



Town of Jericho

PLANNING + ZONING OFFICE

PO Box 39 (67 VT Rte. 15), Jericho VT 05465 | www.jerichovt.gov

TOWN OF JERICHO- Planning Commission

NOTICE OF PUBLIC HEARING

The Jericho Planning Commission hereby provides notice of a public hearing being held pursuant to 24 V.S.A. § 4384 for the purpose of hearing public comment regarding the proposed 2024 Jericho Comprehensive Town Plan.

The public hearing is scheduled for September 19, 2023 at 7:00 p.m. in the Jericho Town Hall, located at 67 Vermont Route 15 and via Zoom (link available on the Planning Commission agenda). The purpose of the hearing is to receive public comment on the proposed Town Plan. Written comments can also be submitted to Linda Blasch, Town Planner via email at LBlasch@jerichovt.gov. The proposed Plan will affect all areas in the Town of Jericho.

Table of Contents: Volume 1: Introduction, Jericho's Vision, Goals and Priorities, Stewarding a Resilient Community, Creating Housing Choices for All, Growing a Vibrant Community, Building a Connected Community, Supporting an Effective Community, Future Land Use Plan, Getting It Done, Maps. Volume 2: Community Profile, History and Cultural Resources, Natural Resources, Land Use, Housing, Economy, Health and Wellness, Mobility, Public Utilities, Community Facilities and Services, Statutory Consistence and Regional Compatibility. Appendix 1: Other Plans Incorporated by Reference. Appendix 2: Outreach and Engagement Report.

Copies of the proposed Town Plan are available at the Jericho Town Hall, located at 67 Vermont Route 15. A digital copy may be viewed on the Town of Jericho website at <https://jerichovt.org/town-plan-2024>.



JERICHO'S JOURNEY FORWARD

2024 Jericho Town Plan

VOLUME 1

Jericho's Declaration of Inclusion

(Adopted by the Jericho Selectboard, April 2023)

The Town of Jericho is committed to building strong community relationships and creating a culture of inclusion and access for all of our residents, businesses, and visitors.

As a town, we formally condemn discrimination in all of its forms and commit to fair and equal treatment of everyone in our community. The Town of Jericho welcomes all persons, regardless of race, color, religion, national origin, sex, gender identity or expression, age, socioeconomic status or disability.

We will strive and work together to ensure all of our actions, policies, and operating procedures reflect this commitment.

Acknowledgments

The development of the Jericho Town Plan could only be made possible by the vision and hard work of many. Below is a list of some, with apologies and gratitude to anyone we may have inadvertently left off this list.

Jericho Selectboard

Wayne Howe
Erik Johnson
Catherine McMains

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Erik Glitman
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Jericho Town Committees

Affordable Housing Committee
Conservation Commission
Diversity, Equity, and Inclusion Committee
Energy Task Force
Trails Committee

Jericho Town Staff

John Abbott, Jericho Town Administrator
Linda Blasch, AICP, Jericho Town Planner
Sabina Ernst, Jericho Town Web Manager
Chris Flinn, Jericho Zoning Administrator

Consultant Team and Funding



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Introduction



Welcome to the 2024 Jericho Town Plan!

We call it “Jericho’s Journey Forward” because Jericho is moving forward, and it is a journey that all members of our community have a role and responsibility to helping make sure we **ALL** get to where we deserve to be.

Over the coming pages, we hope to take **YOU** on a journey as we explore some of the things that make Jericho great, some of the challenges Jericho is facing, and how we as a community are coming together to address and overcome them.

So grab a cup, fasten your seatbelt, and let’s get going!

What is a Community Master Plan and Why?

For centuries, communities around the world have developed plans for their future. Most plans establish a set of goals and expectations for how a community will grow and evolve over time. In Vermont, we call these “municipal development plans” (or Town/City/Village Plans), and they are legal documents that set the framework for how and where we use land use and development regulations, and form the basis for future public and private investments.

Under state statute (24 V.S.A. Chapter 117), a new Town Plan needs to be reviewed, revised, and adopted every eight years to best reflect the current trends, needs, and desires of the community. A municipal plan must be developed following the requirements established under the law, and be:

- Consistent with State Planning Goals and Enabling Legislation
- Compatible with approved Regional and municipal plans

When a community regulates land development, those regulations must be directly related to the Town’s Plan and be working to implement its

recommendations. A Town Plan is also a necessary and important prerequisite for many types of State grants and funding for new infrastructure.

The Town of Jericho has had a Town Plan in place since at least the early 1970’s and has been regulating land use and development since the early 1960’s. The previous Town Plan was adopted in 2016, and later amended in 2020 to include a new chapter on energy use and production.

Except in only a few instances, a local government doesn’t actually build the new houses or start new businesses. It is the job of the community to **create the conditions necessary for new development and private investment.** This begins with establishing the policies and priorities found in the Town Plan. Next comes the creation of development



standards and regulations that guides development in specific locations, and finally, making the public investments in the infrastructure and community services that are necessary to support the community and its new development.

Organization of the Plan and How to Use It

The 2024 Jericho Town Plan has two parts - **Volume 1** (the part you are reading now) where the important stuff is – the community's vision for the future, the key issues and opportunities, and the priorities for getting things done, and **Volume 2** where you will find all the important background data and information about dozens of topics important to creating a plan for Jericho's future. The key issues and points raised in Volume 1 are backed-up with data and analysis that can be found under the respective subject heading in Volume 2 and are color coded in the same way so you can easily find your way around.

By pushing all of the background information to Volume 2, it allows us to make the heart of the plan much shorter, to re- arrange the topics in a way that eliminates a lot of duplication, and help to illustrate how nearly everything in a community is inter-connected.



VOLUME 1 OF THE 2024 TOWN PLAN INCLUDES:

Jericho's Vision for its Journey Forward is Jericho's big picture vision for itself.



Stewarding a Resilient Community

is focused primarily on how we protect our cherished natural resources, work to address climate change, and conserve working lands.



Creating Housing Choices for All

is focused primarily on how we create new housing choices and opportunities, and reduce costs to build and live.



Growing a Vibrant Community

is focused primarily on how we grow our mixed-use village centers, support local businesses, and provide opportunities for social engagement and physical activity.



Building a Connected Community

is focused primarily on how we move around, expand community infrastructure, support our schools, and provide public safety.

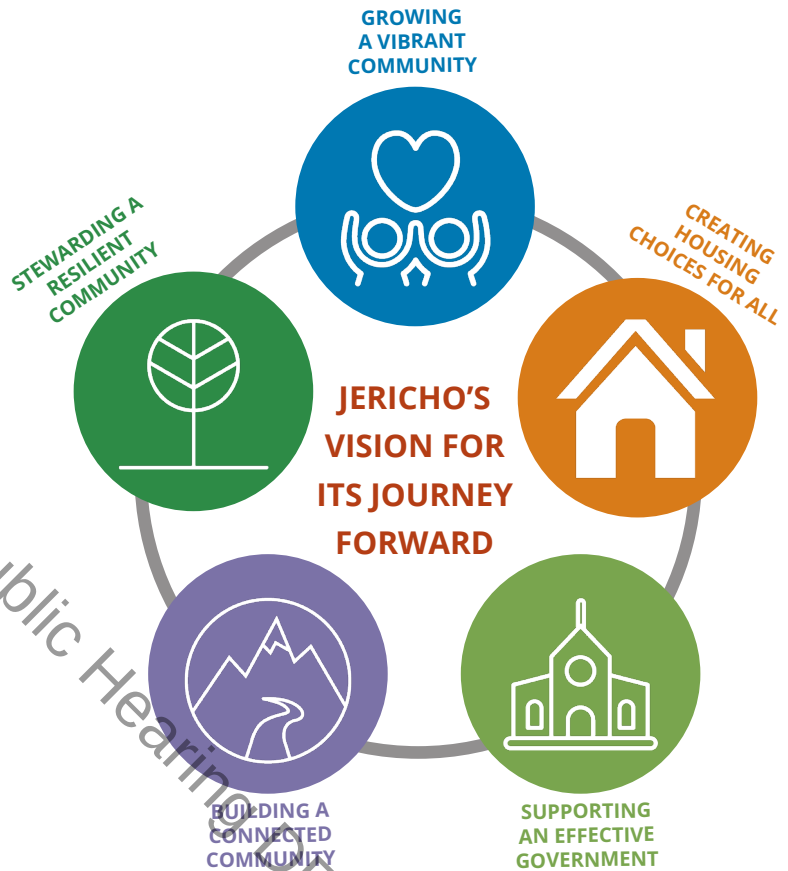


Supporting an Effective Community

is focused primarily on how we expand the capacity of local government and ensure we are prepared to adapt to new challenges and opportunities.

Future Land Use Plan illustrates where certain land uses and types of development should be located.

Getting it Done prioritizes the next steps needed to implement this Plan, and who should be responsible for getting it done.



Throughout this Plan you will see a common use of icons and colors as illustrated above that are intended to help you see how different issues and actions are related and interconnected, and where you can find additional information in Volume 2.

One document cannot possibly cover everything a community needs to be thinking about in as much detail as necessary – especially if we expect people to actually read it! So, in addition to Volume 2, there are other planning documents that the Town has developed in recent years that get into much greater detail on either a specific topic or for a specific place that should be consulted if you want to know more. You will find a list of other plans incorporated into this Plan by reference in Appendix 1.

So Where Should I Start?

If you do nothing else, just hold on a little bit longer and finish this chapter.

That way you will get to the biggest and most important issues facing Jericho now and into the future, and see what our priorities are for tackling them.

If you like maps, maybe you would want to start with the “Future Land Use Map” on page 65 so you can see how

everything fits together and where certain land uses and types of development should be located. Finally, if you just want to get things going, then jump ahead to “Getting it Done” and see where you can help tackle some of Jericho’s most pressing issues and needs.

Choose your own adventure!

Key Challenges

For the last two decades, Jericho’s land use policies, regulations and public investments have focused primarily on protecting our natural resources and supporting low density residential development. While Jericho has done a great job, there’s so much more needed to fully support and nurture a strong and healthy community.

This Town Plan takes a much different approach than its predecessors in that **it focuses on the need to protect our natural environment and rural landscape AND grow compact mixed-use community centers.** It is also more deliberate and strategic about how it guides the community forward towards these common and mutually dependent goals.

There are **MANY** things in Jericho's Town Plan that haven't (and shouldn't) changed from previous versions like:

- Protecting our natural resources and working landscape
- Respecting our rural heritage and historic properties
- Maintaining a safe and interconnected system of streets, sidewalks, paths, and trails
- Supporting high-quality schools and other community services
- Being responsible stewards of community assets and keeping taxes affordable

However, there are a few things that we must change, or at least double-down on, if we are ever going to be the kind of community our vision says we want to be.

In particular, there are two very prominent issues that present the greatest challenges to Jericho now and into the future, and taking the much-needed steps towards addressing them are the highest priorities for the Town over the next several years.

Housing

While there are a wide range of

Housing production is not keeping up the demand - housing production in the last two decades is half that from 1990-2000, and only 25% from 1980-1990.

We are not producing the variety of housing types to support existing families let alone attract new ones – more than 80% of our housing stock are single-family homes.

What housing we do have is far too expensive for most families - The median home price in Jericho is among the highest in the state, and is \$190,000 MORE than it was just 5-years ago.

challenges facing Jericho today and into the future, nearly all of them are related in some way to the rising cost of housing and the inability of many people to find an affordable place to live.

- The population – especially families with kids - and the Town's tax base isn't growing; older residents can't find a place to downsize while staying in the community they love; and, employers can't attract and retain employees because they can't find an affordable place to live.
- We desperately need new housing

choices for our kids looking to return to raise their own families; new teachers and other young workers looking for a first home; and, our friends and neighbors who run the store, service our vehicles, grow our vegetables, and serve our community.

So why is this happening?

Housing is expensive everywhere, and especially in beautiful, safe, and bucolic places like Jericho. Materials are expensive, and demand is especially high with many looking to move to start a family or live closer to where they like to vacation and recreate. The pandemic has caused many workers to re-think their priorities, and the ability to work remotely has become a reality like never before. And, a lot of places aren't feeling quite as safe as once thought with the rise of gun violence and natural threats

like tornadoes, hurricanes, floods, and wildfire. It all makes a place like Jericho look like a far better place to be, and it probably is.

Closer to home, it has become more difficult and expensive to build new housing than it should be. We are producing only a fraction of the new housing units each year than we did in the 1980-90's, and we have not invested in the kinds of infrastructure needed to support the continued growth and evolution of our village centers. We also have a regulatory structure and process that is overly complex, restrictive, and unpredictable making it impossible to replicate some of the most desirable neighborhoods we already have, and to create a wide range of housing options that can meet the diverse and evolving needs of families and households.



The result is we just keep getting more scattered suburban development of large and very expensive single-family homes on 3, 5 or 10+ acre lots - good for some, but prohibitively expensive for most.

What are we going to do?

This Town Plan prioritizes making it possible to build housing that offers real choices for more households with diverse needs, incomes, family-types, and at all stages of life, with a target to build an average 30 new housing units each year through 2028. We will do this by:

- ***Updating our development regulations and processes*** to that enable more housing options throughout the community - especially in and around existing village centers - so that they are clear, objective, predictable, and timely.
- ***Building new public infrastructure*** – wastewater and stormwater in particular – that make it possible to create compact neighborhoods with a diverse range of building types on smaller lots in and around existing village centers.
- ***Partnering with others*** – especially non-profit housing experts – to create perpetually affordable and senior housing opportunities.
- ***Ensuring the Town has the capacity***

and expertise necessary to advance these high priority initiatives.

Climate Change

The other big topic facing Jericho - as it is everywhere-else on the planet - is climate change. Like with housing, nearly everything we do (or don't do) has a relationship to our changing climate. Where we live, work, shop and recreate and especially how we get there; how we build, heat, cool, power, and locate our homes and businesses; and, how we care for our waterways, forests, and land.

All of these small and large decisions drive how much or how little greenhouse gases we emit, and how prepared we are to adapt to the changes we are already experiencing!



- More frequent and intense rain and wind events causing localized blow-downs, power disruptions, flooding, and road washouts;
- Extended periods of drought increasing the risk for grass and forest fires;
- Alternating periods of severe cold and heat causing wide swings in the demands we place on heating and cooling systems; and,
- The introduction of new pests like ticks and invasive plant species.

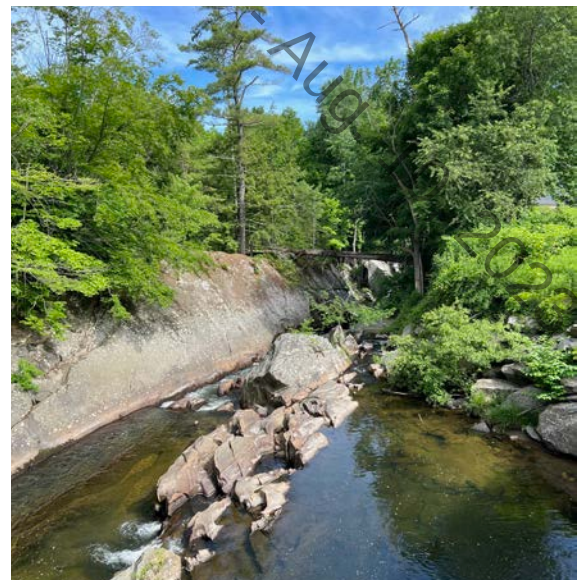
What are our priorities for addressing this?

While this is indeed a global problem, there are several things that Jericho can and must do in order to stop making things worse, and be better prepared for the impacts from a changing climate. We will do this by:

- ***Protecting and reinforcing the natural systems*** that absorb greenhouse gasses, moderate local surface temperatures, and capture and manage excessive precipitation. These focus around large contiguous blocks of forest and maintaining tree canopy, and the riparian system of streams, wetlands, and floodways.
- ***Expanding and enhancing our mixed-use village centers*** as places with a

diverse range of both businesses and housing opportunities, and where residents and visitors can easily and safely experience on foot or by bike and as a result reduce their dependency on motorized vehicles.

- ***Facilitating the creation of new buildings, and the renovation of existing buildings***, that are energy efficient, carbon-neutral and climate resilient.
- ***Building public infrastructure and adopting policies*** that reduces our emissions of greenhouse gasses by converting energy sources to clean renewables, reduces how much and how far we are forced to drive, and anticipates the impacts from a changing climate and reduces damage and the cost of repairs to public and private properties alike.



Planning Commission Public Hearing



Jericho's Vision, Goals, and Priorities

Jericho's Vision for its Journey Forward

Jericho takes pride in its diverse natural resources. Our citizens place tremendous value in protecting these resources to ensure health and connectivity of our natural ecosystems, to provide abundant recreational opportunities, sustain our economy, lessen our contribution to the factors that are driving changes in our climate, and as a backdrop to our daily lives. Forested lands and open fields not only define the aesthetic of our landscape, but they sustain local agriculturally-based enterprises that are growing our local economy and providing a rich source of healthy food.

Jericho's excellent schools, community facilities, local businesses, and recreational opportunities are some of our greatest assets and form the backbone of our strong sense of community. Jericho is a place that offers a wide range of housing choices allowing a diverse population with diverse housing needs to thrive and attract new families and support

older residents aging in place. An interconnected network of trails, paths, sidewalks, and streets helps us to reduce the number of vehicular trips we make, shortens the distance we have to travel, and provides us with choices in how we get there.

Jericho's three traditional village centers and the Commercial District are mixed-use community hubs where locally owned businesses and a wide range of housing options are concentrated. These areas are characterized by a compact collection of small local businesses, residential neighborhoods, municipal buildings, schools, and other public facilities such as parks and libraries. This compact development is served by modern infrastructure, and the physical characteristics of these areas invite and make it possible for residents to walk or bike to the store or work, and to meet and engage with one another along the way.

Jericho's Goals and Priorities

Goals

- To protect the natural environment and reduce our impact on our natural surroundings and contributions to greenhouse gas emissions.
- To preserve the historic and rural character of Jericho.
- To concentrate most of all new development in Jericho's three village centers and the commercial district
- To enable the creation of a wide and diverse range of new housing opportunities
- To strengthen the economic health of the community, support local entrepreneurship, and diversify and expand the Town's tax base.
- To create and provide the municipal infrastructure and services necessary to support our future housing, economic, social and environmental needs.
- To strengthen the capacity and effectiveness of the Town to

anticipate, invest, respond, and adapt to changes in our community, economy, and climate.

We will achieve these common goals for our community and it's future by:



Stewarding a Resilient Community



Creating Housing Choices for All



Growing a Vibrant Community



Building a Connected Community



Supporting an Effective Community

Priority Actions

- **Create the conditions necessary to attract and support a minimum of 80% of all future development in and around our community mixed-use centers** to reduce development pressure on our natural and working lands; grow our local economy; expand housing choices and opportunities for more social interaction and inclusion; and, reduce our contributions to greenhouse gas emissions.

- **Protect contiguous blocks of forest and working farmland from fragmentation and encroachment** to preserve our natural and rural landscape, support our local economy, and help us adapt to a changing climate.
- **Protect the integrity and function of our natural water systems** to absorb and manage stormwater and help us to be more resilient in the face of a changing climate.
- **Enable the creation of a wide range of housing types and price points** to provide choices and opportunities for new families and workers, seniors looking to age- in-place, first-time home-owners and renters.
- **Enable the creation of a wide range of non-residential uses** to grow our local economy, add jobs and vibrancy to our community centers, and reduce the need to get into a car to access everyday goods and services.
- **Invest in public infrastructure that will support the creation of compact, diverse, and affordable housing and mixed-use** in an around existing village centers including:
 - stormwater management systems
 - An interconnected network of streets, sidewalks, paths, and trails with a priority for expanding and encouraging more walking and biking over driving.
- **Ensure that Jericho's land use and development regulations and standards are:**
 - Clear – plain language and highly graphical
 - Objective – more numbers and less words
 - Sensible – focused on what's most important to facilitating high-quality pedestrian-oriented form and design rather than architectural style and aesthetics.



- **And that its land use and development review processes are:**

- Fair
 - Predictable – less discretionary and more by-right
 - Timely and affordable

- **Facilitate and support partnerships** with anyone trying to help us achieve our goals and get to our targets:

- Local builders and non-profit developers
- Community groups
- Businesses community
- Individual landowners
- Other governments and philanthropy

- **Ensure that the Town has the capacity and expertise needed** to tackle the many complex challenges and opportunities ahead by modernizing local governance and administration by:

- Expanding the Selectboard from 3 to 5,
- Changing the role and function of the Town Administrator to that of a professional Town Manager, and
- Expanding the capacity and expertise of Town Staff.



Stewarding a Resilient Community



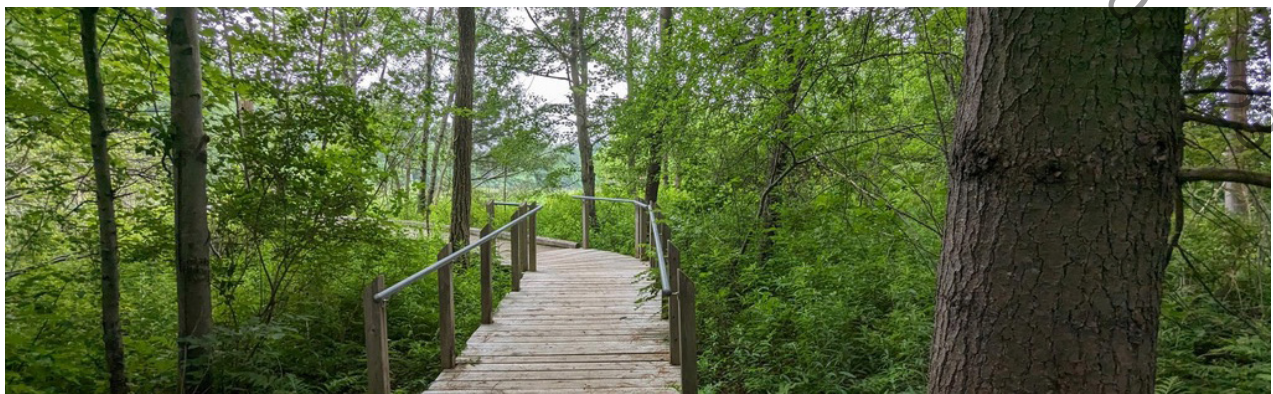
Goals:

- **Protecting Jericho's irreplaceable natural resources** such as wildlife habitat, significant natural communities, large blocks of forestland, unique landscape features, wetlands and watercourses, and groundwater.
- **Reinforcing and enhancing Jericho's historic settlement pattern** of compact villages interspersed with rural countryside and forested hilltops.
- **Improving access to outdoor recreational opportunities and nature** for our physical and mental wellbeing.
- **Conserving working farm and forestland** to grow our local food systems and rural economy while maintaining the rural landscape.
- **Lessening our contribution to the factors that are driving changes in our climate**, and preparing for and adapting to the weather extremes and changes in our natural world that are a result.

Priority Actions:

Jericho will protect and conserve its precious natural resources and working lands by:

- Protecting large contiguous blocks of forest and habitat, and the critical connections between them, from further fragmentation and encroachment.
- Protecting surface waters, flood-prone areas, and wetlands from encroachment and ensure their continued role in the management of stormwater and reduce the costs from storm damage to public and private property.
- Ensuring that there are easier, more predictable, cost effective, and economically viable development opportunities by directing and concentrating most new development into and near existing village centers where proper infrastructure can be provided.
- Expanding the use of land preservation and conservation tools and programs (including but not limited to land trusts, tax stabilization programs, transfer of development rights, etc.) that help owners of forest and agricultural lands retain and benefit from the economic value of their property while at the same time preserving its important natural, community, and economic value.
- Using objective and predictable regulatory tools to incentivize clustering what new development that may be permitted into areas of the property that will have the least impact.
- Nurturing an expansion of our local economy and provide new opportunities for value-added manufacturing and processing of locally produced farm and forest products and new markets and outlets to get local products directly to consumers.



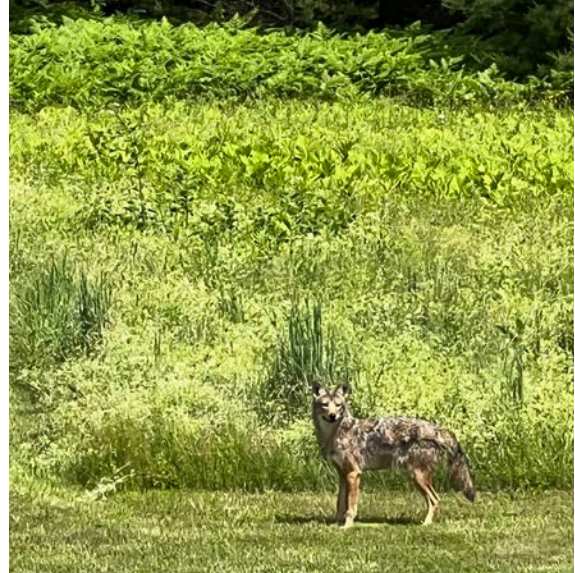
Our Natural and Cultural Heritage

For more background and information on Jericho's natural resources, consult the Natural Resources Chapter in Volume 2.

Jericho's natural landscape plays an essential role in defining our cultural identity and sense of place. The large, forested blocks with scattered openings provide critical habitat for diversity of wildlife that provide a connection to our cultural traditions as well as bring us joy when we catch a glimpse of a coyote, bear, or moose. The same is true for those we may not readily see – the nesting songbirds, amphibians, and pollinators - that play perhaps an even more important role in the function and integrity of our ecosystem.

These natural communities, and particularly the wildlife that inhabits them, are very sensitive to encroachment and disturbance from expanding human development. When habitats are subdivided into smaller blocks, the ability of wildlife to travel and intermix become limited. This not only impacts their access to needed food and shelter, but also genetically isolates populations.

Our natural landscape also provides the



*"This is the very stuff of our so called **"rural character"** and it will be gone without a concerted effort to sustain it"*

-Anonymous Community Forum participant

setting for a wide variety of recreational opportunities and is an essential backdrop to our day-to-day lives. We can hike, ski, mountain bike, hunt, fish, and observe wildlife right from our back steps or within a short walk. Where it doesn't pose a threat to critical resources and habitats, access to a variety of outdoor recreational opportunities is important to improving our physical and mental health and makes us a more vibrant community in so many ways.

The rural landscape— with its pattern of fields, meadows, woodlots, and forested uplands – is also an important historic and cultural resource that tells the story of the generations of farming families. Historic stores, houses, and civic buildings in our traditional village centers tells a story of settlement, commerce, and community. Other perhaps less-recognized historic features such as barns, silos, stone walls, cellar holes, sugarhouses, etc. can be found outside of the villages throughout Jericho’s rural areas.

Jericho’s natural and rural character and easy access to the outdoors strengthens our sense of place and entire economy from tourism to housing to businesses. People aren’t attracted to live and work



here because it looks like everywhere else - they come and stay because it is quintessential Vermont.

Natural Systems and Services for Climate Resilience

Perhaps even more important than the natural and aesthetic beauty of the community, our natural landscape provides a wide range of essential “ecosystem services”. By letting nature take the lead, we can better adapt to changes going on all around us and reduce the impact and cost of more extreme weather events.

Large, forested blocks and extensive forest cover provide valuable sinks for the local sequestration of carbon dioxide, helps to reduce high seasonal temperatures, and are critical for absorbing increasing amounts of precipitation and recharging underground aquifers. Interconnected water systems (brooks, streams, rivers, ponds, and wetlands) are critical to channeling and absorbing increasing amounts of precipitation and can help to avoid damage to infrastructure and property.

Intact and functioning natural systems are fundamental to our ability to mitigate and adapt to a changing climate. We

must prioritize the long-term protection of these nature-based solutions as a top climate resilience strategy. And by prioritizing new development and supporting infrastructure in and around existing community centers, we can reduce the development pressure and impacts on functioning watersheds and strategic land resources ponds, and wetlands) are critical to channeling and absorbing increasing amounts of precipitation.

Resiliency - the ability of natural systems to recover from climate change events - must be carefully incorporated into all aspects of our town planning. New development in floodplains and river corridors should be avoided since structures in those areas are extremely vulnerable to damage. Extra care must be taken with development within groundwater recharge areas that provide us with safe and clean drinking water. Protection of forests and restoration of wetlands and floodplains are necessary to control flooding and prevent erosion. Healthy and functioning riparian habitats will help manage flood waters and conservation of upland and river corridor forests will maintain these riparian habitats. Controlling stormwater runoff is particularly important, not only to prevent erosion from draining into streams

Resilience – “the capacity to withstand or to recover quickly from difficulties; toughness.”

Adapt – “become adjusted to new conditions”

(Oxford Languages, Google)

and rivers, but also to avoid damage to transportation infrastructure.

At the end of the day, avoiding areas susceptible to climate-related damage, and using our natural systems to help us respond and adapt, will save millions of dollars for the taxpayer and countless individual property owners. Intact and functioning natural systems are also fundamental to our ability to mitigate and adapt to a changing climate.



As we experience more extremes in temperature and precipitation, the ability of the land to absorb and move water and moderate temperatures becomes ever more essential, and we as a community will prioritize the long-term protection of these nature-based solutions as a top climate resilience strategy. By letting nature take the lead, we can better adapt to changes going on all around us and reduce the impact and cost of more extreme weather events. And by prioritizing new development and supporting infrastructure in and around existing community centers, we can reduce the development pressure and impacts on these critical resource lands and natural systems.

What is necessary going forward is that Jericho works with these natural systems to manage and mitigate the impacts of future growth and climate change. These are things like continuing to make meaningful steps towards protecting and conserving large forested blocks, habitats, watercourses, and wetlands. With 48% of the Town already protected or in some form of public or protective ownership we are off to a great start, but more will be necessary.

Land development tools need to ensure that new development doesn't further

encroach and fragment these important resources, and provide clear and viable alternatives to developing in other parts of town as an alternative to divert development pressures.

There will also need to be ongoing efforts to incentivize and compensate property owners who take individual steps to protect their land. These should include fee-simple and conservation easement purchases, tax abatement programs, and possibly the ability to transfer development rights.

Even in areas with compact settlements, we should be using the power of natural systems to provide "green infrastructure" benefits – things like street trees and contiguous tree cover to provide shade, windblock, and natural habitat for birds and small critters, and grassy swales and constructed wetlands to help us manage stormwater and provide habitat for pollinators.

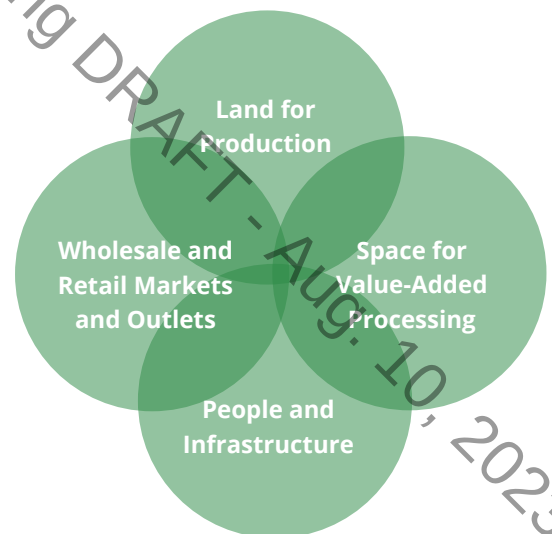
Not only do these natural features provide important tangible benefits to our neighborhoods and mixed-use centers, but they add beauty which lifts our spirits and support our mental and physical health and add real economic value to the properties and businesses around them.

Working Lands and Local Food Production

Jericho's natural and rural landscape is an incredible and irreplaceable economic asset. Large, forested blocks enable economically viable forest management and provide us with a sustainable supply of wood for forest and building products and a fuel source for heating and electric generation. Jericho has several thousand acres of working farm and forestland that are currently being actively managed, and much more that could be under the appropriate conditions.



Key Components of Economically Viable Working Lands



While mostly remnants of a time when Vermont's agricultural economy was more vibrant, open fields and pastures provide a glimpse into a future where more production of local food is possible. Keeping agricultural lands open and undeveloped provides future opportunities for pasturing livestock and growing forage, and cultivating a wide variety of agricultural crops. If not kept open by productive use or regular maintenance, many of the scenic views and vistas visible from the town's roads would eventually be obscured as fields transition to forest.

Economic viability requires the ability to manage the land to produce the products

in the most cost-effective way. This includes assembling contiguous field and forest properties via ownership, lease, or agreement so equipment doesn't need to

be moved long distances which takes time and money. Groups of adjacent property owners can join together to manage larger blocks as one.

Economic viability also requires a place nearby to sell the products being grown either directly to the consumer or for further processing. Each year, more food and food products are being produced in Jericho on everything from small farms, farm stands, CSAs, community and neighborhood gardens, and family gardens.. At the 2023 Jericho Town Meeting Jericho residents approved a resolution to form a “Food Task Force” with the goal of increasing food self-sufficiency via the production, manufacture, and distribution of local food.

Supporting locally grown food sources reduces transportation costs and related CO emissions and is an opportunity to grow and diversify Jericho’s economy with local cultivation, value-added processing, and direct to consumer retail.





Creating Housing Choices for All



Goals

- Creating the conditions necessary for **growing and diversifying our housing stock**, and **offering true housing choices** across the community to meet the needs and abilities of a wide range of families by:
 - Ensuring our development regulations and processes **support the creation of compact, diverse, and affordable housing across the community**, and that they are clear, predictable, sensible and timely.
 - **Investing in community infrastructure** that will support the creation of compact, diverse, and affordable housing in an around existing village centers.
- Supporting the creation of an average of 30 new housing units across Jericho per year for a total of **150 new housing units by 2028**.

Priority Actions

Jericho will create new and diverse housing choices by:

- Updating our development regulations and processes to support the creation of compact, diverse, and affordable housing across the community, and ensuring that they are clear, predictable, sensible and timely.
- Investing in community infrastructure critical to supporting compact, mixed-use centers with a diverse array housing types and opportunities.
- Increasing the Town's capacity and expertise necessary to facilitate and complete these critical next steps to fulfilling the goals of Jericho's Housing Target Resolution.



For more background and information on Jericho's housing stock, trends, and challenges, consult the Housing Chapter in Volume 2.

This chapter focuses entirely on perhaps the biggest and most pervasive issue facing Jericho today and into the future – an extreme lack of available and affordable housing across the spectrum of households. Finding an affordable home to raise a family, or to be able to downsize and age-in-place, has become nearly impossible for most. For Jericho to truly be a “welcoming and inclusive” community, we **MUST** be able to offer new and current residents a place to live that meets their diverse and changing needs and that they can afford.

While there are a wide range of challenges facing Jericho, nearly every single one can be tied back to the **rising cost and inability to find an affordable place to live.**

Jericho's Housing Challenge

- **Housing production has not kept up with demand** - housing production in the last two decades is half that from 1990-2000, and only 25% from 1980-1990.

*“There is so much demand for housing that young people who grew up here are priced out of being able to stay here. **We need more housing**, some in the form of ADUs and apartments, but mostly small starter homes and retirement units.”*

- Anonymous Comment from Community Forum

- **We are not producing a variety of housing types** – more than 80% of our housing stock are detached single-family homes. There are very few multi-family homes or rentals.
- **We have a low rate of turnover in the existing housing stock** because aging residents have no other place to age-in-place.
- **What housing we do have is far too expensive for most** - The median home price in Jericho is among the highest in the state, and is **~\$190,000 MORE than it was just 5-years ago.**
- **We have a dwindling number of households with children** because of the lack of affordable options suitable to small and growing families.

The result is that Jericho has become older and less economically diverse, seen little to no population or economic growth, is experiencing declining student

Housing for Gen Z to the Silent Generation	Housing and Unit Types	Housing Diversity
• Older residents looking to downsize • First-time home-owners • Growing families with children needing to upsize • Workforce for our local economy • New members to our community • Our kids looking to return to Jericho to raise their own families	• Single-family homes • Accessory units • Tiny Homes • Studio to 1-4 bedrooms • Town Houses • Duplex, Triplex and Quads • Cottage courts • Attached and detached Multi-family housing	• Rental and ownership • Worker housing • Full range of price-points • Subsidized to market-rate • Renovation of existing buildings and new construction • Variety of locations and settings

enrollments, and, as a result, is faced with higher and higher taxes.

Housing Choice and Diversity

Jericho needs an “all of the above” approach that emphasizes the creation of a wide range of housing choices and options that can serve different households with a variety of incomes, space needs, at different stages of life, and living preferences.

The key concept here is **CHOICE**. Creating more, and more diverse, housing is complex and will require a specific focus by the Town and partnerships with others more experienced in this area. Housing

2023 Jericho Housing Resolution

A target rate of New Dwellings Constructed to average **30 housing units per year** for the resultant total of **150 new housing units by 2028**, of which at least:

- 30% of New Dwellings Constructed qualify as Missing Middle-Income Housing. At target rate of development, this would represent **45 new Missing Middle units, by the end of 2028**,
- 20% of New Dwellings Constructed qualify as affordable to individuals or families with Low or Very Low Income. At target rate of development, this would represent **30 new affordable units, by the end of 2028**,
- **10 new units qualify as Perpetually Affordable**; and,
- **15 new units qualify as Senior Housing**

*"Jericho is already the town of the well-off and older (and yes, I fit that demographic!). But it would make for a dull place if only my demographic lived in Jericho. Changes need to be made to include **smaller homes, condos, and apartments into the mix.**"*

- Anonymous Comment from Community Forum



at the highest end of the spectrum will always be an option for those where price isn't a barrier. Instead, the Town needs to focus its efforts towards the middle – in terms of both size and cost - working to ensure there are options and opportunities available for low and middle income households.

This means things like smaller units on smaller lots in compact neighborhoods, accessory dwelling units, versions of small house-scale multi-family buildings such as duplexes, tri- and quad-plex's, and village-scale mixed use and multi-family buildings. Smaller housing units like these are much less expensive to build, buy or rent, and to live in.

It's important that there are a variety

of housing options and opportunities available all over town. However, given the cost of land and the infrastructure necessary to support it, it is likely that most of this new development will be concentrated in and around existing village centers, as infill in lower-density residential areas, or in small clusters distributed around town and often associated with the long-term protection of natural and working lands.

*"We are empty nesters in a house **too big for our needs**, and looking to stay in Jericho, but are **not finding something to downsize to**. We are not seeing younger families come to the town and replenishing our school system. "*

- Anonymous Comment from Community Forum

While Jericho's village areas may not appear to have many new places to build, when you look more closely there are actually many opportunities for creating new housing units.

Existing single-family houses could be expanded and/or converted into a duplex, triplex or even a quadplex. Accessory dwelling units can be added in an attic, addition, or in an existing barn or garage.

There are often spaces behind or between existing buildings that have the potential for a new building if only the zoning or wastewater capacity would allow for it. This is especially true for properties that were created after zoning was established and already have a larger lot size and setbacks than the historic pattern.

*"We all know housing is an issue. I have been a resident of Jericho since 1972. I left for 3 years and returned 1993. I have raised my family here but my children cannot afford to buy a home in this town. We need to find a way for **first time home buyers to live here**"*

- Anonymous Comment from Community Forum

New housing like this happens as "gentle infill" where new buildings and units are carefully added within the scale and pattern of what already exists and go largely unnoticed once the work is complete. Often these types of smaller multi-family housing retain a look and feel like many of the single-family homes we already have.

Development like this is also incremental - happening a little over here and a little over there as individual property owners and local builders begin to take advantage of the new opportunities available.

The bonus of incremental development is that it supports the local community of builders and businesses who otherwise do not have the resources or capacity to work at a larger scale. That is then an added plus for Jericho's local economy.

Finally, new housing, and especially modern multi-family housing in compact mixed-use areas, is one of the most important things we can do in order to help meet our climate goals. New buildings are far more energy efficient, multi-unit buildings share internal walls that help to reduce heating and cooling loads, and mixed-use neighborhoods reduce how much we need to drive in order to access common goods and services.

Creating a Diversity of Housing Choices



What Can We Do?

Enabling this kind of housing is going to require (at least) three very important things.

First, there must be suitable infrastructure in place to support compact neighborhoods and small-scale multi-unit housing – individual on-site septic and water systems simply take up too much land and are too expensive.

This is going to require an investment by the Town itself to plan, design, and build. Such infrastructure is expensive to plan and build, and as such must be carefully planned to go where it can be most effective and affordable. The highest priority areas are around the existing community centers where other types of infrastructure and relatively compact neighborhoods are already concentrated.

