Center Pond, a 0.3-acre gravel access on the north end of Newark Pond, and a 0.8-acre primitive cartop access at the south end of Beck Pond.

[32] Bald Hill Fish Culture Station | Vermont Fish & Wildlife Department (vtfishandwildlife.com)
[33] National Natural Landmarks - National Natural Landmarks (U.S. National Park Service) (nps.gov)
[34] Willoughby State Forest | Department of Forests - Parks and Recreation (vermont.gov)

3.5.1.3. The Nature Conservancy Parcel

The Nature Conservancy owns a 44-acre Newark Pond Natural Area, located on the southwest corner of Newark Pond. The natural area, open to the public, protects loon nesting habitat on Newark Pond and includes a small island with nesting loons and 2,410 feet of protected shoreline. In addition to the island, the preserve includes a hiking trail.

3.5.1.4. Cemeteries

The town has three cemeteries. Packer Cemetery (0.40 acre) is located at the eastern end of Schoolhouse Road at the intersection with Maple Ridge Road. It is the oldest cemetery in Newark and has no land for future burials. The town recently purchased land for the future expansion of the Pleasant View Cemetery (2.5 acres total), located on Schoolhouse Road just east of Newark Street. There is also an old private family cemetery located on VT Route 114 (Island Pond Road) across from Moose Lane, dating from a diphtheria epidemic in 1879.

3.5.2. The SCI Linkage and Newark's Forests

The Staying Connected Initiative (SCI) is an international public-private partnership that works to maintain landscape connectivity across the Northern Appalachian – Acadian Region of the U.S. and Canada.[35] According to SCI maps, Newark's forests are located at a chokepoint in the critical habitat corridor that links the northern Green Mountains with forests in Essex Country and beyond (see Map 16 and Map 17). If these forests were to be compromised, the viability of the corridor would be threatened. Preservation of this corridor is an outstanding conservation opportunity of international significance and is a top priority of the Town of Newark.

Forests offer an almost unlimited range of benefits to the Newark community, including clean water, recreation, educational activities, and scenery. Much of Newark's forestlands are privately owned and many forest parcels are managed for firewood, lumber, and other forest products like maple syrup and Christmas trees. Sound forest management results in a stable economic return for landowners, local resources to support local industry, and perhaps most importantly, an incentive for keeping large tracts of land free of development and available for wildlife and to the public for recreation and scenic enjoyment. Conversely, poor forest management can result in the degradation of biological diversity, reduced recreational potential, and damage to scenic landscapes.

In addition to commercial value for landowners, Newark's forest habitat is also vital to the local community's interests in its natural heritage, identity, and working landscape. These lands represent much of what makes life in this area rewarding. They provide a myriad of ecological

[35] Home - Staying Connected Initiative

functions for fish, wildlife, plants, and all the natural processes that sustain them. Further, they provide extremely valuable connections for people to enjoy and appreciate the land and its abundant resources.

Sound forest-management plans should be encouraged and should include objectives for sustainable timber production, protection of water quality, maintenance of a diversity of wildlife habitat, and aesthetic enhancement. Whatever the objectives of a forest property owner, developing and implementing a forest-management plan is the best means of managing a forest parcel for long-term sustainable forest production. Landowners enrolled in Vermont's Use Value Appraisal program (commonly known as "Current Use") also receive substantial tax benefits based on the property's value as a working forest or farm rather than on its development potential.

The primary threats to Newark's forests are development, fragmentation, parcelization, and poor logging and forest-management practices. It is Newark's goal to maintain its intact forests and to discourage parcelization and fragmentation, which compromise forest value.

A variety of federal, state, and local mechanisms offer financial help to forest owners who wish to keep their forests intact, such as:

- The Forest Legacy Program is a federal program (administered by Vermont's Department of Forest, Parks, and Recreation) that helps landowners resist financial pressures that might otherwise force them to convert forestlands to non-forest uses.
- Vermont's Current Use program provides property-tax relief to forest owners who agree to adhere to a forest-management plan and to refrain from developing their forestland. The program also offers tax relief to owners of agricultural lands.
- Vermont law enables municipalities to enter into contracts with landowners to stabilize their property taxes in exchange for cooperation in meeting municipal goals (such as maintaining intact forests).
- Many federal programs are available to help forest owners with grants and other assistance. These include the Land and Water Conservation Fund, Environmental Quality Incentive Program, Conservation Technical Assistance Program, Wildlife Habitat Incentive Program, and Partners for Fish and Wildlife Program.
- The State of Vermont offers assistance to owners of forest and agricultural lands. Up to date information is available from the Agency of Natural Resources and the Agency of Agriculture, Food, and Markets.

3.5.3. Agriculture

In the past, Newark was known for its production of hops, grains, and potatoes. After a century and a half of vigorous activity, these agricultural endeavors began to decline. Newark's last

commercial dairy operation ceased operation in 2003. Much of the town's pastureland and marginal cropland is reverting to woodland. Today, less than 6% of Newark's land remains cleared for agricultural use.

Despite the loss of traditional dairy farms, some of the higher quality cropland in Newark is still being used for agriculture. Large farms in the neighboring Town of Sutton are keeping many of Newark's lands open by growing some of their cattle feed here. Also, dozens of small, diversified farms and gardens in Newark are growing hay, grain, flowers, fruits, and vegetables. Others are raising horses, livestock, and poultry or producing products such as maple syrup, wool, and Christmas trees.

A great deal of property in town remains in large parcels. With fewer residents continuing to be engaged in farming, land subdivision, primarily for residential purposes, is reshaping portions of Newark's working landscape. Subdivision and development continue to threaten productive farmland. Farms sustain and enhance local capacity for food production, and support of existing and future farming operations should be encouraged. Support of organic farming is especially encouraged because of its positive effects on agricultural resources.

Though small in area, Newark has significant tracts of prime agricultural soils as well as agricultural soils of statewide importance (Map 18). Land development should be carried out in a manner that minimizes fragmentation of these tracts.

Newark's agricultural resources are growing in importance as more Vermonters become interested in reestablishing a local food economy. Farmers' markets, Community Supported Agriculture, and a variety of efforts being carried out by the NVDA are improving the economic outlook for Newark farmers. In addition to their economic importance, Newark's agricultural lands are an important cultural and scenic feature of the town.

Prime agricultural soils are a finite resource. Maintaining a land base for farming not only helps preserve Newark's rural character, it also contributes to the local economic base in a sustainable manner. In the face of global climate change and an increasing world population, maintaining a local food supply may prove in the long run to be critical to the community's survival.

3.5.4. Residential

Newark is a bedroom community whose residents work, for the most part, in neighboring towns. The sparseness of development in Newark has also made it an attractive location for vacation homes, seasonal homes, and camps.

According to Vermont's Enhanced 911 database, there are 597 structures in Newark. Of these, 354 are residences and 214 are camps or seasonal homes. The remaining structures include state and town buildings as well as buildings that the state has not categorized. (See Map 19.)

Residential development in town is occurring at a slow, but steady pace. The parcelization and fragmentation that can result from this type of development pose a threat to Newark's natural and agricultural resources. Newark has neither zoning nor subdivision regulations that might help avoid these dangers. The town thus relies on its landowners to be good stewards and to exercise care in the use of their land.

The town discourages development that requires the construction of new roads (especially dead-end roads). Besides creating a fragmentation problem, such development increases the town's infrastructure maintenance burden.

The state estimates that Newark's population may grow as much as 30% by 2030. Our existing housing stock can accommodate much of that growth through conversion of vacation homes, upgrades of seasonal homes, and the use of accessory residences.

Historic settlement areas along Newark Street may be the most suitable for new small-scale residential development. Many of the other settlement areas shown on the map of 1875 Newark (Map 3) have been reforested, have become part of a vital wildlife linkage (see Map 17), and are no longer suitable for development. Newark has no areas that are suitable for large-scale development.

Newark discourages "strip development" along roads and encourages developers to preserve open space and to be mindful of their impact on the forest and the town's rural character. The Vermont Natural Resources Council has described "good" and "bad" building practices, depicted in Figure 3-1 and Figure 3-2.[36] The town encourages good building practices that meet the goals described in Section 9.6.

[36] Vermont Natural Resources Council, Community Strategies for Vermont's Forest and Wildlife, September 2013, pages 43, 60.

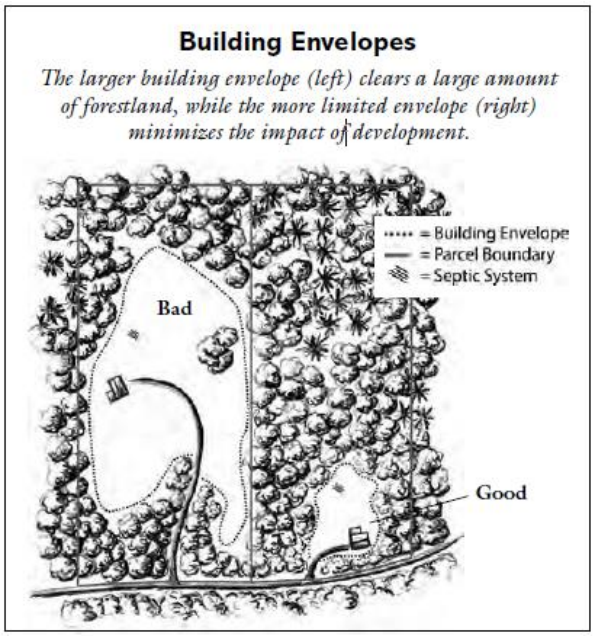


Figure 3-1 Minimizing the impact of residential development (VNRC)

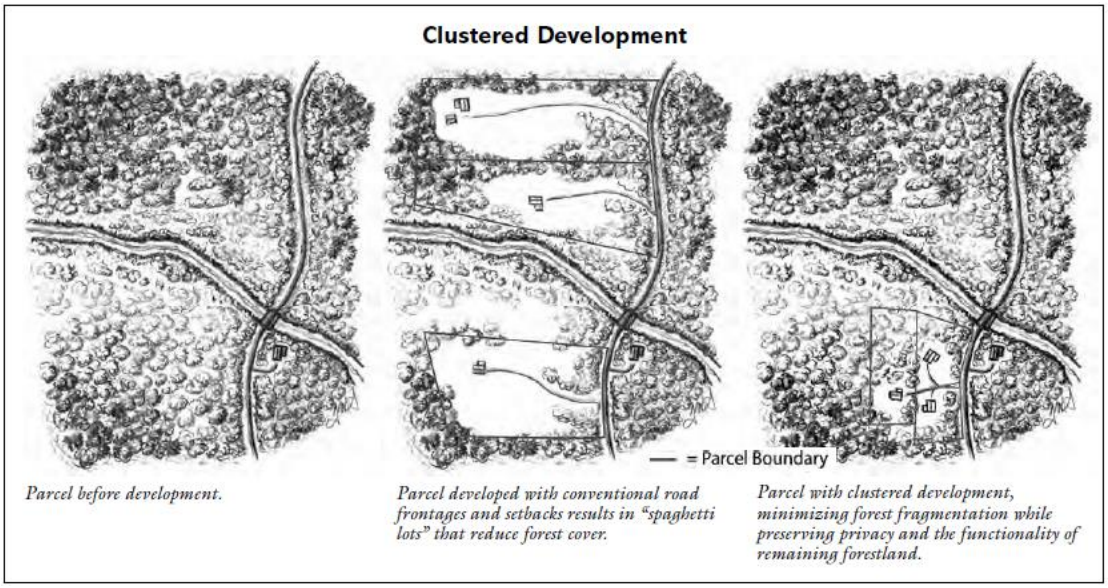


Figure 3-2 Clustered development (VNRC)

The Town of Newark has neither a central public municipal water supply nor a municipal sewage disposal or treatment system. The town maintains a single-source water system that provides drinking water to the Newark Town School, the Town Garage, and the Town Clerk's Office. Most residences make use of on-site water and septic systems dedicated to a single dwelling.

The use of on-site systems has worked well, and there are no plans to consider municipal systems in the near future. However, as Newark grows and changes, the town should be aware of potential problems to protect the health and well-being of its residents. The quality of ground and surface water is an issue of ever-increasing importance to the town's residents.

The Department of Environmental Conservation currently regulates all waste and potable water systems in the state. A Wastewater System and Potable Water Supply Permit must be applied for and granted by the Department of Environmental Conservation for any new development. Information covering sewage systems and requirements is available through the ANR and the Newark Town Clerk's Office.

Vermont's stormwater regulations require that any development that involves more than 1 acre of disturbed land treat its stormwater on-site. Smaller developments, such as single-family homes, are exempt from state and federal stormwater regulations. Smaller developments, however, can have a cumulative impact on water quality.

Low-impact development (LID) techniques provide an alternative to conventional stormwater management. LID mimics natural hydrologic processes and can be employed at individual homes to minimize runoff and maximize infiltration. Techniques can be relatively simple – like creating rain gardens in low-lying areas to absorb runoff or by disconnecting impervious surfaces, such as having downspouts drain into a yard, not a driveway. The net result is fewer contaminants entering our lakes, rivers, and streams. There has been some educational outreach on LID in the Northeast Kingdom. Although Newark has no zoning, landowners might benefit from outreach and education before they develop (or redevelop) their lots.

The town's goal is to maintain or improve the quality of surface and ground water to ensure a safe, drinkable water supply and to maintain a high level of appreciation for the protection of the ponds and streams of Newark.

3.5.5. Recreation

Newark abounds with outdoor recreational opportunities including hiking, biking, boating, canoeing, camping, cross-country and back-country skiing, snowmobiling, horseback riding, golfing, hunting, and fishing. Newark has miles of recreational trails that provide opportunities to visit and explore the community's natural areas.

Several areas in town provide public access for outdoor activities:

- The area adjacent to the Town Hall is used as a town park. It has a paved area for a basketball court and an open-air ice rink in the winter. It also has a covered picnic area. The park is used annually for the fire department's chicken BBQ and flea market on Old Home Day.

- The Bald Hill Wildlife Management Area, managed by the state Fish and Wildlife Department, is open to hiking, skiing, hunting, fishing, and trapping (subject to state regulations).
- Willoughby State Forest provides hiking, skiing, and other dispersed recreational opportunities. A section of a woods road is used in the winter as a snowmobile trail.
- Both Newark Pond and Center Pond provide opportunities for fishing and boating. Each pond has a state-maintained fishing and boating access area for launching boats, canoes, and kayaks. Personal watercraft are not permitted on either pond. Both ponds support populations of stocked and wild fish, including native brook trout.
- Beck Pond is a shallow 20-acre pond located due north of Center Pond. It has a small access trail for cartop/carry-in boats and has a population of brook trout.
- In 2005, NorthWoods Stewardship Center constructed a 0.5-mile trail from a trailhead on Center Pond Road to a small beach on the north end of the pond. Students from the Newark Street School have installed bog bridges and help maintain the walking trails.
- The Newark Pond Natural Area Preserve includes 2,410 feet of shoreline and a 0.5-mile nature trail, accessed by a small parking area on Newark Pond Road that loops through the forest around to the shoreline.

Publicly accessible recreational trails include the Center Pond Trail, the Newark Pond Natural Area loop trail (owned by The Nature Conservancy), and the woods roads located at Bald Hill WMA and Willoughby State Forest.

The NVDA and the Northeast Kingdom Travel and Tourism Association provide guides for bicycling in the Northeast Kingdom. *Cycling in the Kingdom* includes a route from East Burke to Island Pond, traveling along VT Route 114 through Newark. *Cycling the Kingdom's Back Roads* includes a route that enters Newark from the north on Abbott Hill Road and continues south down Newark Street, Schoolhouse Road, and Maple Ridge Road.

Kingdom Trails Association, located in East Burke, manages a world-renowned mountain-biking network featuring more than 100 miles of varied terrain in the area. Many Newark residents use the Kingdom Trails network for mountain biking, hiking, snowshoeing, and Nordic skiing.

The Vermont Association of Snow Travelers (VAST) is an association of local snowmobile clubs that includes the Newark E-Z Riders, who maintain Newark's snowmobile trails. Since most snowmobile trails are located on private land, VAST relies on the generosity of landowners for the privilege of riding on their land. Several woods roads, public Class 4 roads, and legal trails are included in the VAST trail network in Newark. Snowmobile trails may intersect town roads at designated crossings, but town ordinance prohibits operating a snowmobile on a town road.

Use of all-terrain vehicles (ATVs) is increasing in popularity. The Vermont All-Terrain Vehicle Sportsman's Association is an association of local ATV clubs. There are currently no specific ATV trails in Newark, and ATVs are not permitted on roads or public lands in the town. ATV operators must obtain landowner permission before using ATVs on private land.

Many landowners permit nonmotorized traffic on their lands. Some landowners permit hunting and trapping. Abuse of landowner generosity can result in loss of recreational access to private lands. The Town of Newark encourages people to respect the rights of landowners and to seek permission before accessing posted land.

Newark embraces the Vermont tradition of permitting low-impact recreational access, such as cross-country skiing, hunting, and hiking, on private roads and trails. Newark landowners are encouraged to support recreation by NOT posting their land, and visitors should respect private property and obey all signs. Landowners should be made aware that under Vermont's Landowner Liability Law, they are not liable for injuries to recreationalists who use their land.

Recreation is an important aspect of life in Newark. It is also an important driver of the economy of the town and region. Newark wishes to preserve its natural assets, which provide so many recreational opportunities, and to continue its landowners' tradition of providing recreational access to private lands. The town also wishes to maintain its recreational assets such as hiking trails and beaches and to work with local groups to expand the range of recreational opportunities.

3.5.6. Commerce and Industry

Newark has little in the way of commercial or industrial development. The village centers and downtown areas of neighboring towns offer more promise for commercial ventures than Newark, with its small population and lightly traveled roads.

Similarly, Newark has few amenities to offer industrial developers. It lacks sewage and water systems, three-phase power, paved roads, and easy access to interstate highways. The Town of Newark supports the NVDA's efforts to develop and promote industrial parks that provide the infrastructure and services required for industrial development in the region.

Concentrating commercial and industrial development in existing commercial areas and industrial parks is a fundamental principle in the "smart growth" strategy that the State of Vermont is promoting. Many Newark residents commute to commercial and industrial areas in nearby towns to work and shop.

Newark's commercial activities at the present time are forestry, arts, artisanal work, individual home construction, and home-based occupations. These small businesses are important to the

town and should be encouraged. A home occupation or business is defined as one conducted by the resident(s) of a residential building, which is carried out within the principal building or an accessory structure incidental to the dwelling, employs no more than four nonresidents, and does not substantially alter the character of the area.

Newark's goal is to maintain its unique rural atmosphere, natural scenic beauty, and wildlife habitat, while encouraging the orderly and environmentally sound development of economic opportunities.

Residents of the Northeast Kingdom view the rural character of the region, its natural resources, and its large tracts of undeveloped land as its most valuable resource and vital to an economic future that is most compatible with their lifestyles, sensibilities, and preferences. The Town of Newark encourages only those developments that preserve and make use of these economic drivers, respect the natural environment, and improve the well-being of residents. The town regards development that would compromise the rural character of the town, its natural resources, and its large tracts of undeveloped land as inappropriate and inconsistent with the town's vision and goals.

The Town of Newark regards large-scale industrial development as inappropriate within the town, preferring instead to support the NVDA's efforts to develop industrial centers within the Northeast Kingdom. Newark values its forests, agricultural lands, ridgelines, and other high-elevation areas and recognizes the great importance of preserving them to safeguard food security and biodiversity. Therefore, large-scale commercial and industrial development must not occur in priority forests (Map 13), on prime agricultural lands (Map 18), or at elevations greater than 1,700 feet.

Approximately 10,000 acres (out of the town's total of nearly 24,000 acres) lie at elevations above 1,700 feet. These lands, which are depicted in Map 4, are largely made up of conservation lands and parcels that are enrolled in the Current Use program; they are, thus, unavailable for development. A majority of these lands lie in the critical wildlife linkage identified by the Staying Connected Initiative. Thus, they are inappropriate for development. Significant portions of the lands have steep slopes and poor soils and are not served by electricity distribution lines; thus, they may be unsuitable for development.

In addition, Newark regards commercial or industrial structures that exceed 125 feet in height as inappropriate and inconsistent with the town's vision and goals.

Any industrial or commercial development in Newark should be small-scale, should not fragment forests, should not encroach on neighboring properties, and should have an appearance that blends in with Newark's rural character. "Strip development" along roads in Newark must be avoided. Developments that cannot blend should be entirely screened from

view from neighboring properties, state highways, and town roads. Screening can be achieved by proper siting, consideration of topographical features, and use of native vegetation.

3.5.7. Historic and Cultural Features

The Town of Newark has some known historic sites and structures as well as other historic features that have yet to be identified or catalogued. Newark's historic homes and buildings are part of the town's cultural landscape and rural character, which include traditional settlement patterns and features and the historic built environment. A 2014 public forum confirmed that there is local support for preserving Newark's rural character, including its small-town feeling, agrarian setting, and historic, scenic, and recreational resources.

Many privately owned historic homes and barns help define the town's agrarian heritage. Also of historical significance, though not well-documented, are other cultural landscape features, including native American sites, stone walls, shade trees, fences, corner posts, and "witness trees," which once marked field and property boundaries; foundations and cellar holes, as well as other visible remnants of past land use and occupation. Several historic mill sites in Newark are evidenced by stonework and remnant foundations and point to the early industry of the town's past.

3.5.8. Open Spaces

Newark recognizes the importance of open spaces for wildlife habitat, recreation, flood resilience, and preservation of our cultural heritage. These issues are important themes that recur throughout this town plan. They are discussed elsewhere in this section as well as Sections 6 and 11. See the *Newark Natural Resource Inventory* for more detailed discussions.

3.5.9. Posted Land, Parcelization, Fragmentation, and Current Use

There is a tradition of "open lands" in the Northeast Kingdom. Landowners generously allow access to their lands for various recreational purposes. Guests who make use of this access are generally courteous, appreciative, and respectful.

Newark's lands remain largely open for recreation. To post land against trespassing, a landowner must file with the town clerk each year, pay a fee, and meet strict state signage requirements. As of this writing (March 2024), only eight parcels, totaling 707.5 acres, are legally posted.

Parcelization and fragmentation are distinct but related threats to Newark's wildlife habitat. The Vermont Natural Resources Council describes these threats as follows: When land is

divided into smaller parcels (parcelized), the result is usually an increase in the number of owners of that piece of land. This often leads to new housing and infrastructure development, fragmenting the landscape. Depending on the location and scale, such fragmentation may negatively affect plant and animal species, wildlife habitat, and water quality. Fragmentation may also affect "the contiguous ownership and management of forest parcels, and thus the viability of large tracts of forestland to contribute to Vermont's rural economy."[37]

Newark's grand lists for the years 2004, 2013, and 2023 show that Newark's land is being broken up into smaller parcels. The process may appear to be slow, but it is a process that generally does not reverse, and the cumulative effect over time can be significant.

Table 3-2 shows that from 2004 to 2023, the number of parcels in Newark grew from 675 to 696. The median parcel size has shrunk from 11 acres to 10.3 acres, meaning that half the parcels are now smaller than 10.6 acres and half are larger.

Newark Land Parcels			
Year	**2004**	**2013**	**2023**
Total Parcels	675	702	696
Median Parcel Size (acres)	11	10.6	10.3
Average Parcel Size (acres)	34.6	33.2	32.8

Table 3-2 Newark parcelization

The State of Vermont established its Current Use program in 1978, taxing farm and forest land based on its value for agricultural or forest use instead of its value in the marketplace. One of the purposes of Current Use is to slow development of these lands by taxing them at a lower rate, thus helping relieve owners of large tracts of land of an unmanageable tax burden.

Newark has seen an increase in the amount of land enrolled in Current Use (see Map 21). It may be that enrollment in the program has enabled Newark landowners to resist financial pressures to divide their land and sell portions for development.

According to town officials, Newark's participation in the Current Use program has increased from 18 parcels (totaling 4,504 acres) in 2004 to 80 parcels (totaling 12,090 acres) in 2023. That is an increase from less than 20% of the town's land to about 50%.

In 2023 Vermont introduced a Current Use program for "Reserve Forestland." The new program allows owners to passively manage "significant and sensitive" forestland.

[37] VNRC, Community Strategies, p. 4.

3.6. Land-Use Goals and Actions

3.6.1. Goal: Preservation of Newark's Character

Preserve Newark's rural character and the purity and aesthetic beauty of the town's environment- including its working lands, and forest, water, and wildlife resources.

A. Re-establish the Newark Conservation Commission to develop and implement community conservation goals and provide relevant outreach to landowners.

B. Establish and administer a Newark Conservation Fund, in coordination with the Conservation Commission, Selectboard, and other stakeholders, to provide financial assistance and directly support the conservation of priority, high value forest and farmlands in Newark.

C. Support the preservation of open and active forest and agricultural lands by providing information resources to landowners related to Vermont's Landowner Liability Law (insert VSA chapter here), the Use Value Appraisal (UVA or 'Current Use') program, and other state, federal, and private land conservation funding and stewardship programs.

D. Participate in proceedings under Act 250, Section 246, and Section 248 to ensure that Newark's conservation objectives are well understood and given strong consideration.

3.6.2. Goal: Orderly and Environmentally Sound Development

Housing and economic opportunities should be pursued in an orderly and environmentally sound manner that protects critical habitat corridors, forests, and agricultural lands from fragmentation and incompatible uses.

A. Make information resources available to landowners that encourages 'smart growth' principles that minimize the impacts of development and management practices on forest areas, water resources (seeps, wells, rivers and streams, shorelines, and riparian areas), and prime agricultural lands.

B. Support compatible small businesses and home-based occupations that preserve the working landscape. Support public and private conservation opportunities that ensure working forests and farms, protect water and wildlife resources, preserve historic sites and buildings, secure recreational access, and mitigate negative impacts of flooding and climate change.

C. Utilize, promote, and share resources provided by our regional planning commission (Northeastern Vermont Development Association- NVDA) to support communities, small businesses, and industrial enterprises.

4. Transportation

Transportation planning is vital for a community. It has a fundamental impact on land use and development; provides for the movement of people and goods within the community; and provides connections among homes, community facilities, and destinations beyond the community. The main goal of the transportation policy in Newark is to provide a safe, efficient, and convenient network of roads for all Newark residents and visitors.

According to the latest Vermont Agency of Transportation (VTrans) General Highway Map for Newark (see Map 22), there are 43.427 miles of public, traveled road in Newark, consisting of Class 1 (State) and Class 2 and 3 (Town) highways. The mileage breakdown is shown in Table 4-1. There are also 5.10 miles of Class 4 highways and 1.06 miles of legal trails, which are generally not maintained by the town but are open to public use. In addition to public roads, the 2008 Land Use Investigation Project identified 20.265 miles of private roads in Newark. These roads are not included on the VTrans General Highway Map.

Class 1 - State Highways	6.097
Class 2 - Newark Street	6.880
Class 3 - Town Highways	30.450
Total	43.427

Table 4-1 Miles of highway in Newark

4.1. Class 1—State Highways

Per statute, Class 1 roads are those town highways that form an extension of a state highway route and have a state highway route number. VT Route 5A runs approximately 0.85 mile on the western edge of town, from the Westmore/Newark town line to the Newark/Sutton town line in a north-south direction. It is an important travel corridor linking West Burke, Lyndonville, and points south with Westmore, Lake Willoughby, and points north. VT Route 114 runs north-south approximately 5.25 miles on the eastern edge of town from the Brighton/Newark line to the Newark/East Haven town line. It is one of two north-south highways in nearby Essex County and is the primary route connecting East Burke, Lyndonville, and points south with the village of Island Pond, northern Essex County, and the rural eastern portion of Orleans County.

4.2. Class 2—Newark Street

Class 2 town highways are the most important routes in each town. In Newark, the only Class 2 town highway is Newark Street. It travels directly north-south for much of its length and runs 6.88 miles from the Westmore/Newark/Brighton town line at the northern end of town to the Burke/Newark town line to the south. Newark Street is the only paved highway in town. Before

the construction of VT Route 114, Newark Street served as a main stage route between West Burke and Island Pond. The State of Vermont paved Newark Street from Route 5A in West Burke to the state-owned Bald Hill Fish Culture Station (approximately 3.36-miles of this paved street lies in Newark).

4.3. Class 3—Town Highways

Class 3 roads include all traveled town highways other than Class 1 or 2 highways and, by law, must be kept in good and sufficient repair during all seasons of the year. Newark has 30.45 miles of gravel Class 3 town highways. Appropriated funds and federal grant money have been used to upgrade and improve Newark's gravel roads. The improvements include extensive ditching, new culverts, and new surface gravel, as well as new street signs (particularly near the municipal garage and school) and better road alignments at intersections. It is felt that the existing road network and maintenance programs serve the town's citizens adequately at the present time.

The town follows the state's recommendations for gravel-road construction and maintenance and continues to apply for grant monies to aid with the cost of road work. Future road-maintenance efforts should consider practices such as ditch treatments and culvert upgrades to increase the resiliency of the infrastructure and reduce long-term costs.

New roads (for a subdivision, for example) will be considered for acceptance by the town only if they meet minimum Class 3 standards as defined by Vermont statute. The town will be reluctant to accept new dead-end roads and cul-de-sacs—they are especially time-consuming for road crews to maintain, and they provide little public benefit. Also, building and maintaining additional roads require the use of gravel, an expensive, finite resource. The town purchases most of its gravel from a gravel operation within the town (see Section 6.4).

4.4. Class 4—Town Highways

Class 4 roads include all other town highways, which are typically maintained to the extent required by the necessity of the town. By law, towns are not required to maintain Class 4 roads regularly, but they may be required to maintain bridges and culverts. There are 5.10 miles of public Class 4 roads in Newark, many of which access private dwellings or are currently impassible to most vehicles.

Because Vermont's Class 4 roads are public rights of way that provide important opportunities for recreation (such as snowmobiling, skiing, bike riding, and hunting), the Vermont Trails and Greenways Council and the Vermont Department of Forests, Parks and Recreation advise communities to preserve these corridors for current and future generations. In the event that Newark decides to discontinue or "throw up" a Class 4 road, the town should seek to reclassify

the road as a legal trail, thus preserving the public right of way while eliminating the burden of maintenance.

Vermont has a Municipal Roads Program. Among its goals is the reduction of stormwater-related erosion. The program places particular importance on those roads that are "hydrologically connected."

The state's Road Erosion Inventory shows that Newark is making steady progress in its efforts to comply with state standards.