Second, the Town's development regulations and process must make this kind of development quick, predictable, and very straightforward to accomplish. Nothing kills a development proposal like delay and uncertainty, and that assumes that the standards will support the project in the first place. Recent changes to

Jericho's **land use and development regulations and standards** must be:

- Clear – plain language and highly graphical
- Objective – more numbers and less words
- Sensible – focused on what's most important to facilitating high-quality pedestrian-oriented design rather than architecture and aesthetics

Jericho's **land use and development processes** are:

- Fair
- Predictable – less discretionary and more by-right
- Timely and affordable



Jericho's zoning regulations have sought to make them more "housing-friendly", but much more needs to be done. Each of Jericho's centers (and this also includes the Commercial District) needs to have its own unique zoning district and set of standards to better reflect the unique characteristics and opportunities of each place. Recommendations in the State's new "Zoning Guide for Great Neighborhoods" is a great place to start.

This includes things like:

- District boundaries that consider future development opportunities at the edges and not just what exists today.
- Development standards for things like lot size and setbacks that compliments the scale and pattern of many neighborhoods we already have and allow for more if individual on-site water and septic was no longer a constraint.
- Reconsider limits on "density" which is not an accurate or useful reflection of a development's scale or intensity. Instead focus on the types and scale of the variety of building types we want such as townhouses, duplexes, triplexes, small multi-family (4-8 units), medium multi-family (9-15 units), etc.

- Allowing multiple buildings on a lot in some places
- Allowing a wide range of housing types to be built by-right - without discretionary review and associated delays and uncertainty.
- Detailed architectural and site standards for the Riverside District need to be greatly reduced and simplified to make the process much easier to follow.
- Eliminate, or significantly reduce, on-site parking requirements which add substantially to the cost of new development and consume a disproportionate amount of available land that could otherwise support additional housing units.

Jericho can't do it alone or in a vacuum – we need willing and capable partners who can give us a better understanding of



the factors that are preventing the market from fulfilling our housing needs, and how to make it very easy build what we want. This includes reaching out to and working with:

- Local builders and non-profit developers
- Aligned community groups and organizations.
- Businesses
- Individual landowners
- Other governments and philanthropy

Finally, the Town is going to need more in-house capacity to manage town-supported projects (like building infrastructure and

changing regulations), and to enlist the help of experts in the affordable housing and housing development fields to help us facilitate the creation of the perpetually affordable and senior housing we have set forth in our targets.





Growing a Vibrant Community



Goals

- *Facilitating the creation of vibrant and compact mixed-use centers* in Jericho's three Village Centers and the Commercial District, making it easier for more residents to work and shop close to home by:
 - *Investing in community infrastructure* that will support the creation of compact, mixed-use development in an around existing village centers.
 - *Ensuring our development regulations and processes* support the creation of compact, mixed-use development and are clear, predictable, sensible and timely.
- *Creating the conditions necessary for diversifying and expanding our local economic base* by fostering entrepreneurship and creating opportunities for small locally owned businesses.
- *Improving access to fresh and healthy food* and supporting our working landscape and rural economy by nurturing local production and processing.
- *Being healthy, welcoming, inclusive, and equity-minded*, and creating conditions and providing services that make it possible for all residents to flourish.

Priority Actions

Jericho will grow a vibrant community and local economy by:

- Updating our development regulations and processes to support the creation of compact, diverse, and affordable housing across the community, and ensuring that they are clear, predictable, sensible and timely.
- Investing in community infrastructure critical to supporting compact, mixed-use centers with a diverse array housing types and opportunities.
- Increasing the Town's capacity and expertise necessary to facilitate and complete these critical next steps



Building Vibrant Centers

For more background and information on Jericho's economy and vibrant community, consult the Local Economy, Community Facilities and Services, and Health and Wellness chapters in Volume 2.

The centerpiece of our community, and a primary focal point of this plan, are our 3 traditional village centers and an emerging commercial district. Jericho Center, Jericho Corners, and the Riverside area of Underhill Flats have been the centers of commerce, culture, and community for the town for 250 years.

These are, and must increasingly play a role as the economic, cultural, residential, and civic core of the community with a compact mix of uses that provide everyday goods and services, a wide range of housing types, and encourage walking and social interaction. They are places:

- Where we have many different places to shop, to work, and things to do - with a wide range of shops, services and makers that provide for our everyday needs like food and medicines, but also places for us to gather and connect, explore our

creative spirit, heal and strengthen, share our skills and talents, and grow our local economy.

- Where lots of different people live with a wide range of housing opportunities that serve households with a variety of incomes, space needs, at different stages of life, and with lifestyles. Places for older residents to downsize and age-in-place and new families just getting started, renters and owners, growing families and singles, 5th generation Vermonters and New Americans, professionals and laborers, farmers and doctors.
- Where we nurture inclusion and grow community - with schools, places of worship, public art, performance spaces, government offices and



services, libraries and museums, parks and playgrounds, and community centers that bring us together as a community.

Besides the benefits of having more places to live, work and gather, growing compact and mixed-use village centers are a significant tool in helping us by:

- Reducing how much we must drive. Reducing traffic and congestion, vehicle emissions, and parking demand by making shorter and combined trips possible, and giving us the option to walk or bike.
- Reducing our impact on critical natural lands and systems by creating an alternative place to grow the community, reducing the physical footprint of development on the land, and enabling the ability to use modern infrastructure to manage impacts.
- Benefiting the success and vitality of local businesses by increasing exposure to more customers
- Supporting the vitality and growth of local businesses by providing much needed housing opportunities for their current and future employees
- Enables diverse opportunities for greater social interaction combating

loneliness and isolation, and nurturing our sense of community.

- Reduces the cost of providing municipal and community services and infrastructure.

Jericho's three Village Centers each contain well preserved historic structures and features, as well as local businesses selling services and "Vermont" products. Recent investment in pedestrian infrastructure has made it easier for us to leave our cars and enjoy the Villages safely on foot. Growth of businesses such as restaurants and small retail stores, as well as streetscape improvements and upgrades to pedestrian infrastructure, all combine to enhance the attractiveness of Jericho for additional businesses and housing.

*"I would love to see more businesses by Jericho Market. It would be great if there were more offerings right around there so that area becomes a more **dynamic village center**. Businesses like ... restaurants, hair salon, bakery, flower store, gifts/toys, antiques."*

- Anonymous Comment from Community Forum

Diversifying Our Economic Base

The work of municipal government in Vermont is supported predominantly by the community's tax base and local property taxes. The key to economic sustainability and stability comes through diversification. What is true for your 401K portfolio, is the same for governments. When one sector of the market experiences challenges, there are other areas that help to keep municipal finances afloat.

Given what we see on the land it should be no surprise that nearly 80% of Jericho's Grand List is supported by detached single-family homes on individual lots. This is while only 11% is supported by commercial uses (both residential and non-residential).

While our housing market is indeed robust, and we REALLY need to create a lot more housing, we also need to make investments in diversifying our tax base and creating opportunities for creating and expanding local businesses. Commercial uses tend to demand less in the way of municipal services, and help to subsidize the additional costs typically attributed to residential land uses when it comes to paying for schools. Properties,

and specifically businesses, supported by proper municipal infrastructure in compact mixed-use settings also have a significantly higher per acre land value than suburban or rural properties.

Jericho needs more businesses that serve the day-to-day needs of people who live here, provide meaningful job opportunities, support our local economy, and are invested in our community. Projections of Jericho's growing population base, coupled with the growing population of nearby communities, is increasing the demand for local goods and services, such as medical offices, grocery and household goods, pharmaceutical products, home, garden and hardware supplies,

*"We live on the Route 15 corridor and it feels like we are just another town to drive through to get to the mountains if traveling east, and to the city if traveling west. We should have **reasons for people to stop in Jericho**. We should have festivals, art shops, value added food centers, and farming curiosities for people to get engaged with."*

- Anonymous Comment from Community Forum

restaurants and caterers, professional services, and similar businesses.

Jericho's Village Centers and Commercial District provide ideal, central locations for these businesses. Locally based businesses provide Jericho residents, and residents of nearby communities, an alternative to regional or national chains, as well as create opportunities for local employment and grow the Town's revenue base.

Fostering Entrepreneurship: From Farm to Table and Beyond

Jericho's rural areas provide a vibrant working landscape. New agricultural operations focused on specialized and high value products have taken root. These include traditional dairy farms, vegetable growers, beef farms, maple

sugar producers, nurseries, beekeepers, and Christmas tree farms.

Jericho has a vision to support active living, healthy eating, and increased access to local foods within the town. People have a better opportunity to stay healthy when they live in communities that encourage biking and walking, conserve natural places, ensure access to healthy foods, and provide safe, affordable housing. Jericho recognizes and is advancing the role of community planning to improve the physical and mental health of residents where they live, work, learn, worship, and play.

Small businesses are the heart of our local economy, and as many experienced during the pandemic, a source of community pride, strength, and resourcefulness. They are an economic engine driven by artisan and small-scale



manufacturing, retail, services, and hospitality. We must create opportunities for these small businesses to form, grow and expand right here.

The increased market demand in Jericho and surrounding communities has created new opportunities for local agricultural products through farm stands, farmers markets, and CSAs. But where do these growing businesses go when they've grown out of their basement, garage, or kitchen? Because of a lack of suitable available space in Jericho, some may be forced to move out of town. Instead, we need to do to enable these businesses to grow here.

One potential barrier is the lack of facilities to prepare and package larger quantities for distribution. They need places for processing, fabrication, assembly, and warehousing; commercial kitchens, packaging, and cold storage; and, distribution, wholesale, and direct to consumer retail sales.

The capital cost of processing equipment can be prohibitive for many start-up ventures. Shared commercial kitchens and incubator facilities (such as the Vermont Food Venture Center in Hardwick) can help to nurture the growth of local food and agriculture- based enterprises.

Jericho's new Food Task Force will be an important partner in helping us bridge gaps and form new relationships between those who grow our food and the final consumer.

A Healthy and Inclusive Community

An important part of Jericho's vision for the future includes supporting active living, healthy eating, and increased access to local foods within the town. People have a better opportunity to stay healthy when they live in communities that encourage biking and walking, conserve natural places, ensure access to healthy foods, and provide safe, affordable housing. Jericho recognizes and is advancing the role of community planning to improve the physical and mental health of residents where they live, work, learn, worship, and play.

Building Community and Inclusion

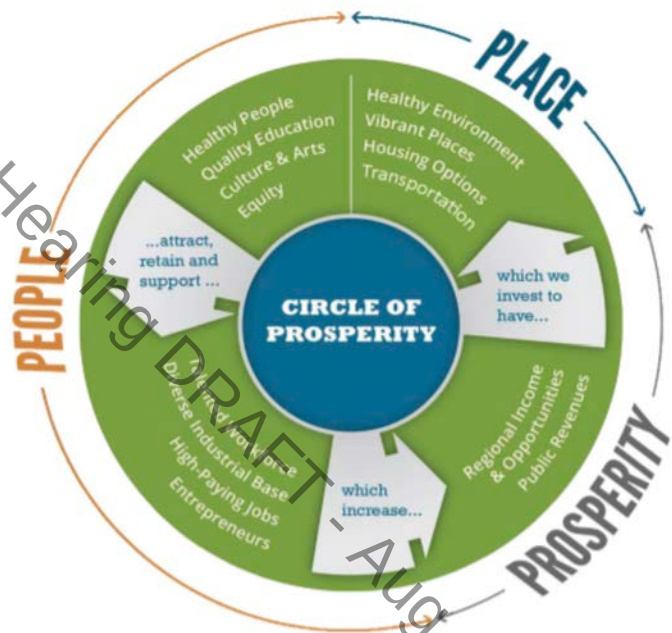
Community is formed when people connect outside of their homes with neighbors and others on the street, in local shops, or at community gatherings. The more we have a chance to meet and get to know our neighbors, the more connected, included, and welcome we feel in the place we call home.

One of the most important functions of a community is to help create the places and physical conditions where these social interactions can take place. These can be everything from encouraging compact residential neighborhoods and mixed-use centers, ensuring we have sidewalks and paths, parks, and other civic gathering places.



This also includes making sure Jericho has “third places” where people can gather outside of work and home – like restaurants and cafe’s, taverns, libraries, community centers, gyms, schools, places of worship, bookstores, parks – to meet with one another, listen to live music, or celebrate local art and culture. These opportunities for social engagement are essential community builders that facilitate connections between and across differences in age, income, backgrounds, education, race, and ethnicity. As such they are a tool to expand social engagement and breakdown silos that contribute to depression and loneliness.

Finally, real inclusion starts by ensuring that Jericho is a place that welcomes new members of all kinds with open arms and offers affordable places to live, grow and thrive. To this end, our housing goals are an essential part of our efforts to be a more welcoming and inclusive community.



Design Matters

The design of our public and private spaces is important to enabling interaction and making the journey more interesting and engaging. Within our community centers and compact neighborhoods this includes things like having front porches and stoops that allow residents to interact

with passersby, shaded stopping points with benches where people can rest and visit, granularity and variation in the design and scale of buildings along the way, connections to key destinations that lend purpose to the trip like parks and playgrounds, vistas and natural features, shops and cafes, places of worship, and offices. Design elements should include pedestrian-scale buildings and street networks, better street lighting, safer street crossings, protected bicycle lanes, speed humps and street landscaping.

A Bicycle and Pedestrian Friendly Community

People are more likely to walk or bike when communities have plenty of sidewalks and bike lanes. Improving transportation within and between the village centers, the commercial district, and the surrounding areas is part of our vision for Jericho. Better connections can promote stronger businesses and make physical activity safer. It is critical that these networks connect destinations and incorporate areas of interest and even amenities such as public art, shade, and a nice place to sit.

Education and Life-Long Learning

At the heart of this community lie great schools where we engage with more than

just immediate neighbors, share the trials and tribulations of our kids, cheer their wins and performances, and toil at a bake sale or on a field trip. It is these shared experiences that create bonds that last well past graduation.

Education is one of the most important community services provided by the Town when viewed in terms of social impact and is the most significant in terms of cost. The schools function as a social focal point for the community, deeply involving most students and their families and significantly affecting all students for the rest of their lives. The schools are also among the largest employers in Jericho.

With several years of declining enrollments, the ability of our schools to continue to provide high quality education is threatened as is our ability to continue to pay for the services that are essential to supporting our community and local economy.

The continued success of our schools is built on (at least) two important things – a steady supply of kids to be educated and great teachers and staff to teach and support them. Both are significantly impacted by the lack of available and affordable housing in Jericho. The bottom line is we need to be creating housing options for more families with children. We also need to be able to house our

teachers and other workers here in Jericho who provide an essential backbone to our community and local economy.

Education is a life-long process, and we need to have places and opportunities for all members of our community to expand their thinking and knowledge.

Education is not only critical to our economic health, but to our mental health as well. This especially includes both the youngest and oldest members of our community. Continuing education is important to our adults and seniors who may be looking to learn new skills, complete their education, engage with others, and stimulate their curiosity. Early childhood education is essential to growing a future workforce who is ready, capable, and adaptable to the challenges and opportunities ahead.

Ensuring that families have access to safe, affordable, convenient, and high-quality childcare is not only important for preparing our youngest children for success in school, but is absolutely critical to supporting working parents and the growth of our local economy.

Recreation

Jericho is an amazing outdoor playground with abundant natural features, trails,

fields, and forests to explore. Recreation areas and open space not only provide a place for physical exercise, but they literally make people feel happier and more like they're part of the community.

While these are aspects of living in Jericho many hold dear, they do not necessarily meet the needs of everyone or all of the time – consider those with physical challenges, the elderly, and young children, or those looking for options during periods of extreme temperatures. New types of recreational amenities and programming will need to become a growing consideration as our population grows and diversifies.

Specific examples might include indoor and outdoor pools, racquet-sport courts, walking and running tracks, and multi-purpose spaces that provide opportunities for physical activity during the winter and periods of extreme weather. Such spaces can also host larger community gatherings year-round including farmers and craft markets, graduations, community events, and emergency shelter. There may be an opportunity to partner with neighboring communities with similar needs.



Building a Connected Community



Goals

- *Building vibrant mixed-use centers in Jericho's three Village Centers and the Commercial District*, and providing for new or expanded public infrastructure, facilities and services that support compact, mixed-use development.
- *Lessening our contribution to the factors that are driving changes in our climate*, and preparing for and adapting to the weather extremes and changes in our natural world that are a result.
- *Providing an interconnected multi-modal network of trails, paths, sidewalks and roads*, and prioritizing the safety and convenience of non-motorized users.
- *Expanding alternative modes of transportation* such as bicycling, walking, and access to transit to reduce transportation energy demand and single-occupancy vehicle use, and encouraging more physical activity improving access to the outdoors.
- *Designing and maintaining Jericho's roads, trails, and infrastructure to be sensitive to their natural and historical context*, improve the safety and livability of surrounding neighborhoods, and be adaptable to the effects of climate change.
- *Promoting the development and use of clean and renewable sources of energy*, and advancing energy conservation measures to decrease energy demand and consumption across all sectors of our economy and society.

Priority Actions

Jericho will build a connected community by:

- Investing in new and expanded community infrastructure critical to supporting compact, mixed-use centers.
- Adopt an Official Map
- Developing a “Jericho Climate Action, Vulnerability, and Resiliency Plan”
- Updating our development regulations to facilitate the creation and expansion of compact, mixed-use centers, support for clean and renewable energy generation, and encouragements to reduce energy consumption through alternative transportation and green building technologies.
- Updating our transportation and pedestrian and bicycle plans, and Town Road and Public Works Standards
- Increasing the Town’s capacity and expertise necessary to facilitate and complete these critical next steps.



For more background and information on Jericho's Infrastructure and Energy, consult the Transportation, Public Infrastructure, and Energy chapters in Volume 2.

This Chapter of the Jericho Town Plan focuses on the many physical interconnections and services that form the essential backbone to any community.

Mobility: Connect People and Connect Places

Transportation is about MOBILITY – having safe and purposeful places to walk, roll, ride and drive that meets the needs of all users of all abilities. Moving people and goods from one place to another is important, but so too is ensuring that it does it in a way that supports the desired land use pattern and is sensitive to its context.

Like with our housing and economy, it is critical that we have CHOICES that can meet our varying needs at different points in time and for different purposes.

Driving will continue to be a dominant mode of transportation, but walking, biking, transit, and car-pooling/sharing have an equally important role to play. They reduce how much we drive alone, reduce traffic and greenhouse gas

emissions, and provide an opportunity to get some exercise and socialize with others at the same time.

At the end of the day, if you chose an alternate mode just one day out your work week, you reduce your driving by 20%. None of these modes – including driving alone – will be the right solution for everybody every time, but if we can take a bite out of how much we rely on our cars everyday we can make a meaningful difference to our health, community, and planet.

While Jericho has historically resisted building new roads and taking over private roads, this is an area where we are going to need to be more proactive - especially in and around our village and community centers - to ensure greater connectivity.

The placement, layout and design of streets and roads in a community creates a framework that guides the location, shape, and outline for subsequent public and private investment. It is very important that Jericho assume this responsibility to ensure streets interconnect safely and form blocks that help create walkable places.

With this in mind, several important priorities stand out for the future:

- Taking the lead on building new streets and sidewalks to expand connectivity and circulation in our community centers. Examples include the proposed new street network in Riverside and a new street connection to VT15 in the Commercial District.
- Expanding our interconnected network of sidewalks, paths, and trails to support more walking, biking, physical activity, and social interaction. Examples include new sidewalk and path connecting Jericho Corners and Riverside.
- Creating and adopting an Official Map that will help the Town secure the necessary connections for new trails, paths, sidewalks and streets.
- Updating Jericho's current Transportation and Pedestrian and Bicycle plans that are approaching ten years old and in dire need of updating to ensure they align with and advance the goals found in this plan more effectively.

While enforcement has a role to play in reducing speeds, more effective solutions that work when no-one else is looking must be built into the design of our roads. As such, it's very important that the Town has clear standards in place that:

*Transportation is about **mobility** – having safe and purposeful places to walk, roll, ride and drive that meets the needs of all users of all abilities.*

- Reduce traffic speed through the use of a "design speed" that controls the size and configuration of streets based on how fast we want traffic to go.
- Ensure new trails, paths, driveways, and streets are designed and maintained to be sensitive and supportive of their context – whether that is a neighborhood street in a compact mixed-use center or a rural gravel road.
- Coordinated with other community service and utility standards to minimize conflict, and provide clarity and consistency.
- Prevent dead-end streets in and around the village centers, and where they currently exist seek opportunities for new connections to improve traffic flow.
- Reducing the number and frequency of curb cuts on important connectors.
- Prevent further encroachment and fragmentation of contiguous forested blocks and wildlife travel corridors;
- Avoid flood-prone areas and wetlands, and anticipate increased volumes and velocity of stormwater;

- Prioritize speed reduction and safety for pedestrians and cyclists; and,
- Adapt to our changing climate to reduce long-term maintenance and repair costs.

Infrastructure: Common Investments for the Common Good

Public infrastructure typically takes the form of a physical network of pipes or lines coupled with a service provided directly to an individual customer. Some are regulated, while others are private. What they all have in common is that they provide an essential function.

Public and private investments in core infrastructure like water, wastewater, stormwater, telecommunications, and broadband is essential if Jericho is going to be able to protect our environment, expand our vibrant mixed-use centers, and grow diverse housing opportunities. The Town of Jericho has a pivotal role to play in ensuring these services are available as soon as possible.

Water and Wastewater: In order to be able to expand and grow our mixed-use centers and create a wider range of housing choices for low and moderate income families, Jericho MUST invest in

creating and expanding public water and wastewater systems - individual on-site septic and water systems simply take up too much land and are too expensive.

Two of our village centers are fortunate to already have some degree of water service provided by the Champlain Water District and the Jericho-Underhill Water District. Access is one thing, but adequate service to meet the future needs is just as important. We need to be sure that the capacity and flow of existing water service can also meet the higher demands of more compact development, fire service, and more water-intensive non-residential uses like restaurants and food processing. In areas served by public water, fire protection is provided through pressurized hydrants.

The Insurance Services Office (ISO) rates communities based on their ability to suppress fire through the Public Protection Classification program (PPC) which is used among other things by insurance companies to set fire insurance premiums, with lower ratings generally translating into lower premiums. Jericho is rated Class 4 in areas served by public water, and Class 6 in all other areas. Expanding where our community is served by a public water supply can help reduce the insurance premiums for local

property owners and expand future business opportunities.

We need to explore how these public water services can be expanded to serve the Commercial District and Jericho Center in the future. Jericho also has a number of private water systems that have served small neighborhoods for decades. Where these neighborhoods are close to existing or expanding community systems, we should be considering how they can be absorbed into these larger utilities.

Perhaps the highest priority initiative for the Town is the creation of wastewater capacity in and around our existing community centers. Currently all development in Jericho relies on individual or small community septic systems. These systems – with their tanks, leach fields, and separation requirements from drinking water wells - consumes a lot of land making compact, mixed-use, and multi-family development very difficult and often cost-prohibitive.

The Town has taken the lead by commissioning a feasibility study to consider the options and opportunities for the development of wastewater systems to serve Jericho Center, Jericho Corners, Riverside, and the Commercial

*Perhaps the highest priority initiative in this entire document is the **creation of wastewater capacity** in and around our existing community centers.*

District. With the recommendations of this study in-hand, the Town must be ready to quickly take the next steps towards final design and construction to see this through as soon as possible. The Town should also take advantage of an opportunity for collaboration with the Ethan Allen Firing Range that also has need for expanded wastewater capacity in order to expand its own facilities.

Stormwater: Because compact development by its very nature covers the ground more intensely, stormwater management is an essential component of any planning and design process to prevent flooding of buildings and property and pollution of our waterways. This is an issue in places where we concentrate development as well as along the Town's network of paved and gravel roads and paths. Fortunately, there are a number of highly effective stormwater management techniques that the Town has been deploying and the Vermont DEC has developed the Vermont Stormwater Master Planning Guidelines to help

municipalities effectively plan and manage stormwater.

This is a place where natural features and systems (also called “Green” infrastructure) play an important role – things like rain gardens and constructed wetlands, bioswales, tree canopy, and green roofs. As much as possible, the goal is to capture and treat the stormwater where it falls, reduce its velocity and improve its quality, and maximize opportunities for infiltration.



These natural systems have the benefit over traditional “grey” infrastructure in that they help to improve water quality and reduce erosion, provide habitat for pollinators, birds, and amphibians, and add natural beauty to the community. Green infrastructure is also an important tool in helping the community adapt to the impacts of climate change.

Broadband and Telecommunications:

Post-pandemic more and more people are working or learning from home, and cell phones are increasingly replacing landlines as households look to reduce redundant services and expenses. Both of these

trends are making high-speed broadband and cellular telecommunications a necessity and no longer just a luxury.

As a rural community with mountainous terrain extending this infrastructure can be quite challenging and expensive. But, they are an increasingly important service that is essential to meeting the growing needs of our local economy, education system, and public safety.

There are a number of initiatives seeking to help connect the “last mile,” and state and federal resources to help. Jericho has joined the Chittenden County Communications Union District in a joint effort with neighboring communities in

a multi-year effort to plan, fund, and build high-speed broadband service to currently underserved locations.

Using and Generating Clean Energy

Being proactive regarding the types and amount of energy we consume is essential when considering how Jericho can become more climate and economically resilient. It's related to the quality of the air that we breathe, our comfort in our buildings, and is driving ongoing changes to our climate. It's also about undertaking a major shift that will influence everything from how we move and where and how we live.

Conservation. Our first, and most economical step, is to find ways to reduce consumption – everything from how warm or cool we keep our homes to how much we drive our vehicles. The least expensive energy is energy we don't use.

Concentrating residential development and infrastructure close to local services reduces the need to drive and makes providing infrastructure more efficient and economical. Multi-family and mixed-use structures are typically more efficient than single family dwellings (because of shared walls between units), and smaller buildings require less energy for

heating, air conditioning, and lighting. New buildings benefit modern energy sources, materials, and technologies that reduce how much energy they need and how much it costs to maintain them over time. This is especially an issue when we are trying to create new development opportunities, and support the needs of low and moderate income households who have traditionally been under-represented in our community.

Transportation accounts for approximately one-third of all energy use in the United States and probably more in Jericho, due to our rural character. It represents a major use of fossil fuel and the single biggest source (approximately 40%) of greenhouse gas emissions in Vermont. Measures that reduce the use of the single-occupancy motor vehicle include planning for compact, mixed-use development in village centers, pedestrian and bicycle friendly trails and roadways, local park-and-ride facilities, carpooling, and public transit.

It is for these reasons and others that Jericho is prioritizing new development and supporting infrastructure in and around existing community centers.

Generation. The other side of the energy coin is facing the long-term implications of where our energy comes from, and

taking meaningful steps to shift to clean and renewable sources. The community is open to considering all forms of renewable energy generation, including solar, wind, geothermal, and hydroelectric where feasible and practicable.

Jericho has a large amount of renewable energy potential largely in the form of solar and some wind, but only a small part of it would actually be needed to meet our generation goals. Wherever possible, our preference and priority is to incorporate new solar generating capacity on top of new and existing buildings. Other preferred locations include:

- Parking lot canopies over paved areas
- Previously developed land
- Brownfields, Landfills, Gravel pits

Generating power is one thing, but accessing it can be another. Because of their rural nature, parts of Jericho are regularly challenged by frequent power outages during storm events. In such cases, on-site generation using solar or wind, and on-site battery storage, may be the best option for improving reliability.



While achieving many of the goals of the Vermont Comprehensive Energy Plan and Vermont Climate Action Plan will fall most heavily on the utilities and state, there is much that Jericho can do including:

- Developing a Jericho Climate Action, Vulnerability, and Resiliency Plan to ensure that our actions are most effective and best suited to local needs, challenges, and opportunities. Supporting the local use and generation of renewable energy sources, including solar, wind, geothermal and hydroelectric where feasible and practicable Prioritizing new development and supporting infrastructure in and around existing community centers.

Figure 2 - Land Area Needed to Meet Jericho's High Target with 100% Wind



118 acres
Amount of land area needed for new wind installations to reach the low goal

406 acres
Amount of land area assumed "good" for wind installation

206 acres
Amount of land area needed for new wind installations to reach the high goal

Figure 3 - Land Area Needed to Meet Jericho's High Target with 100% Solar



95 acres
Amount of land area needed for new solar installations to reach the low goal

546 acres
Amount of land area assumed "good" for solar installation *

164 acres
Amount of land area needed for new solar installations to reach the high goal

* The acreage includes rooftop generation.

- Facilitating through our development regulations siting considerations to reduce energy consumption, favoring net-zero construction, and including EV charging capability.
- Incorporating new energy conservation and generation tools and strategies in all Town facilities and across its fleet
- Encouraging, and helping where possible, all community members

to weatherize existing buildings and consider adding on-site electric generation and storage, increase their use of transit and non-motorized forms of transportation, and trade-in at least one of their household vehicles to fully electric.



Supporting an Effective Community



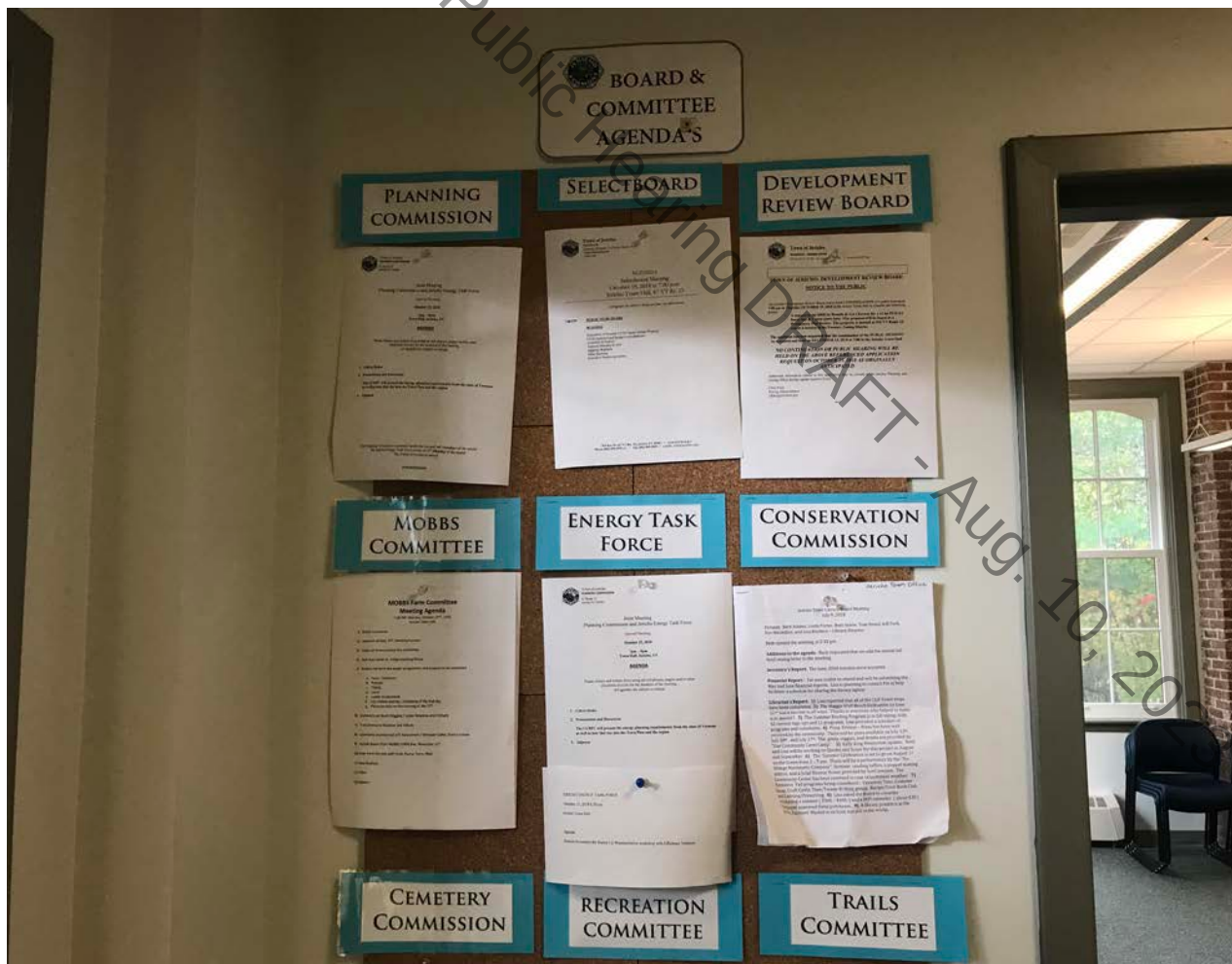
Goals

- Being a **responsible steward** of community resources and the public's trust;
- A process of **continuous improvement** of Town functions and operations;
- Being **invested for the future** and adapting to the challenges that lie ahead;
- Participating in **regional and inter-municipal partnerships**;
- Meaningful and inclusive **community engagement**; and,
- Informed, transparent, timely, and respectful **decision-making**.

Priority Actions

Jericho will support an effective community by:

- Re-considering an expansion of the Selectboard from 3 members to 5.
- Further enhancing the role and function of the Town Administrator to that of a Town Manager.
- Adding to the Town's capacity and areas of professional expertise through additional staff supported by consultants.



At the center of implementing this Town Plan lies the capacity and expertise of the Town Government - it's elected officials, appointed volunteers, and paid staff. There are also a number of local and regional organizations that help to provide critical government services. Jericho is very fortunate to have a team of great people working diligently to make Jericho an even better place, and to be sure that the residents and other stakeholders have a meaningful voice in community decision-making.

As we look to the future for our community, we must consider the future of our government, and take the bold steps necessary towards ensuring that it has the capacity and expertise needed to tackle the many complex challenges and opportunities ahead.

Public Safety and Emergency Planning

Most public safety and emergency services are provided in Jericho under contract, shared, or through mutual-aid agreements.

One very important concern today is the difficulty most local fire and EMS services are having finding and keeping volunteers. At one time most members

*As we look to the future for our community, we also need to consider the **future of our government** and take the bold steps necessary towards ensuring that it has the capacity and expertise needed to tackle the many complex challenges and opportunities ahead.*

worked in the service area, but now all but a few members work outside, making it difficult for the department to respond to emergencies occurring on weekdays. For Jericho, this challenge only gets worse as the population ages which both increases the demand for service - especially when it comes to EMS - and shrinks the available pool of volunteers who have the time, ability, and willingness to serve. This is yet another example of why Jericho's population needs to be able to grow and diversify, and where we need to ensure we provide housing opportunities for families with a wide range of incomes.

Finally, in recent years we have experienced numerous major storm events resulting in flooding, power outages, and significant damage to property and infrastructure. We have also recently come through a global pandemic

that completely disrupted families and businesses. What both examples have in common is the critical role that local officials must play in helping the community prepare, respond, and recover in these times of emergency. We can't and don't do it alone, and it requires careful and coordinated planning and preparation. Many elements of this Plan are dedicated to making Jericho more adaptable and resilient, especially in the face of impacts from a changing climate. But at the end of the day it requires a dedicated, capable, and focused local government, regional partners, and community volunteers to get us through.

Effective & Inclusive Governance

The challenges and opportunities ahead for Jericho are rooted in how our community is and will change. Change is inevitable and Jericho must be prepared for a changing climate, a changing economy, and a changing community. This means that we must anticipate the changes and be prepared to respond and adapt to them.

All of this takes a thoughtful, engaged, and nimble local government that is focused on measuring our progress towards our long-term goals,

finding opportunities for continuous improvement, invested for the future and its uncertainties, and all the while getting things done now.

Jericho is blessed to have an engaged and active citizenry and a diverse array of volunteer networks. These are, and will, continue to be key resources as we collect information and perspective, tackle new challenges, and seek new and innovative ways to deliver community services.

Taking the Lead

For some things, it's simply not enough to wait for others to take the first step or to do things the way they have always been done. There are a handful of priority public investments where the Town is going to have to play a proactive leadership role. These focus around building new water, wastewater, and stormwater infrastructure; new trails, paths, streets, and sidewalks to facilitate new compact mixed-use and residential development; and, creating affordable housing opportunities for low and moderate income families.

The Town has several effective tools at its disposal to make the necessary investments. These include:

- State and federal funding and local

bonding authority to help us pay to plan, design, and build.

- An Official Map that will help us secure the necessary connections and properties.
- A Capital Plan and Budget that will help us prioritize and budget for upfront and ongoing expenses

These tools and others will be necessary to get the job done, but they cannot happen without the leadership and focused attention of our elected and appointed local officials.

Spreading the Burden – Sharing the Load

As Jericho's landscape, land uses, infrastructure, economy, and people continue to evolve, it's time that Jericho's government does the same.

While this Town Plan provides direction for the things we need to do in order to achieve our vision and community goals, **having the capacity to actually get all this done is likely to be Jericho's greatest challenge.** This is a burden and a challenge that is shared across all of our elected and appointed officials and the paid staff who support them.

Over the past several years Jericho has successfully accomplished many

important projects, and kicked-off several new initiatives. The Town has also created a number of different plans, and created several new volunteer committees to provide perspective and attention on new areas and issues facing the community. While each of these are great accomplishments in their own right, they each also add to the workload of the Town staff and leaders to manage, coordinate and implement their recommendations.

Jericho currently has a traditional small-town government facing dozens if not hundreds of complex modern challenges. Long gone are the days when a small group of volunteers meeting one or two nights a week can realistically be expected to effectively manage such a complex set of issues across a wide range of topics, a multi-million-dollar budget, and dozens of paid staff and volunteers. The time-commitment, workload, and responsibility is far too great, and likely a major obstacle to encouraging new and diverse leaders to become involved.

In an effort to modernize town government, and expand its capacity and capability for completing new high priority initiatives, Jericho must seriously consider three key actions:

- **Increasing the Selectboard from 3 people to 5.** This will help to spread the demands and workload on our elected officials across more people and create an opportunity to bring new faces and voices into leadership roles. Such a change is enabled under the current Town Charter, and must be brought to the Selectboard for consideration by a petition before being put on a ballot for a vote.

- **Change the role and function of the Town Administrator to that of a Town Manager.** This will also help reduce the burden on elected officials and allow them to focus on the more important policy and financial issues rather than being consumed by as many of the day-to-day of Town operations. Across the state, 12 of the 17 municipalities with populations between 4-6,000 like Jericho have a Town Manager. Like a Town Administrator, a Town Manager is hired by, accountable to, and serves at the pleasure of the Selectboard. A Town Administrator has no independent role or statutory responsibilities other than those assigned by the elected officials. The role and responsibilities of a Town Manager however are found

in state statute (24 VSA 1236) and include assuming all ministerial and administrative duties of a selectboard and being responsible for the day-to-day management of all Town staff and finances.

- **Expanding the capacity and range of expertise of Town Staff.** For Jericho's elected and appointed officials to be able to make informed and effective decisions, they need a core professional staff who have the capacity and expertise to take-on the evolving array of questions and challenges being put to them. No one can be expected to be an expert on everything, but we can't afford to create several new positions.

In many cases, new capacity and expertise can be obtained through hiring consultants for a specific project or with specific area of expertise. Project management, grantmaking and administration, real estate development, and municipal finance are all areas where Jericho will need much more help and professional expertise over the years to come. However the addition of one or two new full or part-time Town staff will also be needed to manage local projects and any contractors working for the Town.

Future Land Use Plan

“To plan development so as to maintain the historic settlement pattern of compact village and urban centers separated by rural countryside” (Vermont Statewide Planning Goals, 24 V.S.A. § 4302)

Like Vermont’s statewide planning goals, and the regional ECOS Plan, Jericho’s Future Land Use Plan is grounded in two very simple and complimentary themes – continuing the historic settlement pattern of compact settlements and preserving the rural countryside and natural landscape. It is this combination of colors, textures, and activities on the land that defines the essence of Vermont’s vernacular landscape and is central and vital to our sense of place and sustaining a vibrant economy.

This Town Plan envisions future growth and development occurring mainly in and around Jericho’s three Village Centers and the evolving Commercial District. These areas will continue to develop into vibrant centers of neighborhoods, culture, community, and commerce. The intent is to reduce development pressures on open and forested lands by providing places where new compact mixed-use development can be accommodated and flourish. These Centers should be

surrounded with pockets of residential infill, open and rural countryside, working agricultural and forestland, lands containing natural resources, and rural homes. By implementing this vision, Jericho will preserve the community’s sensitive natural and historic resource base and rural, open character, while providing for necessary and responsible growth, sustainable economic development, and opportunities for affordable, active, and healthy living.

Jericho’s Future Land Use Plan organizes the community into 4 inter-connected areas that when taken together illustrate how the previous chapters and topics of this Plan combine to create a strategic and responsible land use pattern for the future needs of our community and its residents.



PLACEHOLDER - RURAL TO VILLAGE TRANSECT GRAPH-

These include:

- Natural Resource Protection Area
- Agriculture Conservation Area
- Residential Infill Area
- Compact Mixed-Use Centers
 - Village Core
 - Village Neighborhood

The diversity of land uses and intensity of development progressively increases as one transitions from the Natural Resource Protection Area to the compact Mixed Use Centers. For each area, this Plan describes the priorities, type, scale, and pattern of the future development that is desired.

It is very important to understand that a Future Land Use Map is NOT a zoning map, and does not directly regulate future land use and development. Instead, it is intended to illustrate a vision for the future land use and development patterns of the community. Over time, changes to the Town's zoning map and regulations will need to be made to ultimately advance and implement this vision.

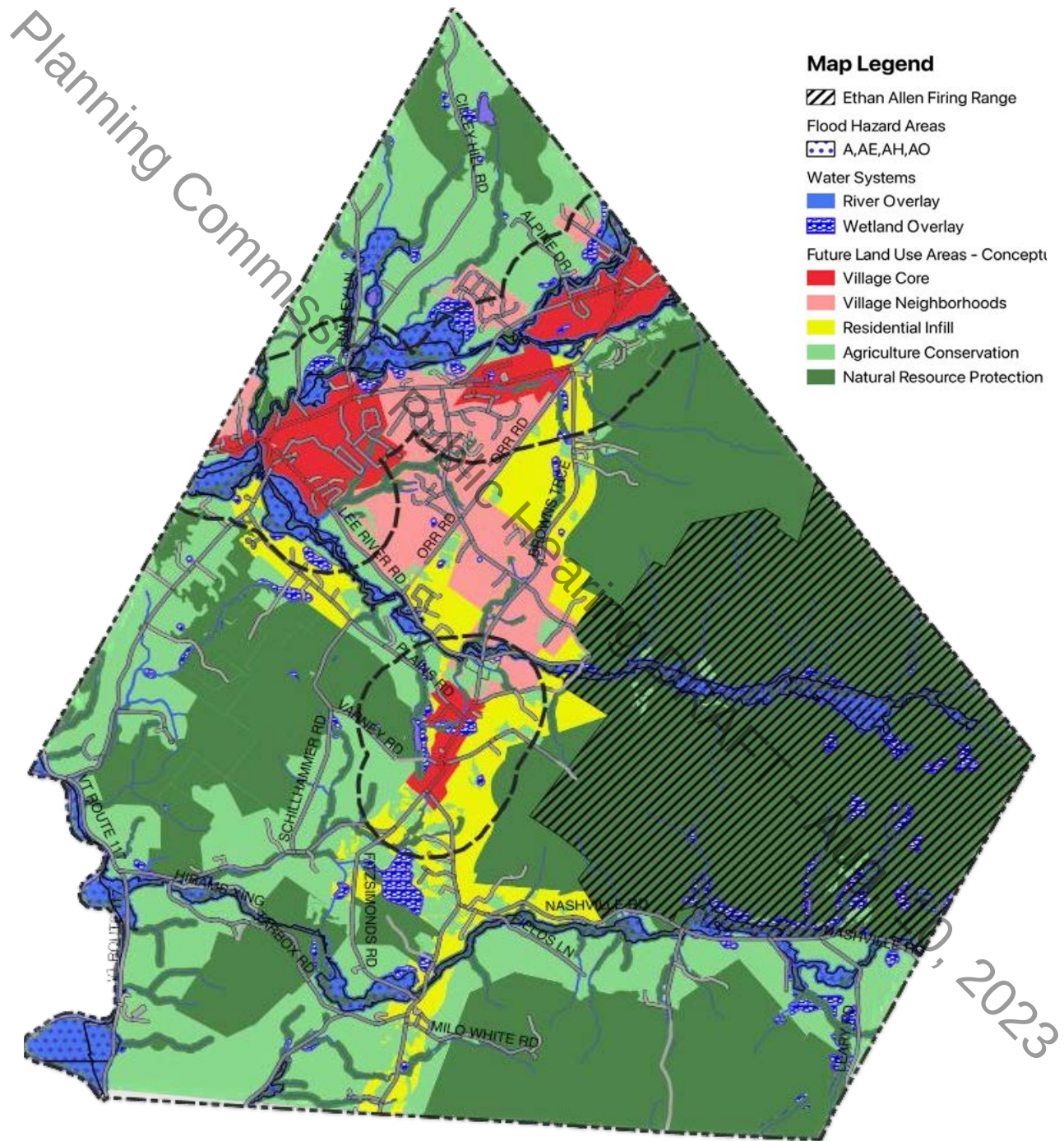


Figure 1: Jericho's Future Land Use Map

Natural Resource Protection Area

The Natural Resource Protection Area is dedicated to protecting large contiguous blocks of forested habitat, working forest lands, and surface water networks. This area also includes smaller and more localized areas that host significant, unique, and irreplaceable natural areas and features that add to the diversity and distinctiveness of our community. Lands within this area should receive a very high priority for conservation.

Thanks to the decades-long work of the Jericho Conservation Commission, Jericho has a very robust inventory of important natural resources and features which have been prioritized in collaboration with the Planning Commission. These priorities can be found in

the Jericho Natural Resource Overlay currently incorporated in the Town's zoning regulations. While subsequent updates are currently ongoing, much of this information has been incorporated into the making of the Natural Resource Protection Area.

The Ethan Allen Firing Range is included in the Natural Resource Protection Area even though it is owned by the Federal Government and therefore is outside of

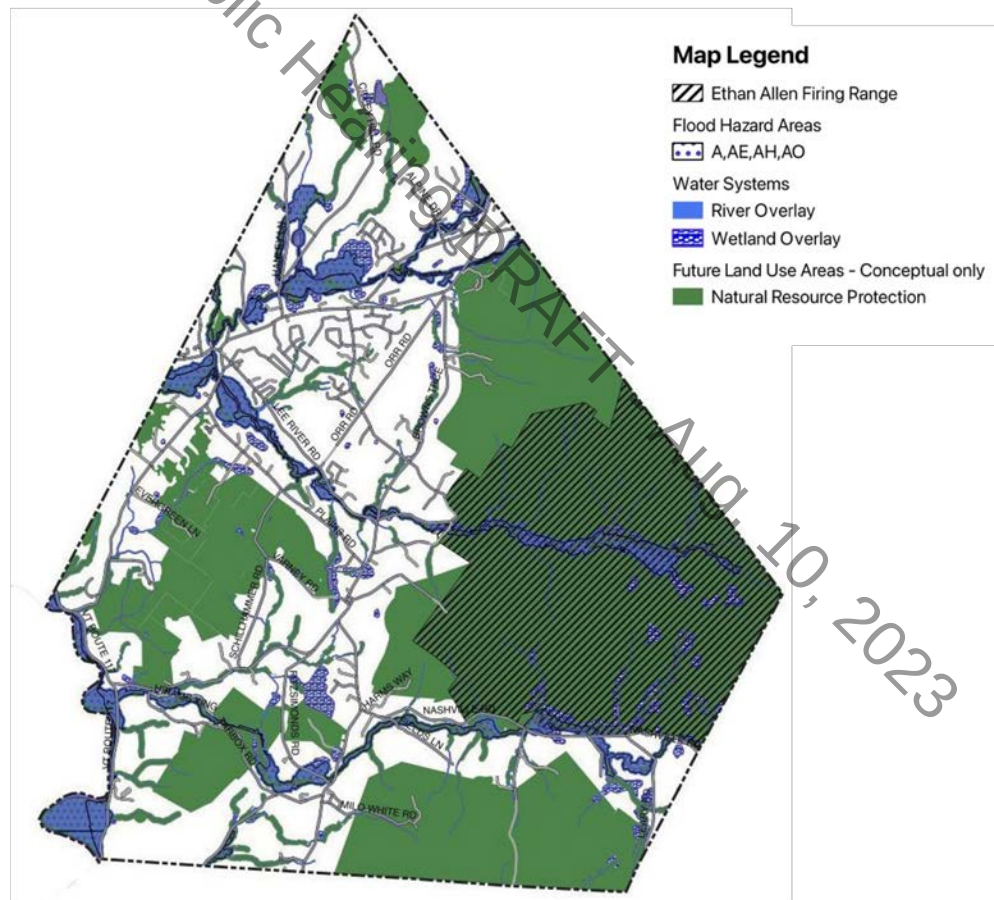


Figure 2: Natural Resource Protection Area

Natural Resource Protection Area	
Land Use Priorities	• Natural resource protection and forest management • Passive outdoor recreational activities where it does not have a detrimental impact on highly sensitive areas and resources. • Protecting large contiguous block of forest and forested highlands are the highest priority • Avoiding and protecting natural water courses and wetland complexes, steep slopes, flood-prone areas and forested ridgelines and hilltops
Development Pattern	Large contiguous blocks of forest dominate. • Lightly scattered and clustered compact residential development is supported where it can be sited at the edges of contiguous blocks of forest to avoid intrusion and fragmentation.
Infrastructure	• An interconnected networks of paths and trails. • New roads and long driveways are discouraged, and should not encroach and fragment habitat and viable working forestland. • Individual on-site water and wastewater systems primarily • Community off-site water and wastewater should be considered only where it is necessary to support clustered compact development and with associated long-term land conservation of priority resource areas

the Town's regulatory jurisdiction. Portions of the Range are heavily developed with numerous structures and significant infrastructure, while other areas remain largely undeveloped. Should the Federal Government terminate its ownership of the Range at any point in the future, the Town would expect the future of the Range property will be fully re-evaluated after a significant public dialogue.

Agriculture Conservation Area

The Agriculture Conservation Area is dedicated to maintaining and conserving working agricultural lands for continued

and future use. Future development in this area is limited to agricultural uses and activities and scattered rural residential housing. Clustering on compact lots through the use of tools like Planned Unit Development are recommended to prevent further encroachment and fragmentation of prime agricultural soils and open land. Open fields and contiguous forests within this area should receive a very high priority for conservation.

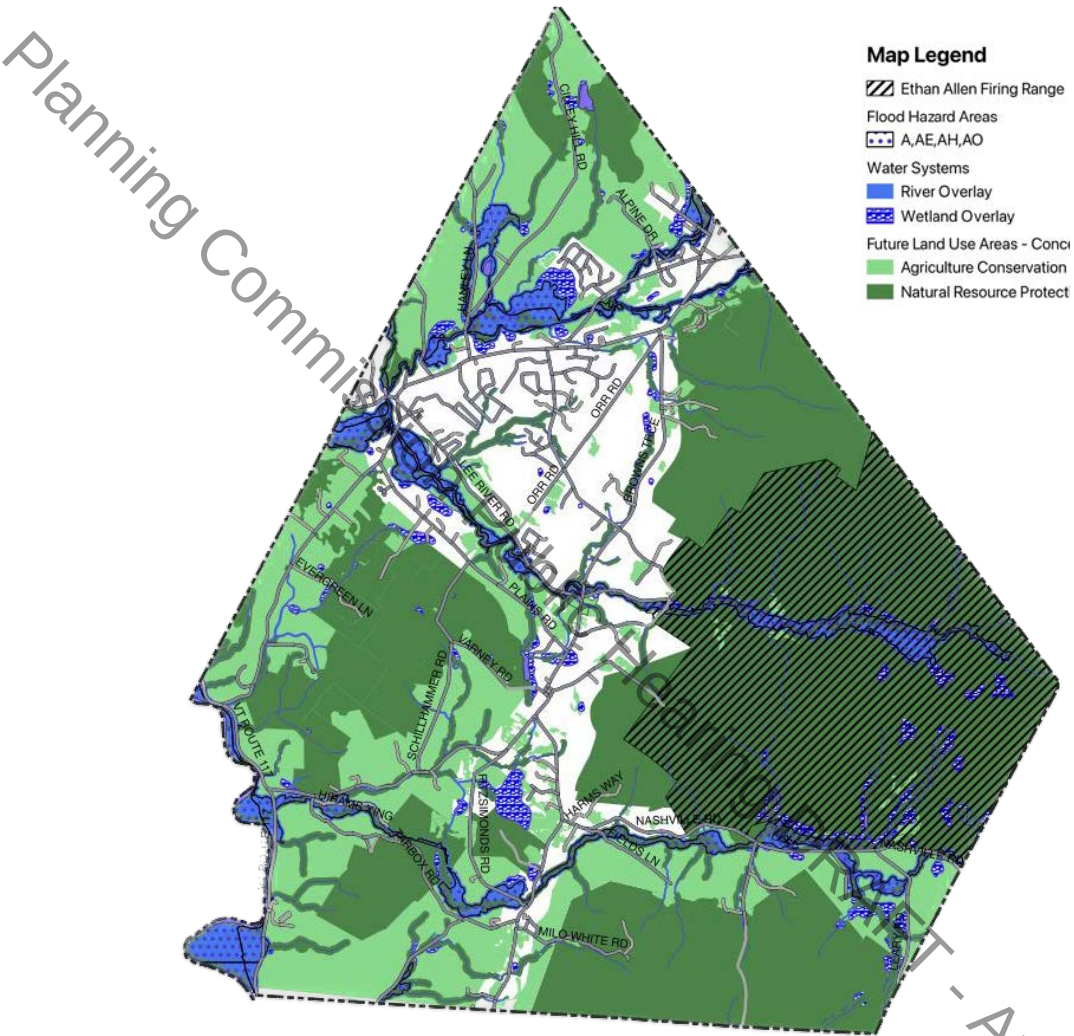


Figure 3: Agricultural Conservation Area and Natural Resource Protection Area



Agriculture Conservation Area	
Land Use Priorities	• Farming and associated agricultural activities and forest management • Pasture for grazing and the cultivation of crops is the highest priority • Protecting long vistas of farm fields and forested highlands • Avoiding and protecting natural water courses and wetland complexes, steep slopes, and flood-prone areas
Development Pattern	• Large open fields and forested highlands dominate • Lightly scattered and clustered compact residential development is supported where it can be sited away from open land actively being used or with the potential for farming
Infrastructure	• An interconnected networks of paths and trails. • New roads and long driveways are to be discouraged, and should not encroach and fragment open fields and viable working agricultural and forest. • Higher volume roads serving largely thru-traffic should prioritize design solutions to reduce vehicular speeds, on-road accommodations and treatments for cyclists, and separated paths where possible. • Individual on-site water and wastewater systems primarily • Community off-site water and wastewater should be considered only where it is necessary to support clustered compact development and with associated long-term land conservation of working farmland.

Residential Infill

The purpose of the Residential Infill Area is to provide a transition between the more intensely developed Mixed Use Centers and the largely undeveloped agricultural and forested areas.

These are areas outside of the traditional village centers and along major collector streets that have historically supported low density residential development. They are characterized by residential buildings and uses with clusters of more compact mixed residential infill with a diverse range of unit types and configurations.

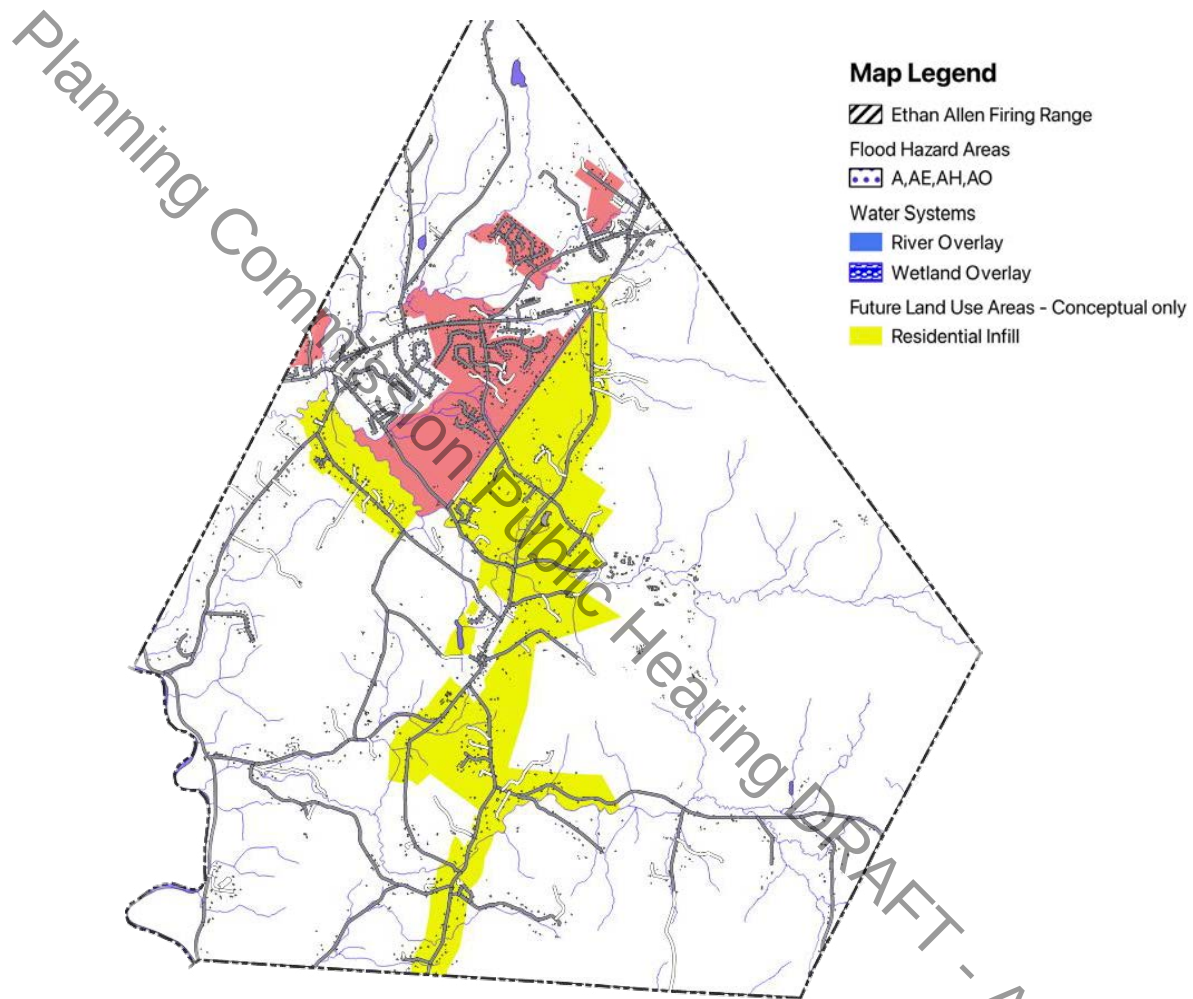


Figure 4: Residential Infill

Residential Infill Area	
Land Use Priorities	- Residential infill with a wide range of housing types including detached single-family with ADU's, attached townhouses, cottage courts, and small multi-family (duplex, triplex, 4-5 units) - Avoiding and protecting natural water courses and wetland complexes, steep slopes, and flood-prone areas
Development Pattern	- Infill in a similar scale and pattern to what currently exists - A more compact development pattern of small to very small residential lots are highly encouraged where-ever they can be served by shared water, wastewater, and stormwater systems

Residential Infill Area	
Infrastructure	• An interconnected networks of paths and trails intended for expanding and encouraging opportunities walking and biking and connecting important destinations. • An interconnected networks of sidewalks and narrow residential streets with on-street parking. • Higher volume roads serving largely thru-traffic should prioritize design solutions to reduce vehicular speeds, on-road accommodations and treatments for cyclists, and separated paths where possible. • New dead-end streets are strongly discouraged. • Individual on-site water and wastewater systems are common • Shared off-site water, wastewater and stormwater systems are highly encouraged to support a more compact development pattern of small to very small residential lots.

Compact Mixed-Use Centers

Throughout this Plan the intention of “concentrating new mixed-use development in and around existing centers” has been a central and dominant theme. These are the places that offer the greatest opportunities to add a wide range of new housing types; grow existing and new businesses; create vibrant places for social and civic interaction; expand networks of interconnected sidewalks, paths, trail and streets; and, build infrastructure that supports new development while reducing our impact on the land and our environment.

The goal is for at least 80% of all future residential and non-residential development in Jericho over the next 10

years to be located in these Mixed Use Centers.

The Mixed-Use Centers are organized into two parts – Village Core and Village Neighborhoods. These sub-areas illustrate how these centers can be expected to evolve over time and their progressive priority as locations for new development and public investment:

- **Village Core** -- these are the traditional and existing village centers consisting of Jericho Corners, Jericho Center, Riverside, and the Commercial District. These are the places where the highest concentration and greatest variety of mixed- use development should be found. They are economic centers with a mix of retail, service, hospitality, light manufacturing, and

civic uses with a mix of residential types on upper stories and interspersed throughout. They have the highest priority for new development and public investment intended to help facilitate such development.

- Village Neighborhoods**

- these are areas outside of the traditional village centers where a high concentration and variety of mixed residential types should be found with a mix of non-residential uses interspersed throughout. They are the areas of high priority for new development and public investment intended to help facilitate such development and support their eventual evolution as extensions of the Core over time.

This area also includes a 0.5 mile, or 5-minute walking distance, from the primary streets at the center of the Village Core Areas to illustrate

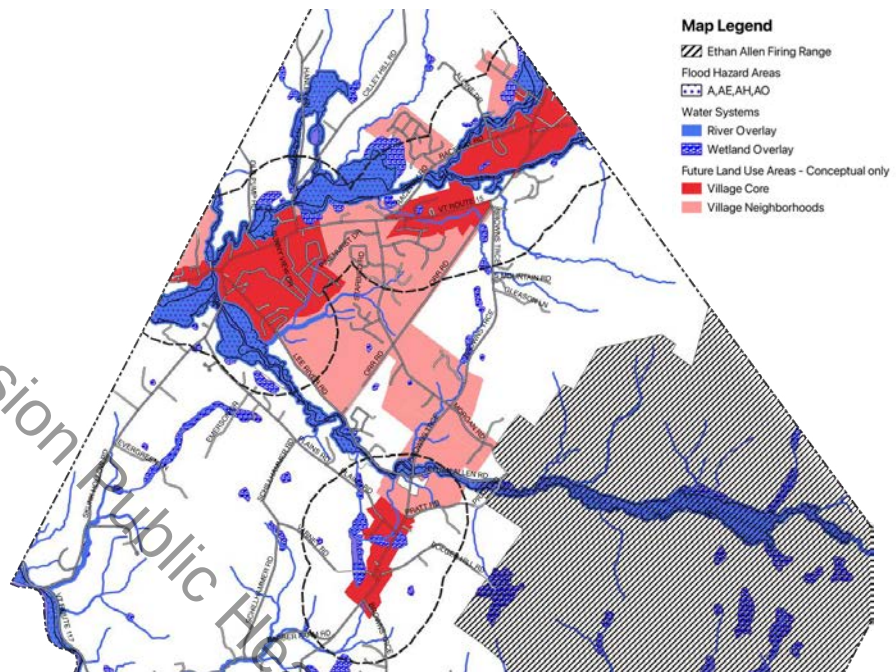


Figure 5: Compact Mixed-Use Centers and 0.5 mile walking Distance

where the Town may want to evaluate future expansion potential of the Village Neighborhoods as part of a more detailed Village master planning process.

Jericho is fortunate to have created separate and more detailed master plans for the Riverside Village and Commercial District which are very important for providing a closer analysis of the limits and opportunities for future development. These plans provide the necessary detail and understanding of what's to be expected from future

development in order to prepare new zoning regulations and standards. It is a high priority for the Town to conduct similar planning processes for Jericho Corners and Jericho Center.

These Centers should generally retain and respect the scale and architectural character that constitutes a valuable and unique part of our cultural heritage, but opportunities for new and more modern structures are also encouraged.

The character of the villages is defined by the relationship of one structure to another and with the enfronting streets. The orientation of new buildings should face the street to encourage walkability and reflect traditional patterns. Multi-story, mixed use structures are more appropriate than single-story buildings

(particularly commercial structures) as most buildings in the villages are two or more stories high. Larger structures should be designed using features to interrupt building bulk and incorporate a transition between structures of different scales.

Large setbacks with parking in front of buildings is not compatible with this pattern. Where on-site parking is provided, it should be located to the side and/or rear of buildings. Where feasible, parking placed within a structure or underground is preferred where it does not interfere with active ground-level uses at the street level.

Compact Mixed Use Centers	
Land Use Priorities	• Compact, mixed-use, with a significant proportion of mixed residential types to serve a wide range of households • The employment and economic centers of the community with a wide range of goods, services, and small-scale value-added manufacturing/processing • Primary location for locating a concentration of civic uses and institutions including schools, places of worship, government buildings and facilities. • Avoiding and protecting natural water courses and wetland complexes, steep slopes, and flood-prone areas

Compact Mixed Use Centers	
Development Pattern	• Mixed-use and other non-residential buildings and uses concentrated along and perpendicular to primary streets • Interconnected clusters of small to very small residential lots along and perpendicular to neighborhood streets • Narrow lots and building frontages oriented to the street to encourage and support pedestrian activity and interaction • Shallow front and side-yard setbacks • Parking is screened from view by placing it behind the building, at the rear of the lot, and/or side of the building
Infrastructure	• An interconnected networks of paths and trails intended for expanding and encouraging more opportunities for walking and biking and connecting important destinations. • An interconnected networks of sidewalks and narrow residential streets with on-street parking and a design speed of no more than 25mph. • Higher volume roads serving largely thru-traffic should prioritize design solution to reduce vehicular speeds and separated paths for pedestrians and cyclists. • Dead-end streets are prohibited. • Public off-site water, wastewater, and stormwater management systems to facilitate a compact mixed use development pattern
Building Types	• Mixed use often with commercial at the street level and residential above/behind • A wide range of residential building types including ADU's, townhouses, cottage courts, and small multi-family (duplex, triplex, 4-5 unit, 6-20 units) • Commercial & light industrial • Civic building types such as places of worship, schools, library, museum, etc
Building Scale	• 2-5 stories with most buildings 3 stories in the Village Centers and 2 stories in the Village Neighborhoods. • Combinations of flat and pitched roofs • Narrow individual frontages either combined within a single mixed-use building or stand-alone mixed-use or single-use buildings • Many multi-family residential building forms are or resemble large houses with pitched roofs

Getting It Done



Finally, here is where the rubber meets the road in Jericho's Town Plan. Where we take all of the good ideas for addressing our complex challenges and prioritize them so we know where to start and who we should be looking to take a leadership role.

Short Term Actions (1-3 Years)		
Action	Responsibility to Lead	Primary Relationships
Undertake the next steps regarding creating municipal wastewater infrastructure for the Village Centers and the Commercial District, and identify and allocate the required municipal resources, staffing, and capacity	- Selectboard - Planning Office - Jericho Community Development - Corporation	   
Undertake a revision of the character-based zoning standards for Riverside to address areas of confusion and remove unnecessary complications.	- Planning Commission - Planning Office	 

Undertake a study of the capacity limitations and expansion opportunities for water service in and around existing centers in order to support compact mixed-use development.	• Selectboard • Planning Office • Jericho Community Development Corporation	   
Prepare a draft of proposed zoning changes that will incentivize and reduce obstacles for producing new affordable and missing middle housing, particularly in designated growth areas	• Planning Commission • Planning Office • Affordable Housing Committee • Jericho Community Development Corporation	   
Develop an Official Map that identifies lands town- wide that will be necessary to develop and support future public facilities, infrastructure, roads, and trails.	• Selectboard • Planning Office • Planning Commission • Trails Committee • Jericho Community Development Corporation	    
Incorporate into the Capital Plan the acquisition of properties that may be key opportunities for land conservation, community infrastructure, roads and trails, and affordable housing.	• Selectboard • Planning Office • Planning Commission • Trails Committee • Jericho Community Development Corporation	    

Medium Term Actions (Within 3 Years)		
Action	Responsibility to Lead	Relationships
Prepare a new draft of proposed zoning changes that will support an expansion of by-right businesses and housing opportunities in-line with the recommendations of the Commercial District Master Plan.	- Planning Commission - Planning Office	   
Undertake the development of individual Village Master Plans and zoning standards for Jericho Corners and Jericho Center.	- Planning Commission - Planning Office - Affordable Housing - Committee	   
Develop a new set of Town Road and Village Street Standards that among other things incorporate green street standards and technologies and prepare Jericho for increases in volumes and velocities of stormwater, and associated policies for where, when, and how the Town will accept new streets and roads.	- Selectboard - Planning Office and - Commission - Conservation Commission - Road Commissioner	    
Update the Village Center designations for Jericho Center, Jericho Corners, and Riverside, and consider the applicability of additional state designations such as a Neighborhood Development Area in order to incentivize and facilitate new compact development in these priority areas.	- Planning Commission - Planning Office	   
Amend the Jericho Town Charter to allow for the appointment of a Town Manager.	- Selectboard - Town Administrator	
Bring forth a petition and public vote for the election of two additional members of the Selectboard as provided for in the Jericho Town Charter.	Planning Commission	

The Affordable Housing Committee and the Jericho Community Development Corporation will work together and with market participants, residents, and developers to identify parcels, policies, and funding sources to help meet the housing targets	• Affordable Housing Committee • Jericho Community Development Corporation • DEI Committee	
Provide education and resources to help landowners learn about opportunities to create new units	• Affordable Housing Committee • DEI Committee	
Develop a “Jericho Climate Action, Vulnerability, and Resiliency Plan”	• Planning Office • Planning Commission • Conservation Commission • Energy Task Force • DEI Committee	
Updating the 2015 Transportation and Pedestrian and Bicycle plans	• Planning Office • Planning Commission • Trails Committee • Energy Task Force • DEI Committee	

Long Term Actions (Within 5 Years)		
Action	Responsibility to Lead	Relationships
Develop a comprehensive update and modernization of the Town's development regulations including: - Provisions to encourage Low Impact Development and Green Stormwater Infrastructure - Provisions to protect steep slopes, ridgelines, and identified scenic resources. - Provisions to incentivize net-zero siting and construction - Update the Natural Resource Overlay District - Provisions regarding outdoor lighting and performance standards for noise, odors, particulates, vibration, heat, and other nuisances	- Planning Office - Planning Commission - Conservation Commission	
Evaluate options for re-establishing a Town Tax Stabilization Program to provide tax relief and economic incentives to help protect Jericho's natural resources and working lands.	- Selectboard - Planning Office - Planning Commission - Conservation Commission	
Update Jericho's "Open Space Plan" with clear recommendations for priority lands in need of permanent protection, and the tools and funding sources necessary.	- Planning Office - Planning Commission - Conservation Commission	
Evaluate the opportunities and feasibility to develop an indoor community recreation center either independently or in partnership with one or more neighboring communities	- Selectboard - Recreation Office - Planning Office - Planning Commission	



JERICHO'S JOURNEY FORWARD

2024 Jericho Town Plan

VOLUME 2

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APPENDIX 1 - OTHER PLANS INCORPORATED BY REFERENCE

APPENDIX 2 - OUTREACH AND ENGAGEMENT REPORT

1.0 JERICHO COMMUNITY PROFILE

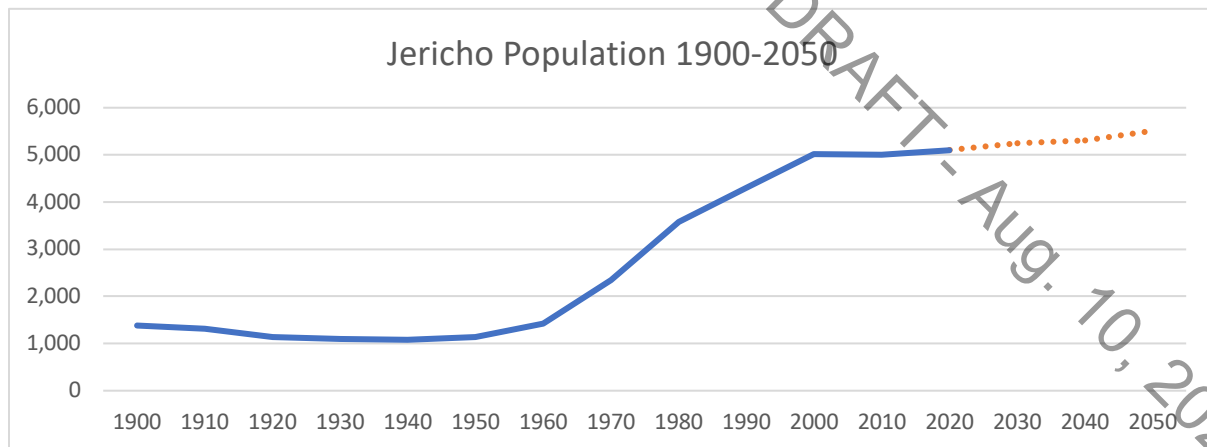
Key Points

- Jericho has experienced relatively little population change since 2000, and only minor increases are projected to 2050.
- Jericho has an aging population which has serious implications for school enrollment, housing affordability and availability, and the sustainability of the local economy and tax base.
- Household income is not keeping up with inflation.

Population Trends

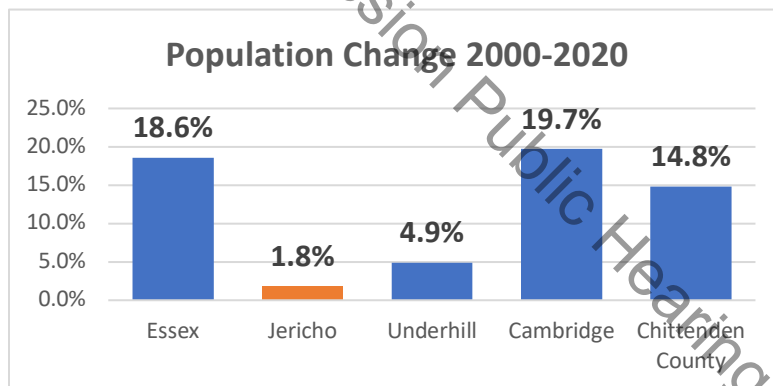
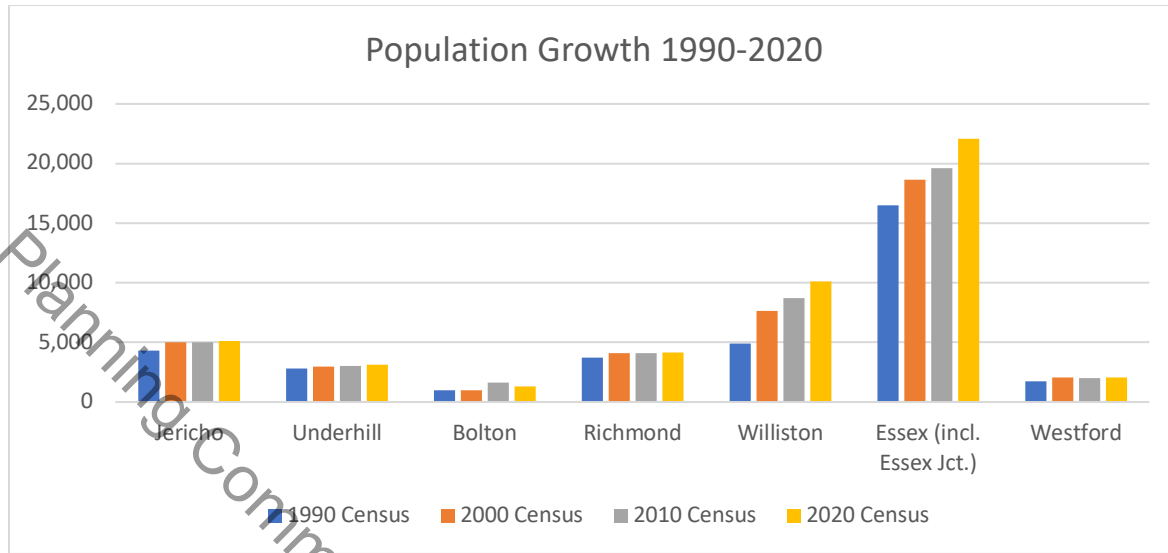
Population trends serve as an important indicator of the potential pressures and demands that a community must take into consideration in planning for its future. With information on the people of the community one can better understand the growth trends in the municipality and the region, the future demand for services, facilities, and economic improvements, and environmental conditions.

From 1960 to 2000 Jericho experienced rapid rate of growth that is largely tied to the influx of workers to the region due to the opening of the IBM plant in Essex Junction in the 1960's and 1970's and a national post-war trend of a gradual dispersion of urban populations into suburban and rural communities. Jericho's growth rate reached an annual rate of two and three times that of the county during the 1960's and 1970's. This growth period continued through the 1990's.



Source: US Census & CCRPC

Since 2000 however Jericho's population has been relatively stagnant. This is in stark contrast to several of Jericho's neighboring communities that have seen continued, and even accelerated, population growth since 1990.



Jericho's population is projected to slowly increase to ~5,500 by 2050 according to projections prepared by the Chittenden County Regional Planning Commission. These projections show Jericho growing at a slower but similar pace than the County as a whole over the next thirty years.

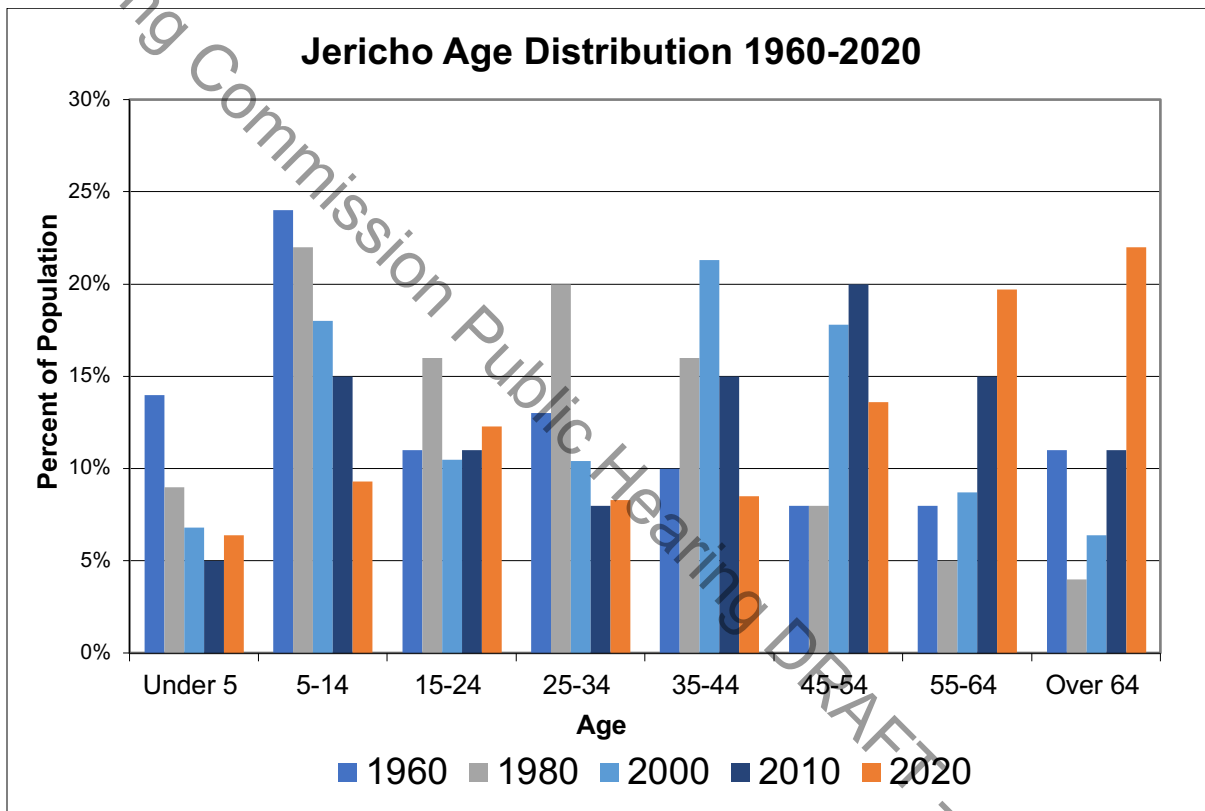
2050 Population Forecast

	1990	2000	2010	2020	2030	2040	2050	% Change 2020-2050
Jericho	4,302	5,015	5,009	5,104	5,247	5,301	5,511	8%
Chittenden County	131,761	146,571	156,545	168,323	172,596	176,179	183,172	9%

Source: 1990 -2001 Decennial Census, Forecast CCRPC 2050 Demographic Forecast
<https://www.ccrpcvt.org/our-work/our-plans/ecos-regional-plan/>

Age Distribution

Like much of Vermont and the nation, Jericho is getting older. The graph below, based on U.S. Census data, shows changes in the age distribution of Jericho's population between 1960 and 2020. One of the most impactful characteristics of this change is the growth in the population over age 55. As Jericho's population continues to get older, it will have significant implications for our local economy¹ (fewer working age people to fill local jobs and especially those that are physically more demanding, and a smaller proportion of the population covering the costs of public services) and our schools (fewer families with school-aged children).