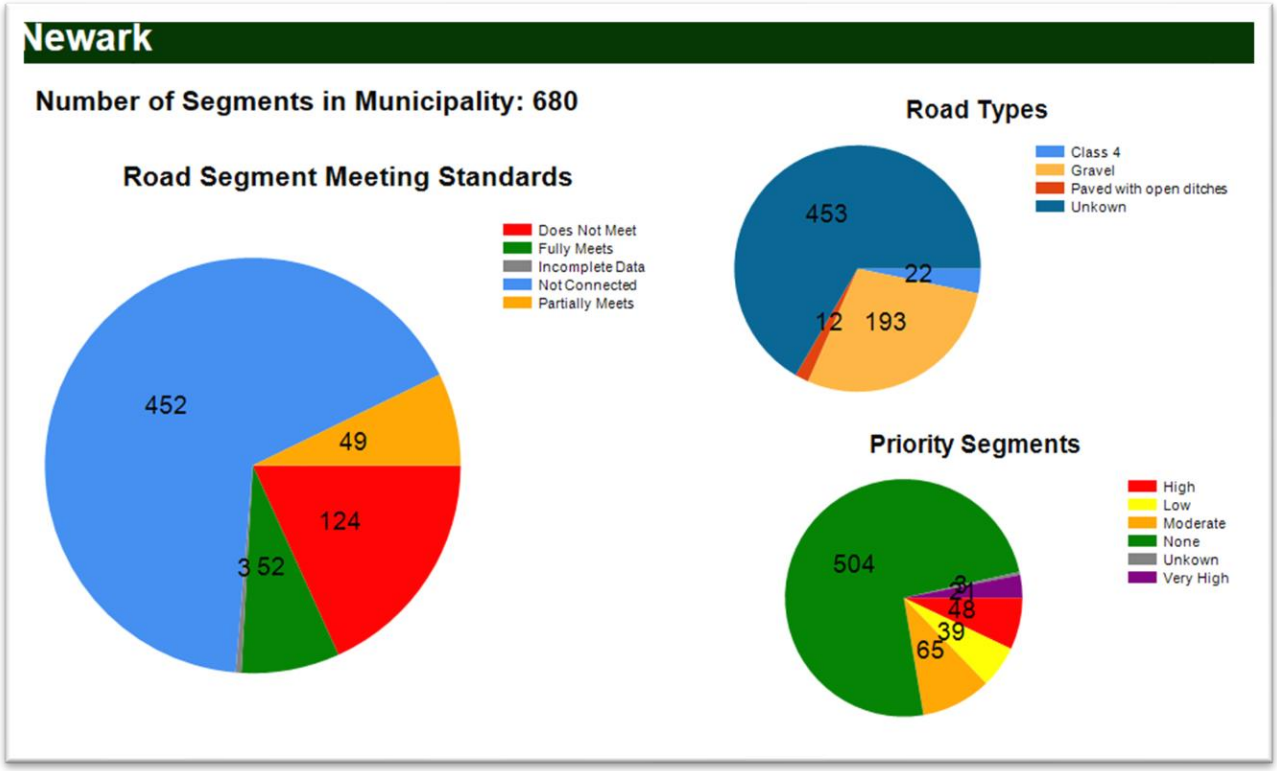


Figure 4-1 Newark's Road Erosion Inventory summary (May 2024)

4.5. Legal Trails

By statute, a legal trail is a public right of way that is "not a highway." The town is not liable for the construction, maintenance, repair, or safety of legal trails. Newark has two legal trails, totaling 1.06 miles:

- LT1, an unnamed trail that runs between Schoolhouse and Newark Pond Roads
- LT2, Bean Hollow Trail, that runs east off East Hill Road

4.6. Unidentified Corridors or "Ancient Roads"

Unidentified corridors are highways that were laid out with proper authority but do not appear on town highway maps, are not clearly observable by evidence of use, and are not legal trails. These roads are often unnoticed in property-deed research—which typically include the last 30 years—and have complicated title and insurance claims. Newark conducted research on ancient roads within the town. Recent state legislation, which gave towns a limited amount of time to identify and reclaim these roads, expired in 2015.

4.7. Scenic Roads

VT Routes 114 and 5A, both of which pass through Newark, have been designated "Northeast Kingdom Byways" by the Northeast Kingdom Travel and Tourism Association. The byway designation is an element of the association's campaign to promote the Northeast Kingdom as a geo-tourism destination. VT Route 5A provides views of Willoughby Gap. VT Route 114 follows the East Branch of the Passumpsic and provides views of the Seneca range to the east and Hogback Mountain (the ridge made up of Walker Mountain, Hawk Rock, Packer Mountain, and Sugar Hill) to the west.

Newark's town highways are scenic as well. Many town roads, including Newark Street, East Hill Road, Duford Road, Abbott Hill Road, Center Pond Road, Schoolhouse Road, Maple Ridge Road, and Rivers Farm Road feature canopied stretches that open up onto views of Hogback Mountain, the Senecas, East Haven Ridge, Willoughby Gap, Haystack Mountain, Job's Mountain, the Pinnacle, and Bald Hill. Abbott Hill Road is especially dramatic in winter when the frequent snows cover the trees that overhang the road.

These views are an essential characteristic of Newark, and it is the goal of the town to preserve them. The town discourages the disruption of tree canopies, stone walls, and other scenic features along roadways. The town encourages shared access for driveways—this reduces the number of curb cuts and will encourage the type of smart growth that the town promotes (see Figure 3-2 on page 30). The town discourages developments and activities that would detract from the open views along highways.

4.8. New Roads, Driveways, and Curb Cuts

To ensure that no damage is done to town highways, a developer or property owner must receive the town's permission before connecting a new road or driveway to an existing town road. Access permits for curb cuts are available at the Town Clerk's Office for a small fee.

Approval from VTrans is required to access state highways.

4.9. Bicycle and Pedestrian Traffic

Newark encourages bicycle riding on the shoulders of town roads, but the town advises riders to use caution, especially on narrow bridges. Being a hill town, every approach to Newark involves a steep climb, so bicycles may not be popular for general transportation. The popularity of the Kingdom Trails network in the neighboring communities of Burke, Lyndon, and East Haven has dramatically increased the volume of cyclists in the area—both on roads and trails. Efforts to promote gravel road rides have also increased the number of cyclists on Newark's back roads. Some organized cycling events and races take place on Newark roads.

The town has no sidewalks, so care and caution should be at the utmost when walking along our roads. As development in Newark continues, there may be a need to consider improvements to the town's pedestrian infrastructure—particularly in the village area near the Newark Street School. Here, the town has taken action to install additional speed limit and safety signage, enhancing pedestrian and bicycle travel. The planning commission will work with the selectboard and School Committee to assess the benefit of the addition of a sidewalk or recreation path on or near town property.

4.10. Public Transportation and Ride Sharing

Currently, there are few alternatives that would allow residents to become less dependent on motor vehicles. Rural Community Transit (RCT) is a nonprofit transportation group that serves a wide range of passengers through a variety of programs. RCT coordinates medical trips for Medicaid-eligible persons and provides services for area social-service agencies. RCT relies on a volunteer driver network and, as demand increases, so does the need for volunteers. The Town of Newark appropriates funds for RCT each year at Town Meeting.

VTrans has developed a free resource called **Go Vermont** (Go! Vermont - Vermont's best resource to find all the ways to go. (connectingcommuters.org)) to help people reduce their transportation costs through carpooling, vanpooling, and ride sharing. While none exists in Newark, a number of Park and Ride sites are located in neighboring towns, offering Newark residents the opportunity to carpool to work or retail businesses. Many of these are located along state highways—VT Routes 114, 5, and 5A—or at private businesses and municipal properties. Carpooling is an important, cost-effective means of reducing vehicle mileage, maintenance costs, fuel consumption, and carbon emissions. Where possible, Newark should work with neighboring communities and VTrans to promote the use of Park and Ride facilities by Newark residents.

4.11. Transportation Goals

4.11.1. Goal: Sustainable Transportation

Newark's transportation system should be sustainable, well-managed, resilient, and minimize negative impacts to Newark's waters, wildlife, natural beauty, and historic settlement patterns.

A. Implement the best practices for road maintenance, in coordination and with support from Vermont's Agency of Transportation (VTrans) when necessary, to provide an effective transportation system that enables residents to access services and facilities within town and in neighboring communities.

B. Create a long-term road-improvement program that prioritizes the maintenance and rehabilitation of existing traveled roads and addresses the high-priority road segments identified in Newark's Road Erosion Inventory.

C. Identify and improve wildlife crossings and passage for aquatic organisms.

D. Ensure that new town roads and new lot layouts minimize the degradation and fragmentation of wildlife habitat, forests, and farmland.

E. Ensure that adequate standards are followed in upgrading Class 4 and private roads to Class 3 town-maintained roads, noting that landowners are required to pay for such upgrades and that the planning commission and selectboard must ensure consistency with the town plan.

4.11.2. Goal: Accessible and Adequate Transportation

Newark residents should have access to transportation facilities that are safe, efficient, and adequate to meet the needs of all users, including pedestrians and cyclists.

A. Cooperate with the Northeastern Vermont Development Association, neighboring communities, and service providers to encourage the development and use of public transportation, ride sharing, and Park and Ride facilities.

B. Through a town-wide survey of bicycle-pedestrian access and opportunities, increase bike-ped use and safety on Newark's roads and trails- particularly in the Newark Street village area.

C. Reduce speeding (an increasingly serious problem) on Newark roads

D. Encourage access to broadband services to support telecommuting, home occupations, and small-scale home businesses, thus reducing the need for commuting.

5. Utility and Facility Plan

Newark's buildings and facilities are shown in Map 20.

5.1. Town Buildings

The Town of Newark owns three buildings: Town Clerk's Office, Town Garage, and Town Hall. These buildings are situated on a parcel of approximately 10 acres, located just north of the crossroads of Newark Street and Schoolhouse Road.

The Town Clerk's Office was built in 1973-1974, has 560 square feet of floor area, is handicap accessible, and has electric heat. The building has been maintained well and is in fair condition. It consists of three rooms: the clerk's office, the document vault, and the conference room. The conference room is used for meetings of the selectboard, listers, planning commission, and other town groups. The conference room is also used for Election Day polling.

The Town Garage, constructed in 1986, is a heated 40' x 100', five-bay metal structure located just north of the Newark Street School. The garage houses both the town's road equipment and the Newark Volunteer Fire Department's equipment. The condition of the town garage is poor, and the jointly used space is inadequate. A building committee was formed in 2023 to identify options for improving or replacing the garage.

The former Town Hall, which is in poor condition, is the oldest building owned by the town. The upper level, unused now and mostly empty, was once used for Town Meetings and includes an open floor plan with a small stage and a primitive bathroom facility (no longer functioning). The rear portion of the lower level is used for storage, while the front section has been converted into a recycling center (see Section 5.3.5). Improvements to the recycling center were made possible by private donations and by bottle-return monies provided by the recycling center.

5.2. Historic Features

The Town of Newark has some known historic sites and structures. These buildings are part of the town's cultural landscape and rural character.

The Newark Street Union Meeting House, located in the heart of Newark's village, was built in 1862 and is owned by the pew holders. The building is in good condition, thanks to grants and donations. A volunteer group raised funds for work on the meeting house's steeple and the installation of a new weathervane in 2022. In 2021 a new heating system was installed to complement the original wood stove.

The meeting house is used for Newark's annual Old Home Day celebration in July and for a nondenominational Easter service. The acoustics are excellent, making it a favorite venue for

the Newark Balkan Chorus.[38] The Newark Street School has used the church for programs and graduation. The meeting house is also available for weddings and funerals.

5.3. Town and Regional Services

5.3.1. Road Maintenance

Newark's highways are maintained by a Road Foreman who is appointed by the Selectboard and works with two crew members. The Foreman reports to the Selectboard and works closely with the Vermont Agency of Transportation.

It is town policy to leave a road unplowed if all the homes on that road are unoccupied in the winter. Newark has an ordinance forbidding the moving of snow from a driveway onto a town road (a practice that can create hazardous conditions for drivers).

5.3.2. Hospitals and Medical Services

The closest hospital to Newark is the Northeastern Vermont Regional Hospital (NVRH) in St. Johnsbury. NVRH has a 25-bed critical access hospital, multiple primary care clinics, specialty and surgical services, birth center, and a 24-hour, physician-staffed emergency department.

NVRH is affiliated with Dartmouth-Hitchcock Medical Center in Lebanon, NH and has a helipad, enabling the Dartmouth-Hitchcock Advance Response Team to transport patients to Lebanon or to any other facility in New England. NVRH celebrated its 50th anniversary in 2022.

Other nearby hospitals are the North Country Hospital in Newport, Copley Hospital in Morrisville, Littleton Regional Healthcare in Littleton, NH, and the University of Vermont Medical Center in Burlington.

The Norris Cotton Cancer Center North, a Dartmouth-Hitchcock facility located in St. Johnsbury, provides cancer care in coordination with local health-care facilities as well as with the Norris Cotton Cancer Center in Lebanon.

Numerous medical and dental facilities are located in towns close to Newark, including Lyndon, St. Johnsbury, Barton, and Island Pond. Some Newark residents use Corner Medical in Lyndonville, Island Pond Health Care, or medical offices in St. Johnsbury for their health care.

[38] The Newark Balkan Chorus, created by beloved teacher Evanne Weirich, has shared its rich harmonies and rhythms in such venues as Garrison Keillor's *Prairie Home Companion* and the movie *In the Bedroom*.

Eye care is available in St. Johnsbury. There are pharmacies in Island Pond, Lyndonville, and St. Johnsbury.

5.3.3. Emergency Services

5.3.3.1. Rescue

The Town of Newark is served by Lyndon Rescue, Inc., an ambulance service located at Northern Vermont University in Lyndon. Lyndon Rescue's board consists of one person from each of the towns it serves. Besides providing emergency ambulance service, Lyndon Rescue will also transport patients from one medical facility to another (e.g., from NVRH to the Dartmouth-Hitchcock Medical Center in Lebanon).

The town has implemented the Enhanced 911 program. All roads have been named, and signs indicating their names have been erected. All homes have been numbered. This facilitates quicker response by emergency vehicles. New house numbers are assigned by the town's E911 Coordinator. The Newark Volunteer Fire Department will provide reflective house number signs for a small fee. These signs reduce the time emergency responders spend looking for properties that may not be correct on GPS or map applications, or may be in remote locations of the town.

Newark relies on Vermont's Statewide Local Emergency Planning Commission[39] for response and mitigation plans for a variety of natural and man-made disasters, including floods, hazardous material spills, wildfires, snowstorms, and terrorism.

Currently, Newark does not participate in the National Flood Insurance Plan and has no flood-hazard regulations. Flood resiliency is discussed more fully in Section 11.

A propane-powered electric generator has been installed at the school, improving the school's resource as an emergency site for the town.

5.3.3.2. Fire Protection

Fire protection for the town is provided by the dedicated volunteers of the Newark Volunteer Fire Department.

The department responds to structure fires, medical emergency calls, motor-vehicle accidents, chimney fires, and alarm investigations.

[39] On July 1, 2021 Vermont consolidated 13 separate Local Emergency Planning Committees (LEPCs) to one statewide LEPC to carry out the requirements of the Emergency Planning and Community Right-To-Know Act (EPCRA).

The Department currently has approximately 14 volunteer members, including several EMTs, on its roster. The membership is not compensated for their services but are provided insurance coverage while performing department roles.

The Department holds a basic EMT license to provide emergency medical services and is one of few Certified ALS First Responder squads in the region. The Department provides first response to medical emergencies with higher level treatment and transportation provided by Lyndon Rescue. The Fire Department has a portable defibrillator and EMTs are issued medical equipment bags. The department has a 2005 E-One/international fire engine, a 1977 Maxim tanker truck, due to be replaced in 2023 with a new E-One/International tanker using grant funding, and a 1984 Chevrolet C30 Rescue Truck. The engine is used to respond to most fire emergencies and car accidents. Its primary purpose is to pump water from water supplies to other apparatus and to supply water to the fire hoses. The tanker truck is used to carry large amounts of water from its source to a fire scene. The rescue carries seasonal equipment such as ice rescue suits and wildland firefighting equipment, extraction equipment, a portable water pump, and can tow the department's utility trailer with additional equipment.

The Newark Highway Garage is shared with the Fire Department, which occupies the two east most bays. The facility has been deemed to be inadequate and in need of renovation or replacement. It does not have space to house the fire department's three vehicles and equipment and does not provide training/office space separate from the truck bays. This problem is presently being addressed by the Building Committee. In 2016 the Fire Department built an additional cold storage shed to provide additional equipment storage.

The town does not have a municipal water supply or pressurized fire hydrants. The Department has access to five dry hydrants that the Engine or Tanker can use to pump water out of the connected stream or pond. These dry hydrants have been paid for by a combination of grants and town budget funding. They are located on Center Pond Road at Sleepers Brook, at Newark Pond, on Howard Brook Road at VT Route 114, and on Schoolhouse Rd. at Newark Street.

Dispatching is managed 24/7 by the St. Johnsbury dispatch system. The Newark Volunteer Fire Department has mutual-aid agreements with Northeast Mutual Aid, which includes the six towns on Newark's southerly borders, and the Northeast International Mutual Aid System, which includes towns on the northerly borders. Newark is part of mutual-aid systems involving 25 other fire departments.

In other public service, the fire department periodically hosts a CPR/Basic First Aid course at the Newark Street School. This hands-on workshop is free to the public (donations are gratefully

accepted). During Fire Prevention Week, volunteer members meet with and educate the children at school on fire safety.

The town appropriates funds annually for department operations. Additional funds are raised through an annual chicken BBQ, an annual chicken pie supper, and generous donations from residents and property owners.

The fire department is faced with several challenges:

- The continued development of year-round and seasonal homes and camps has increased the number of structures covered by the department.
- Some of the development is occurring in remote areas and along Class 4 or private roads, making access more difficult.
- Gated or barred private roads encumber access to potential emergencies.
- It has become increasingly difficult to enroll and retain community members in the fire department.
- The availability of private or public water supplies to support emergency fire services is limited.
- The conditions at the town garage and fire department are crowded.

5.3.3.3. Police Protection

Newark is served by two part-time constables, who are elected each year at Town Meeting. The constables are paid only for services performed for the town, which typically involve local complaints about violations of town ordinances or state statutes. (Copies of town ordinances are available at the Town Clerk's Office.)

Newark is served by the Caledonia County Sheriff's Department. The department provides routine patrolling and emergency services. The town can contract the Sheriff's Department to provide dedicated coverage on a per-hour basis. Newark has entered into such contracts on occasion.

Newark is also in the territory served by the St. Johnsbury barracks of the Vermont State Police.

5.3.4. Libraries

Newark has no public library, but the town donates funds annually to the Cobleigh Public Library in Lyndonville. Among other services, the library provides a bookmobile that stops at the Newark Street School on a regular basis. Residents can use the Cobleigh Public Library as well as the Island Pond Public Library in Brighton, both of which offer internet service. Additional library services are offered at the former East Haven School and the Burke Mountain

Club in East Burke. In addition, community members have established free mini-libraries on Sugarhouse Road, East Hill Road, Newark Pond Road, and Newark Street.

5.3.5. Refuse Disposal

The solid-waste transfer facility is housed in a semi-enclosed structure adjacent to the Town Hall building, where part of the first floor has been converted to a recycling center. The recycling center is operated by the Town of Newark in partnership with the Northeast Kingdom Waste Management District (NEKWMD). Since July 2013, the transfer station has been staffed by a contracted waste hauler. It offers free recycling and pay-per-throw trash collection. The facility's regular hours are Sunday, 11 AM to 4 PM.

Items that can be recycled include glass, steel cans, plastics, corrugated cardboard, boxboard, newspapers, junk mail, aluminum cans, and other materials. Compost containers for food scraps are located outside the building. Bulky items, such as appliances and furniture, may be disposed of, for a fee, whenever the facility is open. Residents can also make arrangements with the contractor to pick up bulky items at their home. The solid waste is removed weekly by the contractor and disposed of at the Waste USA landfill in Coventry, VT.

Newark residents can dispose of metal, batteries, oil, and other materials at NEKWMD's facility in Lyndonville.

5.3.6. Post Office

Many years ago, Newark had two post offices, but today it has none. Mail delivery is largely handled by the West Burke Post Office, with the East Haven Post Office covering a small portion of town.

5.4. Utilities

5.4.1. Water and Sewage

The town has no municipal water or sewer systems. Systems are the sole responsibility of property owners and are required to meet state and federal regulatory standards (see Section 3.5.4).

5.4.2. Electric Power

Electric power in Newark is provided by Lyndonville Electric Department in the southern part of town and by Vermont Electric Cooperative in the north. No large-scale electricity generation is located within the town. Newark has no three-phase power lines. Some areas of town have no access to the electrical grid. Some residents have chosen to supply their own electricity

through the use of gasoline, diesel, or propane generators or renewable-energy systems such as solar panels (see Section 8 Energy Plan).

5.4.3. Communication Services

Telephone service throughout the town is provided via landlines by Consolidated Communications. Old lines and equipment, however, often cause static interference in landline telephone service.

Cellular phone service is available through several carriers (e.g., AT&T or T-Mobile), although the town has many "dead areas" in cellular service.

DSL Internet service is available from Consolidated Communications in most parts of town. Some residents make use of wireless internet services from VTEL. Satellite Internet service is available from Viasat, Hughes, and Starlink.

In 2021 the Federal Communication Commission conducted a reverse auction and awarded funding from its Rural Digital Opportunity Fund (RDOF) to the winning bidders. In exchange for federal funds, winning bidders must provide high-speed internet service to all residents in the geographic areas on which they bid within 6 years. If a winning bidder fails to provide service, the FCC may impose a penalty on the bidder. Consolidated Communications was the winning bidder for many sections of Newark.

In 2020, Newark joined Northeast Kingdom Broadband, a communication union district (CUD) enabled by Vermont statute. Every town in the Northeast Kingdom belongs to Northeast Kingdom Broadband. The CUD has a goal to make high-speed internet, optical fiber internet available to every grid-served home in Newark. Newark has a primary and alternate representative on the CUD's Board of Directors.

Reception of broadcast television is very limited in Newark. Only a few homes have access to cable television. Many Newark residents make use of satellite television from Dish Network and DirecTV.

5.5. Utility and Facility Goals

5.5.1. Goal: Ensure Adequacy of Town Resources

Preserve the rural character of the community and ensure the adequacy of town resources for present and future generations through the preservation and maintenance of town buildings, lands, and historic resources.

A. Work with the selectboard, town clerk, fire department, and road commissioner to address ongoing priorities for town properties.

B. Work with the conservation commission to guide management of the Newark Town Forest, to support land and resource conservation projects, and to provide stewardship resources for landowners.

C. Support the stewardship of historical information, documents, sites, buildings, and artifacts through the delegation/appointment of a Newark Historical Society, committee, or town historian.

5.5.2. Goal: Ensure Safety

Ensure the safety of Newark residents and properties by supporting the services of Newark's road, fire, and rescue personnel.

A. Actively participate in and support the efforts of the Town Building Committee to ensure adequate fire, road, office, and school facilities in Newark.

B. Improve public safety by ensuring that all roads have their names posted clearly and by encouraging property owners to display E911 numbers on their houses and camps.

5.5.3. Goal: Waste Management

Newark is a leader in the reduction of household solid waste in the Northeast Kingdom and should continue to operate an efficient and user-friendly recycling and waste transfer facility.

A. Provide continued municipal support for the town’s recycling and trash services.

B. Foster education to reduce solid waste and properly dispose of recyclables, e-waste, compost, scrap metal, hazardous waste, bulk items, and trash.

5.5.4. Goal: Communications

All Newark residents should have universal access to communication services—internet, cellular, and cable.

A. Work with Northeastern Vermont Development Association, the state, NEK Broadband and other consumers to continue line and equipment upgrades throughout the town for better telephone and high-speed internet service.

6. Preservation Plan

Newark is rich in natural resources, scenic beauty, and recreational opportunities. The preservation of these riches has been the result of frugality, a commitment to stewardship, the willingness to forego many of the luxuries that are readily available in other parts of Vermont, and plain good luck.

For many years, the primary threats to the preservation of Newark's natural and cultural heritage arose from unsustainable timber-harvesting practices and the scattered development of homes and camps. Now, Vermont's energy policies have introduced the threat of unchecked energy sprawl.

Newark's irreplaceable assets include its rural character, wildlife habitat, scenery, and recreational opportunities. It is the goal of the Town of Newark to preserve these assets and protect them against threats.

The town is concerned about plans for major development within Newark and in neighboring towns. Since most area towns regulate development more strictly than Newark does, Newark may find itself vulnerable to types of development that surrounding towns find undesirable. These developments could threaten the environment and quality of life that Newark residents value.

The town's goal is to ensure that future generations may enjoy a high quality of life, economic and recreational opportunities, abundant clean water, clean air, healthy habitat for fish and wildlife, picturesque landscapes, and peace and quiet.

While it is the intention of the citizens of Newark to preserve the scenic beauty and quality of sparsely developed wildlife habitat throughout the town, lands that the town places special value on for scenic, wildlife, and recreational importance include:

- The Newark forests that the Vermont Agency of Natural Resources has designated "highest priority" and "high priority."
- The additional forest areas included in the Staying Connected Initiative's "Worcesters to Northeast Kingdom" linkage.
- The ridgeline historically known as Hogback Mountain, which consists of Walker Mountain, Hawk Rock, Packer Mountain, and Sugar Hill.
- The Job Mountain Ridge, which enters Newark from the northwest and runs toward Newark Hollow.
- The Pinnacle Ridge, which extends southeastward from Newark Pond toward Maple Ridge Road.

- The high-elevation areas along Newark Street, Abbott Hill Road, Pinnacle Road, Spruce Ridge Road, Maple Ridge Road, and Kinney Hill Road.
- The town's ponds, including Newark Pond, Center Pond, Beck Pond, Walker Pond, Sawdust Pond, and Brown Pond.
- The town's rivers and streams, including the East and West Branches of the Passumpsic, Bean Brook, and Sleeper Brook, as well as smaller tributaries, wetlands, and vernal pools.
- The scenic roads described in Section 4.7.

These natural resources provide important ecological services as well as economic, recreational, and aesthetic benefits to residents and visitors. Development that would compromise these benefits is inappropriate and inconsistent with the town's vision and goals.

Newark is a community heavily influenced by past land uses and traditions. Our working landscape—forests, farmlands, and historic features—continues to define our community. Development in Newark has followed historical patterns and, for the most part, is harmonious with the scenic qualities of a New England hill town. Newark's scenic and aesthetic qualities enhance our citizens' quality of life and are highly valued. In public discussion of town planning activities, Newark residents have listed qualities like "small town feeling" and "pastoral and rural quality" as valued characteristics and have described themselves as "stewards of the land."

6.1. Aesthetics

6.1.1. Scenery

Newark's aesthetics and scenic beauty reflect the unspoiled character of the Northeast Kingdom. Mountain ridgelines and high-elevation areas contribute substantially to the scenic beauty. The town strongly discourages development on Newark's mountain ridgelines and other high-elevation areas, as these are included within Newark's natural areas that are to be preserved in their natural condition.

Developments that would require clearcutting, excavation, road-building or other forms of disturbance and developments that produce noise, emissions, light pollution, and increased traffic would degrade Newark's natural areas and cannot be permitted.

Northeast Kingdom ridgelines and high-elevation areas are particularly vulnerable to development for wind-generation energy projects. No commercial or industrial facility for the generation, transmission, or distribution of electrical energy, including meteorological towers that collect wind data, may be constructed on ridgelines and mountain areas within the Town of Newark. Modern commercial wind turbines are massive industrial machines that are totally

out of character with Newark's unspoiled natural environment. Such development would result in an undue adverse impact on the aesthetics and scenic beauty of the town. It would be so out of character with our surroundings as to offend the sensibilities of the average person.

Newark's economic future is tied inextricably to our ability to preserve our natural environment. Industrial-scale facilities for the generation, transmission, or distribution of energy located on Newark's ridgelines or mountain areas would unduly interfere with the orderly development of Newark and the surrounding region. The societal benefits that accrue by preserving the aesthetics and scenic beauty of our area, protecting our natural resources, and maintaining our rural character outweigh any potential economic gain or amount of energy that might be produced by commercial or industrial development of Newark's high-elevation areas.

Newark's opposition to the construction of commercial or industrial electric-generation facilities on the town's ridgelines or mountain areas is a clearly written community standard intended to preserve the aesthetics and scenic beauty of Newark and is a land-conservation measure intended to ensure the orderly development of Newark and the region. This declaration shall be construed by local and state regulatory bodies to achieve its full intended purpose.

6.1.2. Noise

Newark is a quiet place, and residents consider "peace and quiet" to be an essential element of the town's rural character. Newark residents enjoy being able to hear the sounds of the rich natural environment and benefit from Newark's quiet nights.

Some daytime noise is acceptable (such as from traffic, chainsaws, farm equipment, and the like) because it is occasional and is tied to our way of life. Such noise is usually being made by neighbors or family members, who are generally courteous and sensible about the times of day, duration, and volume of noise.

Most residents would find the noise of a pile driver or a race track objectionable even if the noise were occasional. Most residents would agree that the constant noise of industrial equipment, loud music, or barking dogs is unacceptable.

Medical professionals acknowledge that many types of noise, as well as the volume of noise, can cause adverse health effects that range from damage to hearing, to annoyance and stress reactions, to sleep disturbance.

Noise is measured in decibels ("dBA"). The World Health Organization recommends that indoor levels of noise remain below 30 dBA at night and suggests that nighttime levels of continuous, low-frequency noise should be even lower than 30 dBA.[40]

Newark's ambient (background) noise is typically below 20 dBA. In order to preserve Newark's essential rural character, the Town of Newark urges residents, property owners, and visitors to be courteous and attentive to the amount of noise to which they subject their neighbors. Furthermore, the Town of Newark considers industrial or commercial sources of noise inappropriate for the town if they produce noise readings greater than 30 dBA as measured at property boundaries. To protect against the effects of infrasound, no industrial or commercial activity should produce indoor noise readings that would exceed 50 dBC in any existing or prospective residence anywhere on a neighboring property.

These guidelines include prospective residences to ensure that no Newark property owners lose the ability to develop any portion of their property owing to noise generated by a commercial or industrial neighbor.

6.1.3. Night Sky

People are often overwhelmed by the clear view of the night skies that Newark residents enjoy. Poorly designed outdoor lighting can obscure the night sky. The town encourages residents to meet their outdoor lighting requirements in ways that do not interfere with viewing the night sky. An Internet search can provide information on how to improve the effectiveness of outdoor lighting systems while reducing their costs.

Simple changes to outdoor lighting can significantly reduce 'light pollution' and save energy for homeowners. Examples include 'downcasters' to direct light downward while illuminating the desired area and its surroundings; installing motion sensitive lighting that automatically turns off when not needed, and simply turning lights off when not in use. These strategies will decrease energy use, provide light when needed, and reduce impacts to neighbors.

Developments that obscure the view of the night sky are inappropriate in Newark, as are developments that create light pollution that diminishes the view of the night sky.

6.2. Historic Features

The primary historic landmarks in Newark are the Newark Union Meeting Hall and the old Town Hall. The church has been well maintained through grants and generous contributions of pew-holders, residents, and visitors. Although the old Town Hall has not been as well maintained,

[40] WHO *Guidelines for Community Noise*. World Health Organization, Geneva, 1999.

the town has made periodic investments and should continue to do so. The town should look for additional grant money to fund maintenance tasks for both historic landmarks.

6.3. Rare and Irreplaceable Natural Areas

Newark occupies a critical location at a chokepoint in a wildlife habitat linkage. This linkage has been noted by the Staying Connected Initiative (SCI) for its importance as a rare and irreplaceable natural area (Map 16 and Map 17).[41] Roughly 75% of land in Newark lies in this linkage, including:

- Virtually all the town's higher elevation land.
- All of Hogback Mountain.
- Nearly all the town's lands that drain into Bean Brook and the East Branch of the Passumpsic.

The Hogback Mountain area is particularly important, as it is the largest block of wildlife habitat in town. It adjoins Vermont's second-largest block of habitat (which, in turn, adjoins the largest block), magnifying its importance. In 2023, the Vermont Land Trust worked with Hawk Rock Holdings to permanently conserve 1900 acres, which is now part of a 2700-acre block of conserved forestland in this area.

In 2022 a group of landowners whose properties lie in the Bean Brook corridor began discussing land conservation options. They are considering the formation of a conservation landowners association, perhaps modeled on Cold Hollow to Canada, a landowner group in Lamoille and Franklin Counties. Some of the Bean Brook corridor properties abut the conserved Hawk Rock lands. A successful effort would result in the conservation of an essential wildlife resource.

The Newark lands that lie within the SCI linkage represent the town's best conservation opportunity. Approximately 50% of Newark's linkage is, in fact, conservation land or land enrolled in Current Use, so development is not possible. The town discourages development that would fragment or compromise any of the remaining portion of the linkage. Such lands should be preserved by obtaining easements, by considering acquisition by the town, and by encouraging acquisition by conservation groups.

6.4. Gravel and Other Nonrenewable Resources

Gravel is vital for road construction, road maintenance, and many types of development. It is an essential ingredient of manufactured building materials. Gravel is a finite, nonrenewable resource—once depleted, it cannot be replaced, so it is important to plan for its prudent use.

[41] The SCI linkages are subsumed by "the most important places to conserve in America" as described in National Geographic's September 2022 issue.

Gravel deposits can serve an important role in filtering ground water and recharging aquifers. They often occur near rivers and lakes. For these reasons, some deposits are too ecologically valuable to disturb. State regulations may prohibit gravel extraction from a site in order to protect water supplies, critical wildlife habitat, or conserved lands.

Development that occurs over or near gravel deposits can make extraction difficult or impossible. Landowners and developers should take the presence of gravel into account when planning construction.