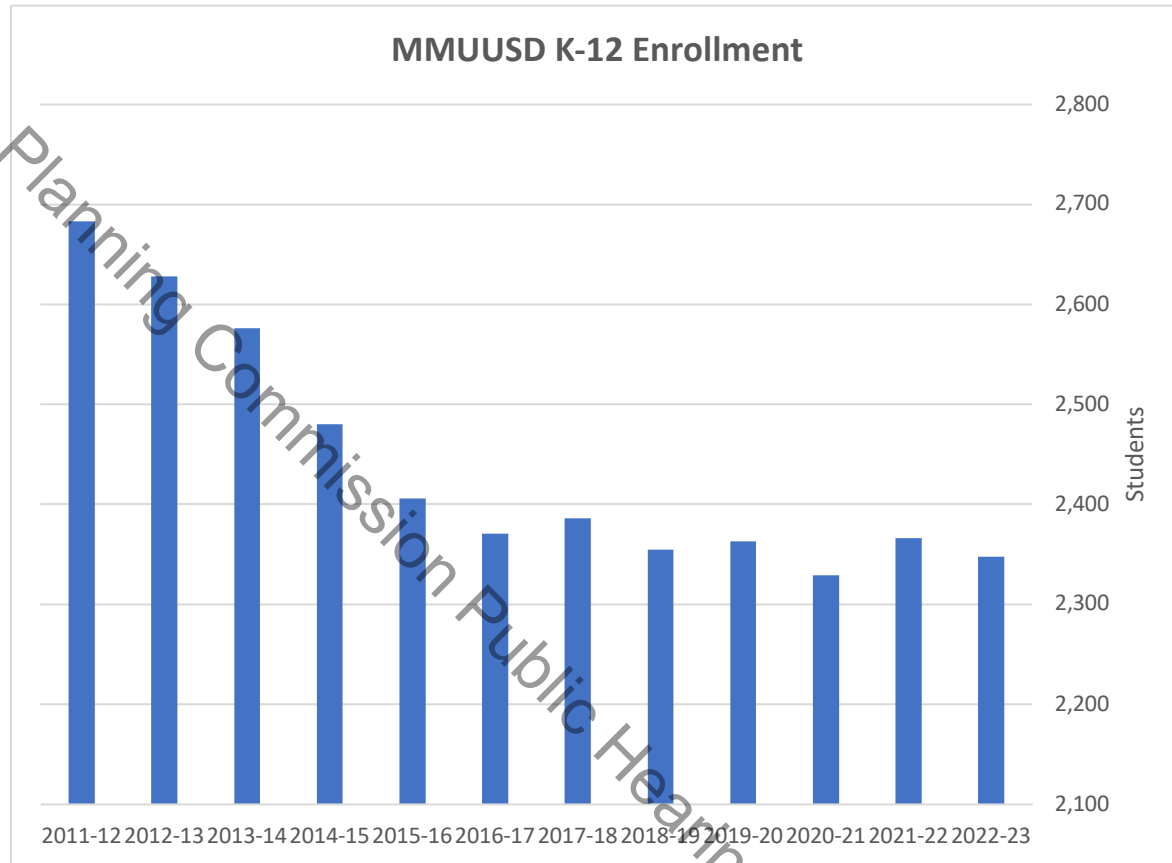


Source: US Census

The effect of age distribution on school enrollments is illustrated on the following page with grade K-12 enrollments since 1995. During the 1960's Jericho's schools experienced an increase of 95% in school enrollment. This is attributable to an influx of new families as part of the overall population growth in Jericho. Between 1970 and the late 1990's, school enrollments in elementary and middle schools were relatively level but high school enrollments continued to grow. A significant factor in school enrollment trends is the percentage of adults in the childbearing years between 25 and 44. This age group increased sharply from 23% of the population in 1960 to 36% in 1980. Between 1980 and 2000, a split occurred in this age group with a significant decline in the 25-34 age group and a continued increase in the 35-44 age group. Demographic trends suggest a continued aging of population in Jericho and all of Chittenden County.

¹ VT Futures Project, Part 3 – Age Dependency Ratio, 11/28/22, <https://vtfuturesproject.org/part-3-age-dependency-ratio/>

As a result of the aging of the population, school enrollments have been projected to decline. Enrollments have declined from their peak in the mid 1990's, and continued to decline for all grades.



Source: Mt. Mansfield Union Unified School District

Origin of Population Increase

The sources of Jericho's population change illustrate how the high rate of new residents (people moving to the area) seen in the 1960's and 1970's dropped in the 1980's and continues to decline with the latest census figures. In fact, as seen in the 2000's through the first three years of the 2010's, the in-migration numbers declined and even with the population increase found through births in Town the population decreased slightly before rising only slightly by 2013.

Population Origin

Period	Population (end of period)	Total Change	Natural(1) Increase	New(2) Residents
1951-1960	1425			
1961-1970	2343	918	203	715
1971-1980	3575	1232	365	867
1981-1990	4302	727	451	276
1991-2000	5015	713	464	249
2001-2010	5009	- 9	204	-213
2011-2013	5021	12	72	-60

(1) Births minus deaths (2) Total increase minus natural increase

Source: Jericho Annual Town Reports

Race and Ethnicity

As shown in the table below, over 90% of Jericho residents identified themselves as white on the 2020 US Census. While this is a greater percentage than the United States as a whole, it is in keeping with Chittenden County and Vermont. The 2020 Census marked a new opportunity for respondents to identify themselves as being of two or more races.

Race	2010	2020	% change 2010-2020	% of 2020 total
Total population	5,009	5,104	2%	
Hispanic or Latino	72	119	65%	2.3%
Not Hispanic or Latino	4,937	4,985	1%	97.7%
Population of one Race	4,894	4,734	-3%	92.8%
White	4,823	4,623	-4%	90.6%
Black or African American	30	45	50%	0.9%
American Indian and Alaska Native	9	6	-33%	0.1%
Asian	29	35	21%	0.7%
Native Hawaiian and Other Pacific Islander	-	-		0.0%
Some other race	3	25	733%	0.5%
Two or More Races	43	251	484%	4.9%

Source: 2010, 2020 Decennial Census Redistricting Data (PL 94-171)

<https://data.census.gov/table?q=Race&q=0600000US5000724175,5000736700&tid=DECENNIALPL2020.P2>

Resident Economic Status

Analysis of data from state income tax returns reveals that Jericho was one of five communities in Chittenden County to experience a decline in Median Household Income from 2016 to 2121. As shown in the table below, the 2021 median household income in Jericho was \$96,442.

**Median Household Income, Chittenden
County Towns; 2016 and 2021 (in 2021 inflation-adjusted dollars)**

	2016	2021	change
Buels Gore	\$ 55,510	\$ 125,833	126.7%
Charlotte	\$ 139,751	\$ 111,535	-20.2%
Richmond	\$ 83,302	\$ 105,625	26.8%
Shelburne	\$ 111,656	\$ 104,796	-6.1%
Hinesburg	\$ 69,368	\$ 103,750	49.6%
Bolton	\$ 84,440	\$ 100,208	18.7%
Westford	\$ 97,828	\$ 99,464	1.7%
Williston	\$ 89,743	\$ 99,071	10.4%
Milton	\$ 82,342	\$ 97,813	18.8%
Jericho	\$ 106,403	\$ 96,442	-9.4%
St. George	\$ 65,243	\$ 88,750	36.0%
Essex Town	\$ 83,474	\$ 88,136	5.6%
Underhill	\$ 106,948	\$ 87,227	-18.4%
Chittenden County	\$ 74,981	\$ 85,213	13.6%
Colchester	\$ 76,109	\$ 83,869	10.2%
South Burlington	\$ 75,336	\$ 83,750	11.2%
Huntington	\$ 88,967	\$ 82,118	-7.7%
Essex Junction	\$ 69,569	\$ 79,677	14.5%
Winooski	\$ 55,994	\$ 61,033	9.0%
Burlington	\$ 52,785	\$ 59,331	12.4%

Source: US Census

In 2021, ~4.3% of Jericho residents were living below the poverty level which is an ~5% decrease from 2016. This proportion is comparable to the rate for Chittenden County and Vermont as a whole.

2.0 JERICHO'S HISTORY AND CULTURAL RESOURCES

Key Points

- More than 250 years of history as a town, and centuries before that of indigenous human settlement.
- 3 traditional village centers – Jericho Corners, Jericho Center, and Riverside. Each is listed on the State Register of Historic Places, and Jericho Corners and Jericho Center are also listed on the National Register of Historic Places.
- More than 60 buildings individually listed on the State or National Registers.



1882 Childs Map of Chittenden County.
(<https://www.uvm.edu/~hp206/2010/Jericho/maps/childsmapweb.jpg>)

Power derived from the Browns River fueled much of Jericho's economy in the 19th century. It was not long before saw mills, gristmills, woolen mills, and various factories and shops appeared. One of the mills, the Chittenden Mill (or Old Red Mill as it is more commonly known), has been restored through the efforts of the Jericho Historical Society. This mill building is now being

Jericho was formed on June 7, 1763 when NH Governor Benning Wentworth granted 23,040 acres to 66 grantees. The first three families - the Roods, the Messengers, and the Browns - came to settle from Berkshire County, Massachusetts in 1774.

As the wilderness slowly gave way to farms and supporting services, the waterpower provided by Jericho's three streams attracted settlement and industrial development along their banks. The Browns River, from Cilley Hill Road to the VT Route 15 bridge, provided the best mill sites and, as a result, Jericho Corners soon became the most active area in town.



Chittenden Mill

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used as an educational center, contains a public meeting room and a craft shop operated by the Historical Society.

In 1794 the original Town borders changed with the loss of 5,000 acres at the southern end which along with land from Bolton, Huntington, and Williston were incorporated by Act of the Legislature to form the Town of Richmond.

Through the 19th century, Jericho followed the typical pattern of many Vermont towns. The economy was based on logging, a profusion of mills on Browns River, and farms spread throughout the town.

Three distinct village areas – Jericho Center, Jericho Corners, and the Riverside area of Underhill Flats - developed to serve the mills and the farms. Tree-lined roads linked the outlying areas to the villages.

In 1876 the Burlington and Lamoille Railroad made daily stops at the Jericho Depot carrying freight, mail, and passengers north to Cambridge and west to Essex Junction. After 61 years of service, the railroad gave way to increased travel by car and truck and the railbed was abandoned.



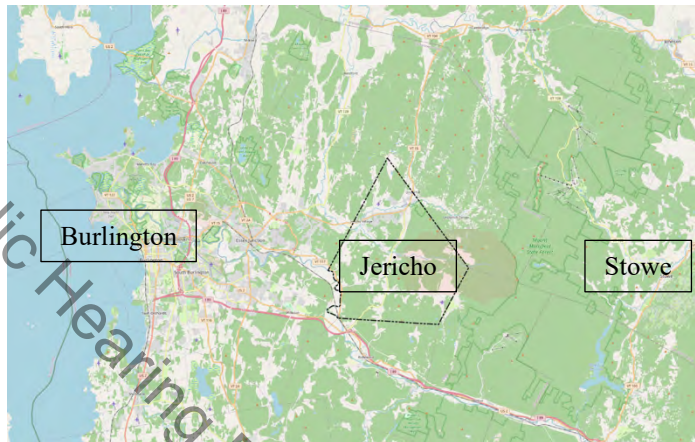
Route of the Burlington and Lamoille Railroad (<https://www.scribblemaps.com/maps/view/Burlington-and-Lamoille-Railroad/BLrailroad>)

In 1926 the United States Government began acquiring land from the towns of Jericho, Underhill, and Bolton "for the military training camp and for military purposes and for all other purposes connected therewith..." This acquisition continued into the 40's, and now approximately 5,240 acres of originally town-governed land lies within the Ethan Allen Range Area.

Significant changes occurred in Chittenden County during the second half of the 20th Century as major employers and public investment like the Interstate Highway System transformed the area's formerly agrarian economy. Wider use of the automobile further encouraged development to spread into rural areas. Significant residential development, as well as an explosion in national chain stores, altered the economic and physical landscape of inner Chittenden County towns. This development continued with the construction of the first leg of the Circumferential Highway in Essex and expansion of the Burlington International Airport. As the core towns of Chittenden County have built up, development pressure has increased on the county's outlying towns, including Jericho.

Jericho Today

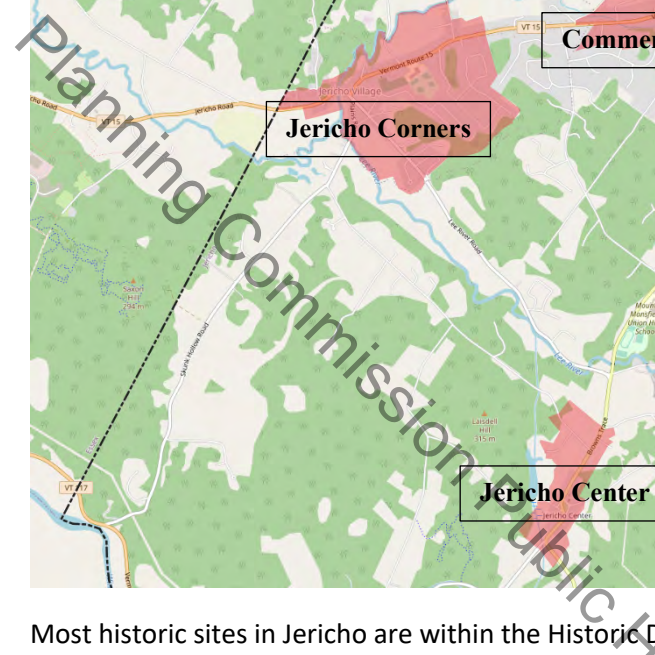
Jericho has continued to develop as a traditional New England small town with its three village centers surrounded by farms and forest. It is an attractive place to live for many reasons, among which are the rural and open landscape, its scenic qualities, and a certain nostalgia for the historic use of the land. Jericho is conveniently located between Lake Champlain to the west, and the Green Mountains to the east providing abundant recreational opportunities and the ability to easily access employment and cultural opportunities in the Burlington area.



As agriculture has changed over the years, many farm buildings have outlived their original purpose. Finding and allowing new uses for these historic structures can help maintain these components of the town's rural character and agricultural heritage.

The rural landscape itself – with its pattern of fields, meadows, woodlots, and forested uplands – is an historic and cultural resource that tells the story of the generations of farming families who shaped this landscape through their labor. As evidenced by nearby suburbanizing towns, this landscape is more at risk of being lost to poorly planned development than the town's major historic structures. 2019 Commercial District project public input showed a desire to protect Jericho's rural landscape, particularly along the VT Route 15 corridor.

Jericho three distinct Village Centers – Jericho Center, Jericho Corners, and the Riverside area of Underhill Flats - continue to be centers of commerce, culture, and community for the town. Each is listed as an Historic District on the State Register of Historic Places, and Jericho Corners and Jericho Center are also listed on the National Register of Historic Places. Today, each Village Center is recognized as a "Designated Village Center," a state of Vermont program that recognizes and encourages local efforts to revitalize Vermont's traditional villages. In addition to the traditional village centers, Jericho also has an emerging Commercial District created just west of Riverside along VT15.



Most historic sites in Jericho are within the Historic Districts, but a number of individual historic buildings lie outside Historic District boundaries. Historic sites and Districts in Jericho that are on the State Register are shown on Map 10. The historic and cultural value of significant buildings like meeting houses, mills, and mansions is readily apparent, but more modest structures also play an important role in defining the town's identity and heritage. Other perhaps less-recognized historic features such as barns, silos, stone walls, cellar holes, sugarhouses, etc. can be found outside of the villages throughout Jericho's rural areas.



While archaeological resources are seldom identified until a site is planned for development, it is possible to predict where certain kinds of prehistoric Native American sites would be more likely found based on environmental characteristics. Results from archaeological investigations around Vermont in recent decades suggest that prehistoric sites are typically located within 300 to 500 feet of an existing or relict water source, on gently sloping land, or adequately drained soils with a southeast-south-southwest exposure. These lands provided essential resources that attracted human populations who then left behind archaeological remains of their activities at these locations. Archaeological resources are not only pre-historic, but include the buried remnants from the historic era of the town's early settlement and development. Potential locations of historic archeological resources can be identified through documents such as deeds, directories, and maps.

The importance and value of Jericho's history and cultural assets are much more than simply nostalgia for days gone by. They are foundational to the place, community, and economy that defines Jericho today, and can well into the future.

Additional Topic-Specific Action Items

- Expand the inventory of significant archeological resources and historic buildings and features. To the extent appropriate, share and celebrate this information with the public to broaden awareness and appreciation.
- Encourage and support the adaptive use of eligible historic structures in order to keep them in active use and economically viable.
- Pursue historic preservation grants to support the rehabilitation of publicly owned historic buildings, and publicize the availability of historic preservation grants and tax credits for the preservation of privately-owned historic buildings providing technical assistance and support where possible.
- Maintain Village Center Designation for each village center, and take advantage of other public and private programs that could provide funding and incentives to enhancing Jericho's Village Centers.
- Ensure that public uses such as schools, libraries, and town offices are located in traditional village centers.
- Ensure that public infrastructure such as sidewalks, streets, utility lines, guardrails, and streetlights compliment the character of each village, and pursue opportunities to bury above ground utilities.
- Maintain, or develop where they do not exist, stonewalls, hedgerows and tree lines along public roads.

3.0 JERICO'S NATURAL RESOURCES

Key Points

- Jericho has extensive amounts of detailed information about our Natural Resources and communities that help to inform planning and development decision making.
- Jericho has more than 20,000 acres of contiguous forest that hosts a wide variety of natural habitats and irreplaceable features. This forestland is also an important economic resource for forest products, and further fragmentation of this resource presents the greatest concern.
- Nearly 50% of the town – almost 11,000 acres – is in public ownership or has been protected. Land conservation tools should be expanded to provide long-term protection of remaining critical and sensitive resources, and development regulations should incentivize future development in other less-sensitive parts of the community.
- Climate change presents an existential threat, and efforts to mitigate our contribution to greenhouse gas emissions must be a high priority. Abundant natural resources including contiguous blocks of forest and functioning riparian systems will help mitigate impacts caused by extreme temperatures, high winds, and large volumes of precipitation.

Jericho is situated in the foothills of the Green Mountains, a series of forested hills cut by the watersheds of the Browns River, Lee River, and Mill Brook. The Green Mountains lie northeast of Jericho, providing beautiful views of Mount Mansfield. To the southwest, the town is bordered by the Winooski River. Many different ecosystems and natural communities comprise the altitudinal rise from the Winooski River to the higher hills such as Bald Hill, Birch Hill, and South Mountain.

Identification of natural resources in Jericho is of paramount importance to the town's goal of protection. The Jericho Conservation Commission has sponsored numerous projects in the last several years to study wildlife habitat, wildlife corridors, habitat blocks or contiguous habitat units, wetlands, vernal pools, riparian habitat, and significant natural communities. Rather than describe the specific natural features here, we refer the reader to the various studies¹, available on the [Town's website](https://jerichovt.org/town-documents)².

GEOLOGY, LANDFORMS, AND VEGETATION

The elevation of Jericho ranges from less than 280 feet at the Winooski River to over 1,900 feet on Bald Hill. The town straddles two biophysical regions, the Champlain Valley, and the Green Mountains. The lowest elevations of town are the fertile bottomlands of the Winooski River where agriculture has long been the dominant land use. The highest elevations are the foothills of the Green Mountains. Topography is depicted on Map 4.

¹ <https://jerichovt.org/town-documents>

² <https://jerichovt.org>

The underlying bedrock of Jericho is made up of mudstones, a general term for rocks that have their origins in deep or shallow sea sediments. The soft sediments laid down in the sea bottom were metamorphosed into rock over millions of years under the intense heat and pressure associated with tectonic activity, or the moving of continents. The mudstones in Jericho include schists, phyllites, metawacke, and greenstone, differing from each other in chemical composition and degree of metamorphism. Within each type, there is local variability explained by the specific conditions under which the original sediments were laid down. These rocks are mainly Cambrian in age, laid down around 500 million years ago, more or less.

Much more recently, glaciation changed the landscape in a succession of several ice ages. The Laurentide ice sheet was the most recent of perhaps 20 or 30 ice sheets that originated in northern Canada and spread across much of northeastern and north-central North America like a thin pancake. At its furthest extent, it reached Long Island and Cape Cod, and completely covered Vermont. Its development was related to a long slow cooling of the earth beginning about 100,000 years ago. Around 20,000 years ago, a rapid warming trend began the melting and retreat of the ice sheet. As the ice sheet melted, it was reduced from a massive sheet covering all of Vermont to narrower tongues occupying the valleys. Along the edges of these tongues meltwater flowed, carrying and depositing sand and gravel. Such deposits can be found in Jericho along Browns Trace between Nashville Road and Jericho Center. Indeed, the location of the road exactly traces this deposit, presumably because the coarse sediments provided a good roadbed. There are other ice-margin deposits along Nashville Road and Ethan Allen Road.

As the tongue of ice occupying the Champlain Valley retreated further north, the valley became a large freshwater lake known as Glacial Lake Vermont, a lake much larger than present-day Lake Champlain. Glacial Lake Vermont appeared around 13,500 years ago. The elevation of the lake surface near Burlington was about 620 ft. above sea level, and its eastern shoreline reached almost to Jericho Center. The lake was filled with mud and other sediments carried by the glacier. These sediments were laid down at the bottom of the lake and form the basis for many of the soils in the western portion of Jericho, from coarse lakeshore sands to finer silts and clays laid down in deep water areas.

While Glacial Lake Vermont existed, the water in it flowed to the sea via the Hudson River, and was contained and held from flowing north by a giant ice dam. This dam failed catastrophically 12,000 years ago, causing a vast wall of water to flow northward out of the Champlain Valley and into the St. Lawrence River. Within days or perhaps even hours, the level of the water dropped almost 300 feet, and in time saltwater entered the valley and began an era known as the Champlain Sea. The level of the sea was about 320 feet above sea level. A tongue of this sea lapped at the shore in the western part of Jericho, though its evidence is now mostly obscured by the activity of the Winooski River.

The soils in Jericho reflect all this history and the more recent postglacial erosion and re-deposition of sediments. We can see the lake sand and deep lake finer sediments in the Jericho Research Forest in the southwest corner of town. A glacial sand delta, where a river entered the lake and deposited sands and gravels, defines the flat areas along VT Route 15 as well as the flat portions of Plains Road. Lake gravel can be found in Riverside/Underhill Flats. There is beach gravel along Plains Road above the Lee River. More recent deposits of silty alluvium can be found along the Browns River and especially along the Winooski on the western border of town. These ice-margin, lake, and alluvial deposits are all found in the lower elevations of town, below 750 feet in elevation. These are the places where most of the roads have been built, where the best agricultural soils are, and where most of the development has occurred.

The rest of the town, at higher elevations, is characterized by glacial till overlying bedrock. Soils in these areas tend to be stony and harder to work, and most of these areas have reverted to forest following the intense agricultural period of the 19th century. Roads in these areas have, in some cases, ceased to be used because of the difficulty of maintaining them.

The diversity of landforms in town is remarkable and contributes greatly to Jericho's biological diversity and its variety of wildlife habitats. From rich floodplain forests along the Winooski River to Dry Oak Forests atop Huckleberry Hill and Red Spruce-Northern Hardwood Forest at higher elevations, the town is rich in a variety of natural vegetation types and wildlife habitat. The dominant natural community in town is Northern Hardwood Forest, a ubiquitous mix of sugar maple, red maple, American beech, and yellow birch. Other trees that are locally common are eastern hemlock, red spruce, white pine, and red oak. Several uncommon natural communities are found in town, including the Dry Oak Forest and Floodplain Forests mentioned above, plus a large area of Hemlock-Northern Hardwood Forest in the western portion of town, as well as bogs and other interesting wetlands.

WATER RESOURCES

Surface Waters and Watersheds

Surface waters in Jericho include ponds, streams/rivers, and wetlands. Jericho is situated at the boundary of two major watersheds within Vermont's portion of the Lake Champlain basin. These surface waters are valuable sources of water supply, recreation areas, absorption areas for flood waters, habitats for wildlife, waterfowl, and vegetation, and aesthetic enjoyment. The northern portion of Town drains northward via the Lee and Browns Rivers to the Lamoille River. The southern portion of Town drains southward via the Mill Brook to the Winooski River. The boundary that separates these watersheds transverses town in an east-west direction; it lies at the mid-point of town, just south of Jericho Center Green. Each watershed drains approximately 50% of Jericho's land area.



The Vermont Department of Environmental Conservation (DEC) has a Basin Planning Process for both the Lamoille and Winooski River drainage areas, as seen in the [Lamoille Basin Plan](https://dec.vermont.gov/watershed/map/basin-planning/basin7)³ and the [Winooski Basin Plan](https://dec.vermont.gov/watershed/map/basin-planning/basin8)⁴. The objective of the Vermont Basin Planning Process is to protect the quality surface waters of the basins. As a result of the Vermont Clean Water Act (H. 35), passed in 2015, and through the assistance of DEC, Jericho will need to further plan, seek funding, gain technical assistance and public

³ <https://dec.vermont.gov/watershed/map/basin-planning/basin7>

⁴ <https://dec.vermont.gov/watershed/map/basin-planning/basin8>

education for water quality improvement projects identified through the watershed planning process and further described in the Basin Plans.

Although no large natural lakes exist in Jericho, maintaining and improving the quality of Lake Champlain is of paramount importance to residents for several reasons and will assist in the current statewide concern of the Lake's water quality. Many residents now obtain their water from Lake Champlain through the Champlain Water District. The Lake also provides important wildlife habitat and has economic and recreational value to Jericho and the Region. Portions of Lake Champlain are currently considered "impaired" due to a variety of factors, excess phosphorus loads being one of note. Measures to protect and improve water quality in Jericho will ultimately benefit Lake Champlain, just as actions that damage water quality in Jericho will ultimately have a negative impact on the Lake.

Small man-made ponds and great wetland complexes exist all over Jericho. Although it is illegal in Vermont to construct a pond in a wetland or stream without a permit, prior constructed ponds are exempt from the Vermont Wetland Rules provided that they follow Section 6.14 of the VT Wetland Rules entitled Best Management Practices for Pond Maintenance. Ponds that have been recognized as constructed ponds in upland environments are exempt from these rules.

The value of surface waters can be diminished through pollution, alteration, and overuse. Jericho's water quality is currently very good with no impairments to merit inclusion on the state of Vermont's Clean Water Act required [list](#)⁵ of impaired waters. Results from statewide monitoring of water quality and aquatic habitat are noted in the sections below.

Long-term settlement of the area has had measured impacts on waterways within Jericho, influencing both the quality of natural resources in and around surface waters as well as on our waterways' natural functions. It is important that we recognize the impact of our infrastructure investments like roads, bridges, culverts, fields, and buildings on our waterways. Adoption of the River Overlay District by the Town continues to protect our waterways from further impacts relating to encroachment by development on sensitive lands along waterways.

A number of resources exist for displaying data related to water resources and for providing guidance and planning for future development to protect those resources. Two examples include [the Vermont Agency of Natural Resources Atlas](#)⁶ (a web-based mapping tool), and [The Vermont Standard River Management Principles and Practices guide](#)⁷ which addresses some issues of management plans and construction along rivers and streams.

Riparian Areas

Shorelands surrounding lakes, ponds, rivers, and streams are referred to as "riparian areas." Undisturbed, vegetated riparian areas can prevent water pollution and preserve wildlife habitat, as well as provide open space and scenic beauty, minimize erosion, and provide access to public waters. Riparian vegetation is a key biological component in maintaining water quality functions. Vegetation reduces the amount of erosion along a riparian buffer, filters runoff before it reaches a stream, provides habitat, and regulates water temperature. In order to maximize the effectiveness of riparian areas, a buffer of undisturbed soil and vegetation should be maintained.

⁵ <https://dec.vermont.gov/watershed/map/tmdl>

⁶ <https://anrmaps.vermont.gov/websites/anra5/>

⁷ <https://dec.vermont.gov/content/vermont-standard-river-management-principles-and-practices>

Floodplain Protection & Resilience

Jericho's current Zoning Regulations contain both a River Overlay District (to protect against flood erosion hazards) and a Flood Hazard Area regulation (to protect against flood inundation hazards). In the event of a flood event that causes a large extent of property damage, the adoption of these two protective regulations qualifies Jericho to receive monies from the Emergency Relief and Assistance Fund which is administered by the Federal Emergency Management Agency (FEMA) and the State of Vermont. Taken together, these measures set the stage for Jericho to continue to be resilient to damage caused by extreme precipitation events. However, more frequent and intense precipitation events will require Jericho to regularly re-evaluate the effectiveness of its planning and regulatory requirements, and take steps accordingly.

Inundation Hazard Protection

Regulatory measures adopted by Jericho to protect property from direct inundation of floodwaters exceed the minimum standards established by FEMA. Minimum federal standards prohibit any construction within the designated "floodway" and require any development within the 100-year floodplain (Zone A) to be built on sufficient fill to avoid being subject to flood hazard. Jericho's regulations further limit development within Zone A to agriculture (not including structures), silviculture/forestry, farmers' markets, recreation, and wildlife management. The floodplains and flood erosion hazard (FEH) zones are depicted in Map 5 and includes 737 acres of flood hazard area and associated stream buffer.



Winooski River Flooding 7/11/23

The Town participates in the National Flood Insurance Program, has an established [Local Hazard Mitigation Plan](#) (approved by FEMA 3/6/17 and valid for five years), and has a [Town Emergency Operations Plan](#) that provides a directive for emergency preparedness and response planning. However, due to development predating the regulations there are approximately 10 residences located within the 100-year floodplain making local emergency preparedness even more important.

Erosion Hazard Protection

The Town's River Overlay District utilizes data from the [State of Vermont's Stream Geomorphic Assessment](#)⁸ to protect areas along waterways at risk to property damage from erosion caused by flooding. However, regulations resulting from the River Overlay District alone do not protect headwater streams draining watersheds less than two acres. Protection of headwater streams with a minimum 50-foot buffer will further ensure a higher measure of resilience for areas not covered by current regulations. In addition, implementation of the recommendations made in the [Browns River Phase 2](#)

⁸ <https://anrweb.vt.gov/DEC/SGA/finalReports.aspx>

[Stream Geomorphic Assessment Summary](#)⁹ (Fitzgerald Environmental 3/30/2010) for streambank restoration and maintenance would further the goals of the River Overlay District and offer a higher level of flood protection on the Browns River.

Careful review of development proposals within the River Overlay District and Flood Hazard Area will ensure that any new man-made infrastructure within proximity to waterways avoid encroachment upon areas at risk of damage due to floods from more frequent and more intense precipitation predicted for the future.

Stormwater

Land clearing and development alters the volume, velocity, and quality of surface runoff and is likely to adversely affect nearby streams, including the stability of stream channels and the health of the biological communities they support. Stormwater runoff is generated when precipitation from rain and snowmelt flows over land or impervious surfaces and does not percolate into the ground. As the runoff flows over the land or impervious surfaces (paved streets, parking lots, and building rooftops), it accumulates debris, chemicals, sediment, or other pollutants that can adversely affect water quality. Heavy rain events create rapid discharges of stormwater which can adversely impact the hydrology of a water body, leading to erosion or flooding downstream and damage to the built environment. Sediment carried in stormwater can adversely affect aquatic wildlife and may also be bound with pollutants such as phosphorous.

The State of Vermont regulates stormwater impacts from developments which create more than one acre of impervious surfaces. However, much of the development occurring in Jericho falls under this threshold. For this reason, Jericho requires medium sized developments that do not meet the thresholds for state stormwater permits to meet certain water quality criteria. In some cases, these criteria can be met using “Low Impact Development” techniques such as reducing the width of roads and driveways, directing runoff away from impervious surfaces and into vegetated areas, and infiltrating runoff into soil before it reaches surface waters through use of rain gardens or similar techniques. In 2015, the state legislature created a new municipal highway permit through the Vermont Clean Water Act (H. 35), regulating stormwater runoff from municipal roads. The state issued the Municipal Roads General Permit in 2018 and all towns became subject to it on December 31, 2020.

In the future Jericho could become subject to the Municipal Separate Storm Sewer System (MS4) requirements of the Clean Water Act. This requires regulated communities to meet five minimum control measures, which include public education and outreach, public participation and involvement, illicit discharge detection and elimination, construction site runoff control, post construction runoff control, pollution prevention and good housekeeping.

Wetlands

Wetlands are defined as lands where saturation with water is the dominant factor determining the nature of soil development and the types of plant and animal communities living in the soil and on its surface. For site-specific wetland identification and delineation, three parameters must be evaluated: vegetation, soils, and hydrology. Wetland types in Jericho include hemlock swamps, beaver meadows, floodplain forests, bogs, and fens, to name just a few. The State of Vermont has a wetland database with wetlands that were mapped using aerial imagery. This remote mapping is understood to have

⁹ <https://anrweb.vt.gov/DEC/SGA/finalReports.aspx>

limitations, so the Jericho Conservation Commission has been improving those maps with on-the-ground inventory.

Wetland areas serve a variety of important ecological functions to society as a whole. Functions include but are not limited to stormwater management and flood control, surface and groundwater recharge and protection, and wildlife habitat. They are now protected under state, federal, and local regulations.

The Vermont wetland rules designate all wetlands in Vermont as Class One, Class Two, or Class Three wetlands based on their presumed functions and values. Class One wetlands are considered by the State to be exceptional or irreplaceable in their contribution to Vermont's natural heritage and are therefore so significant that they merit the highest level of protection under the Vermont wetland rules. A 100-foot buffer zone is required for all Class One wetlands. There are at present no Class One wetlands in Jericho. Class Two wetlands are all other significant wetlands, that provide wetland functions and values that are deemed by the State as significant, either taken alone or in conjunction with other wetlands. Some, but not all, of these are depicted on the Vermont Significant Wetlands Inventory. A 50-foot buffer zone is required around all Class Two wetlands. Class Three wetlands are any remaining wetlands and do not require protection under these rules because they do not have sufficient functions or values. Typically these are smaller than half an acre.

Although the State of Vermont Wetland Rules only protect Class One and Class Two wetlands, all wetlands are protected at the federal level by the Army Corps of Engineers (ACOE) under Section 404 of the Clean Water Act. Therefore, a wetland permit is needed from the State and the ACOE for impacts to any wetland. The nature and extent of permit type and cost varies dramatically based on the amount of impact and all proposed impacts must first show avoidance and minimization to the maximum extent practicable.

Jericho has extensive areas of wetlands - 1,317 acres of wetland and associated buffers, some of which are already mapped, but there are many areas that remain unmapped and require on-the-ground assessment to confirm location and size as wetland boundaries are subject to change over time. Therefore, it is recommended that site specific information and wetland delineations be required for the review of impacts associated with development. The elimination or encroachment of wetlands by uncontrolled development, drainage, or filling would be an irreplaceable loss to Jericho residents due to the important ecological functions that they provide to society as a whole.

Vernal Pools

Vernal pools are seasonal wetlands, filling with snowmelt and spring rains, but often drying up by summer, creating a cycle of flooding and drying that prohibits permanent fish populations. These pools provide critical habitat for many salamanders and amphibians, including some "medium" priority Species of Greatest Conservation Need, such as the Blue Spotted, Spotted, Jefferson, and Four-toed Salamanders, wood frogs, and other vernal pool-dependent invertebrates such as fairy shrimp, and several freshwater snails and dragonflies.

Vernal pools are critical habitats of incredible diversity and productivity. In Vermont, vernal pools are recognized as significant wetlands under the 2010 Vermont Wetland Rules, and are therefore protected from development within 50 feet of the pool. Vermont's Wildlife Action Plan identifies vernal pools and the threats to them as a high priority conservation concern. Vernal pools and a 100-foot zone around them are called out as Primary Conservation Areas. The areas within 600 feet of pools are called out as Secondary Conservation Areas.

Groundwater

Groundwater is a finite and vulnerable resource. Since most Jericho residents rely solely on wells for their water supply, the continued quality and quantity of water resources is very critical. In Jericho the amount of potable groundwater is affected by weather conditions, increased demand, decreased quality, decreased wetland area, naturally occurring radioactivity, and increased impervious cover.

Areas where groundwater naturally flows and collects are called recharge areas. Water within the recharge area may come from precipitation on upslope areas, from saturated gravel deposits, or from water-filled bedrock fractures. Every activity within that recharge area can directly affect the quantity and quality of the groundwater supply. Landfill leachate, leaking gasoline, road salt, sewage, industrial wastes, and other materials can all contaminate the groundwater. The quantity of water that reaches the water table may be reduced by an increase in impervious cover, including buildings, roads, and parking lots.

Areas around active public wells have been designated as Wellhead Protection Areas (WHPA's) for protection to maintain the quality and quantity of water from each of those wells. Currently designated Wellhead Protection Areas, including two areas with water sources in Bolton and Richmond, are depicted on Map 6. Although aquifer recharge areas have yet to be adequately mapped, source protection areas (SPAs) have been delineated as required by the state to protect public community water systems and non-transient, non-community public water systems.

Large areas beneath the Village Water District, the UVM Research Forest, and an area between Skunk Hollow and Schillhammer Roads have been documented as having groundwater recharge potential. A review of other wetland areas in the town suggests the possible importance of regions near and particularly east of the intersection of Lee River Road and Browns Trace, and the wetland area east and south of Cilley Hill Road. All these areas should be considered for WHPA designation. Additionally, it is these recharge areas that sustain base flows for Jericho's rivers - Mill Brook, the Browns River, the Winooski, and other smaller tributaries. Recharge areas provide potable water supply to Jericho homes and businesses through a combination of private and small community wells and springs. While the Town benefits from generally abundant groundwater supplies, this dependence of scattered wells along VT Route 15 and in other areas, poses risks of potential groundwater contamination from a variety of sources. Once a groundwater source is contaminated, remediation, if feasible, is typically very expensive. The state requires remediation and/or monitoring of these sites to prevent further contamination of groundwater and potable water supplies.

Water from deep wells may have naturally occurring radioactivity. Little data as to the extent of the phenomenon in Jericho's water supplies exists. Long term health risks associated with exposure to such radiation highlight the need for more information for wells within Jericho.

Groundwater supplies are also affected by periods of drought. During droughts many shallow wells and springs may temporarily dry up. With climate change, weather patterns should be expected to change, but it is difficult to predict at the local level whether this will result in increased or decreased precipitation. Therefore, vital to the protection of groundwater sources is the protection of their recharge areas.

FOREST RESOURCES

Over the last 100 years, farm abandonment and intermittent timber harvests have resulted in the considerable variety of forest types in Jericho. When viewed collectively, Jericho's various forest stand compositions are extremely diverse. They provide excellent wildlife cover and forage opportunities for numerous species most notably for various amphibians, native songbirds, and wide-ranging carnivores. Forest resources are depicted on Map 7.

Forests are also an important economic resource in Jericho and beyond. According to the Vermont Sustainable Jobs Fund, Vermont's forest products industry generates an annual economic output of \$1.4 billion and supports 10,500 jobs. In addition, Vermont's forest recreation economy generates another \$1.9 billion in economic output, and supports 10,000 additional jobs.

Forested Habitat Inventories

The Jericho Conservation Commission identified and mapped priority large habitat blocks and the connecting lands that link them in and around the town of Jericho in 2011. Many wildlife species in decline are dependent on large contiguous blocks of habitat that often span town boundaries. These same species and numerous other species are dependent on connectivity between these contiguous habitat blocks. Connectivity is critical for both species and populations. Many species annually, seasonally, or even daily migrate to find optimal feeding, denning, and breeding grounds; again, these functional habitat combinations regularly span town boundaries. Additionally, connectivity encourages species to disperse between neighboring populations, which can reduce the likelihood of population extinction and inbreeding.

Jericho participated in a four-town collaboration funded by the Chittenden County Regional Planning Commission called the [Science to Action](#)¹⁰ (STA) Study. The resulting report published by Arrowwood Consulting in December 2013 included recent inventories of Jericho's forested resources in relation to the adjoining communities of Richmond and Bolton and extending to Huntington. The vast majority of Jericho forestlands are contained in 15 contiguous habitat units (CHUs), two of which are connected with CHUs in Richmond. Another four CHUs are primarily within the boundaries of the Ethan Allen Firing Range. The Arrowwood report defined a CHU as an assemblage of wildlife habitat features such as forested riparian buffers, ledges, deer wintering areas, wetlands, mast stands and early successional habitats which function together as a unit of diverse and relatively continuous wildlife habitat.

In response to Act 171, in the spring of 2023 the Jericho Conservation Commission once again engaged with Arrowwood Consulting to map areas of contiguous forest blocks. Their analysis documented more than 20,000 acres of contiguous forest habitat in Jericho with many blocks extending into the neighboring communities of Essex, Bolton, Richmond, Underhill, and Westford.

Forest Fragmentation

Division or conversion of significant forested lands into smaller acreages that results in remnant patches of habitat that vary in size and degree of isolation and are separated by development or otherwise non-forested land is known as forest fragmentation. Such fragmentation can disrupt wildlife corridors and render core habitat or adjoining subcomponents of wildlife habitat unsuitable for certain species of

¹⁰ <http://arrowwoodvt.com/sta/>

plants or animals. Furthermore, fragmentation can reduce the viability of forests for subsequent forest management and hinder key ecological functions such as watershed protection.

Consequently, lot boundaries, development envelopes, and other subdivision infrastructure should be located and configured to avoid fragmentation of forestland in parcels greater than fifty acres. Methods for avoiding this type of fragmentation include clustered building envelopes, shared driveways and utilities, and siting infrastructure to follow existing roads, stone walls, tree, or fence-lines. Subdivision within forested parcels should be configured to allow for ongoing forest management of the resulting parcel(s) after subdivision, including provision for forest management access in subdivision association bylaws and/or common land allocations. The Natural Resources Overlay stipulates measures to minimize and/or mitigate forest fragmentation. The Town should monitor the effects of the NRO on development and land use applications and subsequent development, for potential future regulatory improvements.

Forest Management

Jericho has considerable acreage devoted to forestland, especially since the Ethan Allen Firing Range and UVM Jericho Research Forest are included within the town boundaries. The Firing Range is currently under the management of Greenleaf Forestry of Cambridge, Vermont. The UVM Jericho Research Forest is owned by the University of Vermont and managed by the UVM Rubenstein School of Environment and Natural Resources. Other significant acreage in Jericho is under a variety of forest land-use programs.

Much of the forest land in Jericho is privately owned and managed. As of 2021 a significant portion of that land – more than 4,000 acres in total – is enrolled in the State’s Use Value Appraisal program (“Current Use”). Enrollment in Current Use ensures that the land will be managed responsibly under a Forest Management Plan approved by the County Forester. Sound forestry practices provide enhanced wildlife habitat, natural water quality management, erosion control, landscape and community protection, employment, aesthetically appealing landscapes, recreation, biodiversity management, and a more dynamic 'sink' for atmospheric carbon dioxide.

The total acreage included Current Use can be seen in the table below:

Jericho Land Enrolled in State’s Use Value Appraisal Program

Total Parcels	Total Acres	Forest Acres	Agricultural Acres
59	5,278	4,180	1,098

Source: Vermont Department of Taxes, 2021



Selective Harvest

Guides to the best management practices for logging and other silvicultural operations are published by the Vermont Department of Forests, Parks, and Recreation. “[Acceptable Management Practices For Maintaining Water Quality On Logging Jobs In Vermont](https://fpr.vermont.gov/forest/managing-your-woodlands/acceptable-management-practices)”¹¹, most recently published in 2009, spells out practices designed to protect water quality. “[Voluntary Harvesting Guidelines For Landowners In](#)

¹¹ <https://fpr.vermont.gov/forest/managing-your-woodlands/acceptable-management-practices>

[Vermont¹²](#), published in 2015, helps landowners manage their forests for a variety of ecosystem functions beyond water quality alone. Jericho forestland owners should be encouraged to use these documents to maintain or improve the quality of the forestlands in Town.

Town Forest Land

Portions of the Mobbs Farm and two additional parcels formerly known as the Village Water District property nestled between VT Route 15, Griswold Street to the west and Packard Road on the east, comprise town-owned forested lands. Approximately two thirds of Mobbs Farm property is maintained as nine distinct forest stands totaling 160 acres. The 38-acre Water District lands include over thirty acres of forest in four distinct stands. Management decisions related to these resources are guided by comprehensive plans which are periodically updated by outside consultants at the request of the Mobbs Farm Committee or the Conservation Commission for the Water District parcels.

SOIL RESOURCES

The soils in Jericho reflect the geology, topography, climate, the influence of plants, animals, fungi, and microorganisms. Human activity, too, has a huge impact on soils, from agricultural activities that either improve or degrade soils, to development that can change soils dramatically.

Agricultural Soils

The Chittenden County Regional Planning Commission has developed an Agricultural Lands Measure as part of their Open Space Inventory Phase II project to identify land area suited for agricultural use. The Agricultural Lands Measure considers the slope of the land, Natural Resource Conservation Service's (NRCS) rating of prime farmland and soil potential for agricultural productivity, access to surface water, compatibility of adjacent land uses with agricultural activity, and municipal zoning. The landscape was assigned a numeric score that expresses the degree to which the mentioned characteristics exist. All of the scores relating to the characteristics of agricultural lands were totaled and the scores representing similar degrees of suitability were grouped into four categories (Most Suited, More Suited, Suited, and Less Suited). Results are given in the table below. See also Map 3 for the state rated agricultural soils.

Soil Suitability for Agricultural Functions in the Town of Jericho

Suitable for Agricultural Use	Total acreage	Percent of Land
Most suitable	1,527 acres	6.7%
More suitable	2,482 acres	10.9%
Suitable	9,259 acres	40.7%
Less suitable	8,182 acres	36.0%
Not Rated	1,276 acres	5.7%

Source: CCRPC Open Space Inventory Phase II, 2003

¹² <https://fpr.vermont.gov/forest/managing-your-woodlands/cut-with-confidence>

Forestry Soils

Vermont's soils with potential for forestry have been classified into four categories: Site 1, Site 2, Site 3, and Site 4. The Vermont Department of Forests, Parks, and Recreation recommends that sites 1 and 2 be considered as primary forestry soils. As is the case in agricultural soils, these classifications reflect only physical and chemical composition of the soils and do not consider location, current land use, and parcel size.

Soil Suitability for Development

Several soil variables are useful considerations in planning. These include depth to bedrock, depth to seasonal high-water table, and a soil's suitability for onsite sewage disposal. These are important factors when considering potential uses and intensity of development for a given area. It is worth noting that new technologies, evolving construction techniques, and changes in state wastewater regulations may make development feasible in areas previously thought to be undevelopable. Addressing these issues will require careful planning.

PRIORITY CONSERVATION AREAS

In 2013, a four-town effort called [Science to Action](#)¹³, conducted in coordination with the Vermont Fish and Wildlife Department, the Chittenden County Regional Planning Commission, and the nearby towns of Richmond, Bolton, and Huntington, produced a lengthy and detailed report with new maps that portray natural resources in both a town-wide and region-wide context. The resulting map depicts all areas of the four towns based on a priority system that analyzes information from all these studies.

The Jericho Conservation Commission, with the help of the Vermont Fish and Wildlife Department, used the data from this comprehensive inventory to develop its own maps of priority conservation areas. These are described in detail in this chapter and the map is described and presented here. Jericho's NRO, adopted in 2018, was based primarily on these studies and maps. Jericho's Natural Resources Overlay (NRO) provides specific standards to protect Jericho's most important resources that could be impacted by development. Development should continue to be assessed at regular intervals to consider its overall impact within the town and to gauge the effectiveness of the NRO, and not just within the boundaries of one parcel of land, since protection of natural resources does not stop at property lines.

Tiered Conservation Priorities, as shown on Map 9, depicts all the conservation priorities identified in Jericho in three tiers of priority.

- **Primary Conservation Areas** are the most sensitive places: the rare natural communities, rare species, vernal pools, riparian areas, river corridors, and wetlands. These areas occupy a small percentage of the town and should not be developed.
- **Secondary Conservation Areas** while also very sensitive, some activities can occur within them without compromising their integrity. These include wildlife road crossings, a larger area surrounding vernal pools, significant (but not rare) natural communities, and ledge and cliff habitat that may be important for wildlife. In general, these places should be evaluated

¹³ <http://arrowwoodvt.com/sta/>

carefully when development is proposed within them for potential conflicts with the natural resource values.

- **Tertiary Conservation Areas**, which occupy a large percentage of the town, are the contiguous habitat units, or habitat blocks, that occupy the mostly forested areas of the town. Development can occur within these areas, but care should be taken to minimize the incursion of new roads and development to avoid forest fragmentation. The residents of the town continue to recognize the value of the forested landscape that forms a backdrop to nearly all activities in all seasons. The forests provide not only scenic views for residents and visitors, but also habitat for wildlife, opportunities for recreation, and a forest economy.

In collaboration with the Jericho Planning Commission in 2017, the Conservation Commission developed a table of proposed uses for each of the components of the Primary, Secondary, and Tertiary Conservation Areas. The Planning Commission then used an iterative editing process involving widespread public outreach and landowner feedback to subsequently establish the Jericho Natural Resource Overlay (NRO) District. The NRO Map and its accompanying specific guidelines for development activities in Jericho were adopted by the Selectboard in August 2018 ([Jericho Land Use and Development Regulations](#)¹⁴).

Primary Conservation Areas (~2,828 acres)

Rare, Threatened, and Endangered Species	Rare, Threatened, and Endangered Species are plants and animals considered rare, threatened, or endangered in the state of Vermont by the Vermont Department of Fish and Wildlife. Only a few such species occur in Jericho. The Vermont Natural Heritage Inventory maintains a database of the locations of rare plants and animals. To reduce the potential for poaching, the exact nature and locations of these species are not made available to the general public.
River Corridors and Riparian Areas	These are critical areas for flood mitigation and wildlife habitat and should be protected from any development.
Forested Riparian Habitat	These are currently forested areas along rivers and streams that provide important habitat for certain species of wildlife, including green frog, northern dusky salamander, raccoon, long-tailed weasel, mink, belted kingfisher, and many others, and provide travel corridors for wide-ranging species as they move through otherwise open landscapes.
Wetlands	All Class I and Class II wetlands plus a 50-foot buffer shall be protected from development or other alteration. Additionally, all Class III wetlands plus a 50-foot buffer should be protected from development or other alteration.
Vernal Pools and their Primary Life Zones	The area within 100 feet of the pool is the most critical zone for amphibian survival – this should be kept free of any management activity including logging, road building, or travel with wheeled vehicles.

¹⁴ https://s3-us-west-1.amazonaws.com/ehq-production-us-california/a3a2135bc7b2908f003b9e4665d00b8e260df9ea/documents/attachments/000/004/849/original/P_Z_REGS_5-15-19.pdf?1557940313

Rare Natural Communities	A natural community is an interacting assemblage of organisms, their physical environment, and the natural processes that affect them. There are several examples of rare natural communities in Jericho, including Dry Oak Forest, Dwarf Shrub Bog, and Poor Fen. These unique places should not be developed and should be minimally managed to protect their natural processes.
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Secondary Conservation Areas (~9,200 acres)

Vernal Pools and their Secondary Life Zones	The area between 100 and 600 feet of vernal pools is known as the secondary life zone. 600 feet is the average distance that amphibians travel from the pool itself, outside the breeding season. It is important that forest cover be retained in this area, though some timber management is compatible. Roads should be sited as far from the pool as possible.
Ledge, Cliff, and Talus	These areas, mapped based on slope and not all field-verified, may provide important habitat for a number of wildlife species, including bobcat, raccoon, porcupine, fisher, coyote, and ruffed grouse. Areas within 100 feet of field-verified cliff or ledge habitats should not be developed.
Early Successional Habitat	This is forested habitat that is characterized by regenerating, young, often dense shrubs, saplings, or trees. These areas are important for many species of birds and mammals, including song sparrow, field sparrow, chestnut-sided warbler, snowshoe hare, white-footed mouse, shrew, red fox, gray fox, and bobcat, among others. A mix of early successional habitat with more mature forest provides a diversity of wildlife habitats on a landscape scale. Early successional habitat is not mapped in Jericho. Land management activities should consider such habitat, but because it is not mapped it cannot be regulated.
Grassland Habitat	Open grasslands provide important breeding habitat for a group of birds that is in decline nationwide. These include bobolink, Henslow's sparrow, eastern meadowlark, and upland sandpiper, among others. Early mowing is especially challenging to the birds that breed in these areas. Grassland habitat is not mapped in Jericho. Land management activities should consider such habitat, but because it is not mapped it cannot be regulated.
Hard Mast Stands	These are areas where beech and oak are abundant, potentially providing important food source for black bear and other species. One to two dozen bear-marked trees in a given area is a significant stand, although a number less than that may be locally important for wildlife. Jericho does not currently have an accurate inventory of mast stands, so they are not depicted on the map.
Common but State Significant Natural Communities	Jericho has a few examples of natural communities that are common statewide, but are in especially excellent condition where they occur in the town. These need further analysis and field verification, so at present they are not regulated.
Wildlife Road Crossings	These are areas that have been identified through remote assessment as well as on the ground tracking data, and are highly likely to be critical in providing

	safe road crossings for mammals and amphibians moving through the landscape. Forested cover is critical in providing safe wildlife passage.
Contiguous Habitat Units	These are large, intact forested areas that provide critical habitat for shy species and those that require forest interior. We also refer to these areas as “core habitat.” These large habitat units will be essential components of a resilient landscape as the climate changes and animals migrate and shift their ranges. These areas also comprise of the working forest land in Jericho, which is vitally important to the local and regional economy. Large areas of the Contiguous Habitat Units are currently within the Rural/Agriculture Residential District; some of these areas might be better protected by being included in the Forestry District.
Deer Wintering Areas	These are areas that may provide critical winter habitat for white-tailed deer. Ideal Deer Wintering Areas are dominated by softwood species and therefore have less snow cover than other areas, and have food and water sources nearby. Deer wintering areas are not static, but tend to shift over time. Potential Deer Wintering Areas are depicted on Map 7. These are areas that need field verification.

INVASIVE/NON-NATIVE SPECIES

Biodiversity is critical to healthy and vibrant ecosystems. When ecosystems are diverse, they are more resilient to threats of climate change, human impact, and pathogens. Maintaining this level of diversity is critical so that ecosystems can continue to produce ecological services that everyone within the town enjoys including clean water, clean air, forest productivity, and recreation.

It has become difficult to maintain this balance due to the movement of species around the world. Although some non-native species found in Jericho pose no threat, others may proliferate at an unsustainable rate and cause damage to the biodiversity of native species found within our ecosystems and therefore overall ecosystem function. It is critical to understand how invasive non-native species may be to determine if it is worth time and resources to fight against them.

For example, most types of apple trees found in Vermont are non-native. However, these trees pose no threat since they do not have the ability to outcompete native species currently found within our ecosystems. Some non-native species, such as Black Locust, establish themselves within Vermont’s native ecosystems and find balance. They do not overwhelmingly outcompete native species but instead find their own niche within the ecosystems around Vermont. Non-native species that take on invasive roles, such as Norway Maple, Japanese Knotweed, Japanese Barberry, and Common Buckthorn, have the potential to outcompete native species and minimize ecosystem services. Of particular concern is “wild” parsnip (*Pastinaca sativa*) which is rapidly colonizing roadsides. The sap from wild parsnip causes dangerous burns when it gets on the skin, and the skin is subsequently exposed to sunlight. Therefore, it is imperative that our community manages these species so that they do not plague our native ecosystems and the numerous benefits they provide to our community.

Non-plant invasives also have the potential to have a transformative effect on our forests, such as Asian longhorn beetle, emerald ash borer, and hemlock wooly adelgid. The Town has the ability to combat invasives. It is impossible to remove every invasive plant, but being proactive in mapping, education,

removal events, and partnering with organizations like the Nature Conservancy may prove effective. The [Wise on Weeds](#)¹⁵ program through the Nature Conservancy is a great place to start for anyone wanting to help manage invasives.

CLIMATE AND CLIMATE CHANGE

Climate change will impact the entire Northeast as temperatures increase and precipitation regimes shift to drier summers, stronger storm incidents, and milder winters with increased snow/rainfall. Forest communities are predicted to change with a significant loss of maple trees and other cold tolerant forest trees replaced by tree species that tolerate warmer climates. Eventually Vermont's future vegetation will probably look like the current forests of the mid-Atlantic states; climate models suggest this will be the case by the end of the 21st century.

The most noticeable changes are the incidents of extreme weather. Average rainfall is 39" in Jericho; numerous research studies predict this will increase, especially in winter where snowstorm events will be heavier, but eventually becoming rain as temperatures warm. Severity of summer precipitation has been quite obvious. Since the last iteration of the Town Plan, Jericho has seen the occurrence of a 500-year event (Tropical Storm Irene) and several 100-year event storms that have resulted in flooding, blowdowns, and significant damage to infrastructure, especially roads, bridges and culverts, and buildings. The town should consider the numerous impacts of climate change and how it may be able adapt to these changing weather conditions.



Typical Brown's River flow vs stormwater flow from 7/11/23 rain event

Resiliency, the ability of natural systems to recover from climate change events, should be carefully considered and incorporated into town planning. New development in floodplains and river corridors should be avoided since structures in those areas are extremely vulnerable to damage. Protection of forests and restoration of wetlands and floodplains should be encouraged to control flooding and erosion. Healthy and functioning riparian habitats will help manage flood waters and conservation of upland and river corridor forests will maintain these riparian habitats. Controlling stormwater runoff must be encouraged, not only to prevent erosion from draining into streams and rivers, but also to avoid damage to transportation infrastructure.

Vermont's forests are currently buffers for climate change, sequestering carbon, and providing wood for alternative energy and heating. Changes in climate will cause a shift in forest species over time. Loss of boreal species such as red spruce and birch has already been documented. Of more immediate concern

¹⁵ <https://www.nature.org/en-us/what-we-do/our-priorities/protect-water-and-land/land-and-water-stories/invasive-plant-species-invasive-species-education-1/>

will be the invasion of forest pathogens. The loss of sustained cold temperatures in the winters allow for the movement and establishment of diseases and pests that destroy native species. We have observed the dramatic decline of the American elm due to Dutch Elm disease in the past, and we now see the decline of beech trees due to Beech Bark disease. While we may not be able to eradicate such pests, containment should be encouraged. Such practices as education about and identification of invasive pests such as the Emerald Ash Borer and Hemlock Woolly Adelgid and restriction of movement of firewood more than 4-5 miles in distance should be continued. Informing and educating the community is integral to minimizing the movement and potential impact of these pests.

AIR QUALITY

In addition to many other valuable natural resources, we enjoy clean air in the state of Vermont. The United States Environmental Protection Agency promulgates the National Ambient Air Quality Standards (NAAQS) which establish criteria for the limits of acceptable levels of air pollutants with respect to human health, property, and the environment. Areas with air quality that meet these standards are considered in “attainment”, while areas that do not are classified as “nonattainment”. The town of Jericho, as well as the entirety of the State of Vermont, is in an “attainment” area.

However, Vermont is in the Ozone Transport Region, and as such must submit a State Implementation Plan (SIP) and meet additional requirements to reduce levels of ozone and ozone forming pollutants. Vermont’s SIP includes policies and activities such as pollutant monitoring and incentive programs to reduce sources of ozone, particulate matter, and other criteria pollutants. These activities and programs described in the SIP are being implemented to maintain Vermont’s attainment status for all federal criteria pollutant standards while also addressing regional ozone level exceedances in the other states in the Northeast.

Local sources of criteria pollutant emissions such as ozone and particulate matter come primarily from traffic, heating systems (wood combustion), and some agricultural practices. Currently, there are no significant issues or problems with emissions identified in the town. However, with the potential for future growth in the town the cumulative effect of these sources may have a greater impact on air quality in our area.

SCENIC RESOURCES

Scenic Resources are and are part of the community's identity. They offer aesthetic pleasure to residents and visitors alike. Components of a view's quality considered are the diversity or contrast among landscape elements, the kind and arrangement of man-made structures, and the distance of the view.

In 1998 and 2003 the Town completed scenic surveys/assessments identifying roads such as VT Route 15, Lee River Road, Orr Road, Browns Trace, Fitzsimmonds Road, Handley Lane, Nashville Road and Old Pump Road as having scenic views. In 2009, as part of a joint project with the Town of Essex and Smart Growth Vermont, Jericho undertook a comprehensive project, [Views to the Mountain: A Scenic Protection Manual](#)¹⁶ to evaluate and photo document roads identified as having scenic resources in past studies. Several roads remain to be documented.

¹⁶ <https://jerichovt.org/town-documents>

This evaluation noted two features, the traditional landscape pattern, and ridgelines, which contribute to Jericho's scenic landscape. The traditional landscape pattern, which includes open fields or meadows contrasted by rolling forested hills and ridgelines, is a landscape pattern that is commonly identified as scenic. These landscapes define much of the character of Jericho. It should be noted that these landscapes are the result of more than two centuries of farming. If not kept open by productive use or regular maintenance, many of the scenic views and vistas visible from the town's roads would eventually be obscured as fields transitioned to forest.



Also noted by the study were prominent ridgeline and mountain features, including views to Mount Mansfield and Camels Hump. Given Jericho's position in the foothills of the Green Mountains, undeveloped hilltops are considered an essential part of the Town's rural character particularly when they are visible from the roads.

In addition to their scenic values, both features offer other natural resource values. For example, open fields provide habitat for several bird species. Many of the undeveloped ridgelines are parts of important core habitat or provide important corridors for wildlife. These ridgelines often also contain head waters of local streams, seeps, and ground water recharge areas.

The scenic qualities of a forested ridgeline or hillside silhouetted against the sky can be compromised by poorly planned development, such as inappropriate building placement, site design, and excessive clearing. While some of the most visually and ecologically sensitive areas of town, the town's hillsides

and ridgelines remain highly desired locations because of the views they offer. It is possible to locate development in these areas in a manner that preserves the scenic qualities of the landscape. Landowners wanting a more open view in a forest setting can limb trees and selectively cut branches to create view corridors rather than clear-cut a swath of trees.

CONSERVED LAND AND PUBLIC OPEN SPACE

Jericho contains numerous publicly owned or conserved properties as depicted on Map 2 - 48% of the Town (22,774 ac) has been protected in one form or another. These properties provide a variety of functions. The purpose of some conserved land is primarily to protect important natural features, while others provide the public with access to recreational land. In general, these functions are better served by large, interconnected blocks of open space, rather than dispersed or fragmented areas.

Open Space may be owned by a variety of entities. In some cases, it may be owned outright by the Town or State Government. Jericho also contains several properties owned by non-profit organizations such as the [Jericho Underhill Land Trust](https://www.jult.org/)¹⁷ (JULT) and [Winooski Valley Park District](http://www.wvpd.org/)¹⁸. Conserved land is sometimes under private ownership and subject to deed restrictions. In addition, open space can be preserved and incorporated into new developments through the use of Planned Unit Developments. In this case, open space may be owned by a homeowners association.



¹⁷ <https://www.jult.org/>

¹⁸ <http://www.wvpd.org/>

Additional Topic-Specific Action Items

- Update and expand information on Jericho's natural resources and features, particularly to identify significant features that are worthy of permanent protection. Work with landowners to consider conservation status for areas that are significant and deserve protection.
- Re-evaluate the creation of a Town Tax Stabilization Program to provide economic incentives to help protect Jericho's natural resources and working lands.
- Update and refine data regarding local wildlife sightings, crossings, and corridors.
- Monitor fluvial erosion areas to see how best to accommodate fluvial equilibrium and natural erosion processes while minimizing undue damage to property.
- Plan culvert replacements for any undersized culverts in conjunction with roadway improvements.
- Maintain undeveloped, un-mowed, naturally vegetated buffer zones in the riparian zones of streams, wetlands, vernal pools, and ponds to provide protection against flooding and erosion.
- Survey for and document the presence and location of invasive species within the Town, and provide education to residents, landowners, and developers about the spread of invasives and information on non-invasive plants.
- Address invasive species and endorse the use of native species in new development and the management of Town-owned land. Promote the use of native species in reseeded and landscaping on construction sites.

4.0 JERICO'S LAND USE

Key Take-aways

- Fragmentation of important habitat and forest, and loss of working lands is not only a natural resource issue, but one that has significant and serious implications for the local economy and efforts to mitigate the causes and impacts of climate change. This loss is largely the result of not having effective and more affordable alternatives for new development to go.
- The dominance of detached single-family homes means that there are few other choices for households who can't afford or need these building types.
- Lack of non-residential uses means that the Grand List is at risk because it is not supported by a diverse mix of land uses with different types of demands for municipal services. It also means that residents must travel out of town for everyday shopping and services which adds to traffic and congestion, household costs, and emissions of greenhouse gasses which is driving climate change.
- Jericho's Grand List isn't growing, and as such not keeping up with the cost of inflation which has implications on the property tax rate necessary to provide municipal services.
- A lack of public infrastructure – particularly water and wastewater service - to support compact mixed-use development in and around the village centers is stifling new development opportunities for new housing, businesses, and community services.
- The two most significant barriers to addressing these challenges are:
 - a lack of wastewater infrastructure in and around the village centers and
 - development regulations and processes that make building compact mixed-use and residential neighborhoods much more difficult and expensive than it should be.

Like many of New England's smaller communities, Jericho is blessed with a natural and rural landscape that provides a setting and context for scattered compact settlements. Jericho has three distinct village areas – Jericho Center, Jericho Corners, and Riverside – that were developed historically to serve the mills along the Brown's River and the working farms and forest in the countryside.

Over its 260-year history, Jericho has grown and evolved into largely a bedroom community within the Burlington-South Burlington metro region with more than 90% of its residents commuting to work in larger surrounding communities. The three village areas continue to serve as focal points of community activity and commerce by providing mostly convenience retail, some compact residential neighborhoods, and a home to civic institutions like churches, libraries, and schools. Open fields are found along the lowlands and water courses, but working farmland has been fading away over that past several decades slowly giving way to scattered large-lot residential development. Upland forests

continue to blanket the hillsides, but are to slowly becoming more fragmented and sprinkled with homes on large, forested lots tucked into the hillsides.

Decades of previous Jericho Town Plans have envisioned continued and future growth and development occurring mainly in Jericho's three Village Centers. These areas are imagined as vibrant centers of culture, community, and commerce and interspersed with open, rural countryside, working agricultural and forestland, lands containing natural resources, and rural homes. By implementing such a vision, Jericho would be able to preserve the community's sensitive natural and historic resource base and rural, open character, while providing for reasonable, responsible growth, sustainable economic development, and opportunities for active and healthy living.

In 2012, the Town and the Chittenden County Regional Planning Commission (CCRPC) conducted the [Town of Jericho Build Out and Common Impacts Analysis](#)¹, an analysis to assist the Town with understanding how additional residential and commercial development will impact energy use, population, water use, auto emission and traffic. Six scenarios were developed to answer questions on how zoning may be implemented or changed in the future and what effect those changes will have on the community. While more than a decade old, this information can continue to be a helpful tool for future land use discussions related to housing, energy usage and transportation.

A 2015 survey of Jericho residents (with more than 280 responses) found that the majority of people value Jericho's rural area and lifestyle, scenic beauty and natural resources and the quality of the school system. People identified affordability as the main challenge facing Jericho in the next 5-10 years followed by transportation issues and the need to manage growth and protect natural resources.

Were such a survey be conducted today, a similar result could be expected. However, moving from aspiration to action is painstaking and methodical work that will require careful analysis, difficult tradeoffs, and leadership on the part of locally elected and appointed officials. The most important challenge to the Town going forward with regard to land use, will be to actually make the regulatory changes and community investments necessary.

The descriptions below describe the various use types, densities, and development patterns of different parts of Jericho. While they share many similarities with Jericho's zoning districts, the intent is not to express explicit regulatory intent but instead to generally describe each area and how it is currently being used in an effort to highlight patterns, trends and opportunities.

GENERAL LAND USE

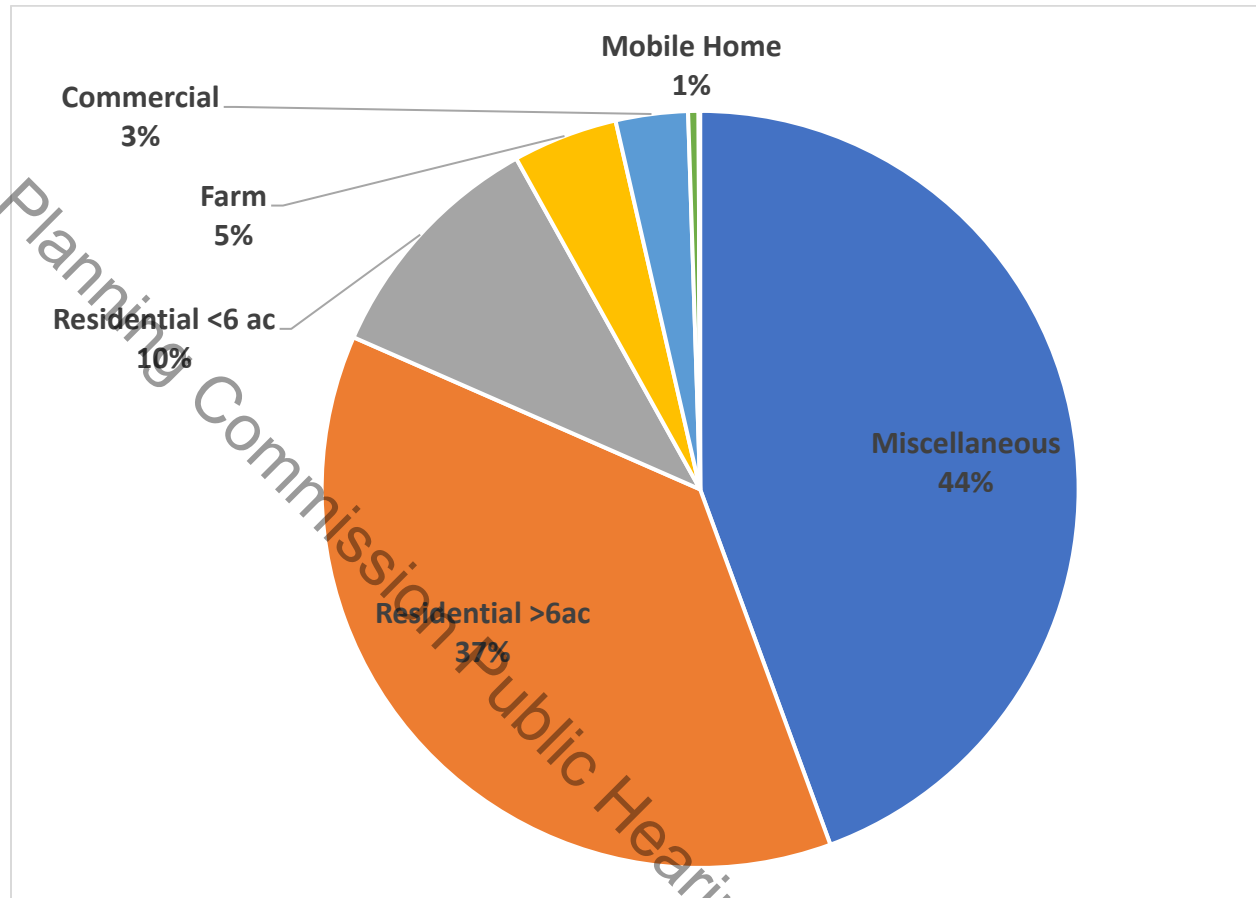
As would be expected driven by historic land use, natural constraints, and modern regulatory prerequisites, Jericho's three village areas contain a mix of residential, commercial, and civic uses in a compact form. Surrounding them can be found open fields and forested hillsides sprinkled with homes on large lots.

More detail on Jericho's land use pattern can be found below, but it's important to look at land use through the lens of Jericho's Grand List – a property valuation summary used to derive the municipal tax rate and assess individual property tax assessments - as a guide or measure of the financial implications of various types and forms of development to the taxpayer and the Town's ability to provide important municipal functions, services, and facilities.

According to the 2022 Jericho Grand List, nearly 50% of Jericho's land base was in some form of residential use, and just over 44% was undeveloped (labeled "Miscellaneous") with 2/3 of this land

¹ <https://jerichovt.org/town-documents>

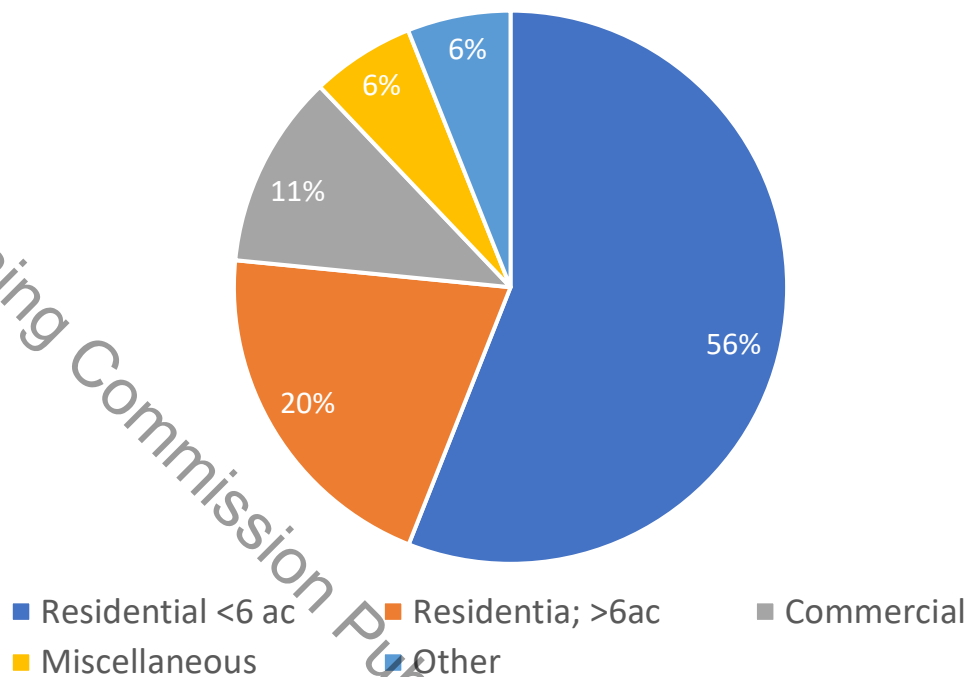
owned by the military, state, university or the Jericho-Underhill Land Trust and Park District.



As would be expected most of the properties falling in the Residential <6ac (on lots of less than 6 acres), Commercial and Commercial Apartment categories are found in or near the traditional village centers (except for those categorized as “commercial” but are actually owned and operated by the Town or school district). In other situations, the smaller residential parcels can be found adjacent to more rural land that has been conserved as part of the Town’s regulatory process.

From a property valuation perspective, residential properties account for more than 76% of Jericho’s total Grand List of more than \$805.5 million dollars.

Jericho Grand List Value (2022)



Additionally, it's important to consider how Grand List value is either dispersed (or concentrated) on a per acre basis in order to understand where future investments and development can have the greatest effect. Once again, properties with the highest median value per acre are found in or near the traditional village centers in the Residential <6ac, Commercial and Commercial Apartment land use categories.

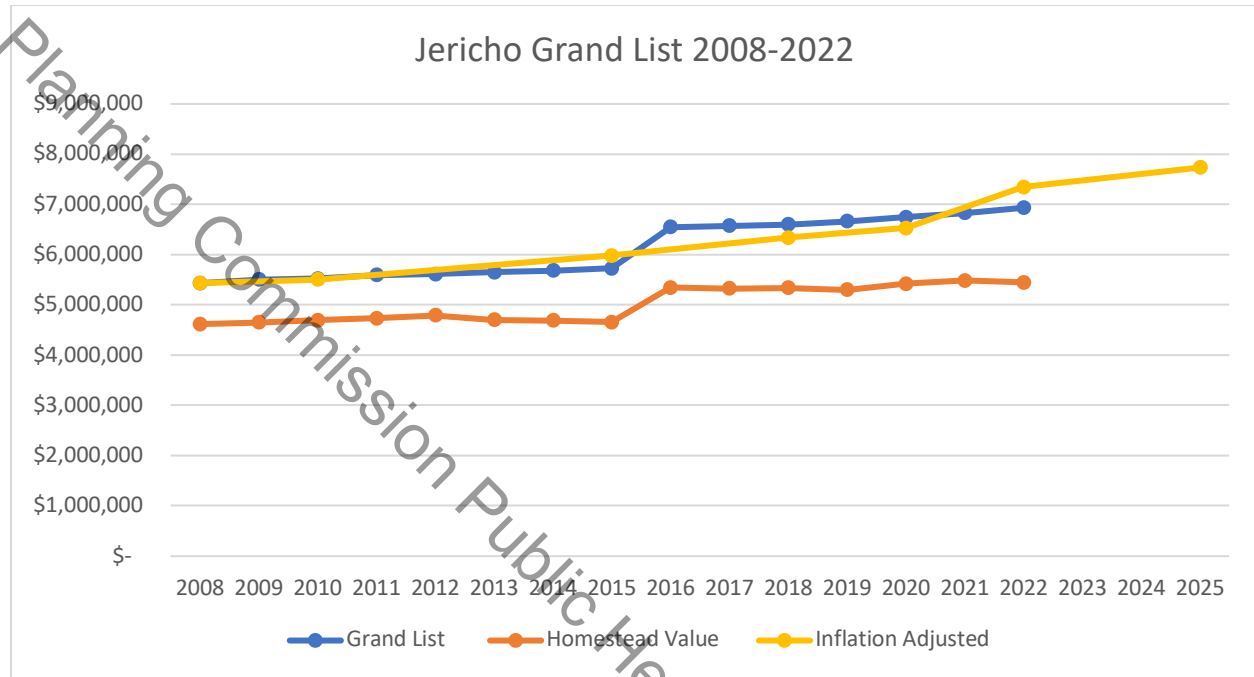
Land Use Category	Median Value per Acre
Commercial	\$ 430,075
Commercial Apartment	\$413,830
Other	\$332,326
Residential <6 ac	\$307,788
Mobile Home w/Land	\$ 80,242
Residential >6ac	\$ 33,173
Miscellaneous Undeveloped Land	\$ 9,131

The takeaway here is that one acre of commercial or compact residential development produces **9- 13 times the grand list value** than a single-family home sitting on a 6-ac lot. And it will demand significantly less in the way of municipal services depending on the use and its configuration.

The final data point is to understand is how the Grand List is (or is not) growing, and how that compares to the rate of inflation. In other words, is the growth in Jericho's tax base (which is the primary source of

revenue to the Town) keeping up with the rise in costs to provide municipal services?

Since 2008, Jericho's Grand List has grown by an average of 1.73% per year – from \$5,433,290 to \$6,933,120 in 2022. However, for the same period the average inflation rate was 2.19% with cumulative inflation of 35.18%. Jericho's 2022 total Grand List would have had to have been \$7,344,000 just to have kept pace.



If Jericho's tax base continues to grow at a sub-inflation rate (which is otherwise projected), it will be increasingly difficult to fund existing municipal services let alone expand or improve them without either increases in the tax rate or growth in the tax base. With many property owners (rightly) concerned about further property tax increases, this is where an understanding and priorities around **where** are the best places to encourage new growth and development, and **what** types of land uses offer the greatest value to the community. The answer in both cases is to encourage more compact mixed-use development in and near existing village centers where they can be more efficiently supported by municipal services.