Extraction and processing of gravel and other earth resources can become a nuisance for neighboring residents and landowners. Problems resulting from extraction include noise, dust, and air pollution; surface and groundwater pollution; siltation; storage and disposal of waste materials (both solid and liquid); increased stormwater runoff, erosion, and sedimentation; spoiling of the landscape and limiting utility for subsequent uses of the site; and decreased highway safety and increased municipal costs due to increased traffic and accelerated deterioration of highways and bridges attributed to the transportation activities generated by the earth-resource operations. These impacts may substantially depreciate land values in the immediate vicinity. For these reasons, extraction operations must be isolated from neighboring properties and screened from view from roads and neighboring properties.

Before earth-resource-extraction operations begin at a site, the landowner and operator should work with the town, state, and Caledonia County Natural Resource Conservation District to develop operational plans that will:

- Minimize impacts to the environment and to neighbors
- Create a stable site
- Enable easy reclamation of the site
- Identify uses for the site when operations are completed

There is currently one active commercial gravel extraction site in Newark. It is located off Route 5A. The Town of Newark contracts with the operator of that site to purchase gravel. Newark's road-maintenance activities require 5,000 yards of gravel in an average year.

6.5. Preservation Plan Goals

6.5.1. Goal: Preserve Irreplaceable Assets

Preserve Newark's irreplaceable assets for future generations. These include its rural character, wildlife habitat, scenery, recreational opportunities, and peace and quiet.

A. Relaunch the Newark Conservation Commission to help assess and preserve Newark's working landscape, historic and cultural features, and rare and irreplaceable natural areas.

B. Support the preservation of open and active forest and agricultural lands by providing information resources to landowners related to Vermont's Landowner Liability Law (insert VSA chapter here), the Use Value Appraisal (UVA or 'Current Use') program, and other state, federal, and private land conservation funding and stewardship programs.

C. Support our community standard opposing large-scale industrial and commercial facilities on the town's ridgelines and high-elevation areas. Such development would result in an undue adverse impact on the aesthetics and scenic beauty of the town. It would be so out of character with our surroundings as to offend the sensibilities of the average person.

D. Support public and private conservation opportunities that ensure working forests and farms, protect water and wildlife resources, preserve historic sites and buildings, secure recreational access, and mitigate negative impacts of flooding and climate change.

E. Provide resources and information to landowners, second homeowners, new homeowners and visitors regarding noise, lighting and night sky impacts, and the use of congruent building materials to reduce visual, aural, and aesthetic impacts to neighbors and the community.

7. Education

Newark residents have access to educational resources in the area that range all the way from preschool childcare to post-graduate programs and continuing education.

7.1. Childcare and Preschool Resources

Vermont's Department for Children and Families maintains an online directory of programs and services available to parents of preschool children: CDD For Families | Department for Children and Families (vermont.gov)

The Department of Education maintains online information about the opportunities offered under Vermont's Universal Prekindergarten program: Universal Prekindergarten: Act 166 | Agency of Education (vermont.gov)

ChildcareCenter.us maintains a national directory of childcare facilities across the country. Its listing of local facilities is available here: Child Care Centers and Preschools in Newark VT

The Kingdom East School District also offers programs and services for preschool children: Kingdom East School District | Student Services | Early Childhood

7.2. Newark Street School K-8

In 1875, Newark had 13 one-room schoolhouses. The Newark Street School was built in 1980 by the Town of Newark to replace its last remaining one-room schoolhouse. Since it was built, the Newark Street School has been the center of the community.

In 2015, Vermont enacted Act 46, which called for the consolidation of small public-school districts into districts that would have at least 900 students. Act 46 was a response to decreasing statewide student enrollment, increasing school budgets, and rising property taxes.

To comply with Act 46, Newark joined with neighboring towns (Burke, Concord Lunenburg, Lyndon, Sheffield, Sutton, and Wheelock) to form the Kingdom East School District (KESD). It is KESD's goal to ensure the continuation of quality education in the member schools. KESD provides centralized special education, financial, technology, curriculum, and superintendent services to all public schools in the district towns.

KESD publishes an annual report and maintains a website that contains district-wide information as well as information about each of the district's schools: Kingdom East School District | Vermont

While the consolidation of school districts under Act 46 may reduce costs, many Newark residents regret the loss of control over their elementary school—the schools in the KESD are now governed by a 15-member board. Newark has only one member on the board.

As required by Act 46, ownership the Newark Street School was transferred to the KESD (along with the other schools in the district). Should the board decide (with the assent of Newark voters) to close the Newark Street School, ownership would revert to the Town of Newark (upon payment of a token fee). Thus, the school building would continue to be the center of civic life in Newark.

The Newark Street School is a two-story wood-frame school that houses classrooms, offices, a library, a kitchen, and a large multipurpose community space (that features a basketball court). The school, as currently configured, can accommodate 85 students.

The school building has been meticulously maintained and is in excellent condition. Prior to transferring ownership of the school to the KESD, Newark taxpayers financed extensive renovations to the building, adding new classrooms, a new entrance to meet present-day security needs, and a wood pellet heating system.

The school is the site of Newark's annual town meeting and other community meetings, dinners, discussions, lectures, training sessions, and activities. The school also serves as the town's emergency shelter and is equipped with a propane-fired generator.

The school's enrollment in March 2024 was 61. About half of the students are tuitioned students from other towns: Burke, East Haven, Kirby, and Lyndon. There are twelve full-time staff members and twelve part-timers.

The school has seven classrooms, which means that some rooms have combined grades. In the 2023-2024 school year the combined grades are K-1, 3-4, and 6-7.

The Newark Street School has developed innovative morning and afterschool programs that have boosted attendance (the school has the best attendance rate in the district). Standardized tests show that the school's students are receiving an excellent education.

7.3. Secondary Education

Vermont has a town tuitioning program that enables Newark residents of high-school age to attend the high school of their choice. See Vermont - Town Tuitioning Program (edchoice.org).

Lyndon Institute and St. Johnsbury Academy are customarily the secondary schools that graduates of Newark Street School attend. Each school is a highly regarded independent school. Vermont also offers the opportunity for all students in grades 9 through 12 to enroll in any

secondary school of their choice: Public High School Choice | Agency of Education (vermont.gov).

Transportation for secondary education is the responsibility of the students and their families.

7.4. Postsecondary and Continuing Education

Vermont State University is 4-year, state-run institution with a campuses in Lyndon and elsewhere in the state. The university also offers master's programs, and advanced graduate certificate.

The nearest private college is Sterling College, in Craftsbury (about 35 miles from Newark).

Adult educational services and facilities with college-level classes are located nearby. The Community College of Vermont (CCV) has satellite offices and classrooms in St. Johnsbury and Newport. CCV offers programs in business, liberal arts, and nursing.

Vermont's Department of Education maintains a website that describes postsecondary programs in the state: Postsecondary Programs | Agency of Education (vermont.gov) and adult learning programs: Adult Education | Agency of Education (vermont.gov).

The University of Vermont provides programs for both professional and continuing education: UVM Professional and Continuing Education - University of Vermont.

7.5. Education Goals

7.5.1. Goal: Newark Street School

The Newark Street School should continue to provide high-quality education and serve as an educational and culture hub in the community.

A. Where possible, support the quality of education and the role of the Newark Street School as an educational and cultural resource for children and the community.

8. Energy Plan

This energy plan was developed with the assistance of the Northeastern Vermont Development Association (NVDA). The plan was developed to meet the requirements of Vermont's Act 174 in order to be accorded "substantial deference" by the Public Utility Commission in Section 248[42] proceedings. The plan is consistent with the NVDA's 2018 Regional Energy Plan and the 2022 Vermont Comprehensive Energy Plan.

Vermont's Comprehensive Energy Plan (CEP) "intends, at its core, to provide a factual basis that informs readers of the energy challenges and opportunities facing Vermont. The CEP acts as a reference tool where readers can, in one place, understand current energy initiatives and programs, and how Vermont's energy issues relate to developments outside the state's borders. The CEP also serves as a policy tool, setting aspirational goals and outlining pathways, strategies, and actions for progressing toward those goals."[43]

The CEP overall energy goals are for Vermont to meet 25% of its energy needs through renewable sources by 2025, 45% by 2035, and 90% by 2050. It also describes sector-specific goals:

- Meet 10% of transportation energy needs from renewable energy by 2025, and 45% by 2040
- Meet 30% of heating energy needs from renewable energy by 2025, and 70% by 2042
- Meet 100% of our electricity needs from carbon-free resources by 2032, with at least 75% from renewable energy[44]

8.1. Energy Burden

Vermonters spend a lot of money on energy—across the state, about 10% of household income is spent on energy. This percentage, called *energy burden*, is higher in the Northeast Kingdom: about 14.4%. The Town of Newark has a total energy burden of 12.4% and the typical Newark household spends 49% of its energy budget on transportation and 37% on heating. (Efficiency Vermont, 2019)

[42] Energy is regulated by the Public Utility Commission under the authority of Section 248 of Title 30
[43] Vermont Department of Public Service, 2022 Vermont Comprehensive Energy Plan, 25.
[44] Ibid.

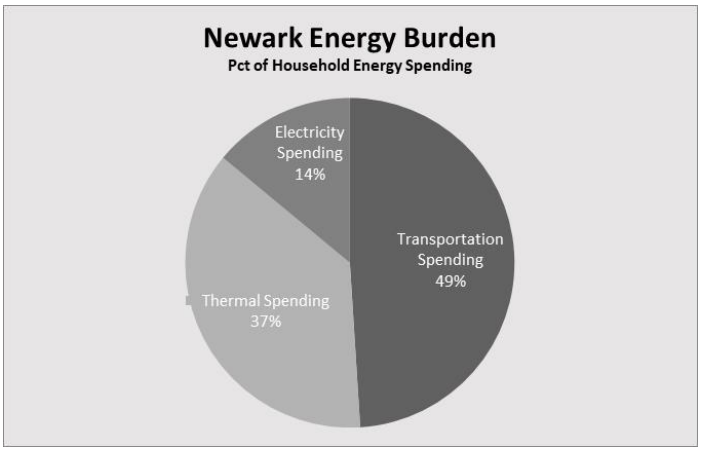


Figure 8-1 Energy burden for Newark households

The greatest determinant of energy burden is income, not fuel cost, so even though many households are able to reduce heating costs—for example, by burning wood—they may still struggle to make ends meet. Meeting Vermont's statewide energy goals will be challenging because highly burdened households may be less able to afford weatherization or fuel switching. Even if those measures save money in the long run, the up-front costs are often prohibitive. The same economic challenges that drive inequities across the state are likely to reduce energy program participation among low-and moderate-income Newark households.

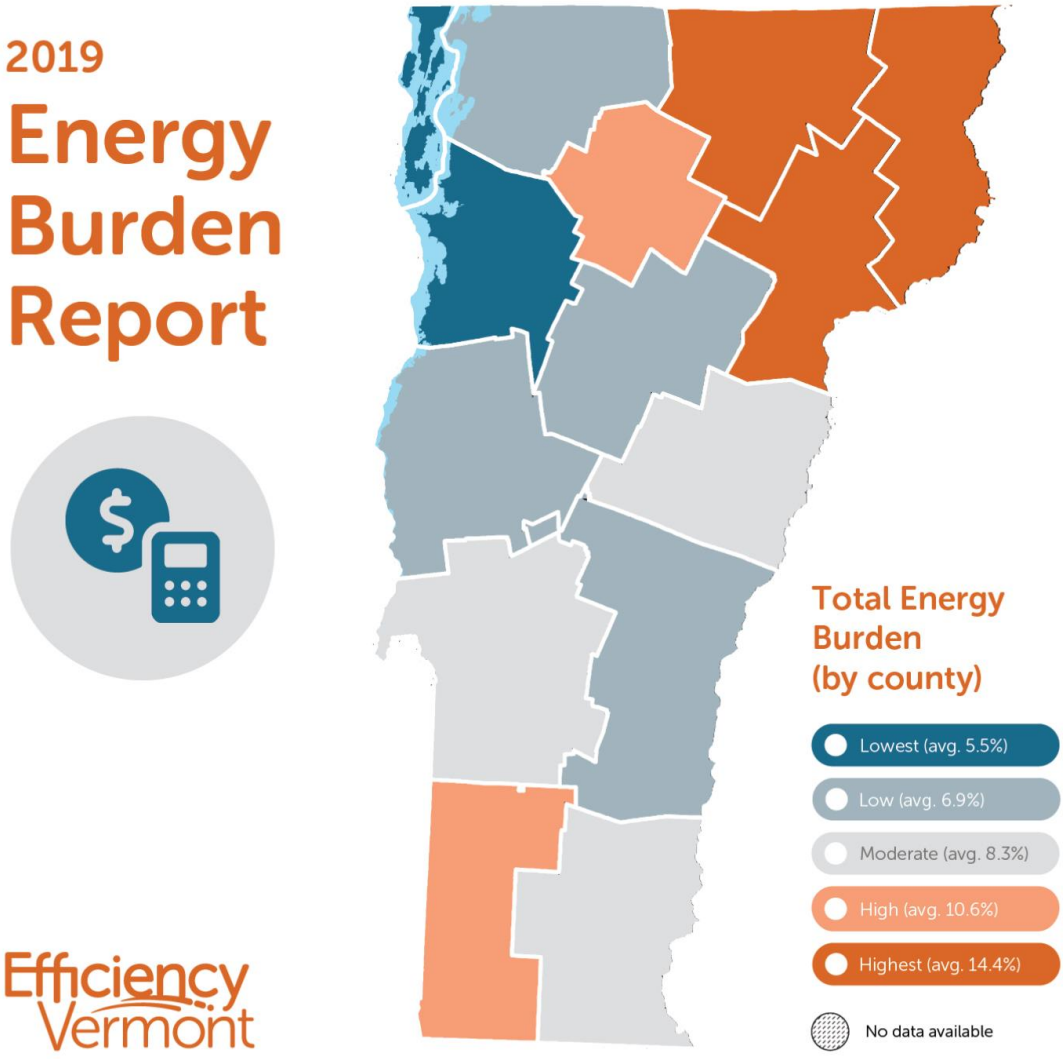


Figure 8-2 Vermont energy burden by county

Source: Efficiency Vermont

8.2. Current Overall Energy Use

In order to envision a secure energy future for Newark, it is necessary to understand how we currently generate and use energy.

This section makes use of energy estimates developed by the Northeastern Vermont Development Association (NVDA). The NVDA developed the estimates using the same data methodologies that were used to develop the 2018 amendment to the Regional Plan for the

Northeast Kingdom (www.nvda.net). The estimates are based upon the best information currently available.

Fuels are measured in different ways – by cord, by gallon, by kilowatt hour– so this plan converts units of measurement into British Thermal Units (BTUs) in order to compare their energy output consistently.[45]

According to the NVDA, the town of Newark uses roughly 70 billion BTUs annually to meet its energy needs. Energy is consumed for space heating and hot water (i.e., "thermal"), transportation, and electricity (Figure 8-3). Most of this energy is now produced by burning fossil fuels. Fossil fuel use is a major contributor to climate change.

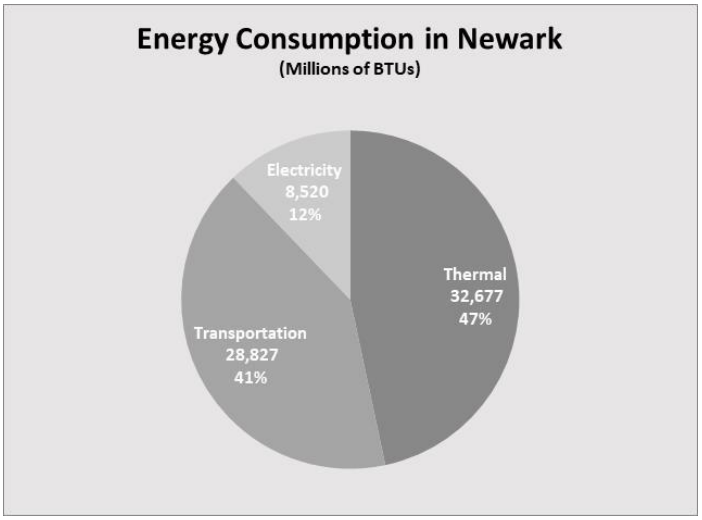


Figure 8-3 Energy consumption in MMBTUs (Source: NVDA)

8.3. Reducing Fossil Fuel Use

Vermont has ambitious plans to reduce and eventually eliminate the use of fossil fuels. The CEP emphasizes two "pathways" to accomplish this:

1. Reducing the total amount of energy used through measures like insulating homes, improving fuel efficiency, as well as applying "smart-growth" principles and improving Internet service so that Vermonters don't have to commute so much
2. Switching from fossil fuels to other types of energy like biofuels and electricity

[45] BTU stands for British Thermal Unit. It describes the amount of energy required to raise the temperature of a pound of water by one degree (Fahrenheit). One BTU is a miniscule amount—about the amount energy released by burning a wooden kitchen match—so BTUs are often measured in the millions (MM BTUs).

State planners have used a computer software tool, called LEAP[46], to identify one possible pathway for achieving the required reductions in fossil fuel consumption. LEAP has provided statewide targets that would be required to follow the pathway that the planners selected. The statewide targets were then divided up among the state's regions and municipalities.

This chapter of the Newark Town Plan includes tables that present LEAP target information. The LEAP targets should NOT be viewed as hard counts, nor do they depict the only path to 2050 energy goals. Rather, these projections help to illustrate the scope and scale of change that must take place if we are to reduce greenhouse emissions, which are contributing to climate change. The targets are presented because their inclusion is a requirement for this plan to comply with Vermont's Act 174. The Town of Newark can encourage people to bear the targets in mind, but the town cannot force residents and property owners to take particular actions to meet the targets.

8.4. Energy for Space and Water Heating

According to the NVDA, annual energy consumption for heating residential and commercial buildings in Newark is currently 32,766 MM BTU; residences are responsible for about 26,951 MM BTUs.

The average home in Newark uses 89 million BTUs for heating and hot water each year. Table 8-1 shows the quantities of various fuel it requires to produce that much heat.

Fuel Requirements for Heating the Average Newark Home	
Heating Fuel	**Amount**
Heating oil	643 Gallons
Mixed hardwood	4 Cords
Propane	973 Gallons
Wood pellets	5 Tons

Table 8-1 Energy required for heat and hot water for the average Newark home

The amount of energy required to heat a home depends on how warm residents want to be, the size of the home, the number of residents using hot water, and how well the home is insulated. There are a variety of other considerations including the age, efficiency, and condition of heating equipment. The amount of wood required to heat a home also depends on the types and ages of wood being burned.

[46] LEAP stands for *Long-range Energy Alternative Planning Systems*

Older homes are likely to have "leaky" thermal envelopes and be less energy efficient. Newark has 194 owner-occupied homes and 19 renter-occupied homes. All but about two dozen were built after 1940.

In addition to the 213 year-round homes, there are 360 seasonal units—many of them located on Newark Pond and Center Pond. There are no published datasets on fuel use in seasonal dwellings, but the NVDA estimates that seasonal uses in Newark account for only 5% of the average year-round thermal load. Collectively these contribute about 1,611 MM BTUs in annual use: less than 5 MM BTUs per unit (about a quarter of a cord of wood).

There are three commercial buildings in Newark, categorized as "Professional and Technical Services," "Educational Services," and "Health Care and Social Assistance." The State of Vermont (Department of Public Service and Department of Labor) estimates that they use a total of 5,726 MM BTUs annually.

Oil, wood, and propane are the most common heating fuels in Newark.

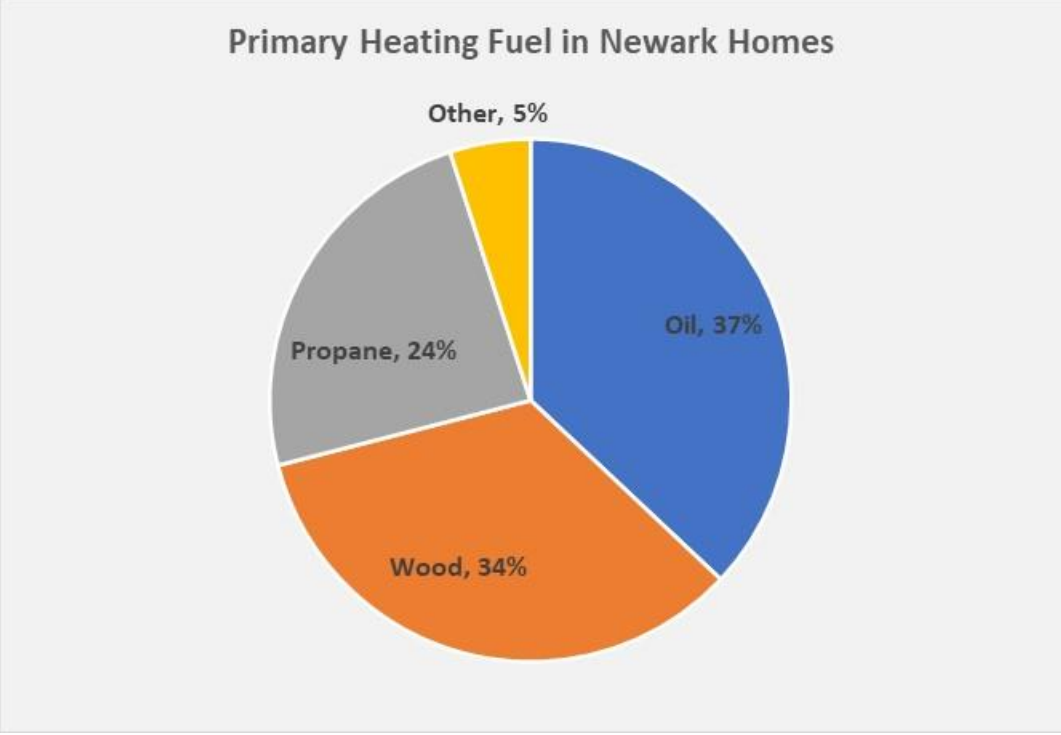


Figure 8-4 Home heating fuels in Newark (Source: NVDA)

Many Newark homes are heated primarily with wood and use oil or propane as a backup. Likewise, many homes use oil or propane in a primary system that is supplemented by a woodstove or pellet stove.

Newark and its neighboring towns have a robust cordwood economy. This provides extra income for those who cut, split, and deliver wood, gives landowners a market for their low-grade wood, and makes inexpensive, local fuel available to Newark homeowners. Many Newark residents regard cutting firewood on their own property as an important part of the Vermont lifestyle.

The State of Vermont is promoting the development of a wood pellet economy, which would enable Vermont residents to heat with locally harvested and produced fuel. Pellet heating is becoming an attractive home-heating option. Substantial incentives for purchasing and installing pellet boilers may be available through the state's Clean Energy Development Fund, Efficiency Vermont, and the Northern Forest Center.

The availability of bulk pellet delivery has made heating with pellets more attractive. In 2019, prior to the consolidation of school districts, Newark converted the Newark Street School to pellet heating. (Pellet heating is not an option for the current town office but will be considered for future facilities.)

There are a variety of incentives available to Newark residents to replace aging heating systems with modern heat pump, pellet, and cordwood systems for space and water heating. It will be the responsibility of the Newark Energy Committee[47] to maintain an up-to-date listing of incentives in the Newark Town Office. Additional information is available from the NVDA and electric utilities.

Table 8-2 shows how many residences and commercial establishments are expected to be in Newark in the years 2025, 2035, and 2050 and the LEAP targets for fuel switching and weatherization.

LEAP Thermal Targets for Newark			
	2025	**2035**	**2050**
Total residential structures	240	254	269
Residences weatherized	52	90	97
Residences using heat pumps	40	84	107
Residences using wood heat	134	110	80
Total commercial establishments	3	3	4
Commercial establishments weatherized	0	0	0

Table 8-2 Thermal fuel-switching and weatherization targets for Newark (LEAP Projections)

[47] As of this writing, Newark has an "Energy Coordinator," but has no Energy Committee. This town plan has established the creation of a Newark Energy Committee as a municipal goal.

8.5. Energy for Transportation

Newark is a small, rural town with no industrial and few commercial establishments. Residents must travel to work, to shop, and for most of the necessities of daily life. There are no public transportation options, so travel requires the use of private vehicles. It is estimated that the nearly 400 vehicles registered in Newark travel over 5 million miles each year: an average of 14,000 miles per vehicle.

Registration data from the Department of Motor Vehicles shows that these vehicles all use gasoline or diesel fuel. Collectively, Newark residents spend $550,000 to burn over 244,000 of gasoline and diesel per year. Just 9% of this fuel is ethanol; the remainder is non-renewable.

Vermont's Comprehensive Energy Plan identifies electric vehicles as a key element of the state's plan to reduce greenhouse gas emissions. The plan projects 52 EVs for Newark in 2025, but when this plan was written in 2024, there was one all-electric vehicle registered at a Newark address.

The following table shows the LEAP targets for a transition away from fossil fuels in transportation in Newark.

TARGET YEAR	2025	2035	2050
Projected number of light-duty vehicles in Newark by year	448	504	567
Number of vehicles powered by electricity	52	166	358
% of vehicles powered by electricity	12%	33%	63%
Number of vehicles using bio-fuel blends	354	244	43
% of vehicles using bio-fuel blends	79%	48%	8%

Table 8-3 Transportation Fuel Switching Targets (LEAP projections)

Newark residents commute longer distances for work and school in colder weather than the average Vermonter—so meeting EV targets in Newark will require advances in technology, reductions in purchase prices, changes in public perception, and a more robust EV charging network. EVs cost less to operate and maintain than gasoline- and diesel-powered vehicles, but currently, their purchase price is higher. This higher initial cost makes acquiring an EV a stretch for many Newark families. Widespread adoption of EVs in Newark will require the development of an active market for affordable used vehicles.

According to Drive Electric Vermont, the nearest public EV charging stations are in Barton, Island Pond, and Saint Johnsbury. It will be the responsibility of the Newark Energy Committee to ensure that Newark residents have access to accurate information about EVs, home charging, and to explore the installation of a public EV charging station in or near Newark.

In the meantime, Newark will encourage the use of fuel-efficient vehicles, elimination of unnecessary travel, and reduction of single-occupancy vehicle use. Public transportation and formal ride-share options in Newark are limited because they are expensive to establish in sparsely populated rural areas. Park and Ride facilities are generally sited at intersections of major road corridors. Since Newark has no such locations, the town should work with neighboring towns to create Park and Ride facilities that could be used by all area residents. (See Section 4.10).

The introduction of high-speed Internet (see Section 5.4.3) will enable Newark residents to reduce the amount of necessary travel by providing new opportunities for telecommuting, Internet commerce, telehealth, and remote education.

8.6. Efficiency and Conservation

Newark encourages residents to use energy wisely and builders to adopt best energy practices in constructing new buildings. These practices include designing for passive heating, providing adequate insulation, and including Energy Star appliances. The Environmental Protection Agency maintains a website on "green building" at epa.gov/greenbuilding.

The town also recommends that homeowners upgrade the energy efficiency of their homes by weather-stripping, insulating walls and attics, replacing leaky doors and windows, and replacing old appliances with Energy Star appliances. The state and federal governments offer a variety of incentives to homeowners in the form of rebates, tax deductions, and tax credits. Some manufacturers, dealers, and utilities also offer incentives. The websites energystar.gov, energy.gov/taxbreaks.htm, and efficiencyvermont.com describe some of the incentive programs. The Northeast Employment and Training Organization (NETO) offers free weatherization services to income-eligible households.

It will be the responsibility of the Newark Energy Committee to maintain an up-to-date listing of federal, state, and private programs that provide weatherization assistance in the Newark Town Office.

8.7. Electricity

Most of the town receives its electricity from the Lyndonville Electric Department (LED), which, in addition to purchasing power from major generators, operates two small hydro facilities (Vail and Great Falls) on the Passumpsic River. The northern quarter of Newark receives its electricity from the Vermont Electric Cooperative (VEC).

Newark has only single-phase power lines; it has no three-phase electricity service. Many types of industrial equipment require three-phase power to run properly. Three phase power

requires three "hot wires" and a ground wire. Three-phase power is more consistent (i.e., "steadier") than single-phase and larger amounts of power can travel over three-phase lines.

Many areas of town are unserved even by single-phase distribution lines. These areas include lengthy stretches of East Hill, Maple Ridge, Duford, Kinney Hill, and Abbott Hill Roads. There are no electric substations in Newark.

In 2020, Newark's total annual electricity usage across all sectors (commercial, industrial, and residential) was 2,496,964 KWH, accounting for 12% of the town's total energy use. The following table shows recent trends in electricity consumption in Newark.

Electric Utility Data		KWH Usage by year		
Newark	Sector	2018	2019	2020
	Commercial & Industrial	263,217	395,265	414,875
	Residential	1,964,209	2,063,659	2,082,089
	Total	2,227,426	2,458,924	2,496,964
	Count of Residential Premises	440	439	442
	Average Residential Usage	4,464	4,701	4,711
Source: Efficiency VT				

Table 8-4 Electricity use in Newark (Source: Efficiency Vermont)

State planners envision transitioning much of our transportation and thermal energy use away from fossil fuels to electricity. Our consumption of electricity will increase; we will have to generate more electricity and use it efficiently. State planners used the LEAP model to develop the efficiency upgrade targets shown in Table 8-5.

Newark, VT	2025	2035	2050
Projected # residential customers	359	381	404
% Residences w/ upgraded equipment	25	37	51
# Residences w/ upgraded equipment	89	140	205

Table 8-5 Targets for Electrical Efficiency Upgrades in Newark (LEAP Projections)

8.8. Newark's Energy Future: The Comprehensive Energy Plan and Renewables

There is a great deal of concern in Vermont about climate change. The Town of Newark is best positioned to address climate change by:

- protecting and enhancing the natural resources that protect us from the impacts of a changing climate; these natural resources include our forests, high elevation lands, water resources, and agricultural soils—in addition to sequestering carbon, these resources:
    - enable species to adapt to climate change
    - help protect us from damaging stormwater events
    - preserve our food and water security
- reducing emissions of greenhouse gases by
    - consuming less
    - making thoughtful lifestyle choices
    - fuel switching, where possible[48]
    - generating more of our own renewable energy

Vermont state government has developed the Comprehensive Energy Plan and has established goals to reduce emissions of greenhouse gases and produce 90% of our energy by renewable means. The state has also adopted statutory requirements (under Act 54) that Vermont electricity utilities increase the proportion of "renewable electricity" that they sell.

Newark may be closer to achieving the state's aspirational goals than other Vermont towns by virtue of its low usage of grid electricity, its large number of solar-powered "off-the-grid" homes, the considerable number of net-metered solar installations, and the large number of homes that use wood heat. Many Newark residents have already reduced their consumption of transportation fuels by eliminating unnecessary trips and by sharing rides with neighbors.

[48] This includes replacing fossil fuel heating systems with pellet stoves and boilers as well as "beneficial electrification," which refers to the replacement of direct fossil fuel equipment with equipment that uses electricity.

8.8.1. Newark's Energy Portfolio Current and Energy Future

Newark's current installed generation capacity and its potential output is shown in Table 8-6.

Renewable Type	Capacity in Megawatts (MW)	Potential Output in Megawatt Hours (MWh)
Solar	0.1	84.5
Wind	.004	6.132
Hydro	0.0	0.0
Biomass	0.0	0.0
Other	0.0	0.0
Total Generation	**0.104**	**90.632**

Table 8-6 Newark's Existing Electricity Generation (NVDA)

Newark's electricity generation target, in support of the state's 2050 goal, is 168 MWh. The target was calculated from the regional generation target and Newark's 0.8% share of the region's population.

The NVDA's energy profile identifies generating potential of 18,740 MWh in Newark, far more than what is needed.

Renewable Type	Capacity (MW)	Potential Output (MWh)
Residential Rooftop Solar	0.220	269.80
Ground-mounted Solar	14.770	18,113.90
Wind	0.200	342.90
Hydro	0.004	14.02
Total	**15.194**	**18,740.62**

Table 8-7 Potential generation identified by the NVDA in Newark

Table 8-8 shows how Newark could meet its annual generation target of 168 MWh with roof-mounted solar, ground-mounted solar, or residential wind turbines (20 kW or less). This table makes use of the NVDA's assumptions about installation size, capacity factors, and the willingness or ability of residents to install generation facilities.