COMMUNITY CENTERS

As noted previously, Jericho has three distinct traditional village centers – Jericho Corners on the western end of VT Route 15 near the shared boundary with the Town of Essex; Riverside at the eastern end of VT Route 15 and contiguous with the settlement known as “Underhill Flats” in the Town of Underhill; and Jericho Center which is on Brown’s Trace Road near the geographic center of the town. These historic villages, along with a Commercial area on VT Route 15 adjacent to Riverside, together host most of town’s mixed-use, civic, social and compact residential uses and where most future development is intended to go.

- Jericho Corners

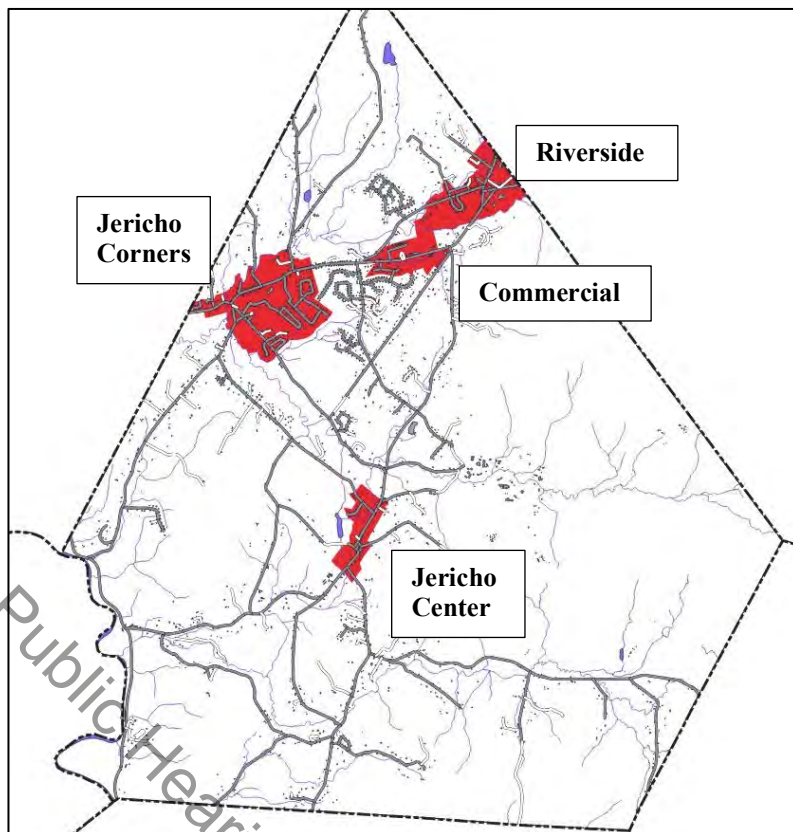
Jericho Corners on the western end of VT Route 15 near the shared boundary with the Town of Essex, and is comprised of 355 acres in size with 303 individual parcels.

Jericho Corners is made up of a mix of several small-scale commercial, residential, and civic uses including the Jericho Elementary School, U.S. Post Office, and the Jericho Town Hall, located along VT Route 15. Many residential neighborhoods are located here as well, with access off of VT Route 15 and Lee River Road. Development within Jericho Corners is supported by a public water system operated by the Champlain Water District and Natural Gas provided by Vermont Gas, but are otherwise on individual septic systems.

Jericho Corners is listed as a Historic District on both the State and National Register of Historic Places, and is recognized as a “Designated Village Center,” as part of a state program that recognizes and encourages local efforts to revitalize Vermont’s traditional villages.

These neighborhoods are generally within easy walking distance to the commercial and civic uses within the Village. Many of these neighborhoods are also interconnected with formal and informal trails and paths that make walking and biking safe and easy. In Summer 2015, the Old Red Mill/Browns River pedestrian bridge on VT Route 15 was reconstructed to extend the sidewalk west, where it ends close to the Essex town line. Decorative street lighting has been added along VT Route 15 to provide additional safety and comfort for pedestrians and contribute to the historic character of the village.

While many opportunities for infill currently exists, topography, existing development, and mostly a lack of public wastewater place constraints on the ability to economically accommodate future compact development in a similar pattern and scale to what exists today.



- **Riverside**

Riverside at the eastern end of VT Route 15 and contiguous with the settlement known as “Underhill Flats” in the Town of Underhill. Riverside spans VT Route 15 from Mills Riverside Park to the Underhill town line, and extends to River Road and Park Street. Browns River Middle School and the Deborah Rawson Memorial Library are located in this Village Center, along with several residences, small businesses, and larger parcels of land which are undeveloped, or minimally used for commercial activity.

Riverside is 203 acres in size and currently has 152 individual parcels. Development is supported by a public water system operated by the Jericho-Underhill Water District and Natural Gas provided by Vermont Gas, but are otherwise on individual septic systems.

Riverside is listed as a Historic District on the State Register of Historic Places, and is recognized as a “Designated Village Center,” as part of a state program that recognizes and encourages local efforts to revitalize Vermont’s traditional villages.

In 2015 Jericho adopted zoning for a portion of Riverside, the “Riverside Flats Character – Based District” in order to help facilitate the redevelopment of the former Green Crow Lumber property. A new community grocery store and bank have so far been the result, with a conceptual master plan for compact mixed-use development currently in the planning stages.

Traffic calming and safety of pedestrians and cyclists is of particular importance along VT Route 15 and River Road. A new pedestrian crossing at the intersection of VT Route 15 and River Road was placed in 2016, and new sidewalk has been built – with more currently being planned – along VT Route 15 from Mills Riverside Park to the Underhill town line at Park Street.

In addition to the former Green Crow Lumber property, several opportunities for infill currently exist however nearby wetlands, existing development, and a lack of public sewer place constraints on the ability to economically accommodate future development in a similar pattern and scale to what exists today.

- **Jericho Center**

Jericho Center is on Brown’s Trace Road near the geographic center of the town. Jericho Center is most characterized by the large historic Town Green which plays host to a variety of events during the year. The Town Library, another important Town asset, the Jericho Congregational Church, a Jericho-Underhill Fire Station, and the Jericho Community Center are also located in this village.

Jericho Center is listed as a Historic District on both the State and National Register of Historic Places, and is recognized as a “Designated Village Center,” as part of a state program that recognizes and encourages local efforts to revitalize Vermont’s traditional villages.

Only 45 parcels are found in Jericho Center which is just shy of 50 acres in size. Development here is more modest in scope than in the other village centers with one store and some home-based businesses surrounded by mostly older detached residential buildings situated on the green and along the approaching roadways. Jericho Center has no public water system, and all are on individual septic systems.

Traffic calming and safety of pedestrians and cyclists is of particular importance along Browns Trace Road which is an important north-south connection between Riverside and the Town of Richmond. A new sidewalk segment from Jericho Center to Pratt Road was constructed in the summer of 2015, as part of a phased plan to eventually provide a pedestrian pathway from Jericho Center to nearby MMU High School.

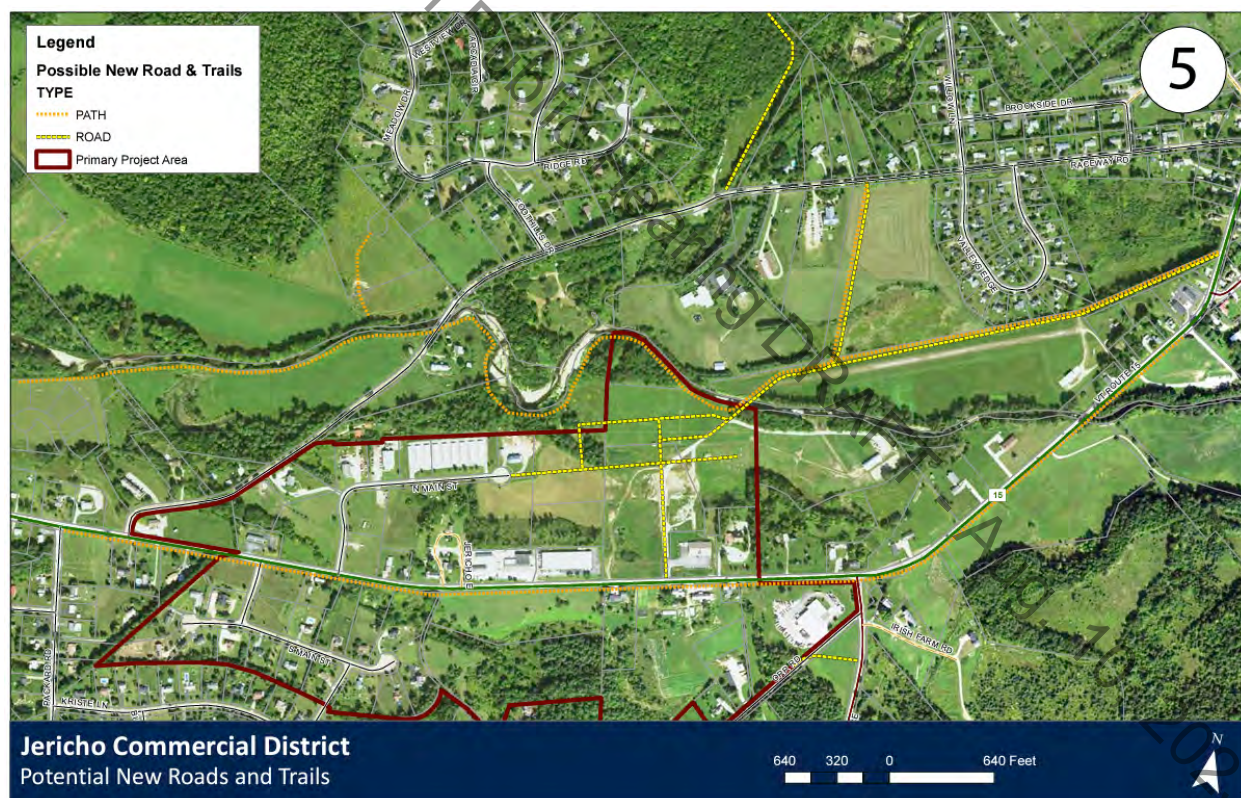
Like in Jericho Corners, several opportunities for infill currently exist however nearby wetlands, existing development, and a lack of public wastewater place constraints on the ability to economically accommodate future compact development in a similar pattern and scale to what exists today.

- Commercial District

In addition to a place for non-residential uses in its village centers, Jericho has a ~131 ac. commercial area along VT Route 15, between Raceway (near Packard Road) and Orr Roads, and extending to the Browns River including portions of the Jericho East Development. Uses consist of primarily commercial-industrial types on the north side of VT Route 15, and predominantly detached single-family residential on the south side.

Development of the 34 individual parcels within the commercial area is supported Natural Gas provided by Vermont Gas, but properties are otherwise on individual septic systems and a number of individual wells.

In 2019, with the assistance of a Municipal Planning Grant, the Planning Commission undertook a public engagement process for the Commercial District, which resulted in the [Jericho Commercial District Master Plan document and map](#)² showing potential future development and street layout for the area. This study also resulted in the creation of a new vision/purpose statement for the district and developed new zoning language to help shape future development.



Source: Jericho Commercial District Master Plan

² <https://jerichovt.org/town-documents>

As determined by the 2019 Commercial district study, the primary purpose of the Commercial District is to connect Jericho Corners and Riverside village Centers and to provide a location for mixed-use development, including expanded commerce, at a scale appropriate for the community and which preserves the rural character, natural beauty of the landscape, and distant views.

The range of uses in the Commercial District are envisioned to be mixed, with services, light industrial, small-scale retail, residential, community and recreational spaces integrated together at an appropriately rural, yet village-like scale that works in harmony with Jericho's nearby villages. This vision for this area encourages higher density development (greater density than traditional 1 acre lots, which presumes shared infrastructure such as water and wastewater), new street connections, and allowing multi-story buildings with the potential for different uses within one building.

The topography of developable land in the Commercial District presents an excellent opportunity to encourage higher density, multi-story, mixed-use development while at the same time striving to protect the beauty of the surrounding area. This includes screening buildings and parking from the VT Route 15 corridor as appropriate, placing taller buildings in lower lying areas, and shared parking, all as to minimize visual impacts. Several opportunities for infill currently exist however the lack of public water supply and wastewater service place constraints on the ability to economically accommodate future compact development.

Within the Commercial District, development is envisioned to be integrated into the landscape with minimal impact on the rural character of the VT Route 15 travel corridor. While roadside visibility is perceived as important for the viability of some businesses, suburban strip development is discouraged and should be avoided.

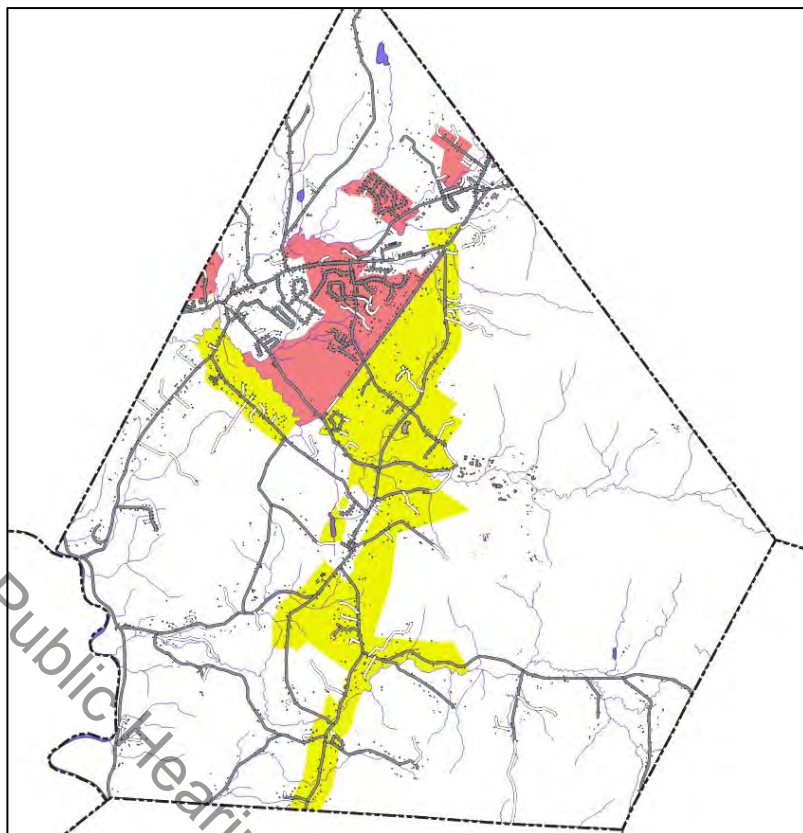
Strip development is defined as linear commercial development along a VT Route 15 that includes three or more of the following characteristics: broad street frontage, predominance of single-story buildings, limited reliance on shared access to VT Route 15, lack of connection to any existing settlement except by VT Route 15, lack of connection to surrounding land uses except by VT Route 15, lack of coordination with surrounding land uses, and limited accessibility for pedestrians.

RESIDENTIAL

Outside of the 4 mixed-use community centers are two predominantly residential areas. The Village Residential area serves as a transition in the intensity of development between Jericho's traditional village centers and more rural residential areas of the town, while the Low-Density Residential area provides a further transition to predominantly open and forested part of town along important roadways.

- Village Residential

Extending beyond the edges of the village centers of Jericho Corners and Riverside – both along VT Route 15 – is a “village residential” area (red on the adjacent map) characterized by several compact residential subdivisions. This area is north and east of Orr Road and the Lee River respectively, and includes a portion of land bounded by Raceway and Cilley Hill Roads, VT Route 15, and the Browns River, and the residential neighborhoods of Lawrence Heights, Palmer Lane, and Foothills.



This area is comprised of approximately 1,900 acres in size with just over 900 individual properties. It is almost exclusively single-family detached and attached residential with a handful of duplexes and home occupations. Pedestrian linkages to surrounding neighborhoods and the village centers are of particular importance in this area. Several large lots remain undeveloped.

Development in this area along VT Route 15 and Packard is supported by a public water system operated by the Champlain Water District Road. Natural Gas is provided by Vermont Gas as far as Orr Rd. with an extension south-east to the Ethan Allen Range in the planning stages. All of the properties are served by individual septic systems.

Several opportunities for infill currently exist however a lack of public wastewater place constraints on the ability to economically accommodate more compact residential development.

- Low Density Residential

The Low-Density Residential area (yellow on the adjacent map) consists of areas further from the Villages, along higher volume town roads, particularly Browns Trace and portions of Lee River Road, Barber Farm Road, Nashville Road, Plains Road, Packard Road, and northern Fitzsimmons Road. Several smaller side roads close to Browns Trace, including Ethan Allen Road, Morgan Road, Pratt Road, and the lower portion of Bolger Hill Road are also within this area. Development has generally consisted of scattered, low-density residential development disassociated from surrounding neighborhoods.

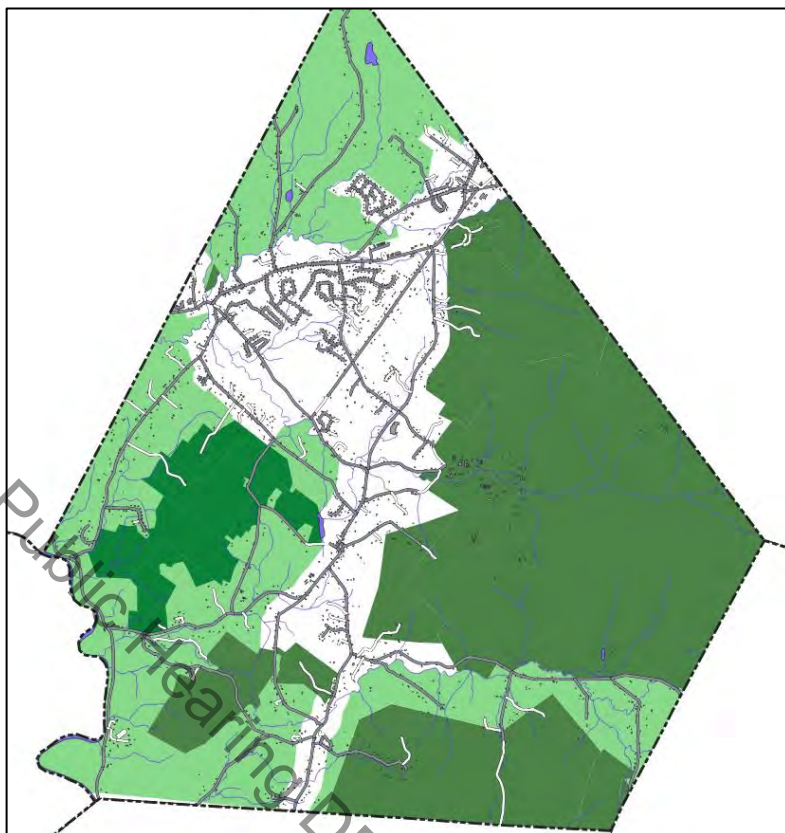
The Low-Density Residential area includes 340 properties across 1,279 acres. All of the properties are served by individual wells and on-site septic systems.

RURAL

Finally, the Rural areas are comprised of mostly open and wooded agricultural land and larger forested blocks found throughout much of Jericho including several large areas of public and protected land.

From a birds-eye view, approximately 78% of Jericho's land area (17,650 acres) would be considered rural. Of this, approximately 14,000 acres are considered to have important natural features and/or possess certain physical constraints to development, and approximately 10,895 acres are publicly owned which afford them some level of long-term protection. *(For more information, see the Natural Resources chapter)*

In 2021, approximately 5,780 acres on 59 parcels participated in the State's Current Use Value Appraisal Program where the property tax burden is relieved in order to provide support to working farm and forest land. 72% of this acreage was forestland with approximately 1,100 acres in agricultural use, and both have increased since 2015. According to a USDA assessment (2016), another 1,600 acres of land is also in some form of agricultural use.



Vermont Current Use Value Appraisal Program – Jericho Enrollment

Year	Total Parcels	Total Acres	Forested Acres	Agricultural Acres
2015	48	3,963	3,160	803
2021	59	5,278	4,180	1,098

Source: VT Dept. of Taxes

As noted previously, actual working farmland and contiguous blocks of forest have been slowly fading away giving way to scattered large-lot residential development. However, in a number of locations Jericho's Planned Unit Development (PUD) requirements have been successful at concentrating new residential development in order to conserve working farmland and forested blocks. The Tyler Place development off Skunk Hollow Road is one such example where a partnership with the Jericho Underhill Land Trust has been able to preserve several hundred acres.

- **Agriculture/Residential**

The Agriculture/Residential area follows portions of Jericho that have been traditionally in agricultural use and today consist of a mix of open and wooded land north of VT Route 15 and over Cilley Hill, along Nashville Road towards West Bolton, an along Skunk Hollow, Barber Farm and Governor Peck roads towards Richmond. A combination of scatted large-lot residential and Planned Unit Residential development

- **Forest and Protected Lands**

Much of the remainder of Jericho remains quite forested providing important habitat, water resource protection and working land that together comprise the quintessential Vermont landscape. These include significant lands of mixed field and forest to the north of the Brown's River to the border with Essex, Westford and Underhill, and a large forested block surrounded by mixed field and forest south of Lee River Road and west of Fitzsimons Road to the border with Essex and Richmond.

A significant portion of Jericho to the east of Brown's Trace Road to the border with Richmond and Bolton consists of undeveloped or sparsely developed forest land. With the exception of more open lands along Nashville Roads east towards West Bolton, this area is part of a largely un-fragmented forest block in the Chittenden County Uplands. Much of the land in this part of town is largely unsuitable for development due to physical limitations such as steep slopes or high-water table, and is included as part of the Ethan Allen Firing Range described in greater detail below.

A total of 48% of Jericho lands (22,774 ac) are currently in some form of permanent protection and/or public ownership. While most of this property is owned by the federal government and University (see below), a sizable proportion has also been protected by the Vermont Land Trust and the Jericho Underhill Land Trust – 1,016 and 350 acres respectively.

- **Ethan Allen Firing Range**

Nearly 25% of Jericho's land area is property under the ownership of the US Army Corps of Engineers, commonly known as the Ethan Allen Firing Range. The entire Range consists of 11,218 contiguous acres of land located in the towns of Jericho, Underhill, and Bolton. Jericho's portion consists of 5,248 acres lying north of Nashville Road and east of Browns Trace. This land was purchased in two stages - 2,218 acres in 1926, and 3,030 acres in 1941.

With the exception of Fort Drum in upstate New York, the Ethan Allen Firing Range is the largest military training facility in the northeast with 25 different live-fire ranges able to accommodate weaponry from pistols and rifles to tanks and mortars. In 2022 more than 140,000 military personnel passed through the facility for hands-on military training. Portions of the Range are heavily developed with numerous structures, on-site housing for more than 800 students, and significant infrastructure, while other areas remain largely undeveloped.

The overall management of the Range is conducted by the United States Army Armament Munition and Chemical Command, although the actual use of the property is divided between the US Army and Vermont Army National Guard, which utilizes the site to conduct personnel training maneuvers and live-fire exercises, and General Dynamics which leases a portion of the Range from the U.S. Government for weapons testing. The Range is also home to the Vermont Army National Guard's 86th Infantry Brigade Combat Team (Mountain), US Army's Mountain Warfare School, and the National Guard Biathlon Program training facility used for year-round training of their world-class athletes and hosting national and international competitions.

Public tours of the site are offered to local officials and residents on a regular basis which provide an

important opportunity to gain a better understanding of the mission and functions of this important property, and the Biathlon course is made available to several school and community athletic organizations. Otherwise, no public access to the property is permitted. Because the property is owned and maintained by the Federal government, the activities occurring on the site are outside the Town's regulatory jurisdiction.

- **University of Vermont (UVM) Jericho Research Forest**

The University of Vermont (UVM) owns and maintains a forest research facility in Jericho off Tarbox Road and adjacent to the Town-owned Mobbs Farm property. Acquired by UVM in 1941, the Jericho Research Forest (JRF) is located on 478 acres of former agricultural land and managed by the UVM Rubenstein School of Environment and Natural Resources. The forest is utilized extensively for UVM research, education, and service-learning and in 2005 became host to the UVM Green Forestry Education Initiative. The public can access the Jericho Research Forest using the marked entrance and trails.

The forest itself includes a mix of natural stands of northern hardwoods and white pine and plantations of native and exotic conifers. Topography of the site includes steep slopes, sandy terraces, and visible bedrock.

Additional Topic-Specific Action Items

- Update and expand "Views to the Mountain: A Scenic Protection Manual" to provide a more complete inventory and assessment of Jericho's scenic resources, and consider possible incentives, programs, and regulatory tools to promote the protection of important public views.
- Develop clear zoning district descriptions that includes "character of the neighborhood/district" definitions and review criteria.
- Monitor development near the I-89 exit and at the southern end of Governor Peck and Brown's Trace roads in Richmond, and work with the Town of Richmond to ensure that adequate protections for natural resource, agricultural and low-density residential properties is provided when high-density residential, commercial, or industrial development occurs across the town line.
- Coordinate with the Town of Bolton when they are ready to consider the creation of a "West Bolton Hamlet" to find opportunities for collaboration.
- Improve communication and coordinate land use planning with major institutions within Jericho, such as the Ethan Allen Firing Range and UVM Research Forest.

5.0 JERICHO'S HOUSING STOCK

Key Take-Aways

- Jericho is in the midst of a **HOUSING CRISIS** that presents the greatest challenge facing the community today and into the future. It significantly effects the vitality of our local economy, the diversity of our community, the quality of our schools, and the stability of our tax base and property taxes.
- Jericho must build more housing. Each year we are producing only 1/3 the number of new units as compared to the 1970's and 80's.
- Jericho must diversify its housing stock. Nearly nine out of ten homes in Jericho are single-family detached structures, and this proportion has remained essentially unchanged since 1970.
- Jericho must make it easier to build smaller and more compact housing types that can be affordable to a wide range of households. The cost of a home in Jericho is among the highest in the state and rising fast. The median home price is ~\$190,000 MORE than it was just 5-years ago.
- The two most significant barriers to creating new housing are:
 - a lack of wastewater infrastructure and
 - development regulations and processes that make building compact residential neighborhoods much more difficult and expensive that it should be.

For a variety of complex and inter-related reasons Jericho is in the midst of a **HOUSING CRISIS** - just like our neighbors around the state and across the country. The availability of affordable and reasonably priced housing is a problem not confined to Jericho, all communities in Chittenden County face this issue.

This is a **big** issue for a variety of reasons:

- Growing businesses can't attract or retain workers because they can find an affordable place to live. This has become a **very** serious issue for area businesses of all types and sizes.
- Older residents have nowhere to downsize and "age-in-place," and in turn "recycle" their existing home back into the market for the next growing family.
- There are no starter homes (in terms of both size and cost) for young families just starting out. This includes our own kids who can't move back to Jericho to raise their own families.
- This means that there are fewer school-aged children to off-set declining school enrollments which has **significant** implications for the continued quality of our schools and stability of our property taxes.

- This also means there are fewer new and younger residents to participate in local government and community organizations, support local businesses, and bring new life and diversity to our community.

Housing Availability

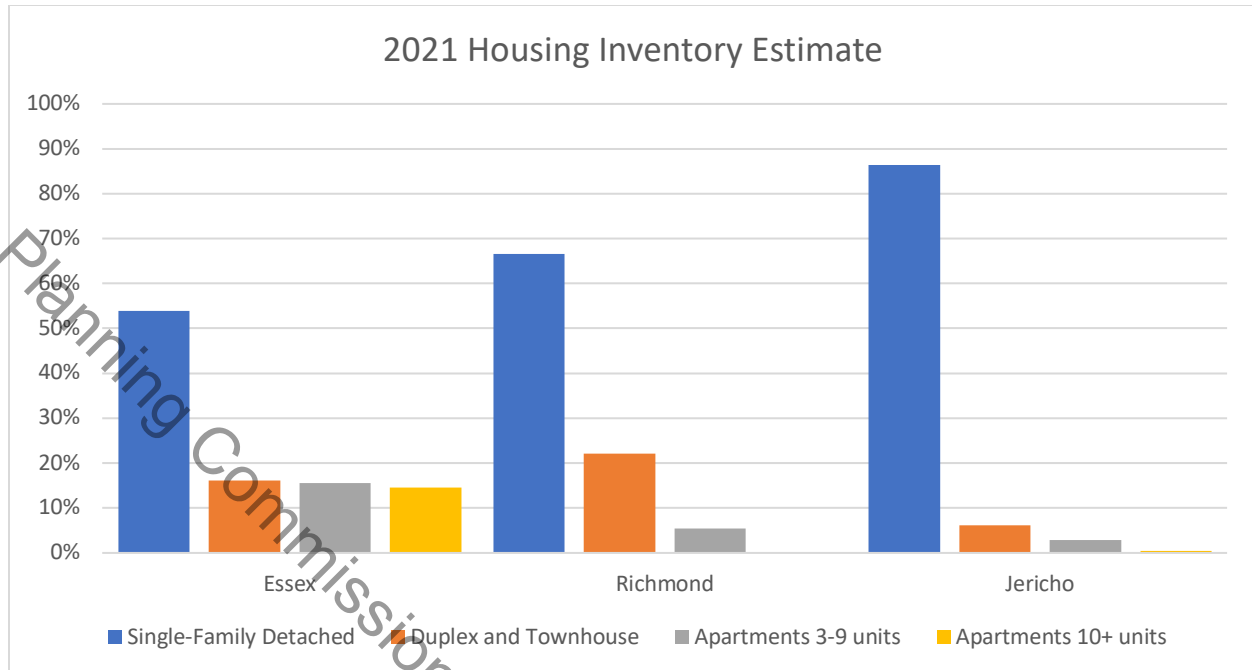
Nearly nine out of ten homes in Jericho are single-family detached structures, and this proportion has remained essentially unchanged since 1970. Annual construction is resulting in only 1/3 the number of new units as compared to the 1970's and 80's.

Jericho Housing Inventory

	<u>2016</u>	<u>2021</u>
Type	Estimate	Estimate
Occupied housing Units	1,948	2,084
Units in Structure		
1, detached	89%	86.4%
1, attached	3%	4.6%
2 apartments	2.2%	1.6%
3 or 4 apartments	1.3%	0.5%
5 to 9 apartments	2.1%	2.4%
10 or more apartments	0.9%	0.5%
Mobile home or other type of housing	1.3%	3.9%

Source: US Census ACS 5-year Estimate, Table s2504

In comparison to neighboring communities, Jericho's housing inventory is dominated by single-family detached housing compared to Essex or Richmond, but more in keeping with more rural neighbors of Underhill, Westford, and Bolton.

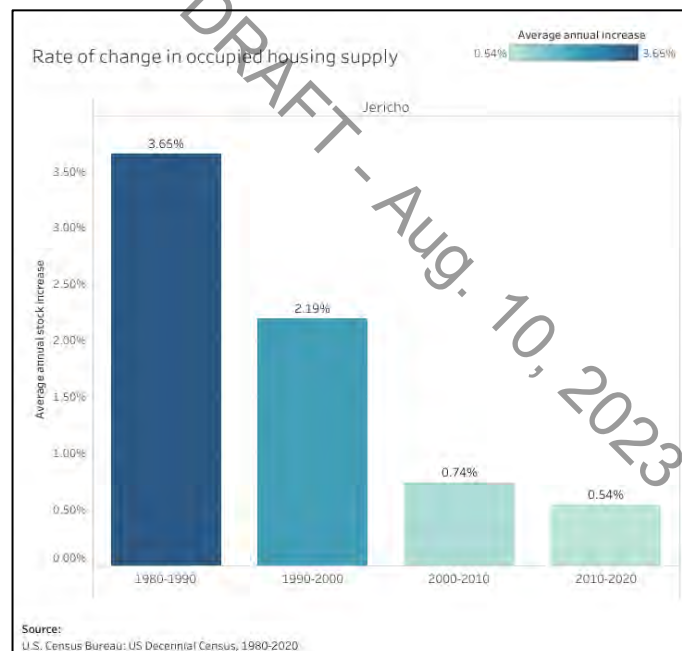


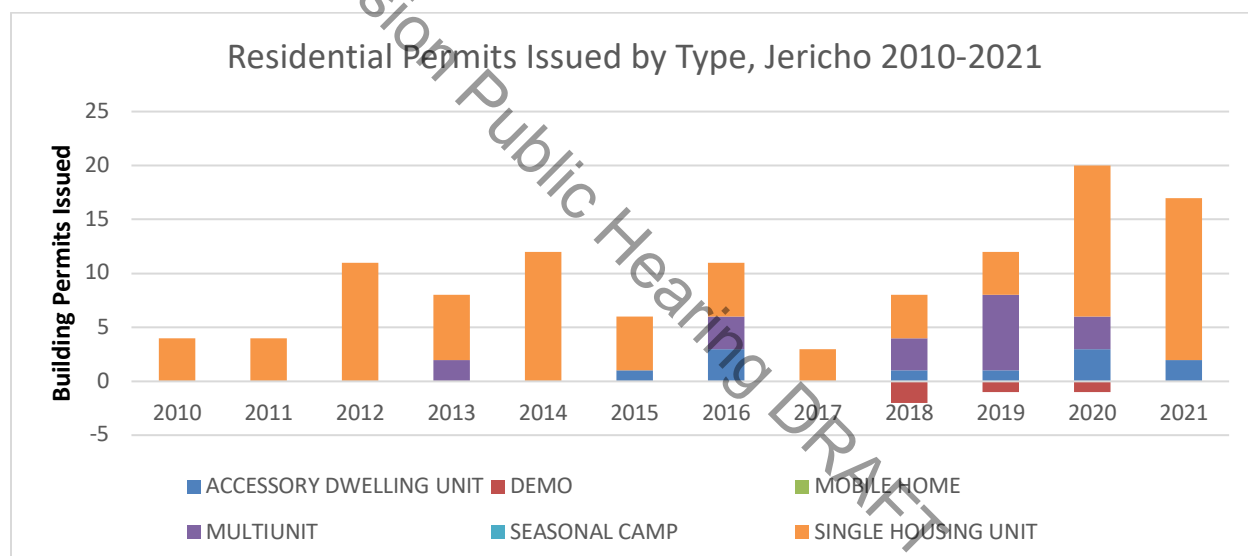
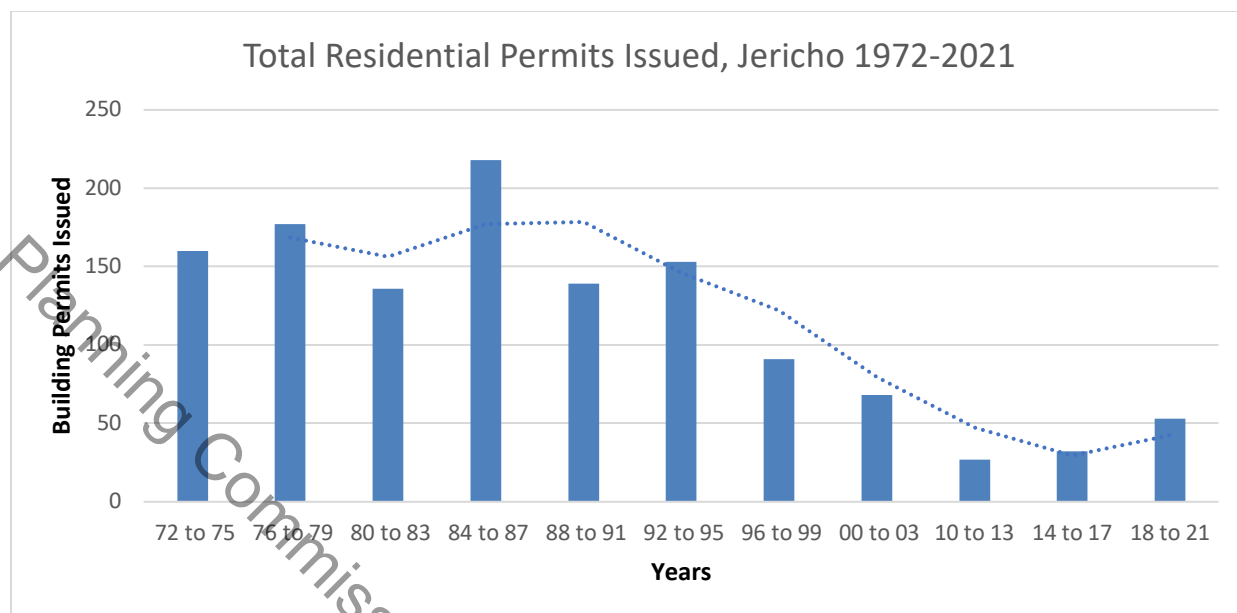
Source: US Census

Jericho's housing is more than 91% owner-occupied with very little in the way of rental housing (<200 units). Nearly 80% of Jericho's residential properties are found on lots of less than 6 acres, with just over 50% on lots less than 2 acres.

Finally, as has been the case nationally, the average household size in Jericho has been on a steady decline dropping from 3.0 in 1990 to 2.44 in 2021. However, nearly 82% of Jericho's housing supply has 3 or more bedrooms with a >10% increase in the proportion of units with 4 or more bedroom since 2016.

The imbalances in Jericho's housing inventory are made worse by the fact that the creation of new units has seen a significant decline over the past 40-years. The graphs to the right and below illustrates the decline in the number of new residential permits issued since 1972 reaching a low of only 27 new permits between 2010-2013. Since that time the number of new permits has been on an increase reaching a high of 19 in 2020.





Source: Jericho Planning & Zoning Office

Typically, only a small number of Jericho's total residential permits are for new multi-family dwellings. 2019 was the most recent year with the most multi – family unit permits with 7, but this is still nearly half of the peak of an annual average of 13.6 between 1984-87. This lack of diversity in Jericho's housing stock has very serious implications for the affordability of the housing that we do have.

Housing Affordability

An ample housing stock that is affordable to a wide range of households, and at various stages of life, is vital for the long-term health of the Town. Housing affordability is determined by the cost of purchasing or renting a home, and the household income available to acquire it. Housing is considered affordable when monthly housing costs do not exceed 30% of a person's income. For homeowners this includes mortgage, property tax, and property insurance payments; for renters it includes rent and utilities. An income of 81%-95% of the area median is considered to be moderate, and a family's income that is below 80% is considered to be low.