Renewable Type	Target MWh	Capacity Factor	Capacity Required (kW)	Average Capacity per Installation (kW)	Requirements	
Roof-mounted Solar	168	14%	137	4	34	Rooftops
Ground-Mounted Solar [1,2]	168	16%	120	17	7	Acres
Residential Wind Turbines[3]	168	20%	96	9.5	10	Turbines

[1] NVDA assumption: fixed and tracking systems with an aggregate capacity factor of 16%
[2] NVDA assumption: 60 acres of prime solar land will accommodate 1 MW of capacity
[3] NVDA assumption: at .38 kW per acre, 10 turbines will require 258 acres of prime wind land

Table 8-8 Newark's Electricity Generating Requirements

8.8.2. Energy Siting

The NVDA has provided solar and wind resource maps (Map 14 and Map 15) that identify areas with potential for solar and wind energy. The State of Vermont, the NVDA, and the Town of Newark have identified sets of "constraints," which render some of those areas unsuitable for energy development:

Known Constraints—these are areas that are known to the State of Vermont to be unsuitable for development because they contain one or more of the following: vernal pools; river corridors; FEMA floodways; significant natural communities; rare, threatened, and endangered species; national wilderness areas; and wetlands (Class 1 and Class 2).

Potential Constraints—these are areas that would likely require mitigation because they contain the one or more of the following: agricultural soils; special flood hazard areas (outside of the floodway); protected (conserved) lands; deer wintering areas; Act 250 mitigated agricultural soils; hydric soils, and highest priority forest blocks.

Regional Constraints—these are areas that have been determined to be unsuitable for energy development by the NVDA (the regional planning commission for the Northeast Kingdom of Vermont). These are areas with elevations of 2,000 feet or above.

Local Constraints—these are areas that are known by the Town of Newark to be unsuitable for energy development. In order to avoid fragmentation of vital forests and loss of prime agricultural soils, Newark has introduced two local constraints. Energy facilities must not be constructed:

1. in forests that have been designated *highest priority* or *high priority* by Vermont's Agency of Natural Resources
2. on land that has been designated by the U.S. Department of Agriculture as having prime agricultural soils
3. at elevations greater than 1700 feet[49]

(Note: these constraints also apply to commercial, industrial, and residential developments of a scale that would trigger Act 250.)

An exception (the "built-environment exception") to these constraints will be made for ground-mounted solar or residential-scale wind turbines that are sited within 200 feet of an existing building. This exception will enable people whose homes are in a designated forest or on prime agricultural soils to install and make use of renewable energy systems.

After state, regional, and local constraints are applied, Newark is left with 615 acres of prime solar area for ground-mounted solar installations and 373 acres of prime wind area for residential wind installations. Prime solar and wind areas made available by the built-environment exception represent additional energy generation capacity.

Renewable Type	Available Area	Capacity (MW)	Capacity Factor	Potential Annual Output (MWh)	Pct of 168 MWh Generation Target
Residential Rooftop Solar	55 Rooftops	0.220	14%	270	161%
Ground Mounted Solar	615 Acres	10.250	16%	14,366	8551%
Residntial Scale Wind	373 Acres	0.142	20%	248	148%
Hydro		0.004	40%	14	8%
Total		**10.616**		**14,899**	**8868%**

shows Newark's potential generating capacity from roof-mounted solar, ground-mounted solar in prime solar areas, and residential wind in prime wind areas. The built-environment exception to Newark's constraints makes additional acreage available.

Renewable Type	Available Area	Capacity (MW)	Capacity Factor	Potential Annual Output (MWh)	Pct of 168 MWh Generation Target
Residential Rooftop Solar	55 Rooftops	0.220	14%	270	161%
Ground Mounted Solar	615 Acres	10.250	16%	14,366	8551%
Residntial Scale Wind	373 Acres	0.142	20%	248	148%
Hydro		0.004	40%	14	8%
Total		**10.616**		**14,899**	**8868%**

Table 8-9 Newark's generating potential

[49] Virtually all 1700-foot lands lie in priority forests or prime agricultural areas

8.8.3. Preferred Sites for Energy Development

Preferred sites are locations for renewable energy development that are seen as strategic and beneficial to the community. Development in preferred sites is incentivized by a streamlined regulatory process and a favorable purchase rate for electricity generated at the site. In other words, renewable energy developers will find it easier to develop on a preferred site and will receive higher reimbursement for the power they produce there.

The Town of Newark designates the following types of installations and locations to be preferred:

- Roof mounted solar, including barn roofs and outbuildings
- Sites (except those in constrained areas) that serve municipally-owned and non-profit off-takers
- Developments that are capable of "intentional islanding" (i.e., distributed generation that can support local supply to critical customers in the event of extended power outages)
- Sites (except in constrained areas) that serve critical customers such as municipally owned properties, water systems, schools, and emergency shelters
- Within 200 feet of a new or existing structure whose primary use is not the generation of electricity
- A parking lot canopy over a paved parking lot
- A tract previously developed for a use other than siting a plant on which a structure or impervious surface was lawfully in existence prior to July 1 of the year preceding the year in which an application for a Certificate of Public Good was filed
- A brownfield – as certified by ANR
- A sanitary landfill – as certified by ANR
- The disturbed portion of a gravel pit, quarry, or similar site for extraction of a mineral resource
- A site listed on the National Priorities List (a.k.a. Superfund Sites) as confirmed by the EPA, provided development will not compromise or interfere with remedial action on the site and the site is suitable for development of the facility
- The same parcel as, or directly adjacent to, a customer that has been allocated more than 50% of a net-metered system's electrical output

8.8.4. Additional Energy Considerations

Newark encourages homeowners to consider solar hot water and to participate in Vermont's net-metering program. Net metering enables individuals or groups to generate their own

electricity (from solar panels or other renewable technology) and get credit from utilities, thereby offsetting their utility electricity costs. Newark encourages the development of residential and community-scale electricity generation subject to the following standards:

- Energy generation facilities must not exceed 100 feet in height and must not extend above the background horizon line as viewed from any state road, town road, or neighboring property.
- No electricity generation facility should occupy more than 2 acres of land.[50]
- In order to preserve Newark's rural character, any energy facility that occupies more than a quarter-acre of land must be screened from view from all state roads, town roads, and neighboring properties. Screening can be achieved by proper siting, consideration of topographical features, and use of native vegetation.
- Newark supports the NVDA's position on large-scale wind energy development; wind turbines installed in Newark must not be greater than residential-scale (20 kW).
- Electricity generation facilities should be sited near where the electricity will be used.
- While energy projects must not be located in constrained areas, Newark property owners should be cognizant of other environmentally sensitive areas and are encouraged to site energy projects so that they do not fragment wildlife habitat, block wildlife corridors, interfere with wildlife crossings, or compromise wetlands.
- Electricity generation facilities should connect to existing distribution lines without requiring that they be upgraded.
- Facilities must produce no noise louder than 30 dBA or 50 dBC as measured at boundaries with neighboring properties (unless neighboring property owners expressly agree).
- Energy projects that produce noise or encroach on neighboring properties can upset neighbors and divide communities. Therefore, the Newark Planning Commission recommends that projects be undertaken with the cooperation of neighbors.
- The renewable energy credits generated by facilities in Newark should be retired.
- The NVDA has identified two locations in Newark that might be suitable for small-scale hydroelectric installations. The difficulty of the permit process for new hydroelectric plants makes it unlikely that either of these sites would be developed. The town would approach such developments with extreme caution and would insist upon guarantees that they could be undertaken without compromising the town's conservation goals.
- Newark's high elevation lands (higher than 1700 feet) are deemed unsuitable for large-scale commercial and industrial development.

[50] According to VEC, the largest solar array that Newark's single-phase distribution lines can accommodate is 150 kW. Such an array could be built on 1-1/2 acres.

The electricity distribution infrastructure in Newark is limited—served only by single-phase electricity distribution lines. According to the local utility, the largest generation facility that can be safely tied to a single-phase line is 150 kW. Therefore, solar developments should be kept small. This will reduce the likelihood that distribution lines will become saturated and will ensure that any Newark homeowner can participate in Vermont's net-metering program without fear of destabilizing the local electricity distribution system.

Utility-scale energy installations are incompatible with Newark's vision and goals:

- Utility-scale installations would negatively affect the town's fundamental goal of habitat preservation and would contribute to the loss of biodiversity.
- Utility-scale energy installations would be out of place in the Newark landscape.
- Newark lacks the infrastructure to support large installations. Building the required infrastructure would be costly, would detract from the beauty of the town, and would contribute to the degradation of our natural environment.
- Utility-scale energy installations, by virtue of their impacts on the landscape and wildlife habitat, would negatively affect Newark's economy (which benefits from second homes, tourism, and vacation rentals) and would interfere with the orderly development of our region, which is investing in an economic future based on ecotourism.[51]
- Utility-scale energy installations can also impact property values. (Area towns have reduced the assessed values of properties that are impacted by noise or adverse visual impacts created by energy installations.)

Therefore, utility-scale power generation and transmission facilities are inappropriate in the town. This includes, but is not limited to, utility-scale wind turbines and their associated transmission facilities.

While Newark is a poor location for utility-scale energy projects, the town is committed to collaborate with the utilities that serve it to:

- Identify locations for developments that could improve reliability without compromising the town's conservation goals.
- Cooperate with development in mutually agreeable locations.
- Define projects that can help utilities meet the state's energy transformation goals.

8.9. Land Use and Energy Conservation

In more densely populated towns and cities, smart-growth principles provide better opportunities for energy conservation than they do in Newark. While the application of smart-

[51] travelthekingdom.com.

growth principles may not result in appreciable energy conservation, it can support the preservation of wildlife habitat in Newark and beyond.

The Town of Newark discourages development sprawl, whether it be residential sprawl or energy sprawl. Newark discourages development that requires enlarging the footprint of our infrastructure, including roads and utility poles and wires.

8.10. Energy Goals

8.10.1. Goal: Reduce Impacts of Energy Use

Help Newark residents reduce energy use, lower their energy burden, and switch from fossil fuels to cleaner energy technologies.

A. Establish a Newark Energy Committee that will:
   - stay abreast of energy programs and incentives
   - develop effective ways of informing townspeople
   - Encourage the development of small solar installations and discourage net metering installations greater than 150 kW that might saturate local distribution lines
   - Explore opportunities to establish an appropriately sited community solar facility to power municipal properties and groups of cooperating neighbors.
   - Urge energy audits of town buildings to identify areas of energy waste and areas of potential savings.
   - Work with town officials to implement energy efficiency measures for existing and future community facilities as opportunities arise.
   - Prioritize modifications and efficiency improvements (e.g., facility retrofits, renovations, and equipment upgrades) and incorporate them into the town's capital budget.

8.10.2. Goal: Ensure an Environmentally Sound Energy Transformation

Ensure that the energy transformation does not contribute to degradation of the environment or worsen climate impacts.

A. Re-establish the Newark Conservation Commission to work with the Selectboard, Planning Commission, and Energy Committee to:
   - Ensure that energy projects are appropriately sited and scaled
   - Discourage energy sprawl and energy development that would adversely affect wildlife habitat, agricultural soils, the character of the town, geo-tourism, or property values.

9. Housing

9.1. Overview of Housing in Newark

According to the American Community Survey (United States Census Bureau) in 2022 there were 547 housing units in Newark: 277 year-round residences, 246 seasonal residences, and 24 "other" vacant dwellings. Figure 9-1 shows how these housing category counts have changed over the last five census periods.

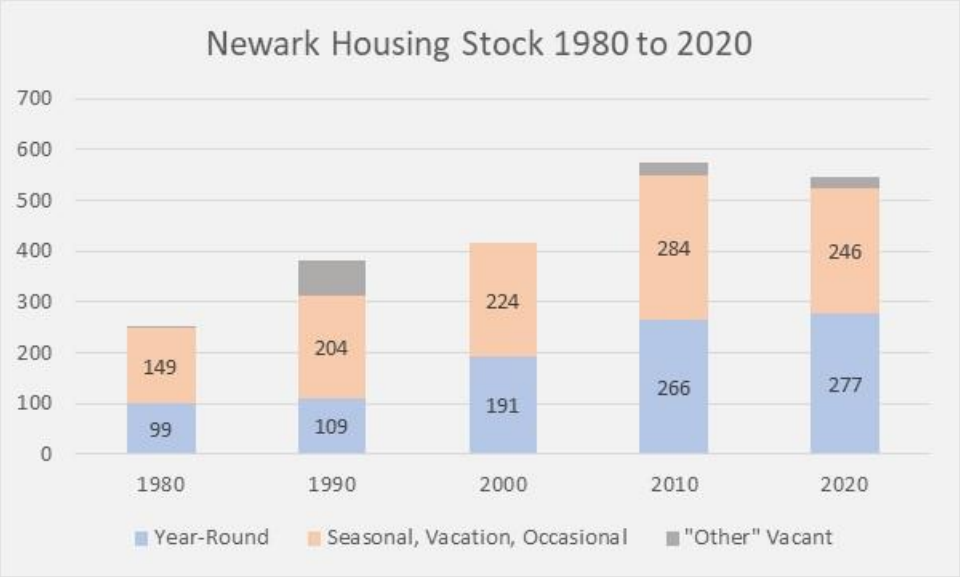


Figure 9-1 Newark Housing Stock (Source: Census Bureau)

Housing is also counted by the state and town. The counts are different because they have different purposes and are taken at different times.

The State of Vermont's E-911 database shows 568 residential structures including single-family homes, mobile homes, and camps. The E-911 data is shown in Table 9-1.

E-911 Housing Detail	
Single Family Dwellings	300
Mobile Homes	52
Other Residential	2
Seasonal Homes	1
Camps	213
Total	**568**

Table 9-1 Vermont E-911 Housing Detail (Source: State of Vermont)

Newark's 2023 grand list is the most current accounting of housing as well as the most local. For these reasons, the grand list may provide the most accurate accounting of the town's current housing stock. Table 9-2 shows its breakdown of 556 residential, seasonal, and mobile homes.

The grand list's "seasonal home" category includes rustic camps as well as houses that could serve as year-round homes. It is not uncommon for a seasonal home to become a full-time residence (and vice-versa), depending on how the owner wishes to use the home.

The Census Bureau estimates that the home ownership rate in Newark is about 88% (compared with 77% across Caledonia County). The 2023 grand list confirms that a majority of Newark's "residential homes" are owned and occupied by Newark residents.

Grand List Housing Detail				
Housing Category	Count	Owned by Newark Residents	Owned by Other Vermonters	Owned by Out-of-Staters
Residential	317	226	25	66
Seasonal	195	15	83	97
Mobile Home	44	27	6	11
Total	**556**	**268**	**114**	**174**

Table 9-2 Newark Grand List Housing Detail (Source: Town of Newark)

In 2023 the Newark Town Clerk received 209 Homestead Declarations. Vermont defines a homestead to be *the principal dwelling and parcel of land surrounding the dwelling, owned and occupied by the resident as the person's domicile.*[52] By Vermont law, property owners whose homes meet the definition of a Vermont homestead must file a Homestead Declaration annually by the April filing deadline.[53]

A significant amount of Newark housing consists of "seasonal homes" that are presumed to be second homes. The second-home market has seen significant growth throughout Vermont in recent decades. Newark has a high proportion of seasonal units when compared with other towns in Caledonia County.

The high proportion of seasonal and vacation housing affects other aspects of the region's housing. In Newark, seasonal homes command higher prices on the real estate market and may drive up other real estate prices in a community. Also, as Vermont becomes a more attractive destination for retirees, long-time seasonal residents may be more likely to become full-time residents.

[52] The education tax rates on homesteads and non-homesteads may be different.
[53] Homestead Declaration | Department of Taxes (vermont.gov)

As Table 9-3 shows, Newark's houses are sited on fairly large lots. (Note that "unlanded" mobile homes are not included in the table.)

Newark Acreage		
Grand List Category	**Average**	**Median**
Residential Home	38	11
Seasonal Home	22	10
Mobile Home	12	10

Table 9-3 Newark House Lot Sizes (Source: Town of Newark)

9.2. Affordable Housing

Vermont statute (10 V.S.A. § 6001) defines affordable housing in terms of median family income. Applying the state's formula using 2023 data, housing is affordable if it has total costs no more than:

- $3,048 per month for owner-occupied homes (including mortgage payments, taxes, insurance, and condominium association fees)
- $2,032 per month for renters (including rent, utilities, and condominium association fees)

These levels of affordability rely on statewide median family income as defined by the U.S. Department of Housing and Urban Development. It may be more practical to base our calculations of affordability on median family income in Caledonia County. Table 9-4 presents these two notions of affordability.

Housing Affordability				
		Vermont		**Caledonia County**
Median Family Income	$	101,600	$	80,400
Affordability for homeowners (per month)	$	3,048	$	2,412
Affordability for renters (per month)	$	2,032	$	1,608

Table 9-4 Housing affordability

Given the difficulty of obtaining complete and consistent data, it is difficult to make definitive statements about the affordability of housing in Newark. However, according to the Vermont Housing Finance Agency, nearly a quarter of Newark households spend over 50% of their household income on housing expenses (compared with 14% of households, statewide).

The histogram in Figure 9-2 shows the distribution of residential property values in Newark. Most properties have values under $250,000 and a substantial number of properties have values under $150,000.

The histogram was prepared by applying Newark's 2023 Common Level of Appraisal to the residential property values shown in the 2023 Newark grand list to obtain a market value for each property.[54] Then, the five least valuable properties and the five most valuable properties were thrown out to eliminate outliers. The resulting numbers include the values of both the residences and the land that is associated with them. Mobile homes and seasonal homes are not included.

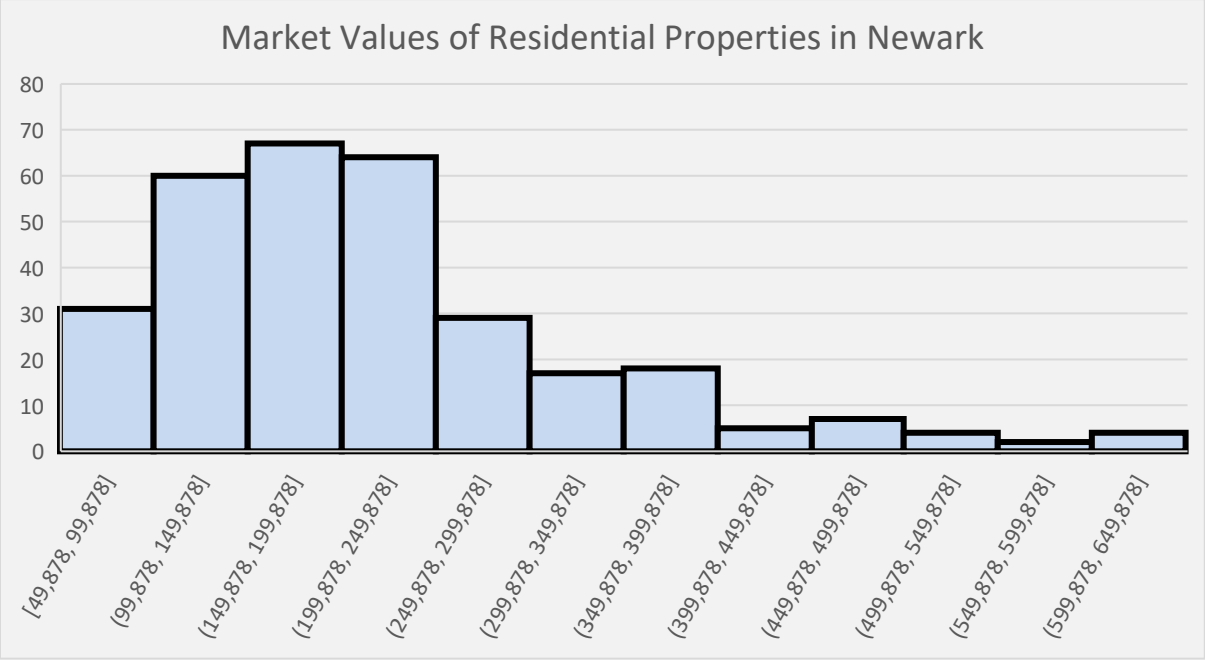


Figure 9-2 Residential Property Values in Newark

The Census Bureau provides a low confidence estimate that there are 19 rented homes in Newark and that monthly rents generally fall between $1,000 and $2,000.

[54] The common level of appraisal (CLA) in Vermont refers to the ratio of the appraised value of real property to its fair market value. It is an important factor in determining property taxes. The CLA is calculated by the Vermont Department of Taxes to ensure that property is assessed at its fair market value, as required by law.

In Vermont, the CLA is expressed as a percentage. If the CLA is 100%, it means that the appraised values are in line with the fair market values. If the CLA is above 100%, it suggests that properties are being assessed at less than their fair market value, while a CLA below 100% indicates assessments are higher than fair market value. Newark's 2023 CLA is 89.82%. That means that the assessed value is 89.82% of the presumed 2023 market value.

Typically, a mix of housing types can help make a community's housing stock more affordable. Most of Newark's housing consists of single-family detached structures. There are a few attached housing units, such as multiunit dwellings or accessory unit dwellings (sometimes called "mother-in-law suites"), and a few dozen mobile homes.

The Northeast Kingdom Regional Plan notes that travel is another cost driver for housing in the region. Travel from households to destinations (e.g., work, shopping, services, etc.) varies on the location of the home and is considered affordable when it accounts for 15% of household income or less. According to the HUD Location Affordability Index, transportation accounts for about a third of household income in the region—far greater than the 15% affordability guideline. Combined, housing and transportation costs are considered unaffordable when they account for more than 45% of household income.

More affordable housing may be required in the future to provide for workers, families, and older residents. If Newark hopes to offer housing for these individuals, plans must be made to accommodate them with public services and affordable housing.

9.3. Workforce Housing

The Northeast Kingdom Regional Plan describes workforce housing as housing for those who are gainfully employed in occupations that are essential to a community, such as teachers, healthcare workers, first responders, as well as occupations that may pay relatively lower incomes, such as food services, retail, hospitality, and tourism.

The regional plan notes that workforce housing does not typically include age- or income-restricted housing, nor is it likely to be supported by federal subsidies because essential workers are likely to have incomes above eligibility thresholds.

Home prices in Newark may be increasing at a greater rate than the average income, driven, in part, by increasing demand for second homes from out-of-town and out-of-state buyers with incomes well above those of the average Newark resident.

9.4. Short-Term Rentals (STRs)

In the last decade, Newark, and other communities in the area, have seen a rise in short-term rental properties, primarily because of websites such as Airbnb, Vrbo, and HomeAway that make advertising and renting guest rooms, homes, camps, and tent sites easy and efficient. (Short-term rentals are generally defined as properties that are rented for less than 30 days.)

While there are positive elements to the short-term rental market—added income for residents and increased business for local merchants—there are also negative effects, such as an increase in "strangers" in residential areas with little or no understanding or connection to the local community. Additionally, STRs can result in increased traffic, noise, and trash; reduced

availability of housing stock for long-term rentals or permanent ownership; and absentee landlords with little accountability to neighbors and the community.

A recent study in the Adirondacks notes that "In vacation regions… short-term rentals are a boost to a critical tourist industry that fuels the economies of local communities. However, short-term rentals also add pressure to a housing market that is unaffordable for many locals due to the growing number of seasonal homes, rising building costs, and limited development opportunities. As short-term rentals grow in popularity, municipalities will need to balance tourism revenue and the needs of local property owners against the forces of commercial short-term rental developers."[55]

In the Northeast Kingdom and adjacent areas of northern New Hampshire, concerns around short-term rentals have led communities such as Kirby, Burke, Waterford, and Bethlehem to draft ordinances and other policies that provide local communities with greater oversight of STRs. In these instances, communities must balance the rights of homeowners with the interests of neighbors and other community members who may only experience the negative side-effects associated with people renting out their homes on a short-term basis.[56]

Presently, short-term rentals do not appear to have a significant negative impact on the availability of housing in Newark, but this issue may need to be monitored and re-evaluated in the future.

9.5. Housing Projections

The shortage of affordable housing is a national problem that seems particularly acute in Vermont. A rising population would worsen the problem.

What will the population of Newark be in 2035? In 2050?

The COVID pandemic that began in 2020 may have driven some to seek safety in rural areas like the Northeast Kingdom. And some see the NEK as an attractive destination for "climate refugees"—those seeking relief from the heatwaves that are becoming frequent in other parts of the country. But the population of Vermont has remained fairly static since 2010 and the population of the Northeast Kingdom has declined. Demographers at the University of Virginia predict that the population of Vermont will contract and that Vermont will become the least populous state. [57]

[55] Bailey, Adam. 2022. *Municipal Short-Term Rental Policies: Analysis and Recommendations for Adirondack Communities.* Northern Forest Center. https://northernforest.org/helping-communities-address-short-term-rentals/

[56] Binzer, Ulrik. 2021. A Guide to Effectively Regulating Short-Term Rentals On The Local Government Level | Granicus

[57] How Vermont's Population Will Change in the Next 20 Years - 24/7 Wall St. (247wallst.com)

Governor Phil Scott sees a decline in the population of working-aged Vermonters as a threat and has launched initiatives to reverse the trend. The Vermont Futures Project, a non-profit organization focused on the Vermont economy, has established a goal to *increase Vermont's population to 802,000 people and its non-seasonal housing stock to 350,000 units by 2035.*[58]

The Vermont Futures goal for Caledonia County is 3,878 new homes by 2035. Annualized, that would be 323 new homes per year. Census Bureau data shows that Newark currently has about 2% of the county's households. If the current ratio between Newark and Caledonia County were to hold, the Vermont Futures goal for Newark would be 7 new housing units per year. Given Newark's lack of infrastructure and its distance from places of employment and essential services (shopping, healthcare, culture, and entertainment) such an increase in Newark's housing capacity seems unlikely.

Indeed, the NVDA projects a much smaller increase in housing for Newark. The NVDA energy profile for Newark suggests a 14% growth in housing for the town by 2050 (see Table 8-5). That would translate to 3 new housing units per year.

In order to preserve Newark's rural character, preserve its agricultural resources, and carry out the town's responsibility to combat the decline of biodiversity, new housing must not be developed in:

- forests that the Agency of Natural Resources has designated as high or highest priority or
- areas that contain prime agricultural soils.

9.6. Housing Goals

9.6.1. Goal: Maintain Newark's Rural Character

Maintain Newark's rural character (consistent with the historic built environment) and avoid negative impacts to natural and community resources (including scenic, agricultural, open, and forested lands).

A. Support housing and utilization that reinforces existing settlement patterns, preserves historic buildings and settings, and improves existing structures.

B. Make information resources available to landowners that encourage 'smart growth' principles that minimize the impacts of development and management practices on forest areas, water resources, and prime agricultural lands.

[58] Economic Action Plan Input - (vtfuturesproject.org)

C. Support the function of the Newark Street 'village' area as a community hub by exploring the creation of a village designation and siting future expansion or development of publicly owned community facilities and buildings in the area.

9.6.2. Goal: Affordable Housing

Maintain and improve the availability of safe and affordable housing and property ownership for all income levels by encouraging a balance of housing for a mixture of incomes.

A. Work with Building Committee to evaluate the town's future needs and make resources and information available regarding weatherization, rehabilitation, and home financing; construction and improvement of affordable housing; and housing for seniors; emphasizing, when possible, the rehabilitation of existing structures.

B. Keep housing affordable by encouraging appropriately sized lots, accessory apartments or dwellings, and clustered developments, including multifamily housing and housing for seniors, consistent with the desire to maintain Newark's rural quality. Any such housing development should be approached using smart-growth principles.

C. Monitor the economic and housing impacts of short-term rentals (STRs) in Newark and surrounding communities and consider the potential for an ordinance to address issues of noise, parking, trash, visitor behavior, and the availability of housing created by the STR market.

9.6.3. Goal: Reduce Energy Impacts of Housing

Newark's built environment should remain consistent with our rural residential character, and we should strive to reduce both energy consumption and the long-term economic impact of rising energy costs.

A. Make resources and information available that support town residents in their efforts to weatherize their homes, increase energy efficiency, and reduce energy consumption including: sound principles of site design for reducing energy use such as solar and slope orientation and protective wind barriers, examples of energy-efficient site design, landscaping, and structure design to guide and encourage homeowners and builders to construct high-quality, energy-efficient, and environmentally sound housing.

B. Where practical, consider impacts to Newark's built environment and historic settlement patterns when planning, reviewing, or participating in future housing plans to complement existing or planned employment locations, reduce travel times and the need for road upgrades and extensions, and minimize the amount of energy spent on transportation.

10. Economic Development

10.1. Newark's Workforce

According to the American Community Survey (ACS) five-year estimates (2022), 279 Newark residents are in the labor force, 255 of whom are employed.

Newark is a bedroom community that relies heavily on commercial and industrial centers in larger, neighboring towns for employment. About 12% of the Newark labor force works at home. The remainder travel—mostly by single-occupant car or truck—to a job in another town in Caledonia County. Of those who drive to work, 70% travel 30 minutes or more to get to work.

There are limited employment opportunities in Newark. The school and town government are the largest employers in Newark. Private-sector employment is mostly small goods-producing endeavors (home construction, arts and crafts, forestry) and various home-based businesses.[59]

Improved Internet access allows an increasing number of Newark residents to telecommute from home.

According to ACS estimates, the median household incomes in Newark, Caledonia County, and Vermont in 2022 were $59,300, $63,000, and $74,000, respectively. ACS estimates that 11.1% of Newark residents live below the poverty level (compared to 11.8% of Caledonia County residents).

10.2. Tourism in Newark

Economically, Newark is highly dependent on—and benefits from—tourism, an essential driver of the economy in the Northeast Kingdom. The characteristics that bring visitors to the region are the same ones that Newark residents treasure: rural character, wildlife, scenery, and recreational opportunities. Newark benefits greatly from its proximity to regional tourism facilities and activities, including skiing, snowmobiling, hiking, and bicycling.

Kingdom Trails Association (KTA), located in East Burke, provides a network of over 100 miles of trails for nonmotorized activities (biking, skiing, hiking, snowshoeing). Known nationally for its mountain-biking opportunities, KTA reports over 135,000 user visits annually, with an economic impact greater than $10 million.

[59] A home occupation or business is defined as one conducted by the resident(s) of a residential building, which is carried out within the principal building or an accessory structure incidental to the dwelling, employs no more than four nonresidents, and does not substantially alter the character of the area.

Get NEKed in the Northeast Kingdom is a partnership of organizations promoting the region as a destination that offers "recreation opportunities, a robust creative economy, and a growing local food and drink scene."

The National Geographic Society has ranked the region as the top geotourism destination in the United States and among the top-10 in in the world. It defines geotourism as *Tourism that sustains or enhances the geographical character of a place—its environment, culture, aesthetics, heritage, and the well-being of its residents.*

There are no restaurants, inns, hotels, or stores in Newark, but B&Bs have operated in the town and numerous cabins, cottages, and homes are available for vacationers to rent. Nearly half of Newark's housing units are seasonal homes or camps (see Section 9). This helps the tax base in town and brings outside money into the region.

10.3. Regional Perspective

Since Newark is regarded as a bedroom community, economic development strategies are best viewed within a regional context. Life in the Northeast Kingdom region has long been marked by chronic underemployment and lagging personal incomes.

While historically, Caledonia County has had one of the highest unemployment rates in the state, Caledonia County's annual average unemployment rate for 2022 was 1.7% (compared to 2.5% statewide). The ACS estimates that Newark's unemployment rate was 4.5%, but the estimate has a wide margin of error of 3.1 percentage points.

Developments over the past ten years promise increased economic opportunity in the region for the future. These developments include:

- expansion of the Newport State Airport in Coventry
- the hotel at Burke Mountain
- expansion of the facilities at Jay Peak

10.4. The Future of Newark's Economy

Newark's economic future is inextricably linked to its access to the outdoors. Its rural beauty, large open tracts, and abundant wildlife are quality-of-life assets as well as economic engines.

While it is important to measure the impacts of our region's outdoor economy in terms of the spending and jobs attributed to tourism and recreation, it is also important to recognize the broader benefits in terms of economic recruitment and workforce development. Research shows that access to public lands, open spaces, and recreation correlates to higher levels of

income and attracts skilled, higher wage jobs more rapidly than communities without such amenities.[60]

Newark's goal is to maintain its unique rural atmosphere and natural scenic beauty, while encouraging the orderly and environmentally minded development of economic opportunities.