Income and Housing Affordability, Chittenden County - 2022

	2x Median HH Income	120% Median HH Income	Median HH Income	80% Median HH Income	50% Median HH Income
Household Income	\$ 193,200	\$ 116,000	\$ 96,600	\$ 77,250	\$ 48,300
Affordable Home Price	\$ 667,000	\$ 400,500	\$ 333,500	\$ 266,000	\$ 165,500
Jericho 2022 Median Sale Price	\$ 456,500 (single-family)			\$ 244,900 (condo)	

Source: www.housingdata.org, for a 3-person household and a 2-bedroom home per HUD guidelines

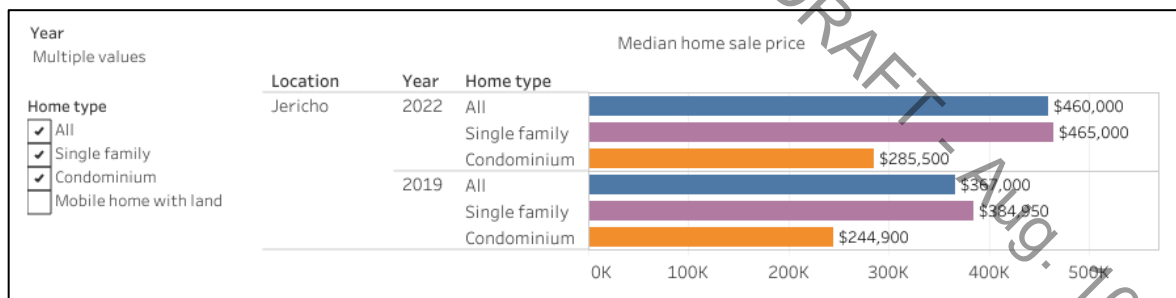
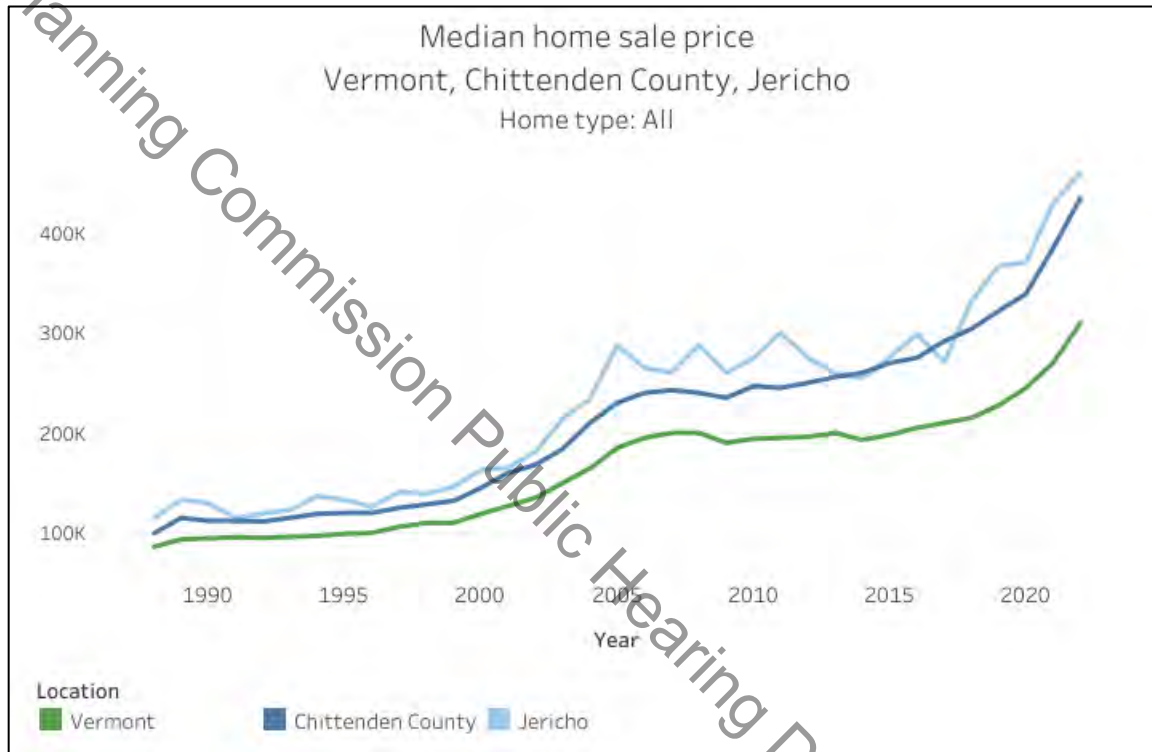
When the last Town Plan was adopted in 2014, the median sale price for a single family home in Jericho was \$262,750 compared to \$192,450 for a condominium. In 2022, the median sale price for a single family home in Jericho had **almost doubled** to \$456,500 and \$244,900 for a condominium. Based on this, a household would need an income of \$149,348 (almost double that in 2014 - \$77,126, and more than 150% of the 2022 median household income) to afford a median priced single family home, or \$80,300 to afford a median priced condo.



Source: HousingData.org

The graph below compares median sales prices for all housing types since 1988 and shows an overall trend of increased housing prices over time, with a sharp increase in housing prices starting in the late 1990's and early 2000's.

Median Home Sale Price: 1988-2022

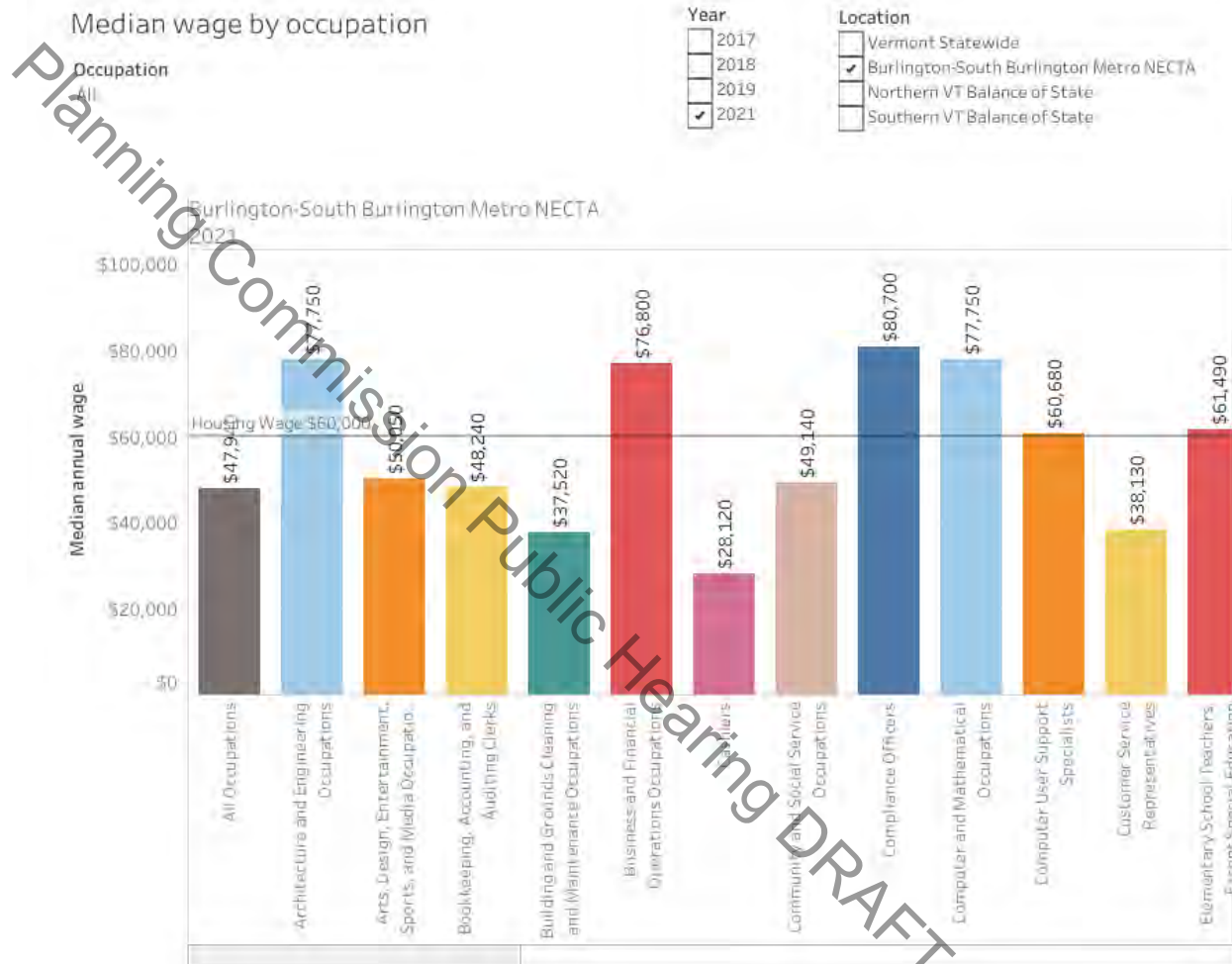


Source: *HousingData.org*

While a household is considered “cost-burdened” when the cost of housing exceeds 30% of household income, “severely cost burdened” is when that threshold exceeds 50%. As illustrated in the chart below, there was a 51% increase between 2018 and 2022 in the number of Jericho households considered severely cost burdened with the greatest increase for renters. In 2021, there 619 Jericho households considered cost burdened.



Finally, the last chart illustrates the median annual wage for various occupations as compared to the income needed to afford a 2-bedroom apartment at the Fair Market Rent for the region which as of Aug. 2020 was \$1,628 per month including utilities. From this it's not hard to understand why so many people are struggling to find a place they can afford.



Source:

Vermont Department of Labor, Economic & Labor Market Information, Occupational Employment Statistics (OES) program in cooperation with the U.S. Bureau of Labor Statistics; National Low Income Housing Coalition

Description:

The median wage and employee data shown here is from the OES survey, a semiannual survey measuring occupational employment and wage rates for wage and salary workers in nonfarm establishments in Vermont. Each year, surveys are mailed to establishments in May and November. Annual wage estimates have been calculated by multiplying the hourly mean wage by a "year-round, full-time" hours figure of 2,080 hours; for those occupations where there is not an hourly mean wage published, the annual wage has been directly calculated from the reported survey data.

Median wages are shown for individual occupations as well as groups of occupations (e.g. "Chefs" and "Food Preparation and Serving Related Occupations"). Estimated employees for detailed occupations do not sum to the totals because for occupation groups the group totals include occupations not shown separately. Occupations with less than 1,000 workers have been excluded. Estimates do not include self-employed workers. For information on the definition of the 3 labor market areas see: <http://www.vtlimi.info/oesmap2013.pdf>. For total numbers of employees, view the "Labor Force" visualization.

The housing wage shown here is the estimated annual income needed to afford a 2 bedroom apartment at the Fair Market Rent for the Burlington-South Burlington metropolitan statistical area, the balance of the state and for the state as a whole.

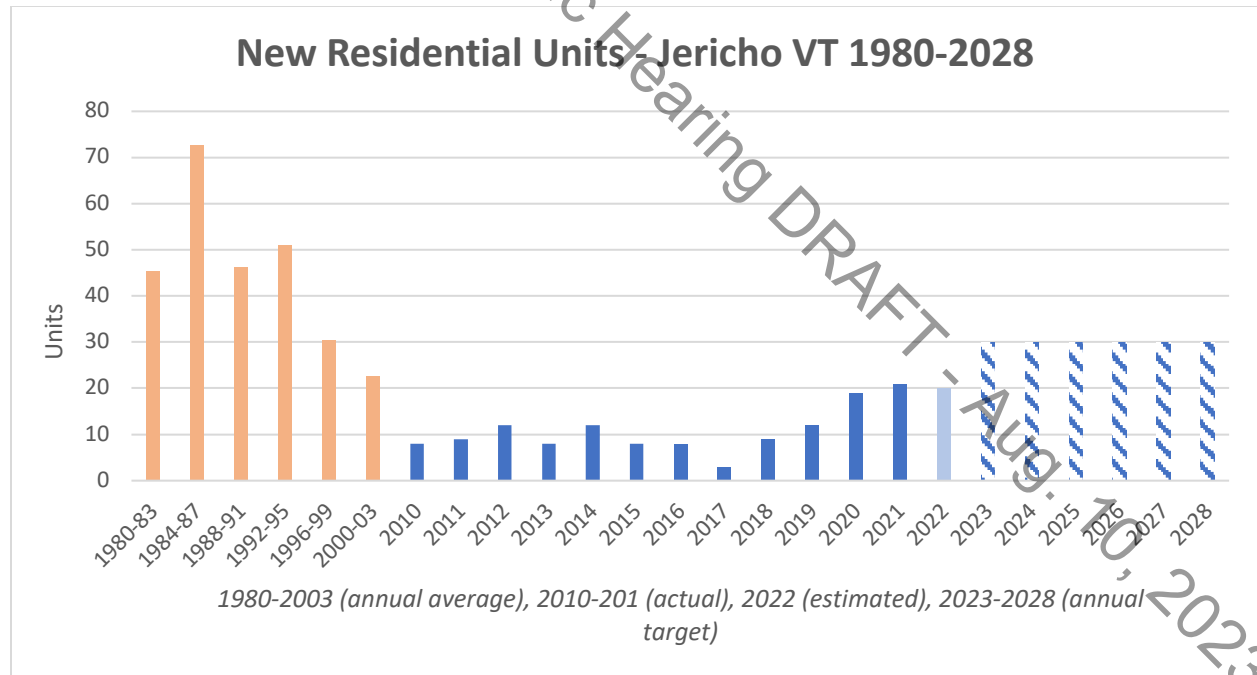
SO WHERE DO WE GO FROM HERE?

In 2016, Champlain Housing Trust, Evernorth, and the Chittenden County Regional Planning Commission launched the “Building Homes Together” campaign with a 5-year goal to build 3,500 new homes in an effort to begin to address the region’s severe housing shortage. After some mixed success (3,659 new homes, but only 536 perpetually affordable), a second campaign was launched in 2021 with a new goal to build 5,000 homes by 2025 for people of all incomes, including at least 1,250 affordable homes.



During the first 5 years of the campaign, Jericho constructed 51 new market-rate homes, which represented 1.4% of all new construction in Chittenden County. If Jericho were to contribute 1.4% to the NEW Building Homes Together 2.0 goal, that would be 70 new residential units (and 17 affordable) over the next 5 years.

In the Spring of 2023, and at the urging of the Affordable Housing Committee and Planning Commission, the Jericho Selectboard passed a resolution that sets a target for the annual production of new housing units through 2028 of an average of **30 housing units per year** for the resultant **total of 150 new housing units**. This target is based in part on current and historical rates of housing construction so that it sets a challenging yet achievable goal.



Source: Jericho Planning & Zoning Office

Within this target of 150 new housing units by 2028, the Resolution further directs that:

- 30% of New Dwellings Constructed qualify as Missing Middle-Income Housing¹. At the target rate, this would represent **45 new Missing Middle units, by the end of 2028**;
- 20% of New Dwellings Constructed qualify as affordable to individuals or families with Low or Very Low Income². At the target rate, this would represent **30 new affordable units, by the end of 2028**;
- **10 new units qualify as Perpetually Affordable³**; and,
- **15 new units qualify as Senior Housing.⁴**

Depending on where and how it's built, new housing like this can mean:

- More efficient public services and infrastructure (like students per bus stop or customers per linear foot of sewer line)
- Increased opportunity and affordability
- Lower energy demand and consumption
- Less traffic and more transportation choices
- More opportunities for walking and biking which will mean a healthier community
- A healthier planet

¹ **Missing Middle Income Housing** is defined by State policymakers as housing that is affordable for the first-time homebuyer and/or the homebuyer with income that is above the threshold for subsidy eligibility (80% AMI), but below what is needed to actively compete in the current market (120% AMI).

² **Low income or Very Low Income** are households earning less than 80% Area Median Income or 50% Area Median Income respectively, for Chittenden County

³ **Perpetually Affordable Units** are dwelling units which include restrictions such that the sale (or rental) price will always be affordable to a household whose income does not exceed 80% Area Median Income.

⁴ **Senior Housing** as defined by Jericho's Land Use and Development Regulations, is specifically designed, and intended for occupancy by at least one person who is 55 years of age or older and are encouraged to accommodate aging in place

Housing Choice and Gentile Infill

Jericho’s approach to tackling its housing availability and affordability crisis must be by emphasizing and incentivizing housing choice – choices for different types and sizes of households, choices of different sizes and configurations of units, and choices of locations, prices, and tenure-ship options.

Housing for Gen Z to the Silent Generation	Housing and Unit Types	Housing Diversity
• Older residents looking to downsize. • First-time homeowners. • Growing families with children needing to upsize. • Workforce for our local economy. • New members to our community • Our kids looking to return to Jericho to raise their own families.	• Single-family homes. • Accessory units. • Tiny Homes. • Studio to 1-4 bedrooms. • Town Houses. • Duplex, Triplex and Quads. • Cottage courts. • Attached and detached Multi-family housing. • Work-Live • Live-Work	• Rental and ownership. • Worker housing. • Full range of price-points. • Subsidized to market-rate. • Renovation of existing buildings and new construction. • Variety of locations and settings.

The “missing” part of “Missing Middle Housing” housing referenced in the Housing Target Resolution are those housing types (and associated price-points) that fall somewhere in-between the detached single-family home and a large multi-family apartment building. Essentially, we are talking about exactly the type of housing that was built prior to the adoption of more suburban-style zoning standards and that are already present in many of our favorite residential neighborhoods. The term “Missing Middle Housing” was coined by architect and planner Daniel Parolek in 2010 to refer to house-scaled buildings with multiple units in walkable neighborhoods⁵. It’s a concept that resonates across the country as communities large and small, urban and rural, struggle to address a nationwide housing crisis.



Missing Middle Housing illustration with thanks to Opticos Design

⁵ <https://missingmiddlehousing.com/about>

In our context, these buildings are virtually indistinguishable from most single-family homes except they have 2-4 units within them instead of just one. We have several of these in Jericho already, and many more in neighboring communities such as Richmond, Jeffersonville, Morrisville, Waterbury, and Burlington.



Duplexes and Triplexes



Small Multi-Family and Townhouses

While new housing can go virtually anywhere in our community, it is likely that more than 2/3 of the new units will need to go in around existing community centers where they be affordably built as part of a compact neighborhood served by public water and wastewater.

In the [2018 ECOS Regional Plan](http://www.ecosproject.com/)⁶, the Chittenden County Regional Planning Commission (CCRPC) developed strategies and action steps for new housing development. The desire is to see 80% of new development take place in the areas planned for growth and to provide increased opportunities for

⁶ <http://www.ecosproject.com/>

quality, affordable and fair housing for all types of households.

As described throughout the Town Plan, Jericho also desires to see new development occur within the three Village Centers, which CCRPC has defined as the “Village Planning Area,” one of their areas planned for growth. With development focused in the Village Centers the rural character can be preserved in the remainder of the Town.

Many might look at places like Jericho Corners, Jericho Center, or Riverside and assume that they are built-out and there’s no room left for additional housing. This is simply not the case. They are many places – typically between and behind existing buildings, where a new building can be added in such a way that it reinforces the traditional pattern of development. There are also many opportunities to add new housing units into existing buildings and accessory structures such as barns, garages, and carriage houses.



Gentle Infill Example, courtesy of the VT Dept. of Housing and Community Development

To allow for additional housing, the Town’s zoning must **support compact mixed-use development on small lot sizes**, and the Town will need to **make public investments in new community infrastructure** within and nearby the Village Centers – wastewater in particular - will be required in order to make this possible and affordable.

Additional Topic-Specific Action Items

- Encourage adoption of a fee structure that reduces or waives application and impact fees for affordable and senior housing.
- Explore the creation of a Housing Trust Fund that can be used to provide assistance towards the creation of new housing that will be affordable to low and moderate income families.
- Identify parcels that are in public ownership and that may be suitable for redevelopment into compact mixed-use housing, and work with non-profit housing developers and/or other partners to create new housing that will be affordable to low and moderate income families.
- Explore possible mechanisms and opportunities for the Town to acquire and hold easements on properties in order to assure perpetual affordability.

6.0 JERICHO'S LOCAL ECONOMY

Key Take-aways

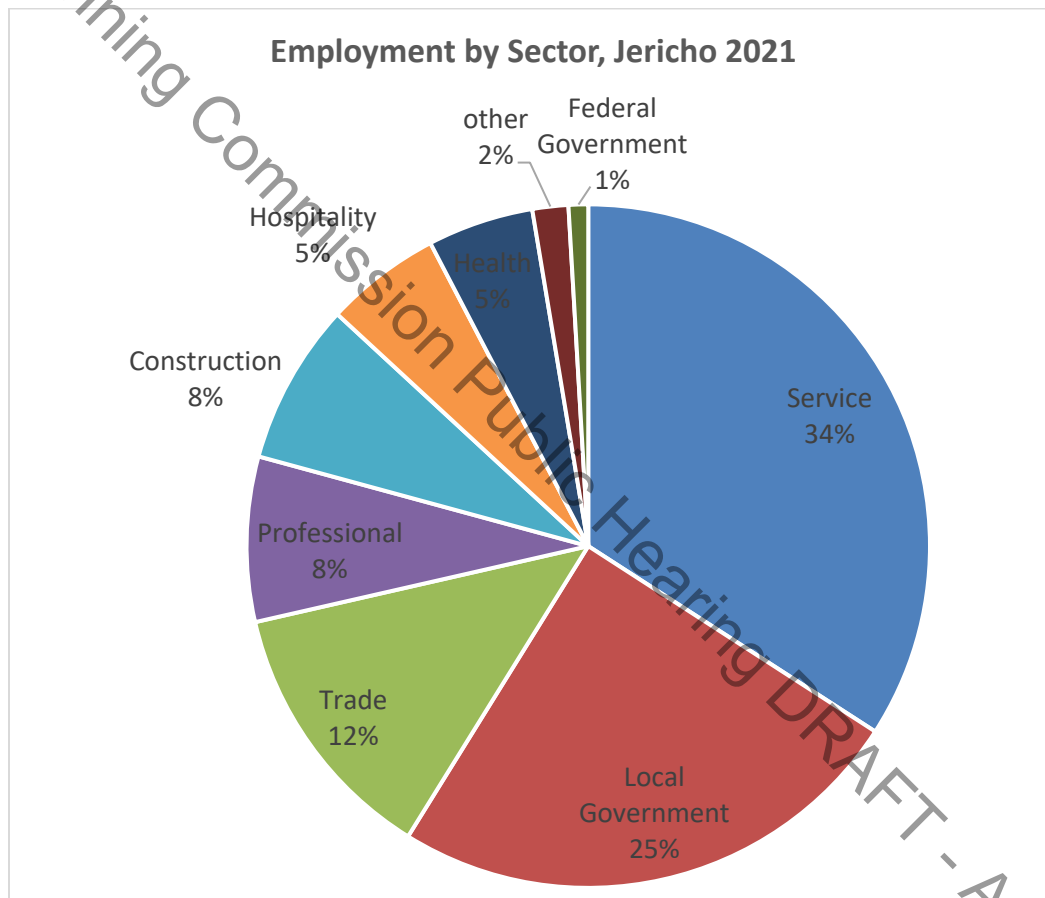
- The lack of affordable, work force housing is posing a significant challenge for many regional employers seeking to expand or locate in the greater Burlington area.
- Opportunities for growing small businesses are significantly constrained by a lack of commercial space, suitable infrastructure, and the high cost of land.
- Only 8% of Jericho residents work in Jericho which means there are another 2,000 who might work here if there was a suitable job available to them, and another 2,000 people who could live here if they find an affordable place to live here.
- Only 11% of Jericho's Grand List is supported by commercial properties meaning that it is over-reliant on residential properties.
- Most residents leave Jericho to shop and get services, leading to higher costs, more traffic, and greenhouse gas emissions.
- There are several thousand acres of farm and forestland that can contribute more to growing our local economy, and a growing number of local entrepreneurs looking to start and grow businesses right here.
- Jericho already has not just one but three traditional compact and walkable centers that can be enriched with new businesses and housing adding significantly to the economic and community vitality of Jericho.

Jericho's economic health is inextricably linked to that of the State and Region. Most of the region's major employers are in the core of Chittenden County, with the outlying towns serving primarily as bedroom communities. Currently most of Jericho's residents work outside of Jericho, and most existing businesses in Jericho are small in comparison to the regional scale. Only 8% of Jericho residents work in Jericho, with the rest commuting primarily to the core Chittenden County Towns. With so many people either commuting from or to Jericho by car alone, it has serious implication for our contributions to the greenhouse gasses that are driving climate change. Instead we need to be finding more ways for people to be able to shorten their commute by living and working in Jericho and using other forms of transportation.

Jericho and other outlying towns of Chittenden County, as well as portions of Franklin and Lamoille Counties, house much of the region's work force. The lack of affordable, work force housing is posing a significant challenge for many regional employers seeking to expand or locate in the greater Burlington area. Providing a diverse and affordable housing stock, as prescribed in the Housing Section of this Plan, is critical to supporting and strengthening the local and regional economy.

Employment

The table below shows the distribution of workers in the Town of Jericho by employment category and the changes between 2020 and 2021. The Professional and Business Services and Education and Health Services sectors saw the greatest growth in terms of both the number of establishments and employment between 2010 and 2020. While during the most recent period (2020-2021) Leisure and Hospitality, Professional and Business Services, and Service Providing sectors experienced the greatest growth.



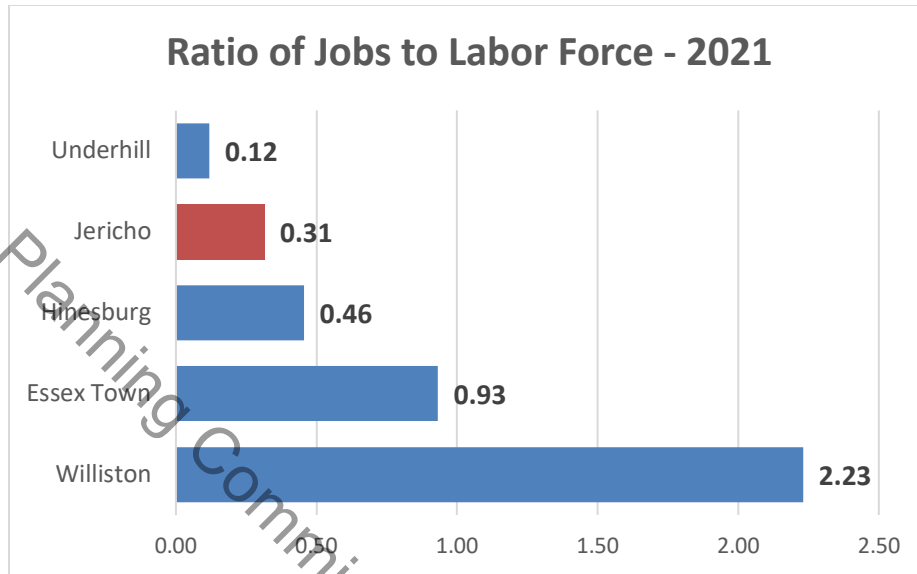
Covered Employment and Wages

	<u>Establishments</u>		<u>Employment</u>		<u>Average Wage</u>	
	2021	% chg from 2020	2021	% chg from 2020	2021	% chg from 2020
Private ownership	154	14.9	573	9.8	\$ 52,246	8.5
Natural Resources and Mining supersector	2	0	(c)	(c)	(c)	(c)
Construction supersector	27	3.8	99	10	\$ 48,586	4.5
Manufacturing supersector	3	50	(c)	(c)	(c)	(c)
Service Providing domain	123	18.3	442	10.2	\$ 54,886	9.4
Trade, Transportation, and Utilities supersector	21	10.5	163	1.9	\$ 39,955	5
Information supersector	1	0	(c)	(c)	(c)	(c)
Financial Activities supersector	7	16.7	(c)	(c)	(c)	(c)
Professional and Business Services supersector	67	26.4	101	18.8	\$ 99,867	8.9
Education and Health Services supersector	11	0	65	3.2	\$ 50,823	14.4
Leisure and Hospitality supersector	6	20	71	29.1	\$ 22,582	13.5
Other services, except public administration supersector	11	37.5	22	(c)	\$ 61,763	(c)
Federal Government	1	0	12	0	\$ 56,839	14
Local government	6	0	320	21.2	\$ 52,578	13.9

Source: VT Dept of Labor

<http://www.vtلمي.info/indareanaics.cfm?areatype=12&src=cew&base=ind2021&from=ind2020&chctype=percent&area=103>

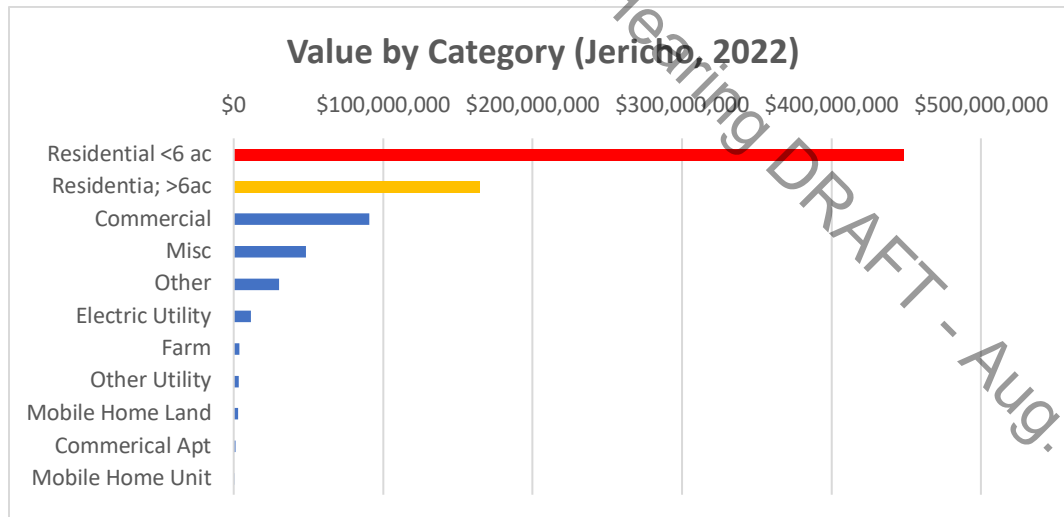
While predominantly a rural community, Jericho still has a relatively low ratio of local jobs to eligible workers which is partially illustrated by the number of Jericho residents who travel outside of Jericho to work. The more jobs per worker means a larger tax base, a stronger local economy, and hopefully less commuting.



Source: VT Dept of Labor

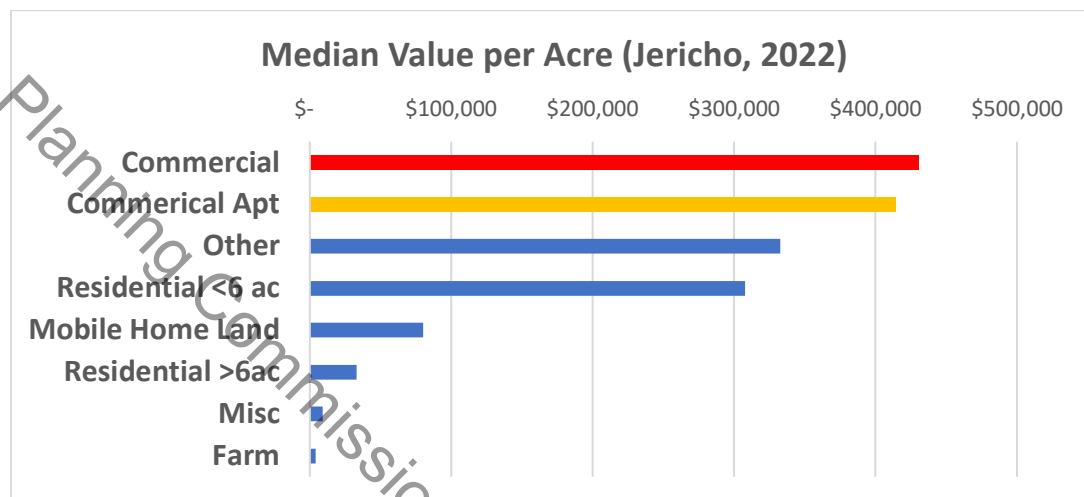
Tax Revenues

Jericho's tax base is very unbalanced and susceptible to fluctuations in a single sector – housing – which typically places a much higher demand proportionally on local services when compared to non-residential uses.



Source: Jericho Listers Office

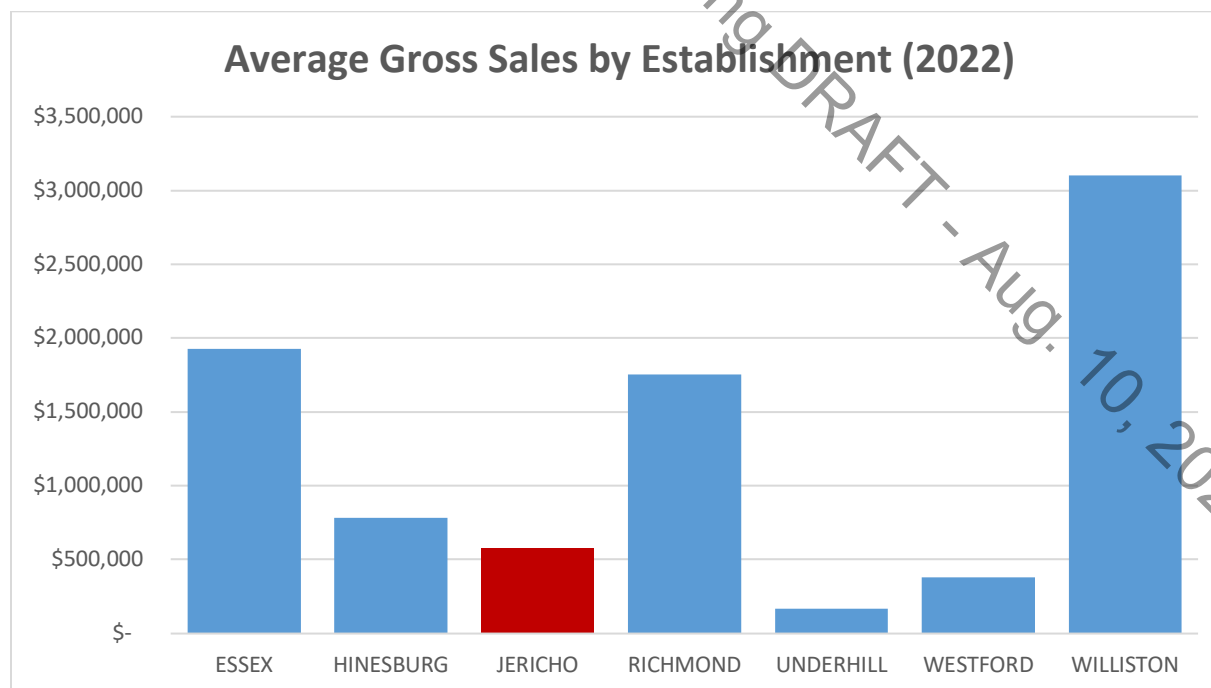
Commercial property makes up only 3% of the total acreage in town and 11% of the Grand List. Yet, commercial property has the highest median value per acre of any other land use type. This means that every new acre of commercial property generates more than 10-times the local property tax revenue of a single-family home on more than 6 acres.



Source: Jericho Listers Office

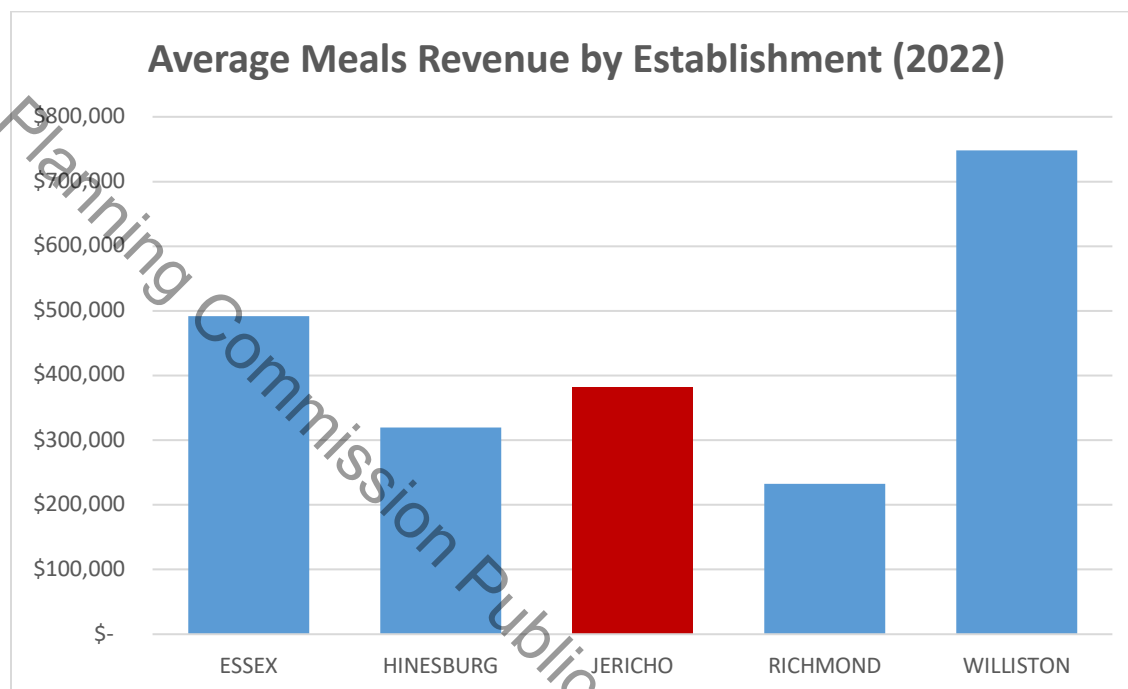
Opportunities for creating and expanding small local businesses are constrained by a lack of commercial space, suitable infrastructure, and the cost of land and development. This means that most residents must leave Jericho to shop and get services leading to more traffic and greenhouse gas emissions, and a loss of local jobs, vitality, and tax revenue.

With a similar number of businesses (97), average Gross Sales Tax revenue generated by Jericho businesses is significantly less than in Richmond and Hinesburg.



Source: VT Dept. of Taxes

With a similar number of businesses (15), average Gross Meals Tax revenue generated by Jericho businesses is more than in Richmond and Hinesburg.



Source: VT Dept. of Taxes

Work Location and Journey to Work

Where people work and how they get there is an important consideration, especially when we are concerned about the relationship of greenhouse gasses to changes in our climate. Transportation accounts for approximately one-third of all energy use in the United States and probably more in Jericho due to our rural character. Transportation represents a major use of fossil fuel and the single biggest source (approximately 44%) of greenhouse gas emissions in Vermont.

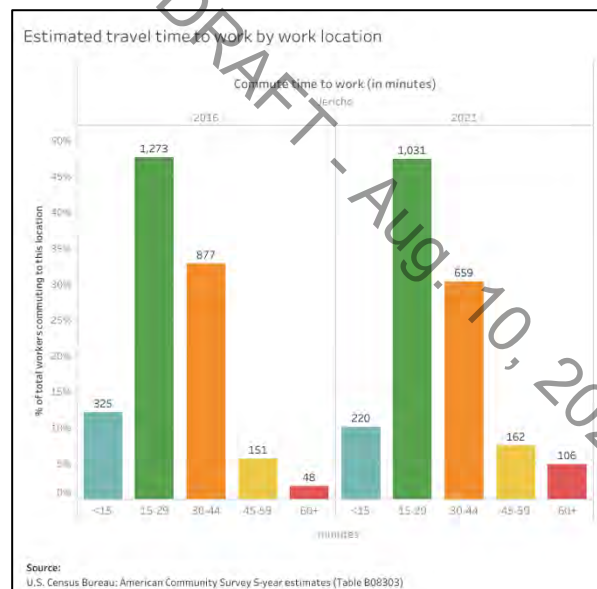
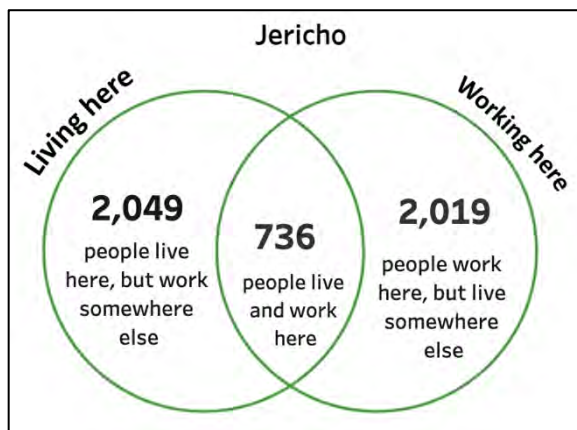
The 2011 Town Plan described Jericho as “substantially a bedroom community,” and that is still largely the case. 65% of Jericho residents work in five central Chittenden County communities – Essex, Burlington, South Burlington, Williston, Richmond, and Colchester. Only 8% work and live in Jericho which is a decrease from 15.1% in 2010. 2020 Census data indicates that ~17% of Jericho residents worked from home which was a 150% increase over 2016.

Employment Location for Jericho Residents, 2010 & 2019

Workplace	2010	2019	% change
Burlington	561	483	18%
Essex Town (including Essex Junction)	455	322	12%
South Burlington	282	315	12%
Williston	244	264	10%
Jericho	209	201	8%
Colchester	138	173	7%
Richmond	100	147	6%
Winooski	65	58	2%
Hartford	44	41	2%
Milton	41	n/a	n/a
Shelburne	n/a	41	n/a
Other Locations	506	594	23%
Total	2,645	2,639	100.0%

Source: US Census (<https://lehd.ces.census.gov/data/>)

Most workers commuting into Jericho are traveling 15-45 minutes each way. This has remained consistent since 2016 although the number of workers commuting more than 45 minutes has decreased.



Source: VT Housing Finance Agency, <https://housingdata.org/>

While the numbers of Jericho residents choosing to travel to work in something other than a single-passenger automobile has decreased, the numbers are small and over 70% are still choosing to drive alone.

Means of Transportation to work for Jericho Residents			
	2016	2021	% Change 2016-2021
Workers 16 years and over	2,962	2,755	-7%
Car, truck, or van	90.60%	80.50%	-11%
- Drove Alone	81.6%	72.8%	-11%
- Carpooled	9%	7.7%	-14%
Public transportation (excluding taxicab)	0.60%	0.40%	-33%
Walked	0.50%	1.20%	140%
Bicycle	1.20%	0.00%	-100%
Taxicab, motorcycle, or other means	0.20%	0.90%	350%
Worked from home	6.80%	17.00%	150%

Source: US Census,

<https://data.census.gov/table?q=Jericho+town,+Chittenden+County,+Vermont&tid=ACSST5Y2021.S0801>

Growing Our Local Economy

Jericho is rich with opportunity.