Residents of the Northeast Kingdom view the rural character of the region, its natural resources, and its large tracts of undeveloped land as its most valuable resource and vital to an economic future that is most compatible with their lifestyles, sensibilities, and preferences. The Town of Newark encourages economic activities that:

- preserve and make use of these economic drivers,
- respect the natural environment, and
- improve the well-being of residents.

The town regards development that would compromise the rural character of the town, its natural resources, and its large tracts of undeveloped land as inconsistent with the town's vision and goals.

10.5. Economic Development Goals

10.5.1. Goal: Sensible Development

Support economic opportunities and orderly development that encourages, promotes, and preserves the town's natural scenic beauty, unique character, historic built environment, quality of life, and the economic well-being of Newark's citizens.

A. Support efforts to protect Newark's historic and natural resources, expand recreational access, and encourage sustainable tourism.

10.5.2. Goal: Small-business Economy

Newark supports a thriving and diverse small-business economy that is compatible with existing and traditional land use and consistent with local and regional plans.

A. Support local economic development that encourages environmentally sustainable small and home-based enterprises -particularly in agribusiness, forestry and woods products, recreation tourism, and the creative arts sector.

B. Create an inventory of existing and potential recreational opportunities in town.

[60] Center for American Progress: "The Government Should Begin to Measure America's Powerful Outdoor Economy," January 2015.

10.5.3. Goal: Support Local Businesses

Promote access for local businesses and entrepreneurs to local, regional, state, and federal programs that provide opportunities for business development and growth through education, training, financing, technical assistance, and other services.

A. Work with NVDA and service providers to expand access to high-speed internet to increase opportunities for home-based businesses or for telecommuting.

B. Work with the NVDA to promote and provide resources and information about economic growth and regional, state, and federal programs, such as tax-increment financing, tax-credit programs, revolving loans, and business-development grants.

C. Promote local economic development and a skilled workforce by supporting access for Newark residents—young and old—to educational and training opportunities that provide technical, business, and environmental skills and inspire innovation and sustainable economic enterprises.

D. Encourage the selectboard and planning commission to review and actively participate in Act 250 proceedings as well as in other state, regional, and local hearings that involve commercial development to represent the goals of the Newark Town Plan.

E. Encourage Newark residents to buy local and support the economic well-being of their fellow community members.

11. Flood-Resilience Plan

11.1. Existing Conditions and Flood Risks

Most of Newark lies within the Passumpsic River watershed, which drains into the Connecticut River (see Map 9). A small portion of northernmost Newark is in the Clyde River watershed, which drains north into Lake Memphremagog, which feeds the St. Lawrence River.

The Town of Newark supports the goals of the Department of Environmental Conservation (DEC) tactical basin plans to protect water resources in both the Passumpsic and Memphremagog watersheds.

The Passumpsic and its tributaries have flooded frequently, inundating areas to the south of Newark, especially Lyndon. The channel bed of the East Branch has been degraded by both human activities and storm events. As a result, the river's natural flood-protection mechanisms may not be sufficient to protect Newark or the downstream commercial, emergency, and transportation assets that are vital to Newark residents. It is therefore essential for Newark to preserve and enhance its floodwater storage capabilities in order to reduce the vulnerability of the town and of neighboring towns downstream.[61]

Newark's flooding history has largely involved transportation infrastructure—washouts resulting from undersized culverts and from beaver activity at the outlet of Newark Pond. Table 11-1 shows the flooding events that have occurred in Newark since 1989, according to the Federal Emergency Management Agency (FEMA). Flooding in 2002 and 2004 caused extensive road damage, with 9 damage sites in 2002 and 16 sites in 2004.

Disaster Declaration #	Date	Total FEMA Public Assistance Received
840	1989	$1,575
1063	August 1995	$2,951
1428	July 2002	$117,140
1559	September 2004	$104,614

Table 11-1 Federal Disaster Declarations in Newark (FEMA)

Climate change has affected and will continue to affect Newark's environment. The 2021 Vermont Climate Assessment indicates that Vermont's environment is expected to get wetter and warmer, with a greater number of extreme weather events, shorter winters (already

[61] East Branch Passumpsic River Corridor Plan, Caledonia County Natural Resources Conservation District, January 2009.

estimated to be 16 fewer freezing days each year), and longer growing seasons. Increased rain events can contribute to flooding, erosion, water pollution, and blue-green algae blooms. Changes in climate will affect both human populations (i.e. climate refugees) and wildlife-whose habitats, food sources, and breeding habits may change with a warming climate.

It is likely that we will see an increase in the number of extreme storm events that strain infrastructure and threaten people, property, and natural resources.

The town has sought to reduce future flood damage through an ongoing program to replace undersized culverts (culverts that are too small to pass the high volume of water experienced during a severe storm event). However, the most cost-effective measures the town can take involve the identification and protection of its natural flood-protection assets: its floodplains, river corridors, wetlands, and upland forested cover. The best protection of these assets is to discourage development that would compromise their effectiveness. Restoration of some of Newark's riparian areas would also improve Newark's flood resilience.

11.1.1. Floodplains

Floodplains are low-lying areas adjacent to a water source that become inundated as floodwaters rise and spill out over a riverbank.

Floodplains provide an important ecological function by storing floodwaters, reducing downstream flood velocities, and minimizing riverbank erosion. They also help protect water quality and habitat by filtering nutrients and impurities from runoff, processing organic wastes, and moderating temperature fluctuations.[62]

FEMA prepares Flood Insurance Rate Maps (FIRMs) identifying Special Flood Hazard Areas, which are floodplains that are likely to become inundated during a significant flood known as a "base flood" or "100-year flood." The term "100-year flood" is misleading, though, because it creates the false impression that a flood of that magnitude will occur only once a century. What the term really means is that the base flood has a 1% chance of flooding in *any given* year. With a 1% annual chance, a structure in a Special Flood Hazard Area has more than a one-in-four chance of being affected by a flood during a 30-year mortgage. By comparison, the same structure has less than a one-in-ten chance of being damaged by fire over the term of the same mortgage.[63]

[62] Benefits of Natural Floodplains | FEMA.gov

[63] Welcome to Flood Ready Vermont | Flood Ready.

Interpretation of the FIRMs can be difficult, since they lack the type of detail usually associated with maps, such as streets. The maps are important, though, because they are used to determine the cost and availability of flood insurance.

The FEMA FIRM maps for Newark are available on-line[64] and in the Town Clerk's Office. The flood-hazard areas tend to be in three types of locations:

- Low-lying lands around ponds, including Newark Pond, Center Pond, and Sawdust Pond.
- Wetland areas, including those situated west of Beck Pond Road, near Bean Brook (below Newark Hollow), and on either side of VT Route 114 near Hawk Rock and Moose Lane.
- Riparian areas, including a small section along the West Branch Passumpsic River near VT Route 5A and a much larger section along the East Branch Passumpsic River east of VT Route 114 below bridge B20 (see Map 22). This latter hazard area extends south all the way to the East Haven town line.

Developed areas around Newark Pond and, to a lesser extent, Center Pond may be at risk of inundation flooding and property damage during extreme high-water events. Of greater concern is the potential risk of inundation and fluvial erosion along VT Route 114, where the risk of moving water poses a danger to homes, property, and infrastructure. Several structures are situated within, or very close to, the mapped river corridor and flood-hazard area and may be susceptible to erosion, flash flooding, and channel movement.

11.1.2. River Corridors

River channels are constantly undergoing physical adjustments. They might be slow, resulting from gradual stream-bank erosion or sediment deposit, or they might be sudden and dramatic, in the case of a stream-bank collapse. Flood-related damage occurs frequently in Vermont, owing in part to the state's mountainous terrain.

The Vermont Department of Environmental Conservation describes a river corridor as the river's channel and enough adjacent land to provide "wiggle room" as the channel changes over time. Lands near stream banks are particularly vulnerable to erosion damage by flash flooding, bank collapse, and stream-channel dynamics.

Vermont's Department of Environmental Resources maintains a website that serves as a portal for river corridor information.[65] Vermont's Natural Resource Atlas[66] includes a river corridor layer that enables the viewer to zoom in on a corridor anywhere in the state. The river corridor layer is based on a computer model, completed on all streams with a watershed area of more

[64] FIRMs are available at http://map1.msc.fema.gov/idms/IntraView.cgi?KEY=97795922&IFIT=1; for the Newark map, use https://msc.fema.gov/portal/advanceSearch#searchresultsanchor.
[65] River Corridor and Floodplain Maps | Department of Environmental Conservation (vermont.gov)
[66] Vermont ANR - Natural Resources Atlas HTML5 Viewer

than 2 square miles. Each river corridor includes a meander belt—the lateral extent that the river can move to maintain channel equilibrium—and an area extending from the edge of the meander belt to provide a natural vegetation buffer that can inhibit stream-bank erosion and dissipate stream energy. Over time, the base map can be updated to reflect field-based data as they become available. In Newark, the streams included in the base map are the East Branch Passumpsic, Sleeper Brook, Bean Brook, and the West Branch Passumpsic (Map 10).

If buildings are sited in river corridors, not only are they at risk, but they pose a threat to downstream infrastructure, such as culverts, roads, and bridges. Downstream harm (a blocked culvert, for example) can, in turn, increase risks to upstream properties.

Accordingly, Newark discourages development in its river corridors.

11.1.3. Uplands and Wetlands

FEMA's maps may not account for the natural assets, upland, that help reduce the impacts of downhill flows and help retain and filtrate drainage.

Proper management of upland areas plays an important role in minimizing flood hazards. Newark's topography includes several north-south ridges. The town's rivers and streams, including Bean, Sleeper, and Roundy Brooks, the West and East Branches of the Passumpsic River, and many smaller tributaries, flow between these ridges. The most prominent north-south ridge is known as Hogback Mountain and includes Walker Mountain, Hawk Rock, Packer Mountain, and Sugar Hill. The forested cover on the higher elevations along this ridge is part of the largest block of contiguous forest in Newark (7,900 acres). While these areas are very important for supporting wide-ranging species of wildlife, their flood-resilience function is also critical. Limiting the clearing of upland slopes will help attenuate flood flows and reduce stormwater runoff. Newark's forest cover, particularly in areas with steep slopes and high elevations (where headwaters are located), must be protected.

Wetlands have the capacity to retain significant amounts of water. According to the Vermont Significant Wetlands Inventory maps, Newark's wetlands cover 1,292 acres and are divided among 98 discrete wetlands. They are mostly concentrated along the East and West Branches of the Passumpsic River and Bean, Sleeper, and Roundy Brooks. The largest wetlands are found along the East Branch Passumpsic, Bean Brook, and a small tributary of the East Branch that drains Packer Mountain and Hawk Rock.

The State of Vermont regulates activities in and adjacent to wetlands. These rules apply to the wetlands and associated buffer zones within 100 feet of Class I wetlands and 50 feet of Class II wetlands. Any activity in a Class I or II wetland requires a state permit. The Town of Newark supports and assists the state in regulating and protecting wetlands.

11.1.4. Riparian Restoration Zones

Riparian areas consist of both the aquatic and the terrestrial ecosystems of streams, rivers, lakes, ponds, and wetlands.[67] Restoring compromised riparian areas can promote biodiversity, prevent erosion, protect water quality, and provide habitat and wildlife corridors.[68]

The *2014 Natural Resource Inventory of the Town of Newark* identified the highest value riparian restoration opportunities by means of a screening process that involved:

- Delineating 100-foot-wide buffers along streams and rivers.
- Identifying areas within buffer zones that are not currently covered by forest, shrubland, or wetland vegetation.
- Excluding sites with an existing building, road, or pond.
- Evaluating the remaining sites for restoration potential.

Of the sites evaluated, those given the highest priority for restoration lie along the East Branch of the Passumpsic River (see Map 24). According to the inventory, many of these sites could best be restored by planting appropriate native floodplain or wetland vegetation. Some unstable stream banks might require more aggressive treatment.[69]

The inventory report emphasizes that protecting and restoring the appropriate vegetation and habitats would serve to store floodwaters, reduce stream-bank erosion, filter nutrients and sediments, and create high-quality fish and wildlife habitat.[70]

11.1.5. Transportation Infrastructure

Transportation infrastructure can affect water quality: runoff from roads can create erosion and carry pollutants to nearby surface waters. Undersized culverts and improperly maintained roadside ditches can contribute to washouts that result in catastrophic degradation of streams, ponds, and lakes.

Newark has an ongoing program to upgrade and maintain its transportation infrastructure. The town has received assistance from the Caledonia County Natural Resources Conservation District (NRCD), the NorthWoods Stewardship Center, and the Northeastern Vermont Development Association (NVDA).

- Newark received a Agency of Transportation (AOT) Better Roads grant in 2016 to identify the conditions of smaller road erosion (ditching, driveway culverts, some crossover

[67] Creating and Maintaining Resilient Forests in Vermont: Adapting Forests to Climate Change, Vermont Department of Forests, Parks and Recreation, May 2015, p. 40.
[68] *Ibid*., p. 53.
[69] Gerhardt, *Inventory*, pp. 51-53.
[70] *Ibid*., p. 53.

culverts). The NRCD conducted an inventory, identifying and prioritizing projects. The inventory provides a budget framework for a 5-year plan to implement the projects. A Road Erosion Inventory and Capital Budget Plan is recommended every 5 years, to create a budget cycle for road-improvement projects as well as a tool for town officials to track road-improvement progress. Projects identified in the inventory may be eligible for additional Better Backroads grants.

- The NorthWoods Stewardship Center has helped the town address some of the deficiencies identified by the NRCD project.
- In 2015, the NVDA worked with Lyndon State College to train individuals to assess the conditions of the town's short structures (bridges with spans between 6 and 20 feet), classifying them as "good," "fair," or "poor." This assessment will be important for identifying medium- to long-range costs for maintaining, upgrading, and repairing these bridges. Towns are responsible for inspecting their own short structures; the state does not do so.
- In 2023 Newark used an AOT Better Roads grant to replace a culvert on Schoolhouse Road.
- In 2023 Newark used an AOT Highway Structures grant to replace a bridge on Bald Hill Pond Road.
- In 2023 Newark used an AOT Municipal Roads General Permit grant to stabilize road drainage systems and thereby reduce stormwater erosion.

The state maintains an inventory of bridges and culverts (www.vtculverts.org). The inventory currently includes 301 culverts in Newark. The last major inventory was taken in 2003 and showed 234 culverts to be in excellent, good, or fair condition. Sixty-five culverts were in poor condition and the remaining two culverts were in unknown condition.

The state inventory shows five bridges on Newark's town highways, three of which are depicted on maps as short structures: B7 on Hollow Road located near the base of Center Pond, B9 on Maple Ridge Road, and B10 on Bald Hill Pond Road near Sawdust Pond. The most recent inventory was conducted in 2013. Three bridges are listed as being in good condition and two are listed as unknown.

11.2. Vermont's Emergency Relief and Assistance Fund

Flooding events in 2002 and 2004 each resulted in more than $100,000 in damage to roads and bridges in Newark. Federal and state government assisted in covering the cost to repair the damage. Since then, Vermont's formula for providing assistance has changed and future flooding events could cost Newark taxpayers more.

FEMA provides public assistance covering 75% (or more) of infrastructure damage resulting from a presidentially declared disaster. Vermont's Emergency Relief Assistance Fund (ERAF) used to cover 50% of the remaining damage, leaving the town responsible for 12.5% or less.

To encourage towns to undertake flood-resilience initiatives, Vermont has changed ERAF's rules. In order to qualify for full ERAF assistance, a town must now take *all* of the following steps, described more fully in the following subsections:

- Adopt the most current Town Road and Bridge Standards (which are listed in the *VTrans Orange Book: Handbook for Local Officials).*
- Adopt flood regulations that meet the minimum standards for enrollment in the National Flood Insurance Program (NFIP); note that actual enrollment is not required.[71]
- Maintain a Local Emergency Management Plan (LEMP).
- Adopt a FEMA-approved All-Hazard Mitigation Plan.

Towns that fail to meet these requirements will receive 30% assistance rather than 50% from ERAF, thus raising the town's share of the cost of a disaster from 12.5% to 17.5%.

Newark has not met the new ERAF requirements so if Newark were to suffer $100,000 in damages from a federally declared disaster, its share of the burden would be $17,500. If the ERAF requirements were met, the burden would be $12,500.

11.2.1. Town Road and Bridge Standards

The intent of Vermont's Town Road and Bridge Standards is to improve safety, reduce life-cycle costs, and reduce environmental impacts. Adoption of these standards may also increase the amount of state funding for repairs and replacement of bridges and culverts on town highways (Classes 1 through 3).

The state share for the replacement and repair of bridges and culverts is limited to $175,000 per project. The local share is 20% of the project cost, but that share can drop to 10% if the town has adopted the standards *and* completed a highway infrastructure inventory within the past 3 years.

Thus, if Newark were to adopt the standards, the town's share of a $100,000 project would drop from $20,000 to $10,000.

[71] NFIP participation would make any property owner eligible for coverage regardless of their location inside or outside of mapped hazard areas.

Newark has chosen not to adopt the state standards because they would be costly and impractical to implement on Newark's rural roads. Even with financial assistance from the state, adopting the standards would drive the town's highway budget to unsustainable levels.

Newark's road system is safe and flood resilient despite the town's decision not to adopt the state standards.

11.2.2. Flood-Hazard Regulations and the National Flood Insurance Program

Newark is not currently enrolled in NFIP. Enrolling in the program would enable Newark property owners to obtain affordable flood insurance. It would also help some property owners qualify for federally backed mortgages.

Enrolling in the NFIP would require Newark to adopt flood-hazard regulations for the Special Flood Hazard Areas designated on the FEMA Flood Insurance Rate Map:

- Sawdust Pond,
- a swamp to the west of Center Pond Road and Beck Pond,
- the East Branch of the Passumpsic River,
- Bean Brook,
- Newark Pond,
- Center Pond,
- tributaries of Howard Brook, and
- the brief portion of the West Branch Passumpsic near VT Route 5A.

The most significant concentration of development in a Special Flood Hazard Area appears to be the East Branch, where six properties may lie within or near inundation hazard areas.

The minimally compliant regulations would not prohibit development in a Special Flood Hazard Area, but *new* development would have to meet certain standards, such as elevation or flood-proofing. If an existing residential structure in a hazard area were to suffer extensive flood damage, it would have to be brought into compliance. This might require, for example, elevating it and modifying its basement to allow flood waters to flow through.

While minimally compliant flood-hazard regulations would allow property owners to purchase flood insurance at more affordable rates, the regulations may not reduce flood risks. The minimally compliant standards still allow development in a Special Flood Hazard Area, so it is possible that new development could reduce the effectiveness of flood-protection assets and increase the vulnerability of other properties, roads, and bridges to flood risks.

The development and adoption of flood regulations might be both difficult and controversial, but it would be required in order to make affordable flood insurance available to Newark

property owners and to make Newark eligible for the maximum amount of state aid through ERAF.

Even though Newark is not enrolled in the NFIP, the town encourages builders and property owners to meet NFIP's minimum requirements for new structures or substantially improved structures being built in a flood zone. Newark encourages inclusion of an additional 2 feet of freeboard above the base flood elevation for any new structure being built in the flood zone.

11.2.3. Local Emergency Management Plan

The LEMP establishes lines of responsibility during a disaster and identifies high-risk populations, hazard sites, procedures, and resources.[72] This information is particularly important in coordinating responses through mutual-aid towns and with regional and state entities.

The LEMP must be reviewed annually (after Town Meeting) in order to ensure that it is up to date with respect to community needs and contains correct contact information for critical responders. Copies are available at the Town Clerk's Office.

11.2.4. All-Hazard Mitigation Plan

The All-Hazard Mitigation Plan prioritizes hazard issues and details steps for addressing them. It is required to receive FEMA grant funding for reducing or eliminating hazards. In 2005, a local All-Hazard Mitigation Plan was developed for Newark as an annex to the regional plan for the Northeast Kingdom. Since that time, the FEMA approval process has become more rigorous. It is likely that Newark will have to develop a single-jurisdictional plan if the town wishes to seek FEMA funds for mitigation projects, such as replacing bridges, elevating structures, acquiring repetitive-loss structures, or purchasing a generator for an emergency shelter.

11.3. Instream Emergency Protective Measures

Some flood and erosion hazards pose an immediate threat to safety and property. These hazards may require swift action that cannot be encumbered by standard permitting procedures. Vermont statute gives selectboards some authority to undertake stream-alteration measures when they are needed to prevent loss of life or severe property damage. However, such action needs to be taken in a manner that provides adequate notice to landowners, minimizes impacts to stream stability and habitat, and remains eligible for reimbursement by state and federal funds. Act 138, which was passed in 2012, establishes a protocol for taking emergency action.

[72] Local Emergency Management Plan (LEMP or LEOP) | Flood Ready (vermont.gov)

Under Vermont law, a selectboard is authorized to approve an emergency protective measure if it meets the following conditions:

- It is necessary to preserve life or to prevent severe imminent damage to public or private property, when such property has experienced damage or is under threat of imminent failure within the next 72 hours.
- It is limited to the minimum amount necessary to remove imminent threats to life or property. To meet this criterion, the emergency measures must be proportional to the threat and shall cease when the threat to life or of severe damage to a property has ended.

The emergency measure must meet the Agency of Natural Resources' (ANR) implementation standards for stream alterations. As soon as a municipality approves an emergency protection measure, the municipality must notify the ANR within 24 hours. It is very important that local officials are aware of required procedures so that they can act swiftly and decisively when an emergency arises.

11.4. Flood-Resilience Goals

11.4.1. Goal: Flood Preparedness

Newark landowners should understand the risks associated with extreme storm events, including both fluvial erosion and inundation, and should be engaged in the restoration and stewardship of water resources and riparian lands.

A. Work with NVDA to provide information and raise awareness about the updated FEMA floodplain maps, and inform landowners situated in flood hazard areas about conservation, restoration, and mitigation opportunities.

B. Provide information and resources to landowners related to flood and erosion hazards and promote the restoration and protection of forested riparian areas adjacent to Newark's rivers, streams, ponds, and wetlands.

C. Support and promote established guidelines for forestry (Best Management Practices) and agriculture (Required Agricultural Practices) that reduce runoff and impacts to Newark's waters and riparian areas by making information available through the town office.

D. Work with the Newark Selectboard to review and update the town's emergency management and hazard mitigation plans and protocols.

E. Work with the Newark Selectboard to evaluate the costs and benefits of meeting the state's ERAF requirements.

11.4.2. Goal: Flood Mitigation

Newark's citizens, infrastructure, and facilities should be prepared to meet the demands of future extreme storm and flood events by mitigating flood hazards and minimizing risk exposure in a sustainable, cost-effective manner.

A. Work with the selectboard to determine the next steps on how best to proceed with Newark's flood-resilience plan. [not sure how to incorporate/revise this one]
B. Encourage the selectboard and road commissioner to keep the town's road erosion inventory and capital-budget plan current and updated, and work with NVDA, Vtrans, and other agencies to identify funding for necessary capital improvements.
C. Encourage the selectboard and road commissioner to ensure that all maintenance and new infrastructure projects meet best practices for flood resilience.

11.4.3. Goal: Water Resource Protection

Protect water resources and areas essential to floodplain function, including floodplains, river corridors, riparian lands, and upland forests to reduce the risk of flood damage to infrastructure and property.

A. Support the conservation of lands located within and adjacent to FEMA-mapped flood-hazard areas, especially upland areas that protect watershed functions, and undeveloped river corridor areas along the East and West Branches of the Passumpsic River, where flood and fluvial erosion pose a significant risk to nearby properties, homes, and infrastructure.

B. Review and actively participate in Act 250 and Section 248 proceedings and in other state, regional, and local hearings that involve development that may impact water resources to represent the goals of the Newark Town Plan.

12. Regional Context and Adjacent Towns

The towns of Westmore, Ferdinand, Sutton, Burke, East Haven, and Brighton border Newark. These towns are also rural in nature. Westmore, Sutton, Burke, Brighton, and the Unified Towns and Gores (UTG, of which Ferdinand is a part) have town plans that are very similar in content to Newark's. Unlike Newark, however, these neighboring towns have adopted zoning bylaws. Among Newark's neighbors, only East Haven has neither a town plan nor zoning bylaws.

Town	Town Plan	Zoning Bylaws
Brighton	October 17, 2018	March 20, 2012
Burke	11.6.17 Plan - Amended 2019	April 10, 2018
East Haven	None	None
Ferdinand (UTG)	July 12, 2021	July 12, 2021
Sutton	February 25, 2021	April 26, 2018
Westmore	October 21, 2020	October 21, 2020

Table 12-1 Neighboring town plans and zoning bylaws

While Newark's town plan shares visions and goals with the Northeastern Vermont Development Association's (NVDA) regional plan and the plans of the surrounding towns, all but one of the six abutting towns regulate development more strictly than does Newark. Thus, Newark may be attractive for development activities that cannot pass muster under the zoning bylaws of neighboring towns. Residents should be particularly aware of zoning districts that abut Newark. These are described below in the sections relating to each of the towns.

The Newark Selectboard and Newark Planning Commission keep current with the area's development plans and issues by participating in monthly planning meetings and by attending various planning-related workshops offered by Vermont state agencies, the NVDA, and the Vermont League of Cities and Towns.

The NVDA provides a framework for Newark to work cooperatively with neighboring towns and members of Newark's town government have attended planning commission and development review board meetings in adjoining towns. The Newark, Brighton, and Unified Towns and Gores (of Essex County) have conferred and held joint meetings.

12.1. NVDA

Newark supports the NVDA and stays abreast of regional development plans and issues. Newark's town plan is both compatible with and supportive of the visions and goals of the NVDA's regional plan.

12.2. Brighton

The area of Brighton that abuts Newark is characterized by forestry and agriculture, as well as by camps and scattered homes. There are few roads and limited electrical infrastructure in this district. While the camps and homes rely on on-site water and wastewater disposal, area soils tend to have difficulty supporting on-site wastewater disposal. The town of Brighton considers many areas of this district to have "great scenic values that would be lost, if the land were overdeveloped." To protect its scenic assets, the 2018 Brighton Town Plan says that any development on its mountains "should not extend above the tree line." Brighton's "Rural Lands" district (minimum 5 acres) largely consists of single-family dwellings and camps, although earth extraction is permitted. The Brighton Town Plan has provisions for planned residential development.

12.3. Burke

The area of Burke that abuts Newark is a low-density district called "Agricultural – Residential II." The stated purpose of this district is to "The purpose of the Agricultural Residential II District is to maintain and preserve the agricultural character and scenic qualities of outlying areas while providing the opportunity for low-density residential housing, limited non-residential development and the continued operation and expansion of agricultural operations, forest management, and other resource based activities."[73] This district has a 5-acre minimum lot size. It should also be noted that this district allows for commercial and industrial uses, such as earth extraction, heavy equipment yards, log and lumber yards, and truck terminals, although many of these uses are limited to VT Route 5. Much of the area in question is in a "Scenic Conservation Overlay" (i.e., areas with an elevation of 1,500 feet or more), which gives the Burke Development Review Board a degree of discretion regarding clearing of forested cover and landscaping when approving building sites.[74] The town is currently contemplating the use of performance standards that might accommodate a broader array of industrial uses in this area.

The ski resort on nearby Burke Mountain has undergone substantial development that includes condominiums and The Burke Mountain Hotel & Conference Center, which has restaurants, retail outlets, and 116 guest suites. Development plans in Burke, as well as in other neighboring towns, are reviewed on an ongoing basis by the Newark Selectboard and the Newark Planning Commission.

[73] Town of Burke Zoning and Subdivision Regulations, April 10, 2018, P. 12.
[74] Burke Zoning, p. 15.

12.4. Ferdinand

Where Ferdinand abuts Newark is wooded with no public road access. Commercial, industrial, and residential development is restricted to 500 feet of the centerline of publicly owned and maintained roads. The UTG has a Conservation Overlay for areas with hydric soils and wetlands, slopes greater than 20%, critical natural wildlife habitat, and elevations greater than 2,500 feet.

An industrial wind-energy project was proposed for a ridgeline in Ferdinand in 2012. UTG voters and property owners soundly rejected the proposal. In 2014 and again in 2021, the UTG adopted a town plan that states, "The UTG absolutely prohibits any commercial energy generation facility upon the ridgelines or mountain areas."[75] This explicit discouragement of industrial wind turbines is similar to the language contained in this Newark Town Plan.

12.5. Sutton

Sutton's border with Newark is made up of a Scenic District (along Route 5A) whose purpose is to provide for limited residential, recreational, and other uses compatible development in areas that are rural in character with agriculture and forestry as their primary use.[76] Minimum lot sizes in this district are two acres.[77]

The remainder of the Sutton border is in the Working Lands District, which "allows for some limited residential development, while stabilizing Sutton's remaining agricultural and silvicultural lands by protecting them from fragmentation that would impair their continued viability as working lands."[78] The minimum lot size in this district is one acre and there are subdivision density restrictions.[79]

Industrial wind turbines in neighboring Sheffield encroach on Sutton, adversely impacting the town. The 2021 Sutton Town Plan says, "As the Sheffield Wind Project has demonstrated, such developments because of their visual impact, their accompanying noise, their potential impact on wildlife and the environment, and their impact on property values are not appropriate for these areas or in adjacent areas in other towns where Sutton's viewshed is affected."[80]

[75] Unified Towns & Gores of Essex County, Vermont Municipal Plan, July 12, 2021, p. 23.
[76] Sutton UNIFIED DEVELOPMENT BYLAWS, APRIL 26, 2018, p.10.
[77] Ibid.
[78] Ibid., p. 11.
[79] Ibid.
[80] Sutton Town Plan, February 25, 2021, p. 35.

12.6. Westmore

Westmore lies to the northwest of Newark. Route 5A and Abbott Hill Road are the only year-round through ways that pass through the six-mile-long border. Long Pond Road, closed in winter, also traverses the border.

The border is largely forested with ponds (Newark, Sawdust, Brown, Jobs, Bald Hill) on either side.

The Westmore Town Plan, like the Newark Town Plan, expresses an appreciation of our natural resources, a recognition of their importance in the town's economic future, and a desire to protect them: "The economic future of Westmore lies substantially in the wise stewardship of our natural resources: the water and the land. Sustainable development in Westmore should be based on providing recreation opportunities and related services for visitors which are compatible with our active agricultural and forestry traditions."[81]

Westmore's zoning has two minimum lot sizes: 20,000 square feet for shoreland development and 40,000 square feet for all others.[82]

12.7. East Haven

East Haven borders Newark to the east. East Haven has neither a town plan nor zoning regulations.

[81] Westmore 2018 Town Plan, Amended 2020, pp 55-56.
[82] Town of Westmore Vermont Zoning Bylaw, November 10, 2020, p. 6.

13. Implementation Plan

The implementation plan recommends many different actions to work toward our vision for the future. The implementation plan lists each recommendation and suggests a time frame in which it will be accomplished or begun- short-term, mid-term, and long-term. Since planning is a dynamic process, the priorities may change somewhat over time.

The following abbreviations are used to denote the primary group(s) involved in the implementation of each action item:

BC=Building Committee; CC=conservation commission; EC=energy coordinator/committee; NSS=school community (principal, students, teachers, board); NVDA=Northeastern Vermont Development Association (regional planning commission); PC= planning commission, RC=road foreman; SB=selectboard, TBD=Unknown, to be determined; TC=town clerk; VFD=Newark Volunteer Fire Department; WMD=waste management district.

Note: These are abbreviated versions of the recommendations. For the full text, please refer to the section within the plan. (The page numbers displayed in this table link to the appropriate page.)

3.6. Land-Use Goals (Page 37)

Goal: Preserve Newark's rural character and the purity and aesthetic beauty of the town's environment- including its working lands, and forest, water, and wildlife resources.		
Re-establish the Newark Conservation Commission.	Short-term	SB, PC
Establish and administer a Newark Conservation Fund.	Short-term	SB, PC, TC
Support the preservation of open and active forest and agricultural lands.	Mid-term	PC, CC
Participate in proceedings under Act 250, Section 246, and Section 248.	Long-term	SB, PC, CC
Goal: Housing and economic opportunities should be pursued in an orderly and environmentally sound manner that protects critical habitat corridors, forests, and agricultural lands from fragmentation and incompatible uses.		
Make 'smart growth' information resources available to landowners help minimize the impacts of development and management practices.	Short-term	PC, TC
Support compatible small businesses and home-based occupations that preserve the working landscape.	Short-term	SB, NVDA
Support public and private conservation opportunities.	Mid-term	CC
Utilize, promote, and share resources provided by NVDA to support communities, small businesses, and industrial enterprises.	Long-term	NVDA, TC

4.11 Transportation Goals (Page 43)

Goal: Newark's transportation system should be sustainable, well-managed, resilient, and minimizes negative impacts to Newark's waters, wildlife, natural beauty, and historic settlement patterns.		
Implement the best practices for road maintenance.	Short-term	RC, SB
Create a long-term road-improvement program.	Short-term	RC, SB
Identify and improve wildlife crossings and passage for aquatic organisms.	Mid-term	RC, CC
Ensure that new town roads and new lot layouts minimize the degradation and fragmentation of wildlife habitat, forests, and farmland.	Mid-term	RC, CC
Ensure that adequate standards are followed in upgrading Class 4 and private roads to Class 3 town-maintained roads.	Long-term	RC, SB
Goal: Newark residents should have access to transportation facilities that are safe, efficient, and adequate to meet the needs of all users, including pedestrians and cyclists.		
Encourage the development and use of public transportation, ride sharing, and Park and Ride facilities.	Mid-term	PC, TC
Increase bike-ped use and safety on Newark's roads and trails- particularly in the Newark Street village area.	Mid-term	RC
Reduce speeding on Newark roads	Mid-term	SB, RC
Encourage access to broadband services.	Short-term	SB, PC

5.5 Utility and Facility Goals (Page 50)

Goal: Preserve the rural character of the community and ensure the adequacy of town resources for present and future generations through the preservation and maintenance of town buildings, lands, and historic resources.		
Work with the selectboard, town clerk, fire department, and road commissioner to address ongoing priorities for town properties.	Short-term	ALL
Work with the conservation commission to guide management of the Newark Town Forest, to support land and resource conservation projects, and to provide stewardship resources for landowners.	Mid-term	CC
Support the stewardship of historical information, documents, sites, buildings, and artifacts.	Long-term	CC, TC
Goal: Ensure the safety of Newark residents and properties by supporting the services of Newark's road, fire, and rescue personnel.		
Actively participate in and support the efforts of the Town Building Committee to ensure adequate fire, road, office, and school facilities in Newark.	Mid-term	BC, SB
Improve public safety by ensuring that all roads have their names posted clearly and by encouraging property owners to display E911 numbers on their houses and camps.	Long-term	RC, VFD
Goal: Newark is a leader in the reduction of household solid waste in the Northeast Kingdom, and should continue to operate an efficient and user-friendly recycling and waste transfer facility.		
Provide continued municipal support for the town's recycling and trash services to reduce and properly dispose of solid waste.	Long-term	SB, WMD
Goal: All Newark residents should have universal access to communication services—internet, cellular, and cable.		

Work to continue line and equipment upgrades for better telephone and high-speed internet service.	Long-term	PC

6.5. Preservation Plan Goals (Page 57)

Goal: Preserve Newark's irreplaceable assets for future generations. These include its rural character, wildlife habitat, scenery, recreational opportunities, and peace and quiet.		
Relaunch the Newark Conservation Commission.	Short-term	SB, CC
Support the preservation of open and active forest and agricultural lands by providing information resources to landowners related to state, federal, and private land conservation funding and stewardship programs.	Mid-term	CC
Support our community standard opposing large-scale industrial and commercial facilities.	Long-term	SB, PC
Support public and private conservation opportunities that ensure working forests and farms, protect water and wildlife resources, preserve historic sites and buildings, secure recreational access, and mitigate negative impacts of flooding and climate change.	Long-term	CC, PC
Provide resources and information regarding noise, lighting and night sky impacts, and the use of congruent building materials to reduce visual, aural, and aesthetic impacts.	Long-term	CC, TC

7.5 Education Goals (Page 61)

Goal: The Newark Street School will provide high-quality education and serve as an educational and culture hub in the community.		
Where possible, support the quality of education and the role of the Newark Street School as an educational and cultural resource for children and the community.	Long-term	NSS

8.10 Energy Goals (Page 79)

Goal: Help Newark residents reduce energy use, lower their energy burden, and switch from fossil fuels to cleaner energy technologies.		
Establish a Newark Energy Committee	Near-term	SB, PC
Goal: Ensure that the energy transformation does not contribute to degradation of the environment or worsen climate impacts.		
Re-establish the Newark Conservation Commission	Near-term	SB, PC

9.6. Housing Goals (Page 86)

Goal: Maintain Newark's rural character, consistent with the historic built environment and avoid negative impacts to natural and community resources (including scenic, agricultural, open, and forested lands).		
Support housing and utilization that reinforces existing settlement patterns, preserves historic buildings and settings, and improves existing structures.	Long-term	PC, SB
Make 'smart growth' information resources available to minimize the impacts of development and management practices on forest areas, water resources, and prime agricultural lands.	Long-term	PC, TC, CC
Support the function of the Newark Street 'village' area as a community hub.	Long-term	PC, SB

Goal: Maintain and improve the availability of safe and affordable housing and property ownership for all income levels by encouraging a balance of housing for a mixture of incomes.		
Work with Building Committee to evaluate the town's future needs and make resources and information available.	Mid-term	BC, SB
Keep housing affordable by encouraging appropriately sized lots, accessory apartments or dwellings, and clustered developments.	Long-term	PC, NVDA
Monitor the economic and housing impacts of short-term rentals (STRs).	Long-term	PC, NVDA
Goal: Newark's built environment should remain consistent with our rural residential character, and we should strive to reduce both energy consumption and the long-term economic impact of rising energy costs.		
Make resources and information available that support town residents in their efforts to weatherize their homes, increase energy efficiency, and reduce energy consumption.	Long-term	CC, TC
Consider impacts to Newark's built environment and historic settlement patterns when planning, reviewing, or participating in future housing.	Long-term	SB

10.5. Economic Development Goals (Page 90)

Goal: Support economic opportunities and orderly development that encourages, promotes, and preserves the town's natural scenic beauty, unique character, historic built environment, quality of life, and the economic well-being of Newark's citizens.		
Support efforts to protect Newark's historic and natural resources, expand recreational access, and encourage sustainable tourism.	Long-term	CC
Goal: Newark supports a thriving and diverse small-business economy that is compatible with existing and traditional land use and consistent with local and regional plans.		
Support local economic development that encourages environmentally sustainable small and home-based enterprises.	Long-term	NVDA
Create an inventory of existing and potential recreational opportunities in town.	Mid-term	CC, PC
Goal: Promote access for local businesses and entrepreneurs to local, regional, state, and federal supports that provide opportunities for business development and growth through education, training, financing, technical assistance, and other services.		
Work with NVDA and service providers to expand access to high-speed internet.	Mid-term	PC, NVDA
Work with the NVDA to promote and provide resources and information about economic growth and regional, state, and federal programs.	Long-term	NVDA, PC, TC
Promote local economic development and a skilled workforce by supporting access for Newark residents—young and old—to educational and training opportunities.	Long-term	NSS, NVDA
Encourage the selectboard and planning commission to review and actively participate in Act 250 proceedings.	Long-term	PC, SB
Encourage Newark residents to buy local and support the economic well-being of their fellow community members.	Long-term	All

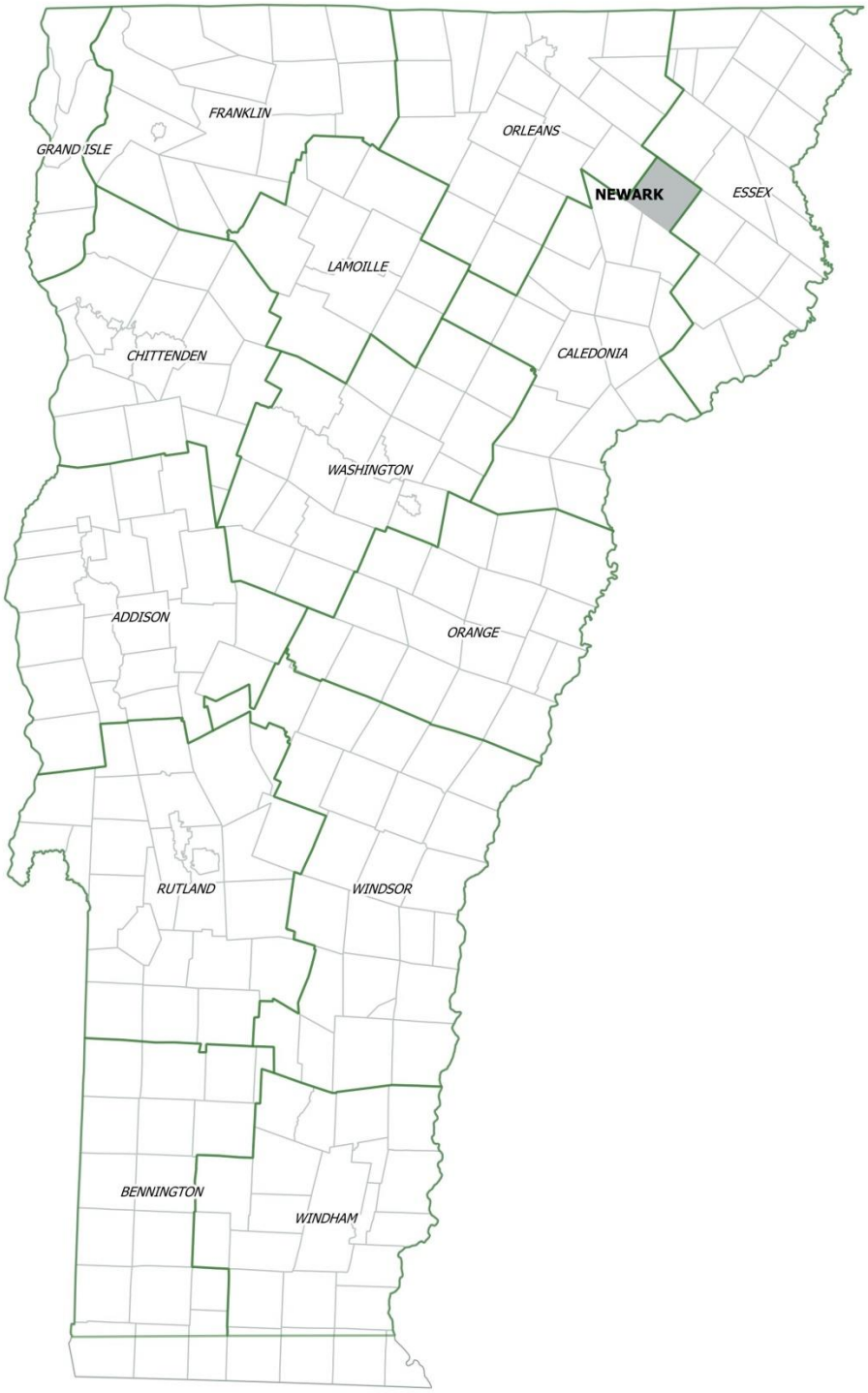
11.4 Flood-Resilience Goals (Page 101)

Goal: Newark landowners understand the risks associated with extreme storm events, including both fluvial erosion and inundation, and are engaged in the restoration and stewardship of water resources and riparian lands.		
Work with NVDA to provide information and raise awareness about the updated FEMA floodplain maps and flood hazard areas.	Long-term	PC, NVDA
Provide information and resources to landowners related to flood and erosion hazards and promote the restoration and protection of forested riparian areas.	Long-term	PC, CC, TC
Support and promote established guidelines for forestry BMPs and agriculture RMPs that reduce impacts to Newark's waters.	Long-term	CC
Work with the Newark Selectboard to review and update the town's emergency management and hazard mitigation plans and protocols.	Long-term	PC, SB
Work with the Newark Selectboard to evaluate the costs and benefits of meeting the state's ERAF requirements.	Long-term	PC, SB
Goal: Protect water resources and areas essential to floodplain function, including floodplains, river corridors, riparian lands, and upland forests to reduce the risk of flood damage to infrastructure and property.		
Support the conservation of lands located within and adjacent to FEMA-mapped flood-hazard areas.	Long-term	PC, CC
Review and actively participate in Act 250 and Section 248 proceedings.	Long-term	PC, SB
Goal: Newark's citizens, infrastructure, and facilities are prepared to meet the demands of future extreme storm and flood events by mitigating flood hazards and minimizing risk exposure in a sustainable, cost-effective manner.		
Work with the selectboard to determine the next steps on how best to proceed with Newark's flood-resilience plan.	Long-term	PC, SB
Encourage the selectboard and road commissioner to keep the town's road erosion inventory and capital-budget plan current and updated.	Long-term	SB, RC
Encourage the selectboard and road commissioner to ensure that all maintenance and new infrastructure projects meet best practices for flood resilience.	Long-term	SB, RC

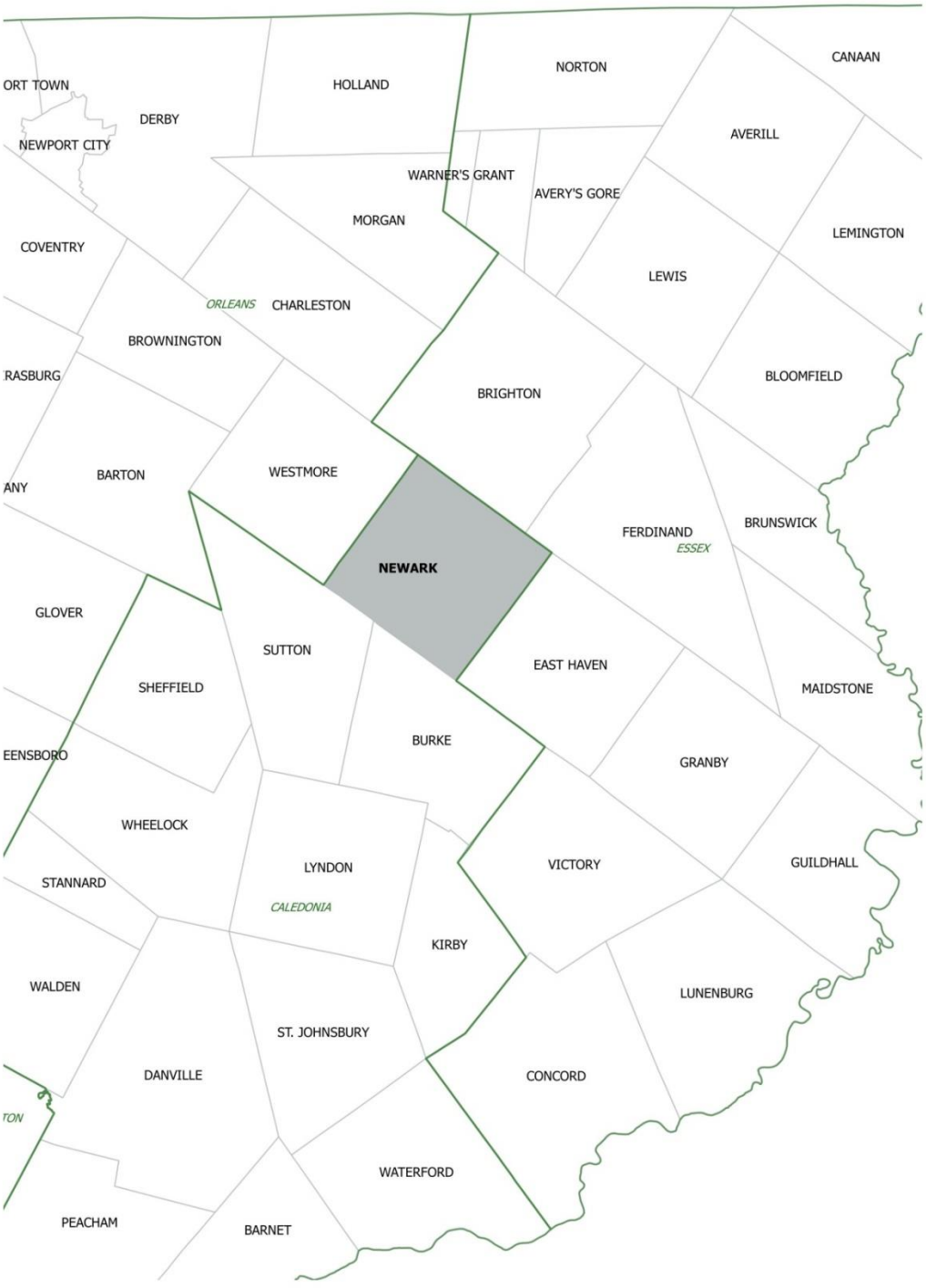
14. Maps

These maps were gathered from a variety of sources, including archives, the *Newark Natural Resource Inventory*, the Staying Connected Initiative, and various state agencies. Some of the maps were constructed for the Newark Town Plan with data obtained from state and federal sources.

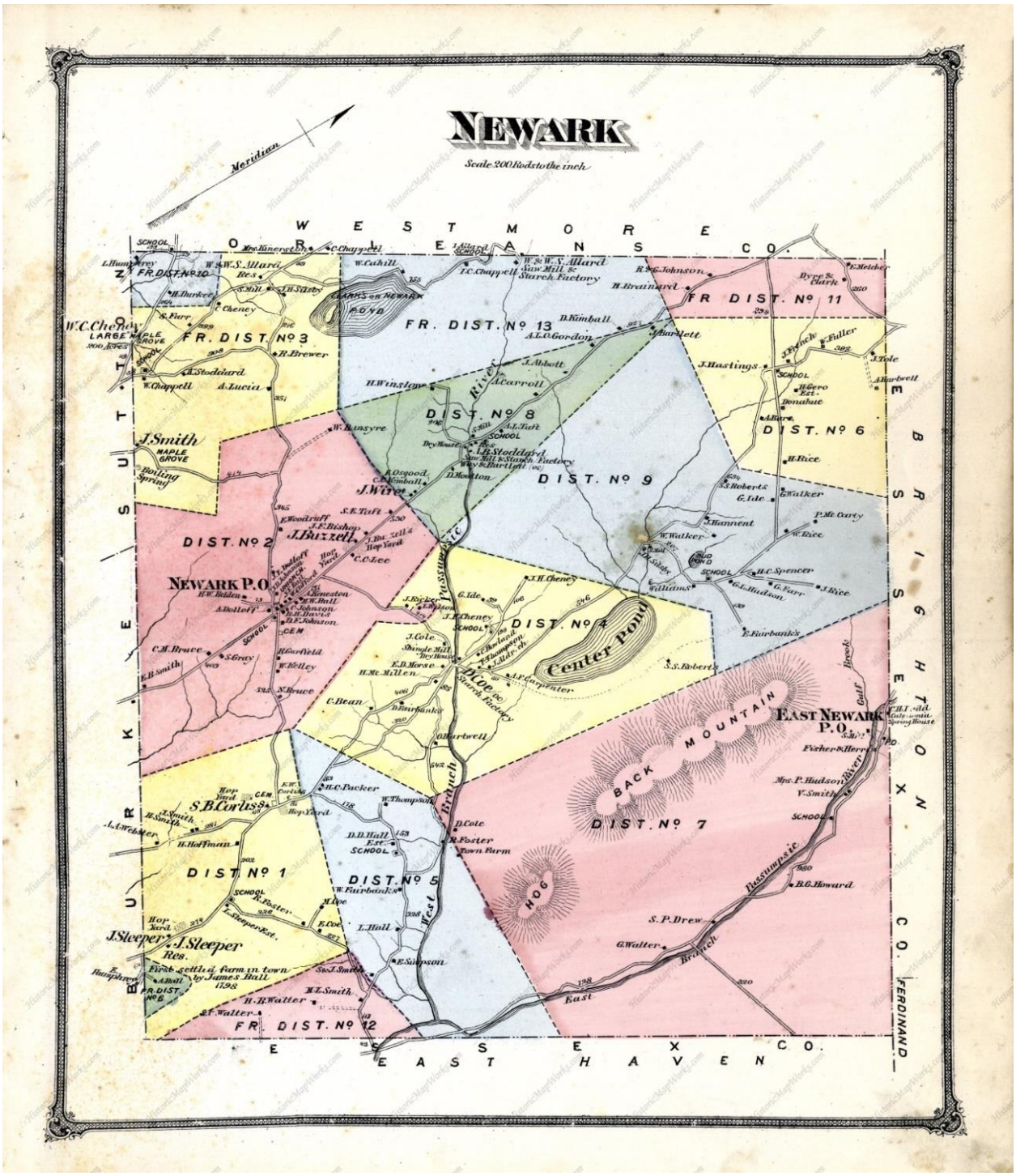
There is simply too much land-use information to place on a single map. Information from other maps should be used to supplement *Map 4 Newark land-use* in order to inform decisions about appropriate uses of land in Newark.



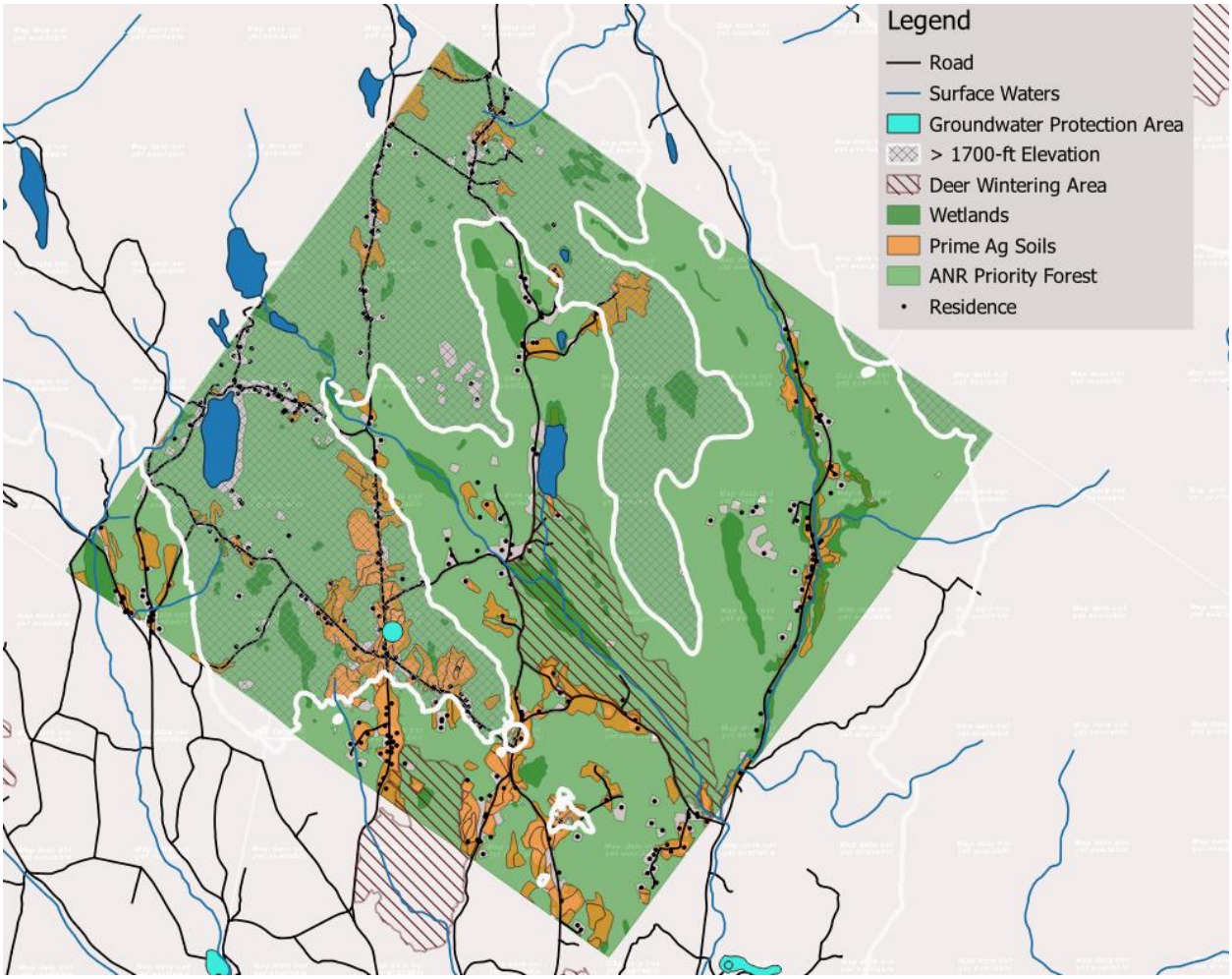
Map 1 Newark's location in Vermont



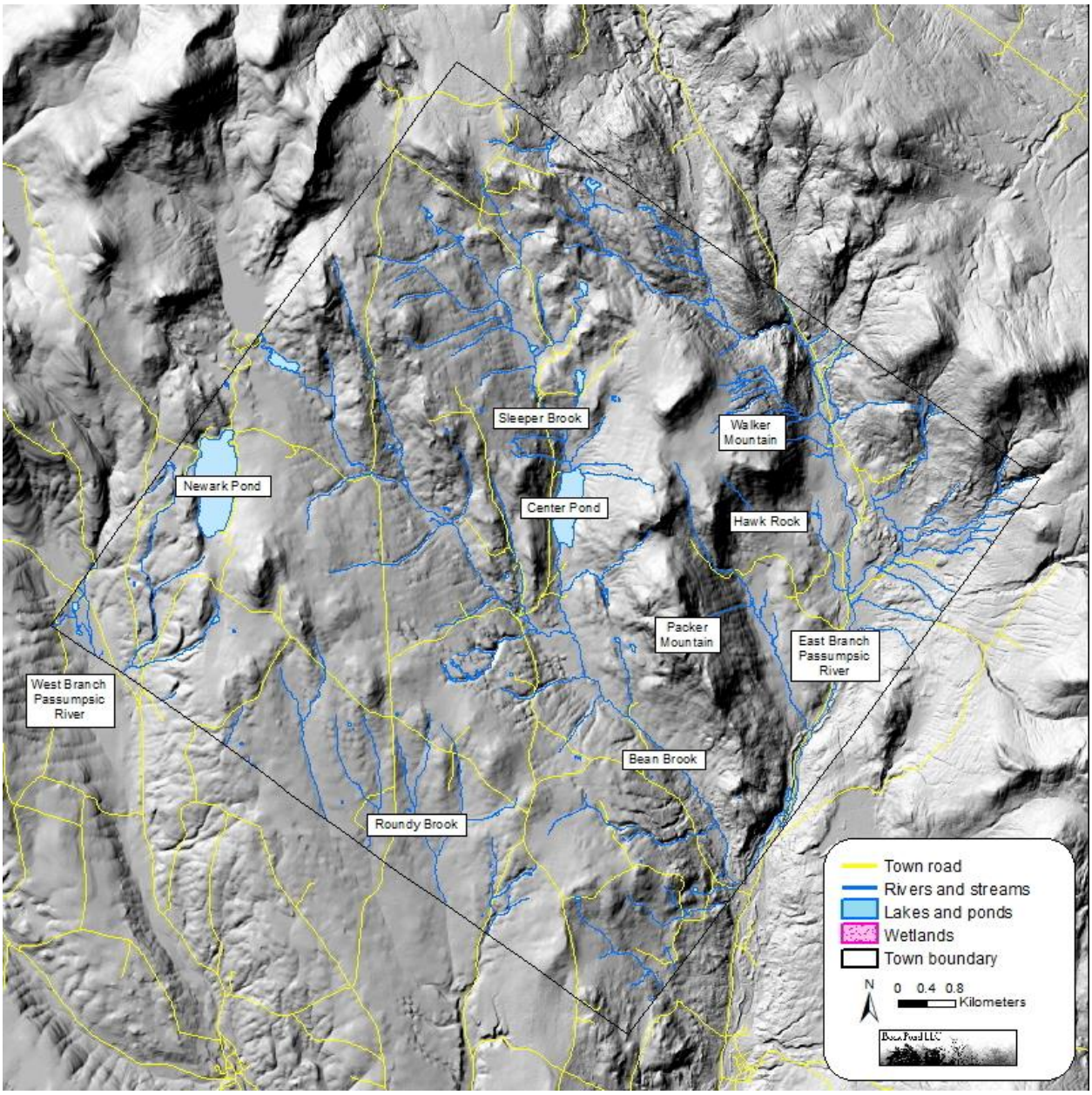
Map 2 Newark and neighboring towns



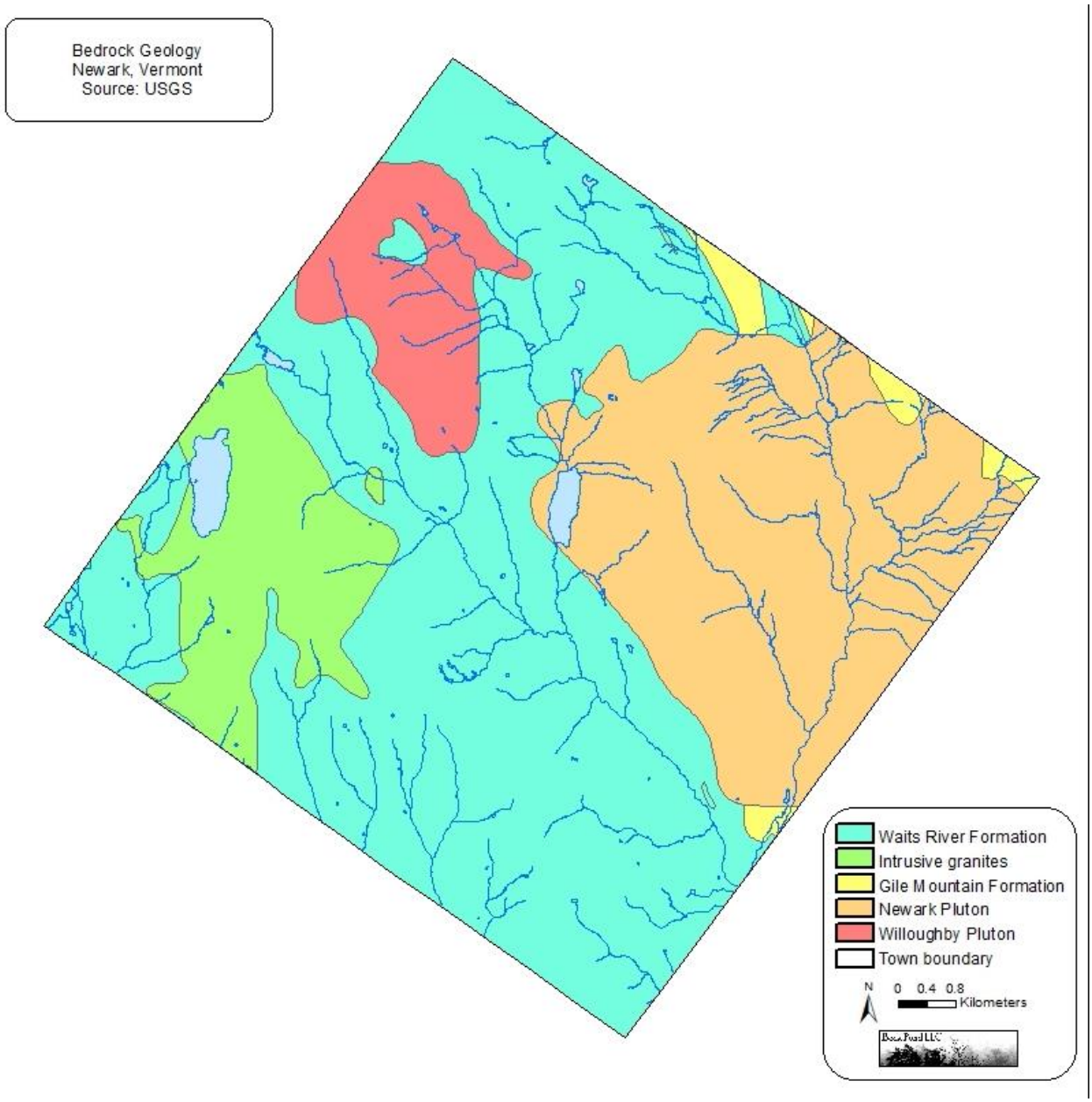
Map 3 Newark in 1875



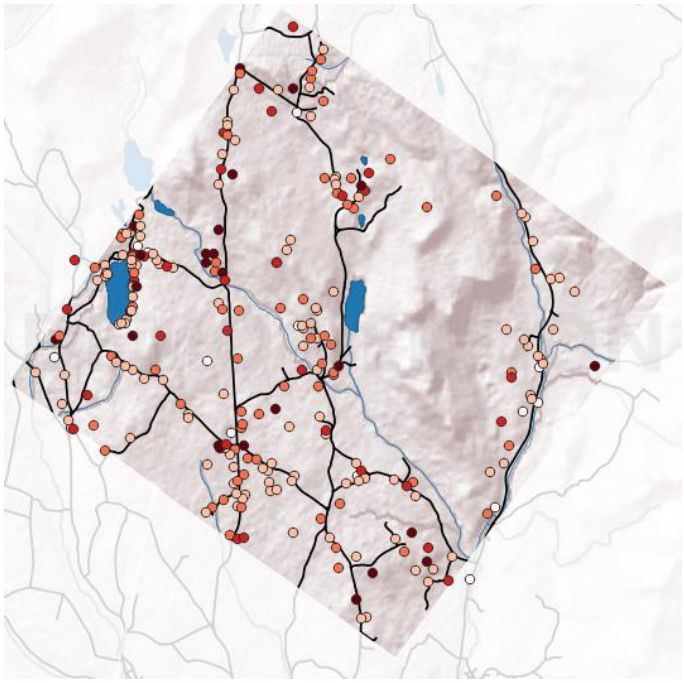
Map 4 Newark land-use 2024



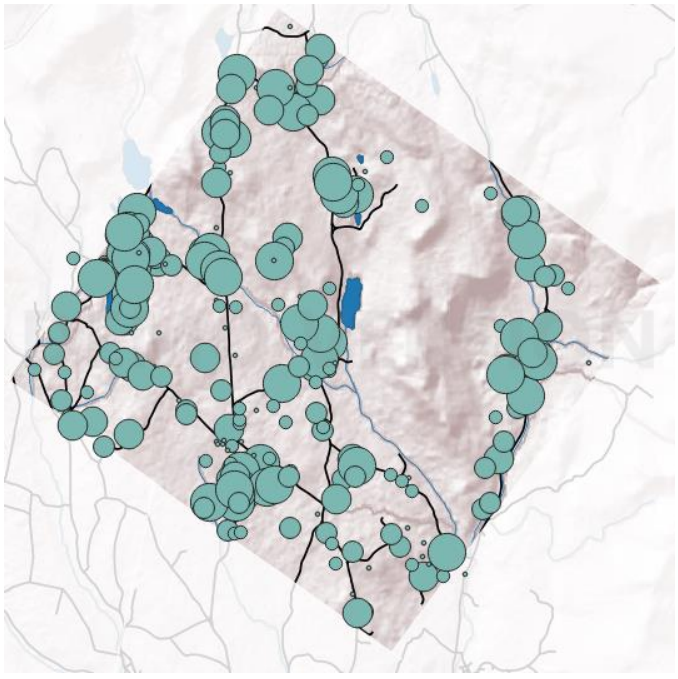
Map 5 Topographical features



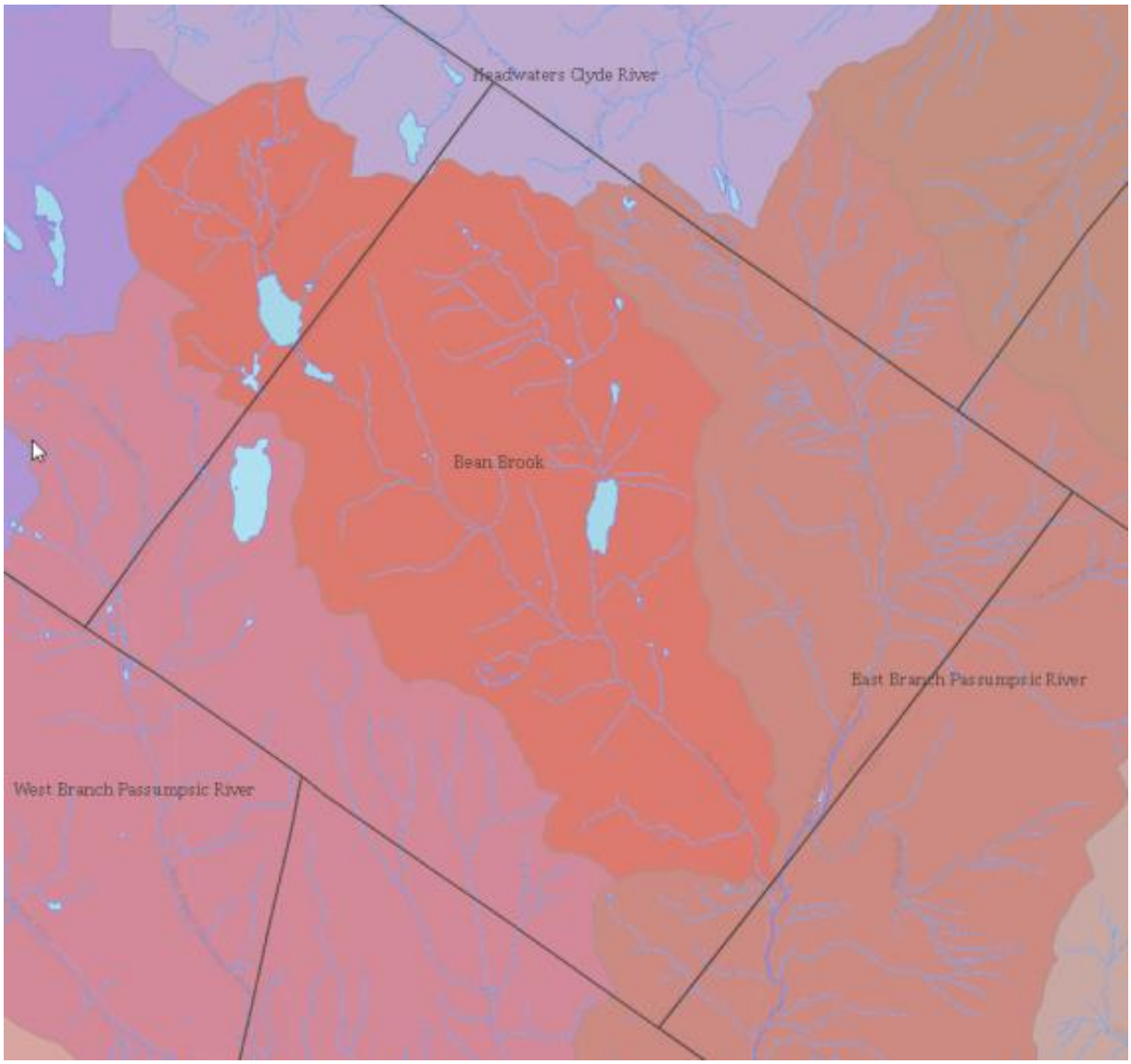
Map 6 Newark's bedrock formations



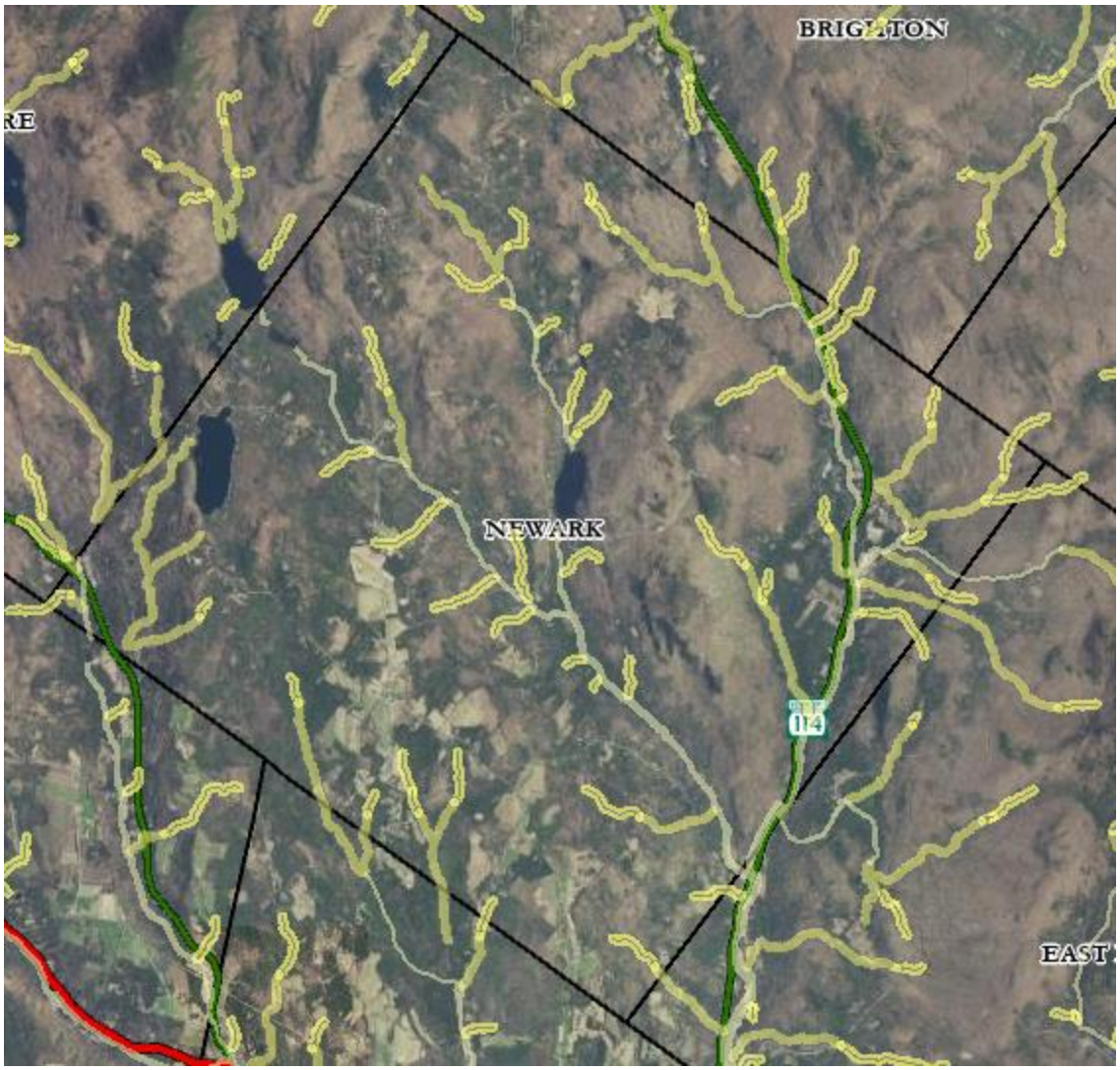
Map 7 Newark water well depths (deeper wells are darker)



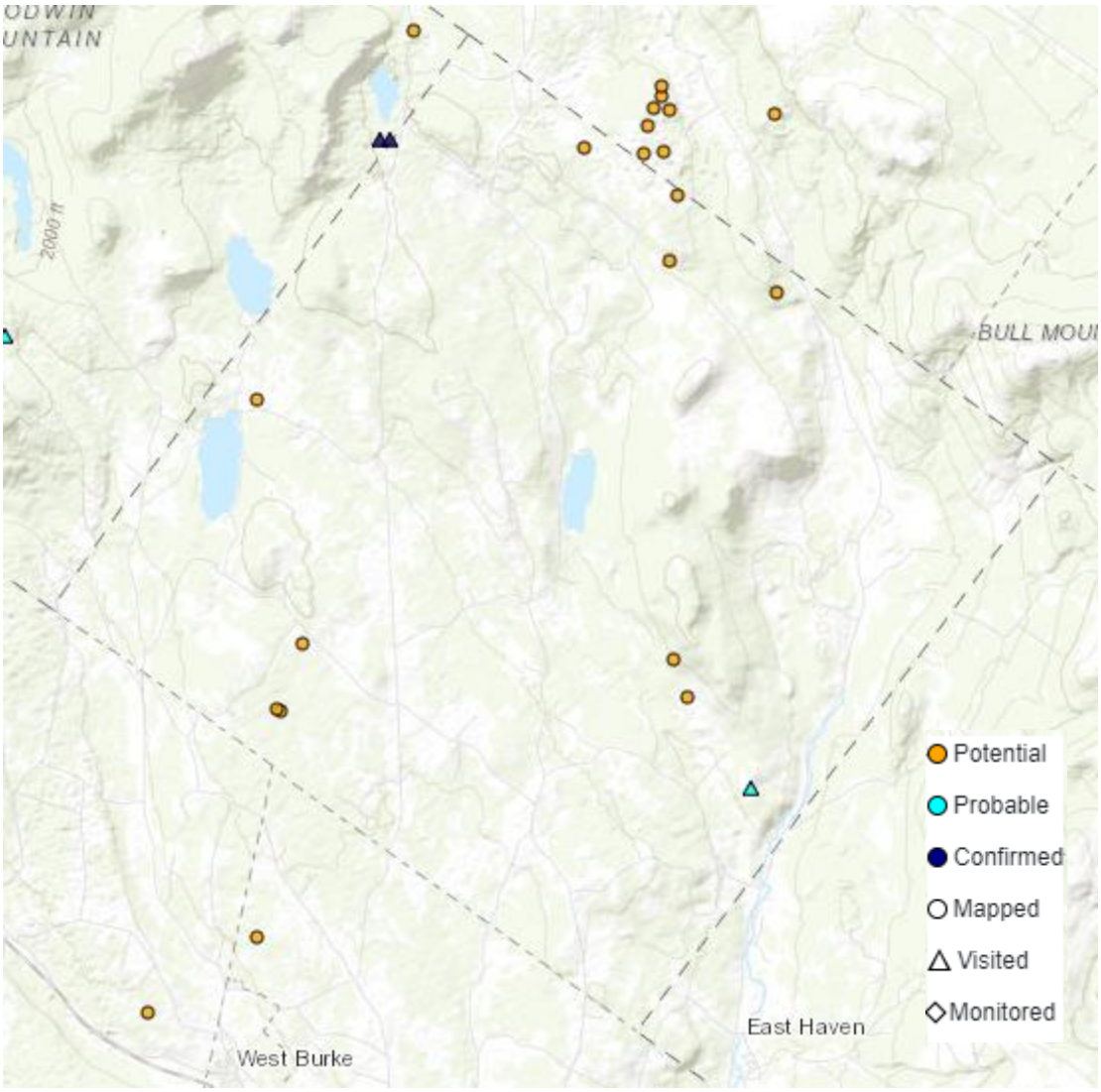
Map 8 Newark water well yields



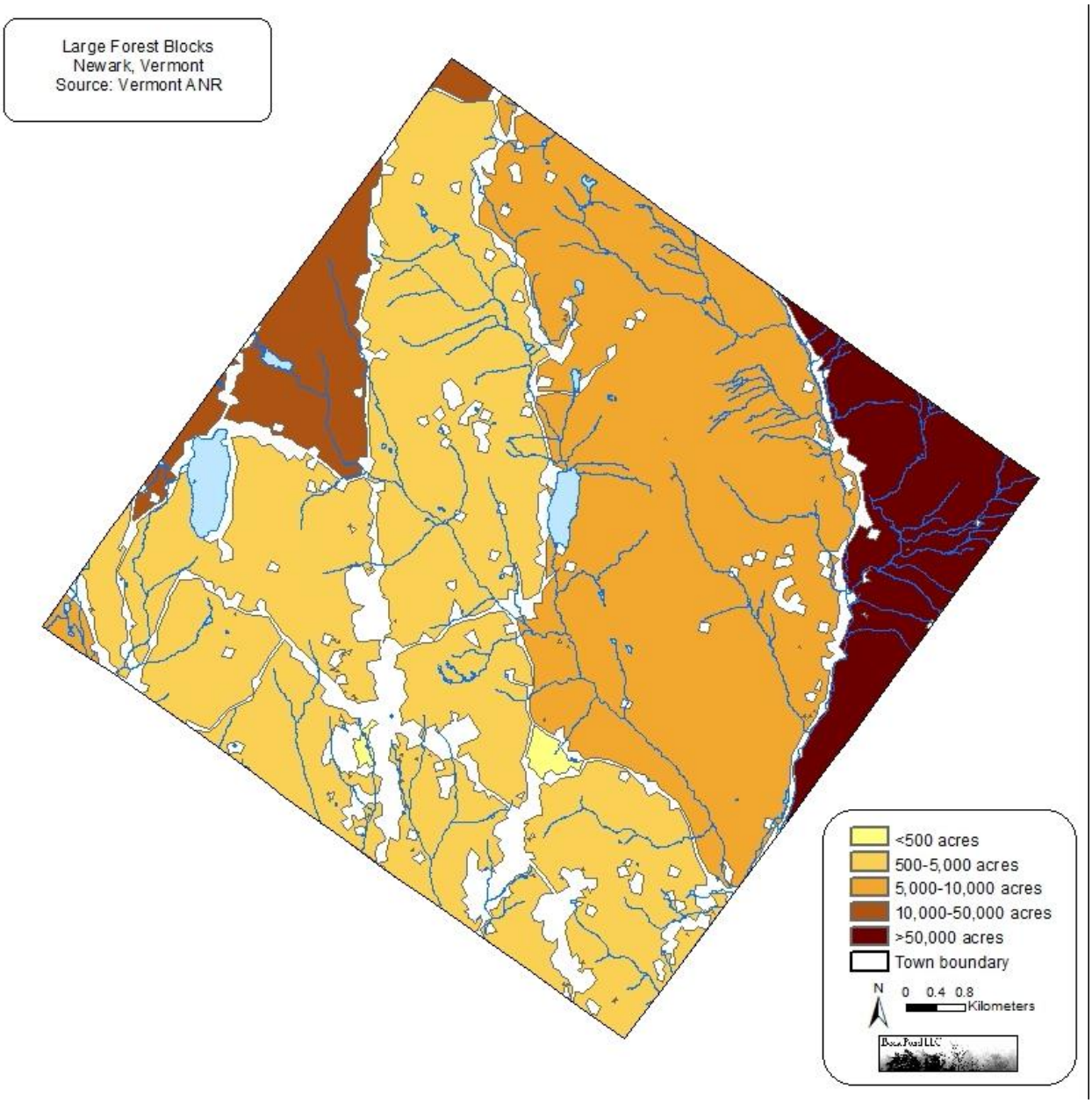
Map 9 Newark's watersheds



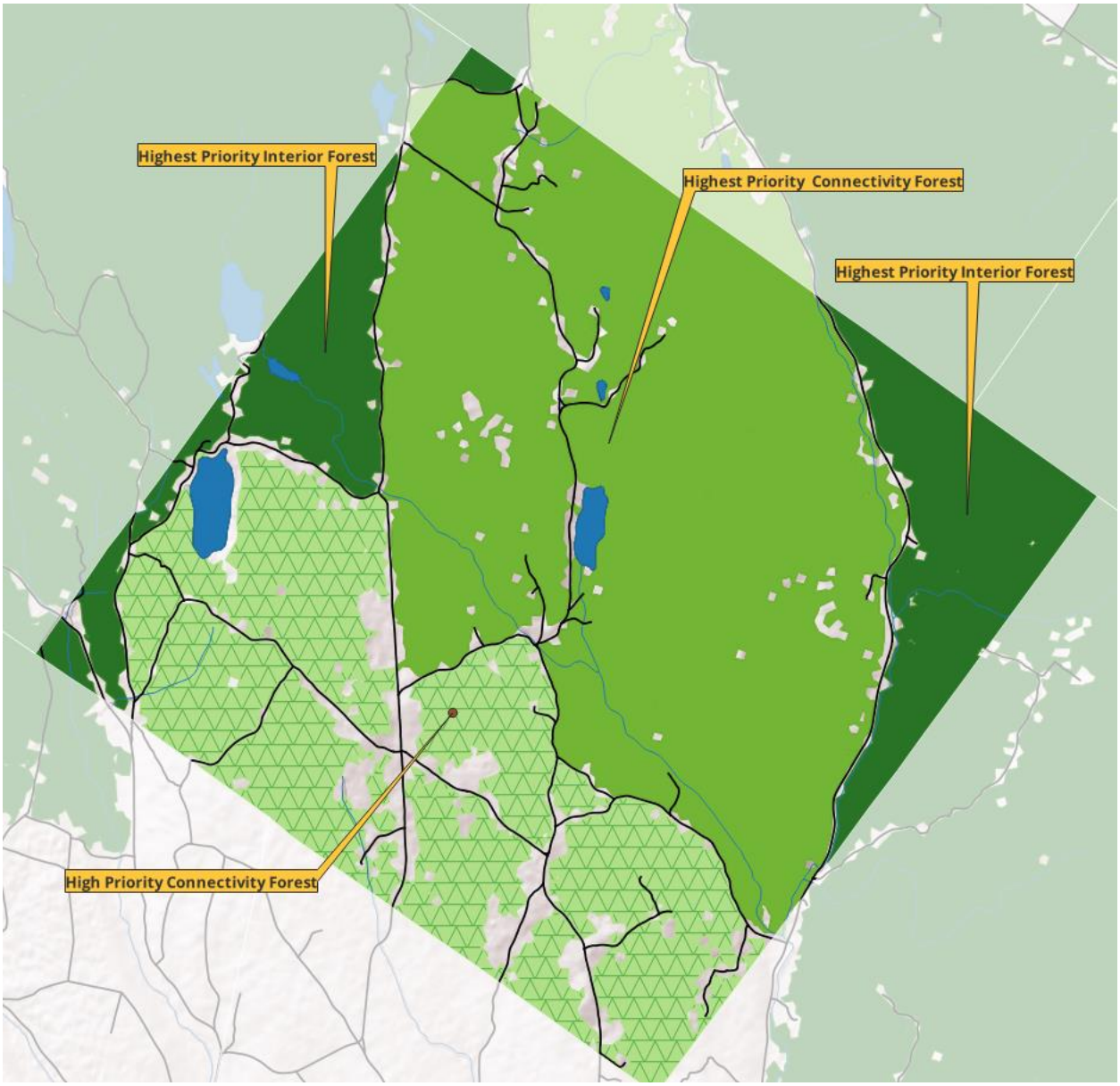
Map 10 Newark's river corridors



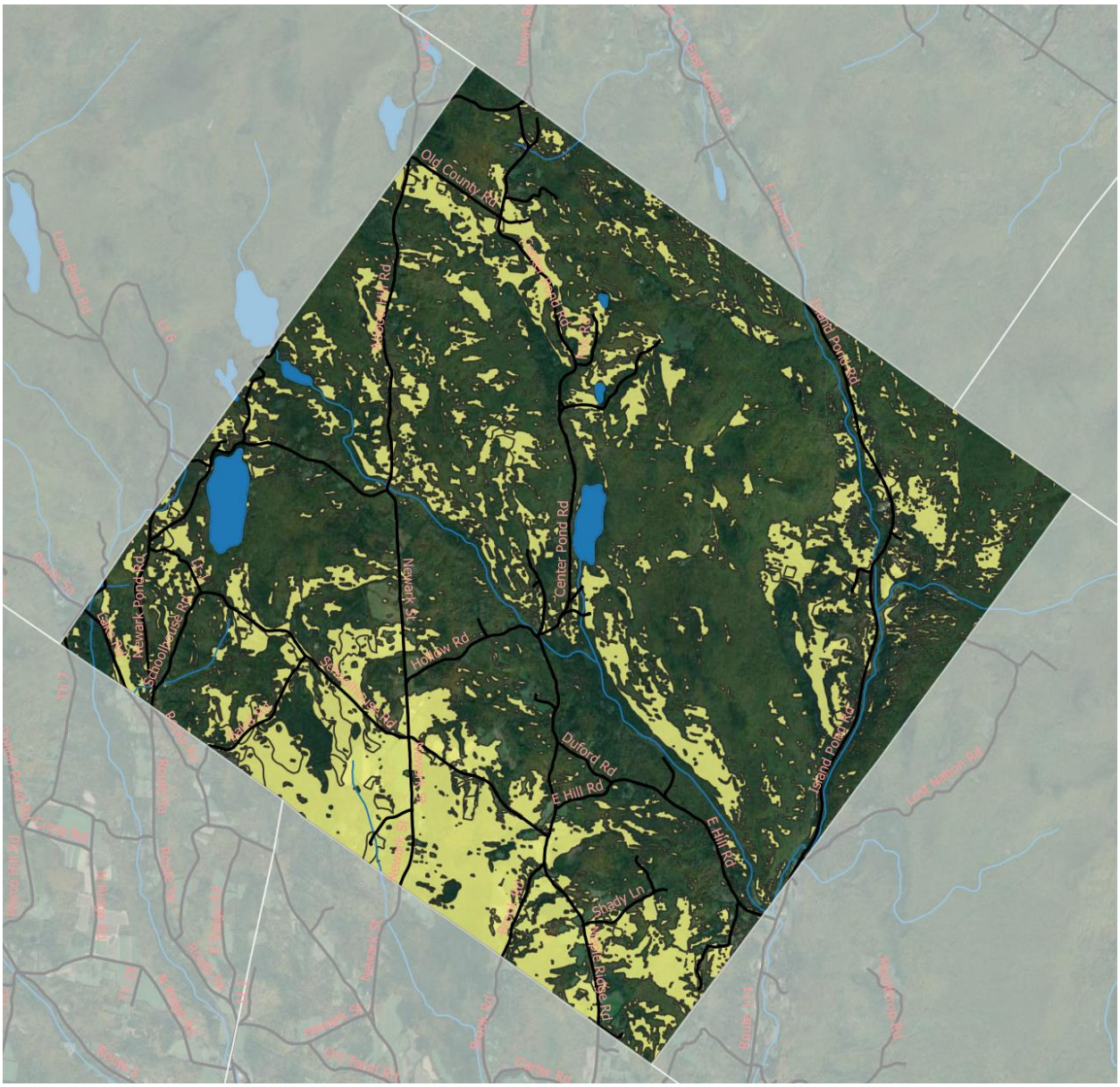
Map 11 Vernal pools in Newark (Vermont Vernal Pool Atlas)



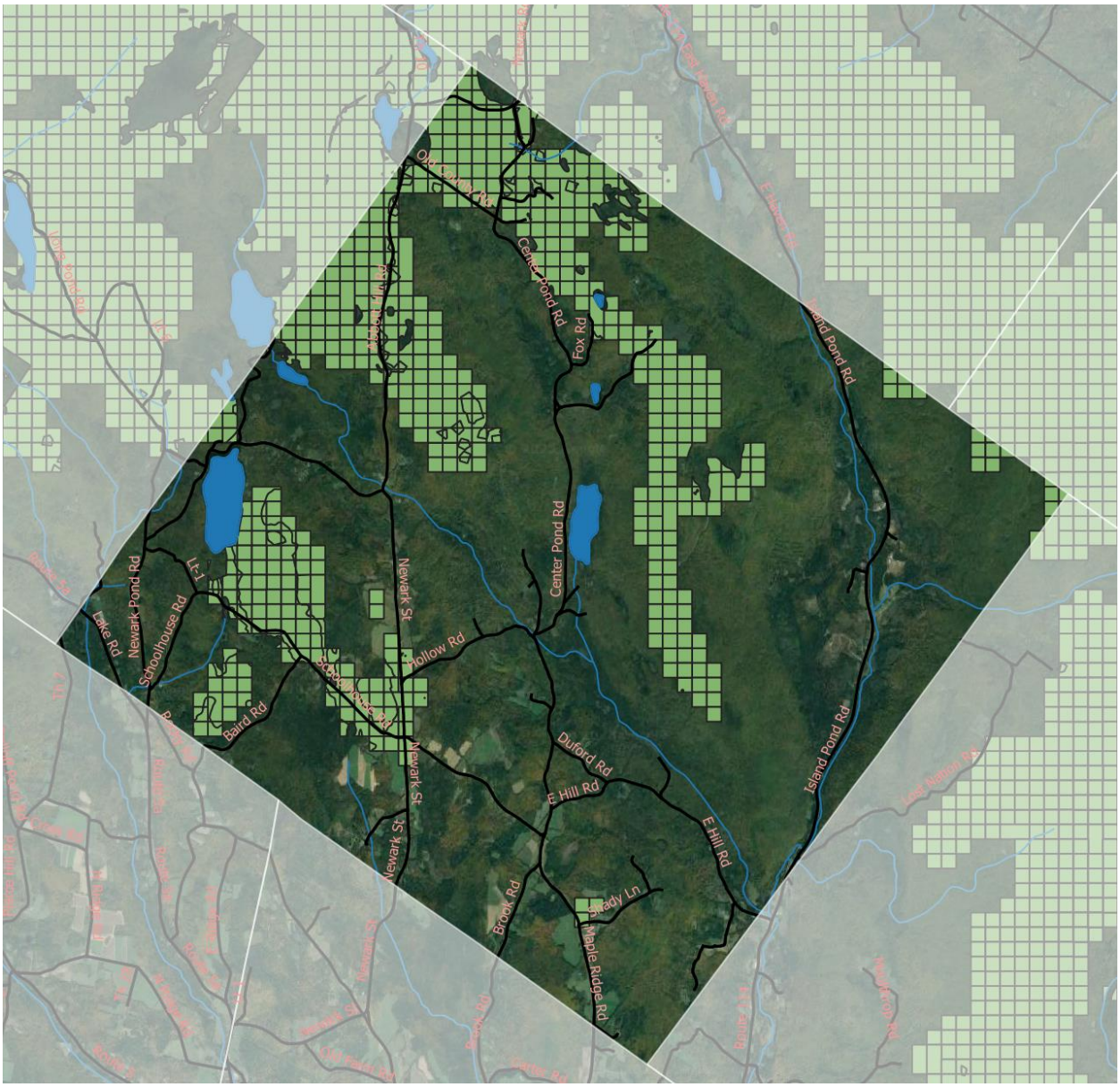
Map 12 Newark's forest blocks by size



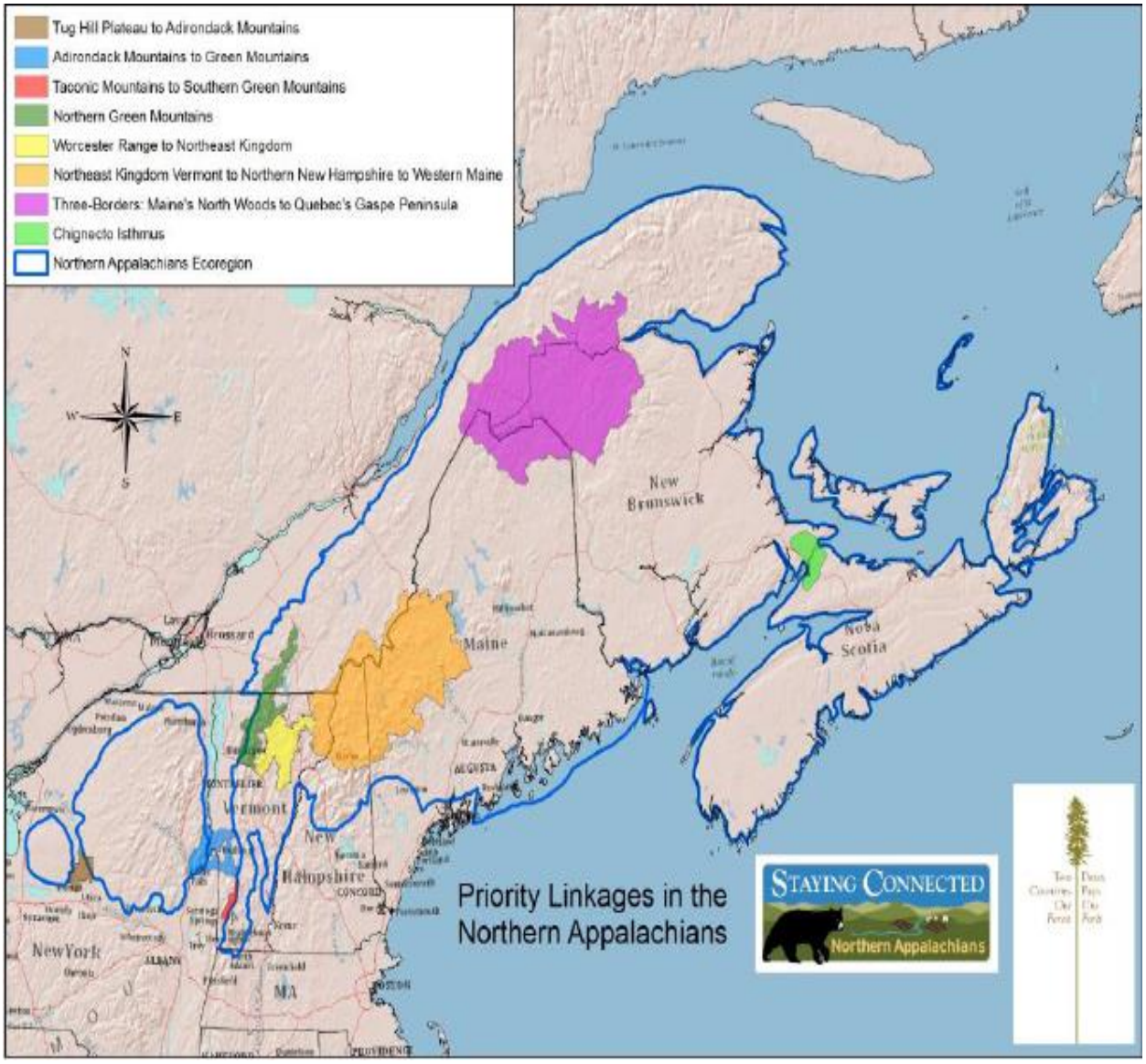
Map 13 Highest Priority and High Priority Forests



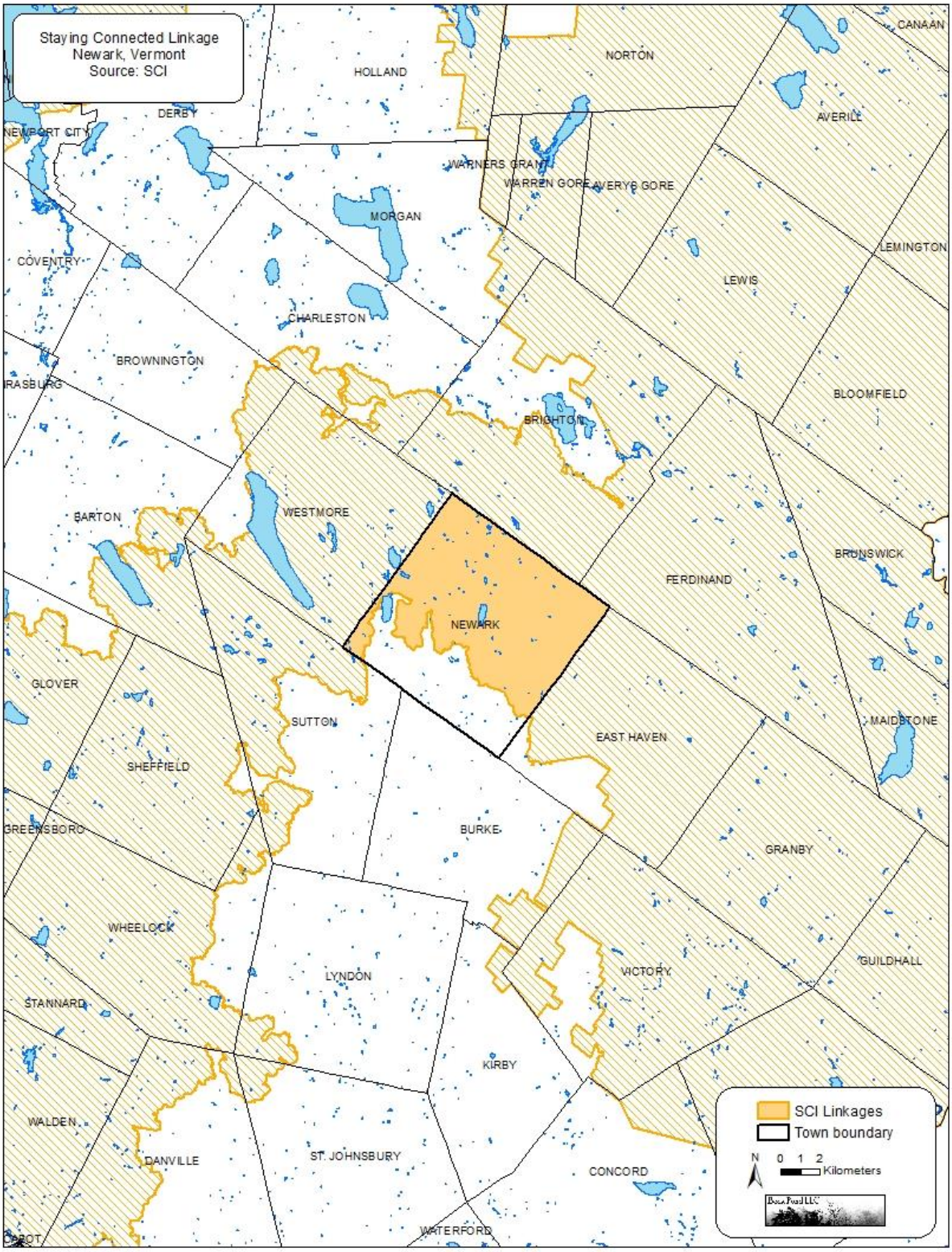
Map 14 Prime solar energy locations (Source: NVDA)



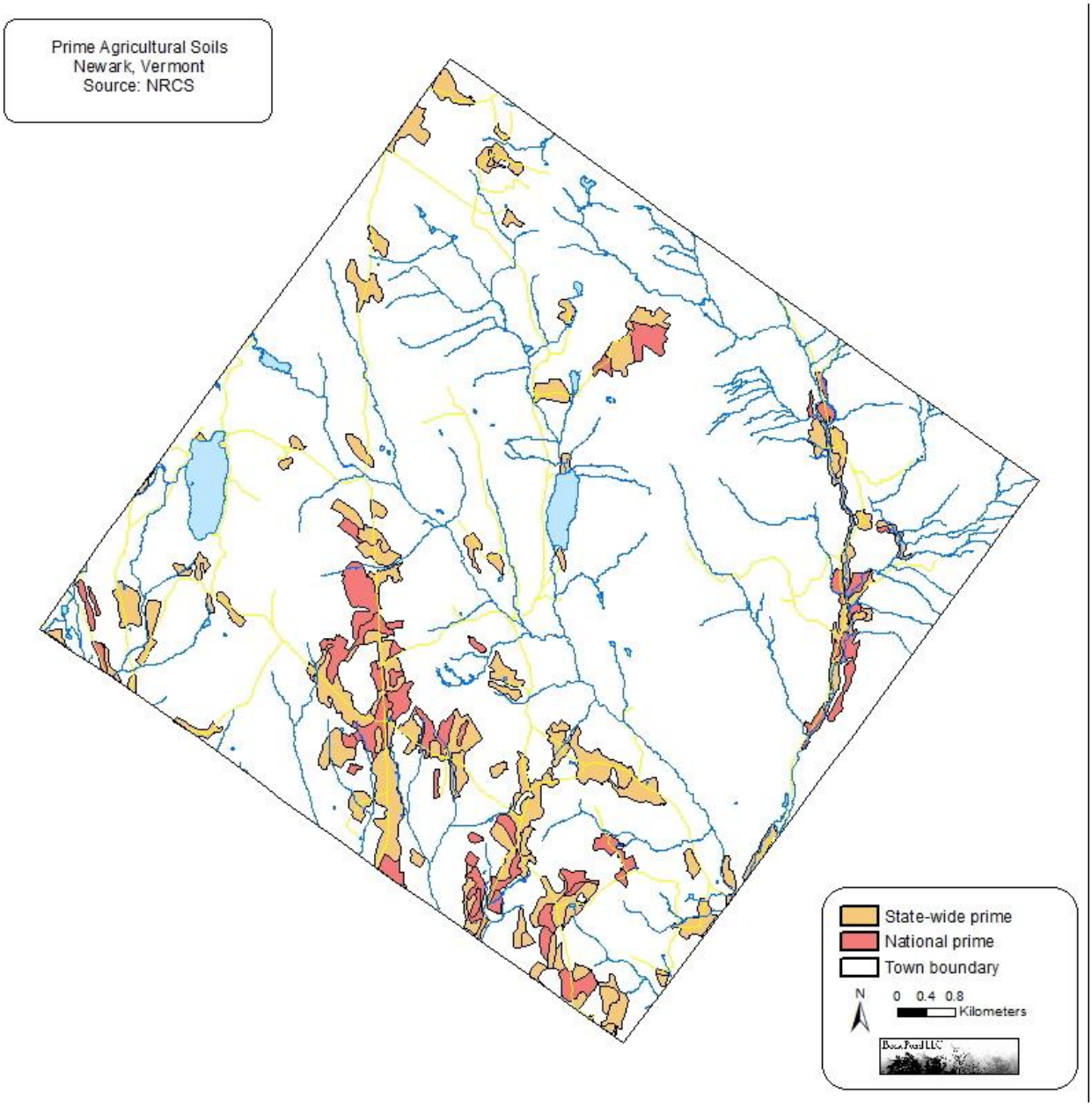
Map 15 Prime wind energy locations (Source: NVDA)



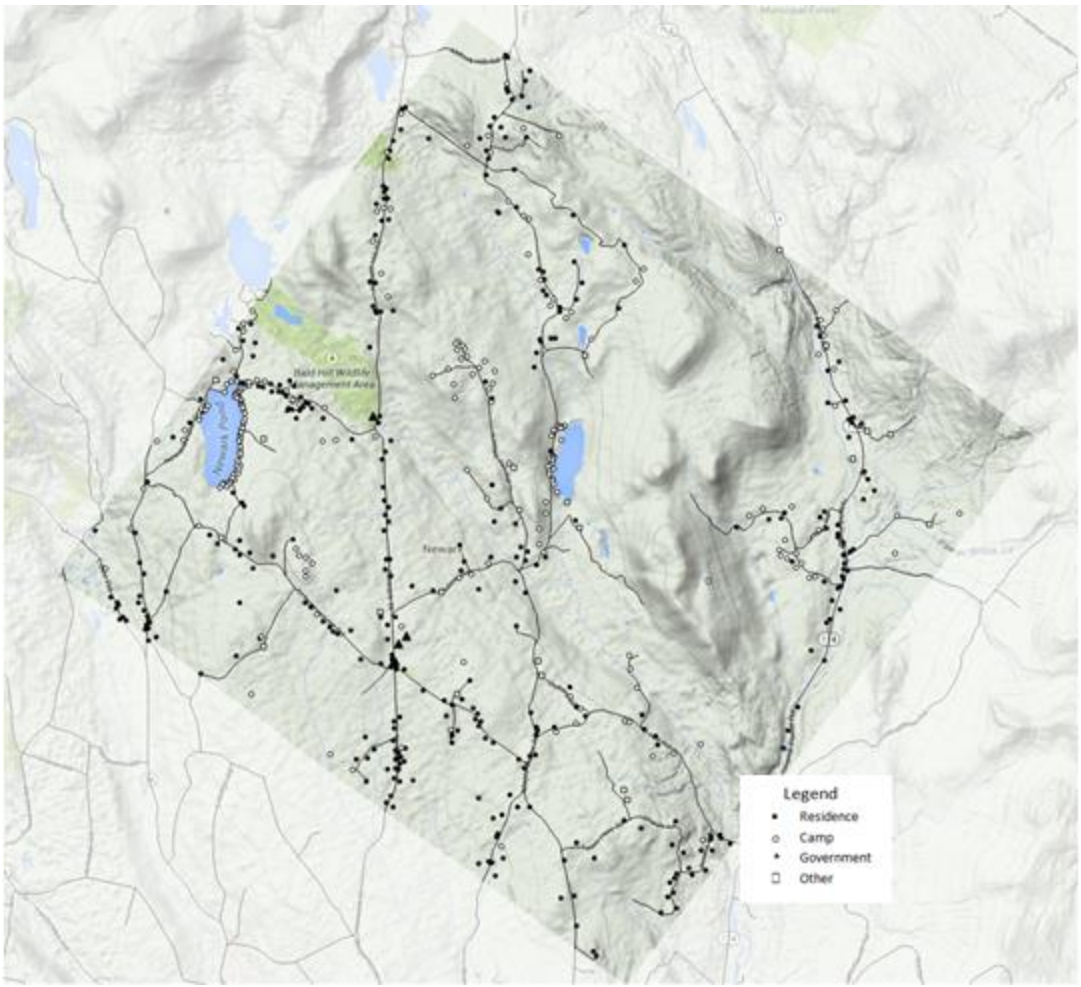
Map 16 Six priority wildlife linkages identified by the Staying Connected Initiative



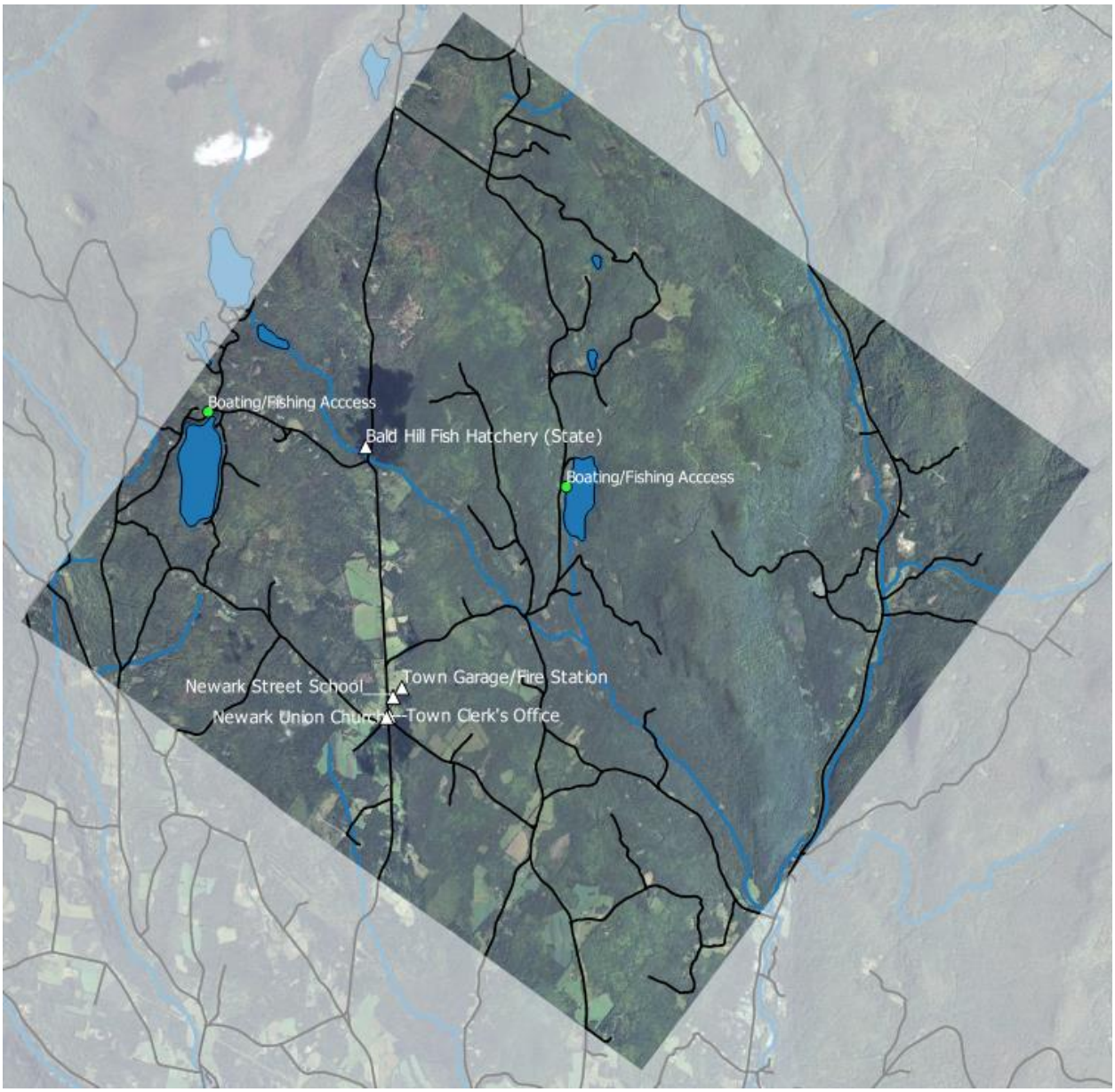
Map 17 Newark's critical location in the SCI wildlife linkage



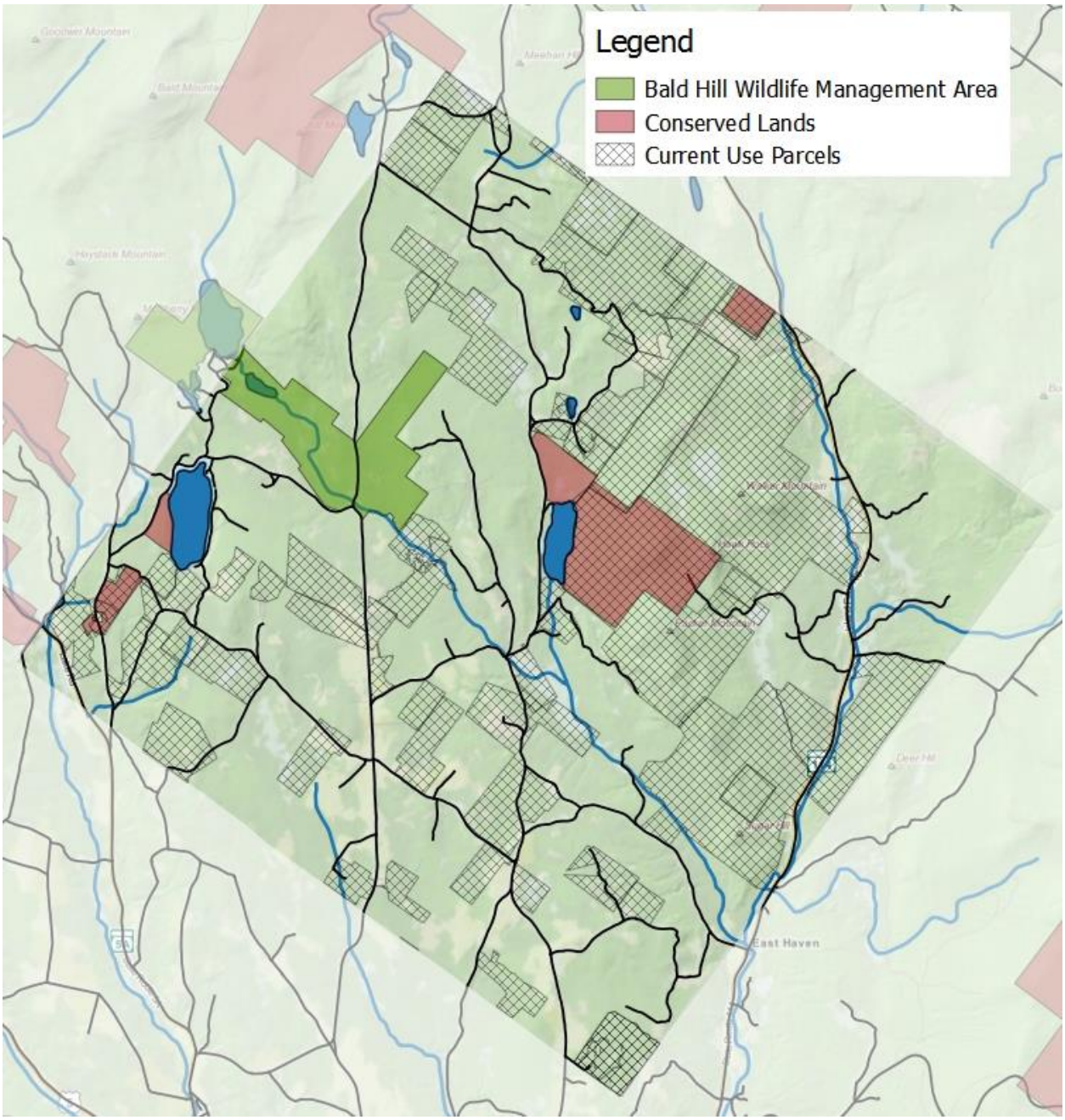
Map 18 Prime agricultural soils in Newark



Map 19 Homes, camps, and other buildings



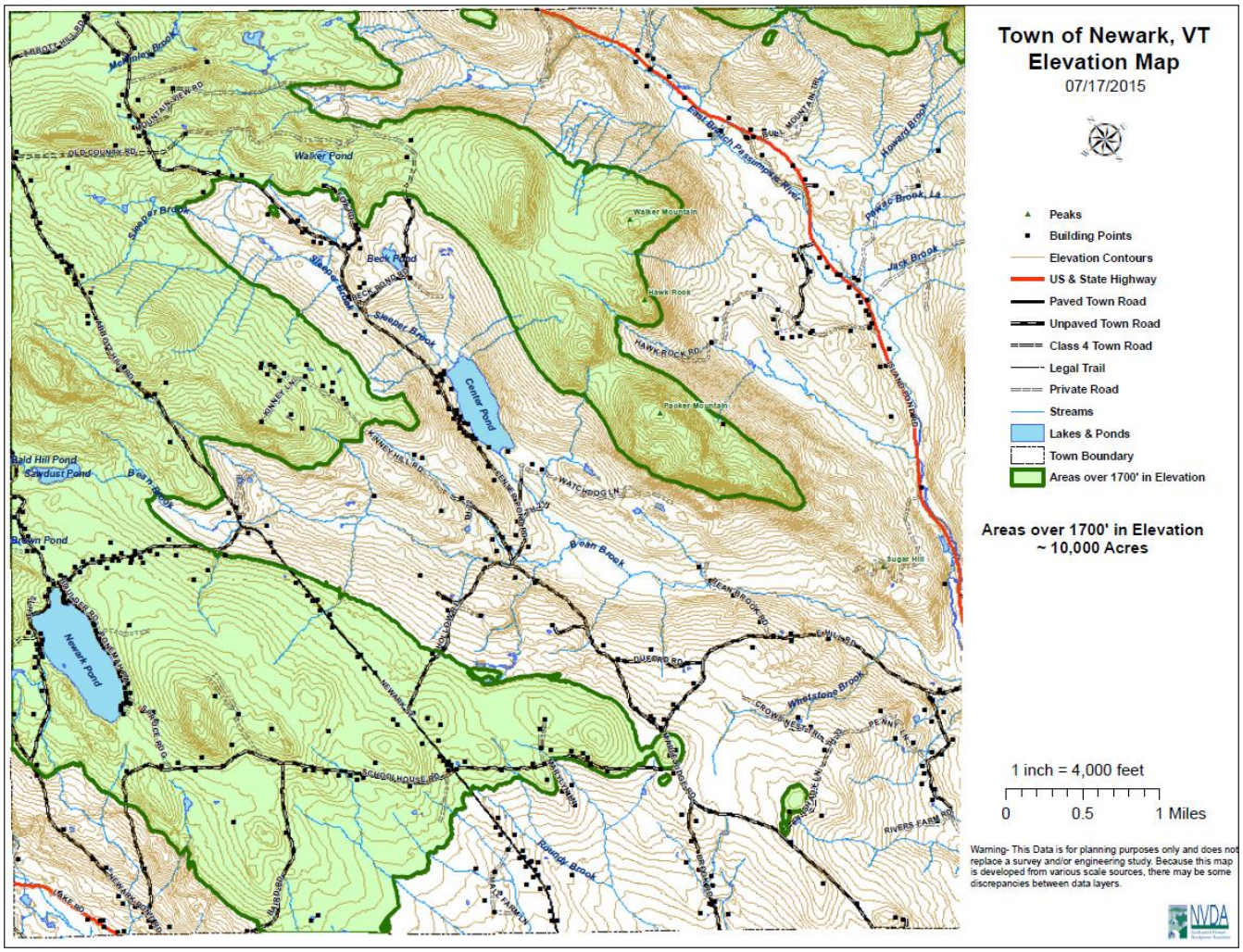
Map 20 State and municipal recreational, service, and educational facilities



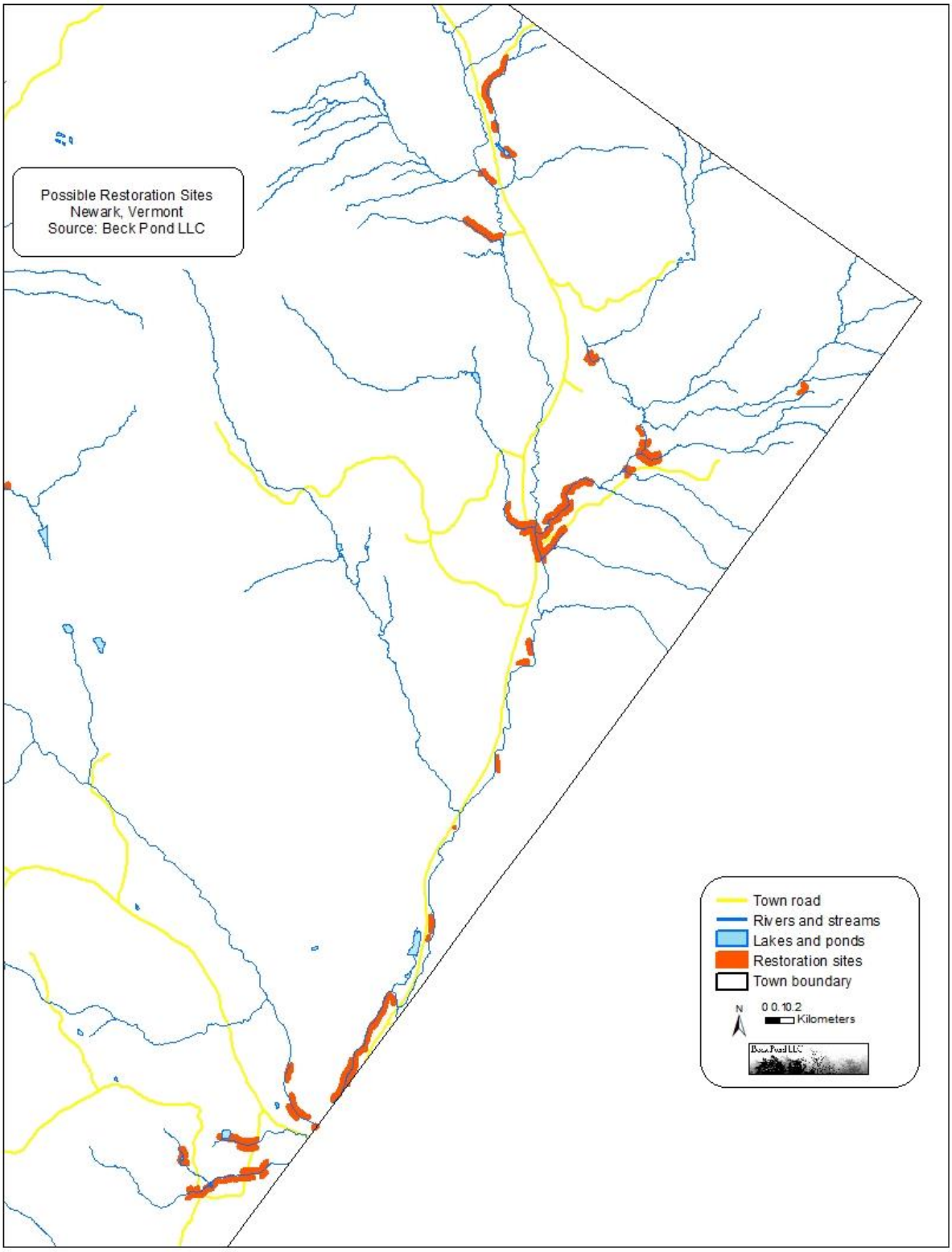
Map 21 Bald Hill WMA, conserved lands, parcels enrolled in Current Use

Map 22 Newark Highway Map (Vermont Agency of Transportation)

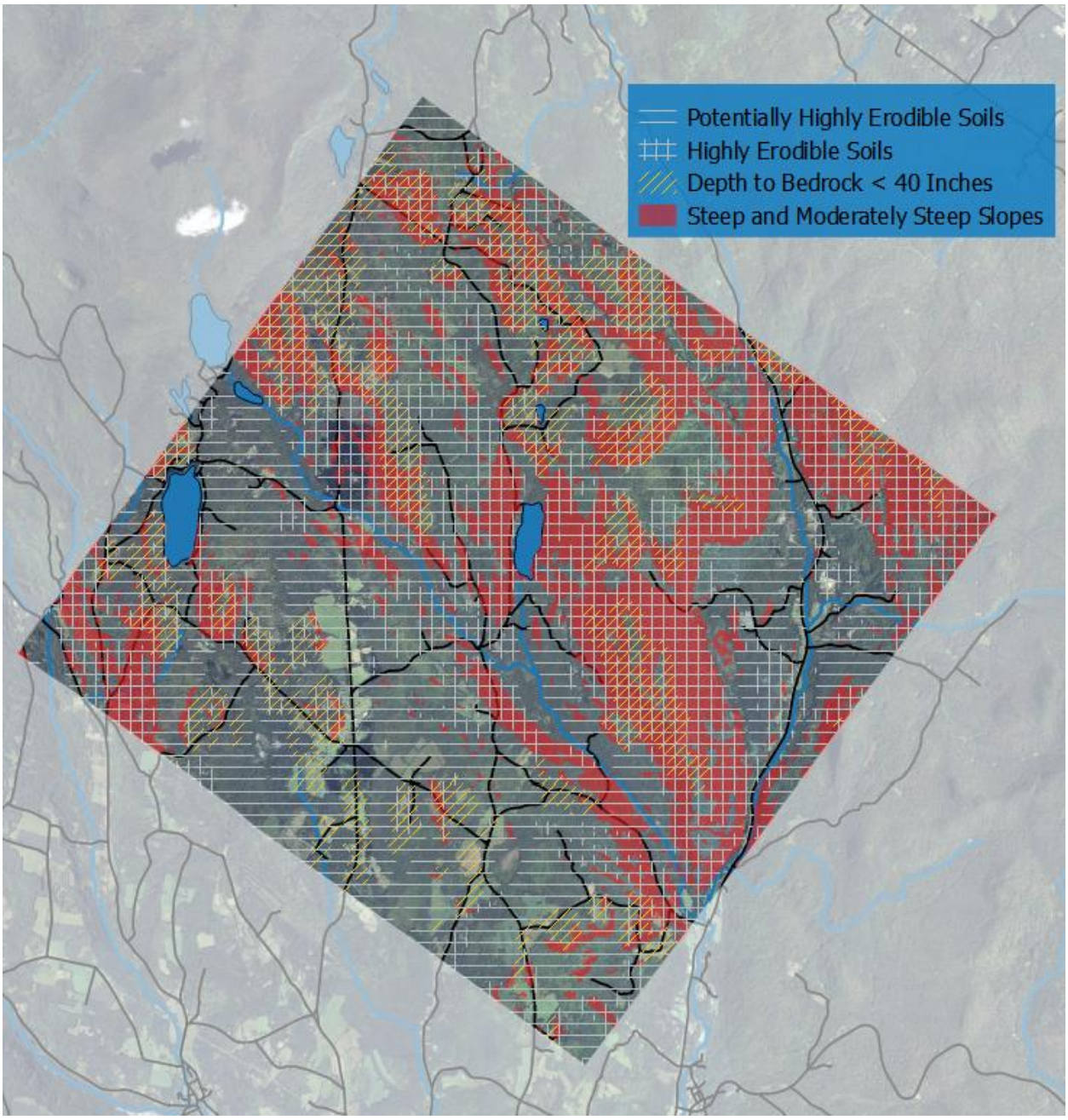
Note: an uncropped version of this map is available at
http://vtransmap01.aot.state.vt.us/Maps/TownMapSeries/CALEDONIA_Co/NEWARK/NEWARK_MILEAGE_2015.pdf



Map 23 Newark elevation map



Map 24 Potential riparian restoration sites along the East Branch of the Passumpsic River



Map 25 Erodible and shallow soils and steep slopes