Jericho is beautiful with a diverse and verdant landscape of fields and forested hillsides surrounding three traditional New England village centers. It is also situated between Lake Champlain and the Green Mountains providing un-paralleled access to numerous and diverse outdoor recreational opportunities. With more and more workers choosing where they want to live first, and then finding a job or starting a business, Jericho is well-placed and advantaged to grow our local economy.

It is located on, or close to, several major regional transportation routes connecting the Greater Burlington Area with growing communities located in Washington and Lamoille County. Jericho is also located near the Burlington International Airport in South Burlington and Amtrak Station in Essex connecting the Greater Burlington Area to national and international markets. This location not only enhances Jericho's attractiveness as a place to live, but also creates opportunities for local businesses serving residents and visitors alike.

Jericho' also has a very high-quality K-12 Education system. The National Association of Realtors estimates that 29% of home buying decisions are based upon a local school's reputation and that home buyers pay a higher premium in areas with high quality schools. The quality of a region's educational resources and the educational attainment of the workforce is also often an important factor companies consider in selecting locations for facilities. Furthermore, Mount Mansfield Union High School is a major local employer and draws students, staff, and faculty from neighboring towns into Jericho.

Jericho hosts several publicly accessible open spaces, such as the Old Mill Park, Mills Riverside Park, and Mobbs Farm that are open to the general public, as well as an expanding network of trails. Jericho also offers striking views of Mount Mansfield that rival those found in prominent resort communities. These

factors enhance the quality of life in Jericho and provide a solid foundation for future economic development.

Village Centers and the Commercial District

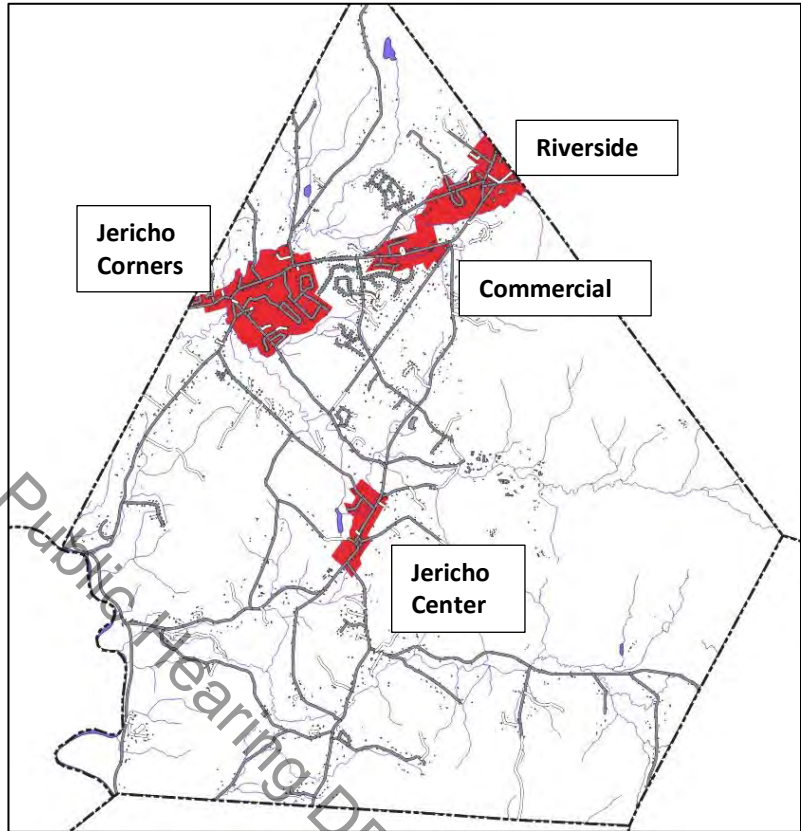
Jericho's three Village Centers have been hubs of economic activity throughout the Town's history. The villages may serve as incubators for new small businesses and former home businesses that require additional space. Larger businesses may also provide a solid "anchor" for economic activity in the Village Centers. Economic development of each Village Center can provide a local source of goods and services for Jericho's residents as well as increase employment opportunities within Town.

Jericho Corners and Riverside are strategically situated on VT Route 15 halfway between the Greater Burlington Area and several rapidly growing communities in Lamoille County. This location makes these Village Centers ideal for businesses that require high visibility and commuter traffic. Similarly, this location makes these Village Centers attractive locations for businesses located in the Greater Burlington Area seeking to open branch offices closer to the growing population base to the north.

While Jericho Center is not located on a state highway, its location may provide opportunities for recreational, natural resource based, and agricultural businesses. Jericho Center is easily accessible to Interstate 89, and is in close proximity to Mobbs Farm and numerous local trails. As development in central Chittenden County is consuming former recreational land, some residents of these towns are seeking recreational opportunities in outlying towns, including Jericho. Existing and future businesses in Jericho Center may benefit from this trend.

Many fear that a lack of parking can inhibit economic development. However, there is growing evidence from around the country that this is simply not the case, and by eliminating or allowing flexible parking regulations, and encouraging offsite, shared, and on-street parking, new parking can be incorporated into the existing fabric of the Village Centers. Additionally, when mixed uses (including housing) are placed near one-another it makes it much easier to "park once" and walk between desired destinations significantly reducing the demand for additional spaces.

Each of the three Village Centers has received "Village Center Designation" from the State of Vermont. This designation provides tax credits for repairs and code improvements to historic, non-residential properties located within the Village Centers. Utilization of these tax credits could create an incentive



for businesses to refurbish existing structures and locate in a Village Center rather than an outlying area. Further marketing of these incentives is needed to inform area residents and businesses of their availability.

The Commercial District should also play a more significant role in Jericho's future economic development. Its location, adjacent to the VT Route 15 corridor, makes it accessible to both commuters and residents. It is also located between two Village Centers (Riverside and Jericho Corners), and thus has the potential to augment services provided in those centers. The *2019 Commercial District Master Plan* describes mixed-use development, and includes services, light industrial, small-scale retail, and residential, in alignment to Jericho's rural characteristics.

Infrastructure

One significant barrier to local economic development in Jericho, particularly in Village Centers and the Commercial District, comes from infrastructure deficits. A lack of wastewater capacity is inhibiting development of these areas. However, some commercial uses, such as offices and retail stores, require significantly less wastewater capacity than residential uses, making commercial use of existing structures on small village lots a viable option for village redevelopment. Expanded, and especially shared, wastewater capacity would allow for increased development potential in each village center and the Commercial District.

Jericho Corners and Riverside are currently served by public water, while Jericho Center and the Commercial District rely on private wells. There are no parts of Jericho that are served by a public wastewater system. For their potential to be fully realized, public infrastructure improvements are desperately needed. Infill, redevelopment, and new development should be served by public water (such as from the Village Water District (Champlain Water district) or the Jericho-Underhill Water District) and shared off-site wastewater treatment systems are necessary to accommodate a broader mix of uses including commercial and residential. Creation of wastewater capacity for Jericho Center could be helped by partnering with the Ethan Allen Firing Range which is considering adding more on-site housing.

New streets within the Commercial District and Riverside as illustrated *2019 Commercial District Master Plan* and *Riverside Neighborhood: A Guide for the Riverside Street Network Master Plan* should be created to increase development opportunities, as well as limit curb cuts on VT Route 15 and other major collectors.

Most modern businesses rely on reliable high speed internet access, telecommunications, and three phased power. Three phased power is currently available along the VT Route 15 and VT Route 117 corridors in Jericho. Three phased power also extends from VT Route 15 to approximately one mile down Browns Trace, along Raceway and North and South Main Streets, but is not available in Jericho Center. High-speed internet access and telecommunications are currently unreliable in some parts of Jericho. Expanding coverage, particularly around Village Centers and the Commercial District, should also be an economic development priority for the town.

Local Services, Arts, and Home-Based Businesses

Projections of Jericho's growing population base, coupled with the growing population of nearby communities, is increasing the demand for local goods and services, such as medical offices, grocery and household goods, pharmaceutical products, home, garden and hardware supplies, restaurants and caterers, professional services, and similar businesses. Jericho's Village Centers and Commercial District provide ideal, central locations for these businesses. Locally based businesses can provide Jericho residents and residents of nearby communities an alternative to the regional chains located in the more urban communities in the region, as well as create opportunities for local employment and grow the Town's revenue base.

Numerous small galleries and studios are in Jericho. Not only do these establishments help define Jericho's character, but they also provide local employment and bring visitors to Town who may frequent other local businesses. According to the VT Arts Council¹, arts and culture is the third largest sector of Vermont's economy and generates more than 9% of all employment. For example, the Jericho Center Green is decorated in anticipation of the annual Open Studio Weekend. This event draws Jericho residents as well as visitors to local galleries and studios. As the number of studios and galleries grow, so will the demand for local sources of supplies. Again, this creates an opportunity for other local businesses.

Numerous home-based businesses, also known as "home occupations," are in Jericho, including small catering companies, home offices, vehicle repair shops, and an independent microchip design firm. In addition to providing local employment, home businesses offer a cost-effective way to start a new business. If successful, a business may outgrow the definition of a "home business" and need to expand at a different location. Ideally, these businesses would find a suitable location within Jericho to expand. Jericho's Village Centers and Commercial District can serve as prime locations for growing home businesses to relocate and expand within the Town.

¹ <https://www.vermontartscouncil.org/vermont-creative-network/action-plan/>

Forestry, Agriculture, and Local Food Based Businesses

Jericho's rural areas contain a vibrant working landscape. While the number and amount of land dedicated to traditional dairy farming has decreased over the last half century, new agricultural operations focused on specialized and high value products have taken root. There are numerous local enterprises, including traditional dairy farms, vegetable growers, beef farms, maple sugar producers, nurseries, beekeepers, and Christmas tree farms located in Jericho. The increased market demand in Jericho and surrounding communities has created new opportunities for direct marketing of agricultural products to consumers through farm stands, farmers markets, and CSAs.



Agricultural land in rural areas will be best preserved by encouraging new development into Jericho's three Village Centers and the Commercial District. As with any sector of the economy, a predictable and efficient permitting process can help to foster growth of agriculture and food-based businesses.



More food is being grown in Jericho. Local food includes production on small farms, farm stands, CSAs, community and neighborhood gardens, and family gardens. Selling and growing local food reduces the energy needed for transportation and storage. Growing local food may also use energy-saving techniques. Jericho's current Land Use and Development Regulations allow the roadside sale of agricultural products as an Accessory Use and

farmers' markets as a Permitted Use in all zoning districts. Additionally, Vermont's Act 143, passed in 2018, limits municipal regulation of "accessory on-farm businesses." This provides additional clarity to agricultural operations seeking to expand their businesses.

One potential barrier to further utilization of local foods is the lack of facilities to prepare and package larger quantities for distribution. This can sometimes be inhibited by local land use regulations. For example, farmers producing milk or cheese onsite are not considered "agriculturally exempt" from local zoning if they receive more than 50% of their raw product from off-site. Some facilities may be considered commercial or industrial and not be permitted in rural areas.

The capital cost of some processing equipment can also be prohibitive for many start-up ventures. Development of incubator facilities, such as the Vermont Food Venture Center in Hardwick, can help to nurture the growth of local food and agriculture-based enterprises. Village Centers, the Commercial District or adaptive use of historic agricultural structures are all suitable locations for new incubator space.

Institutional Properties

Jericho has two large institutional properties – the UVM Research Forest and Ethan Allen Firing Range. While the UVM Research Forest currently has limited facilities, it serves as an important laboratory for natural resource-based education and research. As interest in this subject increases, it is likely that more activity will occur at the Research Forest. Eventually, the University may need to develop more modern classroom and laboratory facilities at the Research Forest. Increased use of the Research Forest may provide an opportunity for Jericho businesses to provide goods and services to students, staff, and faculty. In addition to this immediate benefit, the Research Forest could serve as a local anchor for private firms engaged in natural resource conservation and research.

The 11,000+ acre Ethan Allen Firing Range (“the Range”) has evolved into an important live-fire range and mountain warfare training facility as well as an equipment testing facility for General Dynamics. The US Military is in the process of expanding barrack capacity at the Range, which will further increase the number of service members on site which currently serves more than 140,000 soldiers each year with on-site over-night capacity for 800. In order for the Range to do this, they will need additional wastewater capacity which presents an opportunity for collaboration with the Town. The Range provides some employment for local residents. Further, many service members training on the site frequent local businesses, particularly those near the Range.

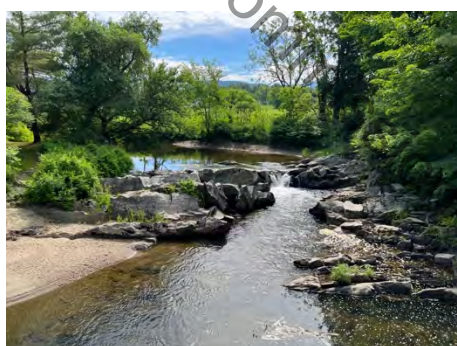


Live-fire Mortar Training at the EARF

Tourism, and Hospitality

Jericho’s strategic location between the Burlington area and Mount Mansfield places it on the direct route of many tourists traveling from the airport or interstate to Mount Mansfield and related attractions such as Smugglers Notch and the Underhill State Park.

Jericho's three Village Centers each contain well preserved historic structures and features, as well as local businesses selling services and "Vermont" products. Recent investment in pedestrian infrastructure has made it possible for tourists to leave their cars and enjoy the Villages safely on foot. The Village Centers could also become an alternative for visitors seeking accommodations close to the attractions near Mount Mansfield. Several hospitality-based businesses are currently located in the Village Centers. Growth of support businesses such as restaurants and small retail stores, as well as streetscape improvements and upgrades to pedestrian infrastructure, could enhance the attractiveness of Jericho for additional hospitality-based businesses.



In rural areas, the traditional landscape pattern of open fields surrounded by wooded hedgerows with a backdrop of wooded hillsides has the potential to attract visitors to Jericho. The numerous parks and trails located in Jericho are particularly attractive to stay-cationers. Maps similar to the "Village Center Walking Tours" which identify parks and trails and roadways with particularly attractive scenic roadscapes, as well as nearby businesses, could be developed and distributed to market these features.

Jericho contains several large blocks of unfragmented forestland which provide critical habitat for a diverse range of wildlife. According to a recent federal survey, wildlife-based recreation, including activities such as wildlife observation, bird watching, fishing, and hunting, adds approximately \$400 million annually to the Vermont economy. Given the impact of these activities on the Vermont economy, conservation and protection of important wildlife habitat should be considered an economic development strategy as well as a natural resource conservation strategy.

Arts and culture is the third largest sector of Vermont's economy according to the VT Arts Council. Visitors are attracted to "real" and authentic places that are not trying to be somewhere-else but instead celebrate their history, sense of place and local culture. As such, new development solely for tourism-sake is discouraged. Instead, Jericho must focus on ensuring that the day-to-day needs of residents come first. While Jericho should capitalize on its historic Village Centers and scenic rural landscapes as a tourism resource, we must do this by working to create and nurture our compact, diverse, and walkable centers, and ensuring that our working rural landscape remains "working." Their unique character and identity must be respected and taken into account as new development occurs. Poorly located and designed development that detracts from Jericho's scenic and historic resources limits the Town's ability to attract visitors and expand its tourism sector.

While tourism is often measured by the immediate impact of income for local businesses, it is worth noting that the executives of several employers in Chittenden County, notably IBM and Husky Injection Molding, were first introduced to the area while vacationing in Vermont. Many high-tech firms place a premium on quality of life when considering new locations. The same attributes that attract tourists may also serve as low-cost marketing to potential employers. This is especially important, given that

Jericho, and Vermont as a whole, lacks the resources to compete with larger, more populous areas in traditional economic development marketing.

Business Associations

Several associations serve businesses in the Greater Burlington Area, including the Lake Champlain Regional Chamber of Commerce, the Greater Burlington Area Industrial Corporation and Vermont Businesses for Social Responsibility. There are also several smaller business associations, such as the Western Slopes of the Green Mountains Business Association, serving Jericho and other local communities.

In 2014 the Town formed the Jericho Community Development Corporation (the Corporation), a non-profit group that focuses on economic development within Town. The Corporation is organized to offer services and engage in other activities that promote and support community development within Jericho. The Corporation may apply for and administer grants on behalf of grant recipients and raise money for development within the Town.

Additional Topic-Specific Action Items

- Participate in Public Service Board proceedings related to utility expansions and extensions and request the extension of utilities to unserved areas of the Village Centers and the Commercial District and for the placement of utilities underground to improve reliability.
- Promote greater utilization of Village Center Tax Credits by existing and potential village businesses, and investigate the applicability of other incentive programs offered by the State of Vermont, such as the Growth Center and Vermont Neighborhoods programs.
- Evaluate the interest of local businesses in the formation of a local business association. Provide assistance in the initial organization of such an association if desired.
- Survey local businesses to identify the attributes they find most and least attractive about doing business in Jericho, and efforts that would improve the business climate and attract additional customers and businesses.
- Review current regulations to determine their impact on farm-based value added endeavors. Consider revising regulations to allow for on-farm processing that may not fall under the State definition of “agriculture.”
- Develop standards to reduce conflicts between existing and future agricultural operations and new residential development, such as requiring new developments in rural areas to include “right-to-farm” language in deeds, use of vegetative buffers, or other similar measures.
- Evaluate the need and feasibility of incubator space for agriculture and local food based businesses. Identify potential sites for such a facility, that could also take advantage of prime agricultural soils, in locations such as the Commercial District.
- Foster further development of the arts and cultural community and new creative economy industries through development of festivals, gathering spaces, galleries, and/or artists’ cooperatives.
- Encourage new hospitality based businesses and support businesses such as restaurants and specialty retail stores to locate in the Village Centers.
- Train local officials about various economic development resources available through programs such as the Vermont Small Business Administration Community Business Connections, and work with regional marketing entities, such as the Greater Burlington Industrial Corporation (GBIC) and the Lake Champlain Regional Chamber of Commerce to promote and market Jericho properties, particularly those located in the Village Centers and the Commercial District, to firms making regional inquiries.
- Explore ways that the Jericho Community Development Corporation can proactively help to create new spaces and opportunities for new and expanding local businesses.

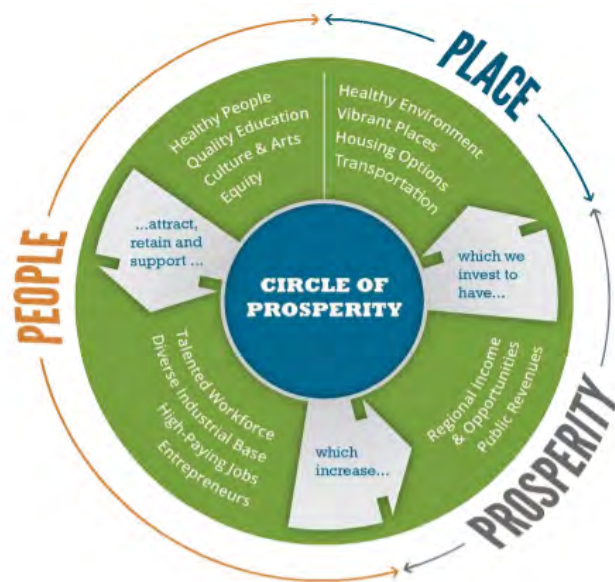
7.0 JERICHO'S COMMUNITY HEALTH & WELLNESS

Key Take-aways

- How our community is organized and layed-out plays a significant role in the supporting physical and mental health of our residents. These things include:
 - Access to the outdoors
 - Safe places to walk and bike
 - Opportunities for social engagement and connection
 - Production of healthy local foods
- Beyond the physical and mental wellness of our residents, opportunities for social engagement also increase our sense of belonging and inclusion when we can meet and socialize with one another.
- Opportunities for haring culture and the arts helps to break down barriers between different racial and ethnic groups.
- As our population ages, finding a diversity of opportunities to improve the overall physical and mental wellness of our residents becomes increasingly important.

Jericho has a vision to support active living, healthy eating, and increased access to local foods within the town. People have a better opportunity to stay healthy when they live in communities that encourage biking and walking, conserve natural places, ensure access to healthy foods, and provide safe, affordable housing. Jericho recognizes the role of community planning to improve the health of residents where they live, work, learn, worship, and play.¹

Three behaviors raise our risk for four diseases which cause the deaths of over half of Vermonters. Jericho can help reduce disease rates by using healthy community design principles that help people get physical activity, cut or quit tobacco use, and eat a healthier diet.



¹ Healthy Community Design

<https://www.apha.org/topics-and-issues/environmental-health/healthy-community-design>



Vermont Department of Health

STRATEGIES TO SUPPORT A HEALTHY COMMUNITY

- **Enhance Concentrated Mixed-Use Development and Smart Growth**

Keeping businesses in the village centers and compacted within the commercial district helps improve access, encourages walking and biking, and supports economic growth. Design elements should include pedestrian-scale buildings and street networks, better street lighting, safer street crossings, protected bicycle lanes, speed humps and street landscaping. These characteristics for promoting physical activity support the town's priorities for new development.

- **Create a Bicycle and Pedestrian Friendly Community**

People are more likely to walk or bike when communities have plenty of sidewalks and bike lanes. Improving transportation between the village centers, the commercial district, and the surrounding areas is part of our vision for Jericho. Better connections can promote stronger businesses and make physical activity safer and more convenient.

- **Improve Access to Parks, Recreation, and Open Spaces**

Jericho is home to Mills Riverside Park, Mobbs Farm, Winooski Valley Park District, and Land Trust natural areas. Making it safe and easy to visit parks, sport fields, and natural areas helps people to be more active. Recreation areas and open space make people feel happier and more like they're part of the community. A lack of open space in towns can lead to less depression and worrying.² Visiting ponds, lakes, and streams helps people feel better.³ The town recently updated the Natural Resources Overlay as a zoning tool to help protect specific natural resources while allowing "compatible" development.

In Vermont, adults living in large rural towns and cities are more likely to feel that their community is not safe for walking compared with adults living in urban towns and cities.

Vermont adults living with disabilities were more than three times as likely to feel that their community was unsafe for walking compared to those without a disability.

Source: Vermont, Behavior Risk Factor Surveillance System, 2017

² Exposure to Neighborhood Green Space and Mental Health: Evidence from the Survey of the Health of Wisconsin Kirsten M. M. Beyer,*, Andrea Kaltenbach, Aniko Szabo, Sandra Bogar, F. Javier Nieto and Kristen M. Malecki Int. J. Environ. Res. Public Health 2014, 11, 34533472; doi:10.3390/ijerph110303453)

³ Smedley, Tim, What impact do seas, lakes and rivers have on people's health? The Guardian March 2013 <http://www.theguardian.com/sustainable-business/impact-sea-lakes-riverspeoples-health>.

- **Increase Access to Fresh and Healthy Food**

A good way to make healthy food available is to support farmer's markets, community gardens, and grocery stores. Jericho is home to many small farms, a full-service grocery store, and a large farmer's market. Having healthy food choices available during town events supports good health. Policies that support local agriculture are good for the town's economy and good for the people of Jericho.

77% of adults in Chittenden County do not eat the recommended 5+ servings of fruit and vegetables daily.

Source: Vermont Behavior Risk Factor Surveillance System, 2015/17

- **Decrease Use of Tobacco, Alcohol, and Drugs**

People who are more active are less likely to use tobacco, drugs, or alcohol. Keeping youth away from these products stops unhealthy habits before they can start.

Tobacco use is the leading cause of early death in the United States and in Vermont. Jericho can support residents in choosing not to use tobacco through establishing tobacco free public spaces, such as public parks and town property. Outdoor community and public events such as farmer's markets, fairs and festivals can set a good example for youth by choosing to be tobacco, electronic vapor product, and alcohol-free. The town may consider limits to the advertising and sale of these products to prevent substance use among young people, and support community members in recovery from substance use disorder. Research also shows that e-cigarette advertising uses many of the same themes that have led to cigarette smoking among young people.⁴

Early and frequent use of marijuana can have negative impacts on the developing brain which can lead to problems with academic success and mental health.^{5, 6} Jericho can support and protect youth by increasing community understanding of the health risks related to youth marijuana use.

A quarter (27%) of Chittenden East High Schoolers report using marijuana in the past 30 days and 29% reported drinking alcohol.

More than half (>63%) of Chittenden East High Schoolers think alcohol or marijuana would be sort of or very easy to get.

Almost half (41%) of Chittenden East High Schoolers reported being physically active at least 60 minutes per day on 5 or more days, past week, and half (50%) played video or computer games or used a computer 3 or more hours per day.

68% of Chittenden East High Schoolers strongly agree or agree that in their community they feel like they matter to people.

Source: Vermont Youth Risk Behavior Survey, 2019

⁴ Centers for Disease Control and Prevention, E-cigarettes and Youth, <https://www.cdc.gov/vitalsigns/ecigarette-ads/index.html>, accessed 09/05/19

⁵ U.S. Surgeon General's Advisory: Marijuana and the Developing Brain (2019). Retrieved from: <https://www.hhs.gov/surgeongeneral/reports-and-publications/addiction-and-substance-misuse/advisory-on-marijuana-use-and-developing-brain/index.html>

⁶ Vermont Department of Health (2019). Marijuana Use in Vermont. Retrieved from: <https://www.healthvermont.gov/alcohol-drug-abuse/alcohol-drugs/marijuana>

- **Improve Mental Health**

There are many ways to design a community that support the mental health of all residents. The way a town is laid out can contribute to people's feeling of belonging inside the community. One way to increase personal connections is through better planning of roads and sidewalks. A major cause of stress can be long distances travelled to work and back.⁷ This happens when businesses are built far from houses and schools. Mixed use development, where businesses are built close to homes, churches, and schools can make people feel less stressed out and happier. Good road and sidewalk connections can be made between where people live and town centers. This makes it easier for people to use sports areas, buy healthier food, and use town services that improve their health and happiness.⁸

HEALTH AND SOCIAL SERVICES

The greater Burlington area offers a full array of practitioners representing virtually all specialties, so that Jericho residents have ready access to health care. University of Vermont Medical Center facilities in Burlington and Colchester offer inpatient, emergency room, and immediate care services. Jericho's location on VT Route 15 has made it an attractive location for health care practitioners looking to expand beyond the immediate Burlington area.

The Vermont Home, Health and Hospice provides home care, hospice, maternal and child health, and homemaker services to Jericho residents in their homes. Reimbursement for these services by health insurance payments and patient fees is supplemented by an annual appropriation of town funds.

Social service, counseling, transportation, and mental health services are available to Jericho residents through a wide variety of public, voluntary, and proprietary organizations and services located throughout Chittenden County but concentrated in Burlington. Some of these receive an annual appropriation of town funds. A full list is available in the Annual Report.

Several local organizations are offering charitable services. These include the Jericho-Underhill Ecumenical Ministry, a cooperative ministry of local churches that sponsors a local food shelf, and Meals on Wheels, which provides meals to persons who are house-bound or invalid.

RECREATION AND OPEN SPACE

Jericho is an amazing outdoor playground with abundant natural features, trails, fields, and forests to explore. There are numerous informal, natural, and passive recreational assets throughout the Town as well as some that are more traditional community greenspaces.

Jericho Center Common is the focal point of Jericho Center encircled by many community institutions such as a store, library, and church. The Common consists of grassy area interspersed with shade trees, picnic tables, and benches and serves as a community gathering spot. An informal network of trails also connects many properties in Jericho Center.

⁷ Centers for Disease Control and Prevention, Healthy Places, Mental Health <http://www.cdc.gov/healthyplaces/healthtopics/mental.htm>. December 2012.

⁸ Neighborhood Development the Connects Community Resources to Transit, Centers for Disease Control and Prevention Health Equity Guide, <http://www.cdc.gov/nccdphp/dch/pdfs/healthequity-guide/health-equity-guide-sect-4-5.pdf>.

The Winooski Valley Park District owns 12 acres of land behind the Old Mill in Jericho Corners. This land, known as **Old Mill Park**, provides access to the Browns River for fishing and swimming, picnic areas and a network of nature and hiking trails. The former Water District lands in Jericho Corners are also sometimes used for recreation, though their uses are not clearly defined and could be expanded. An informal network of footpaths connects many neighborhoods within Jericho Corners. Many mountain bike trails are scattered throughout Jericho.

Riverside contains the 200 + acre **Mills Riverside Park** managed by the Jericho Underhill Park District. The Park includes a pavilion, playing fields, hiking trails, open areas, the banks of the Browns River, a sledding hill as well as forested hillside. During the summer months, Mills Riverside Park also hosts the Jericho Farmers Market and a concert series. The Jericho/Underhill Common located on Park Street offers a small green focal point for a busy intersection in this village.

Mobbs Farm, a 278 acre Town owned property located on Browns Trace, is a significant piece of green infrastructure located close to Jericho Center but outside the Village Centers boundary. The Mobbs Farm Committee maintains the property according to the Town's adopted Management Plan

Kikas Valley Farm is 280 acres of working farmland and forest which the Jericho Underhill Land Trust acquired in 2005. The land includes trails for walking and cross-country skiing, as well as a portion of the Vermont Association of Snow Travelers (VAST) trails.

Barber Farm is a 158-acre parcel which was conserved by the Vermont Land Trust. Most of the land is being farmed but there is a public access through a short trail, which connects the Kikas Valley Farm to the Barber Farm. This trail potentially could be extended with the consent of another landowner to reach Barber Farm Road.

Wolfrun Natural Area includes 189 acres in Jericho acquired by the Jericho Underhill Land Trust in 2003. The land is home to black bear, moose, bobcat, and many other wildlife species and includes some walking trails. In 2009, the land trust acquired an additional 123-acre parcel called the Gateway (located in the town of Bolton) which provides better access to Wolfrun.

A private landowner has given the Town an easement on land along the Winooski River with the goal of creating a public trail. The Jericho Trails Committee is helping make this a reality.

The **UVM Jericho Research Forest** is open to public use for hiking, horseback riding, cross-country skiing, and approved research and educational activities. All-terrain vehicles and mountain bikes are not allowed, but snowmobiles are permitted. VAST maintains an extensive set of snowmobile trails. There are also two stream accesses, the State Fish and Wildlife access to Mill Brook on Nashville Road and the canoe launch on VT Route 117 near Skunk Hollow Road, which is located on private property but made available for public use. Open space lands associated with residential subdivisions are also scattered throughout Jericho. However, these areas tend to primarily serve the residents of the subdivision and are not generally open to the wider public.

Numerous community recreational activities include aerobics lessons, Jericho Youth League baseball and softball, gymnastics programs, several ski programs for children and adults, soccer, the Jericho Recreation summer program for children K-8, swimming lessons, tennis lessons, track and field training, volleyball leagues, girl and boy scouts, 4-H clubs, art classes, karate and tae-kwon-do classes, yoga, story hours and book discussion groups. The Community Center in Jericho, located in Jericho Center, is also available to all members of the community for a wide variety of activities.

The five school facilities in the town all offer basic services to the community, including parking areas, playing fields, a gymnasium and auditorium, and kitchen/cafeteria facilities. In addition, Mount Mansfield Union High School offers cross-country running trails, a circuit training course, and a river

access. Major upgrades to the Mount Mansfield Union athletic fields were recently completed.

The Town currently employs a part-time summer recreation coordinator to run the summer recreation program. The Selectboard formed a Recreation Committee in 2015 to better coordinate recreational needs and opportunities in the Town, and 2017 completed a Recreation Needs Assessment to better assess the recreational opportunities and needs in the Town. While most of this assessment focused on collaboration and communication around programming, it also included a recommendation to “Conduct a focused feasibility study for an indoor multigenerational community center to provide opportunities for indoor recreation, fitness and wellness activities, and community programming.” Other communities in the region are currently in the process of doing similar work, and there is much that Jericho can learn from their experience, and could possibly collaborate with adjacent communities with similar needs to undertake a similar study.

Additional Topic-Specific Action Items

- Consider requiring Universal Access Design (UAD) for certain buildings and/or as one of the incentive options for development bonuses. UAD helps make buildings/spaces that can be accessed and by all people regardless of their age, size, ability or disability.
- Consider increasing annual funding for the Open Space Fund.
- Investigate the feasibility of acquiring the “Rivers property” from Underhill-Jericho Fire District for community use and public recreation.
- Designate all Town buildings and properties to be tobacco- free including e-cigarettes and vaping.
- Support community events that foster residents’ relationships such as parades, outdoor concerts, library activities, workshops, celebrations, art shows, etc.
- Ensure that the planning process includes broad community input, with emphasis on older adults, families living in poverty and racial and ethnic minorities.
- Use AARP Livable Communities resources to help ensure elderly residents of Jericho can age in place.

8.0 JERICHO'S MOBILITY & TRANSPORTATION

Key Take-aways

- The relationship between our changing climate and our transportation network are tightly linked, and we must prioritize reducing our dependence on driving and building more climate-resilient infrastructure.
- Developing compact mixed-use centers at Jericho Corners, Jericho Center, Riverside and the Commercial District will help to create opportunities for people to live closer to where they work and shop and thus reduce congestion on our roads and greenhouse gas emissions.
- New street connections in Riverside and Commercial District can improve traffic flow and facilitate new compact mixed-use development.
- Expansion of the Town's bicycle and pedestrian networks are a high priority for providing more viable mobility options.
- The design and maintenance of our transportation infrastructure must prioritize lowering travel speeds over higher Levels of Service, and long-term climate adaptation and resilience over short-term fixes.
- The Town's current Transportation and Bicycle and Pedestrian Plans are almost 10 years old and in need of updating.

Transportation accounts for approximately one-third of all energy use in the United States and represents a major use of fossil fuel and the single biggest source (approximately 44%) of greenhouse gas emissions in Vermont. The relationship between climate change and transportation goes both ways too. Our networks of roads and sidewalks, bridges and culverts are among the most vulnerable to damage during extreme weather events that are becoming increasingly common. The resulting damage can cost taxpayers tens of thousands of dollars each year in repairs.

If we are going to be effective at reducing our contributions to climate change, efforts to reduce our dependence on driving, and especially driving alone, must be among the highest priorities for our future. These include creating many more opportunities for living closer to where we work, shop, and recreate so that travel distances are shorter and non-vehicular options are more feasible, and creating an interconnected network of sidewalks, paths, and trails to facilitate more walking and biking.



In 2015, the Town completed [*the Jericho Transportation Study*](#)¹. This plan investigates and assesses the existing transportation system, estimates and evaluates future conditions and lists recommendations for future improvements. At the same time, the Town also completed [*the Jericho Bicycle and Pedestrian Facility Master Plan*](#)² which addresses the existing bicycle and pedestrian transportation system, evaluates future conditions, and presents a list of recommendations for future improvements. This chapter is based on these plans with the data points updated where readily available. However, given that both plans are now more than 5 years old it's time that they be updated as a unified plan covering all types of mobility including vehicles, pedestrians, bicycling, and transit.

Travel Characteristics

The residents of Jericho work in a number of towns mostly within Chittenden County, with the majority working in Burlington, Essex, S. Burlington and Colchester. Less than 8% are employed in the Town of Jericho itself. The percentage of people commuting to work outside of Chittenden County has decreased from 17.5% in 2010 to 12.4% in 2020. Improvements to the regional transit system and the bicycle and pedestrian network will allow more Jericho residents to have an alternative to driving a vehicle to/from their workplace.

Apart from work trips, school, errands, and recreation trips account for a significant number of trips made in and around Jericho. Development of compact mixed-use centers coupled with improvements to the pedestrian and bicycle network will improve accessibility to these sites, which in turn may result in less congestion on local roadway, less demand on limited parking facilities, and better overall community health.

VT Routes 15 and 117, and local routes of Brown's Trace, Governor Peck, Barber Farm and Skunk Hollow roads, provide the most direct route for through traffic in Jericho for both passenger cars as well as truck traffic. Truck traffic can negatively impact traffic operations for other vehicles and alternative modes of travel, such as bicyclists and pedestrians. A 2015 survey conducted by Planning Commission shows that a majority of respondents desire improved bicycle and pedestrian conditions throughout town. The survey also showed that providing for transportation services for seniors should be a priority consideration.

Characteristics Of Roadways

State owned Vermont Routes 15 and 117 carry substantial volumes of through traffic as well as providing access to a major portion of Jericho. Class 2 Town Highways also serve as primary traffic corridors in Jericho. Class 3 roads are maintained by the Town and primarily serve residential areas in Town. The Town has approximately 20.5 miles of Class 2 roads and 41.5 miles of Class 3 roads. Jericho has a total of 30 miles of paved roads and 34 miles of gravel roads. Jericho's *Public Work Standards* include road design standards and the Selectboard recently adopted the VTrans road and bridge standards, both of which provide the design standard for all Town roads.

The *2015 Transportation Study* addressed roadway maintenance. Pavement, including gravel and paved roads, was indexed from "good" to "failed" condition as well as the change in condition from 2011 to 2014. Foothills Drive and Governor Peck Road (from Browns Trace to Forestry Road) have experienced a "severe" rate of deterioration and several other roadways have a "high" rate of deterioration, with most

¹ <https://jerichovt.org/town-documents>

² <https://jerichovt.org/town-documents>

roads experiencing small to medium levels of pavement deterioration. *The 2015 Transportation Study* provided the Town with a recommended five-year paving plan based on the most cost-effective way to maintain roads. The Study and paving plan note that it is far less expensive to maintain a good road in good condition over time than it is to repair a poor road once it has begun to fail. The Town began working with the CCRPC to incorporate the paving plan into the Capital Improvement Plan, which will officially lay out a proposed schedule for future maintenance and improvements.

Many residents prefer gravel roads remain unpaved. The Vermont Local Roads Program suggests that a threshold of 500 Annual Average Daily Trips (AADT) be used to determine when a roadway should be considered for paving, but also mentions that roadway with much higher AADT can work well as non-paved gravel facilities. Under existing conditions, Nashville Road exceeds the 500 AADT threshold for gravel roads. Other local roads, including Raceway Road, Packard Road, Orr Road, and Plains Road all have volumes approaching or marginally exceeding the 500 AADT threshold set by the Vermont Local Roads Program. Skunk Hollow Road was paved in 2014, after years of debate and based on increased traffic volume. However, while new traffic volume and speed data needs to be collected, many non-vehicular users – especially pedestrians – no longer feel safe using the road.

In 2015 the state created a new municipal highway permit designed to regulate stormwater runoff from municipal roads. The permit was issued by the end of 2017 and Jericho will need to begin planning and incorporating the required stormwater improvements into the capital budgeting process.

Safety Concerns

The *2015 Jericho Transportation Study* analyzed five years of crash data for Jericho. For the 2008-2012 period, there were a total of 128 reported crashes involving 65 injuries and one fatality, with 60% either single vehicle or rear end crashes. There are no high crash locations (HCLs), which are defined as a road segment or intersections where the number of crashes are greater than 5 per year that exceed the critical ratio/rate, however, the following high-crash road segments have been identified:

- VT 117 near Skunk Hollow Road
- VT117 near Barber Farm Road

An additional intersection has been identified for improvement, the Browns Trace/Lee River Road intersection. The operation of this intersection is unusual, stopping the higher volume roadway (southbound Browns Trace).

Traffic Volumes

Intersection control throughout Jericho currently relies primarily on stop and yield signs, with the Town's sole traffic signal at the intersection of VT Route 15 and Browns Trace. *The 2015 Transportation Study* measured Annual Average Daily Traffic (AADT) volumes for existing conditions. The highest AADT in Jericho occurs on VT Route 15, where traffic ranges from approximately 7,050 vehicles per day near the Underhill town line to nearly 12,000 vehicles per day near the Essex town line. The Study also measured out 20 years to 2035. These numbers consider annual growth in housing and modest commercial growth. The number of vehicles per day on VT Route 15 is predicted to increase by 27% near the Essex and Underhill town lines and by 33% between Lee River Road to Browns Trace by 2035.

The 2015 Jericho Transportation Study also analyzed the major intersections for their Level of Service (LOS), the standard measure used to qualify the operational performance of intersections and road segments. LOS is measured in terms of average delay per vehicle. The VTrans policy on level of services is that LOC C or higher is desirable for rural facilities, which would apply to all Jericho intersections.

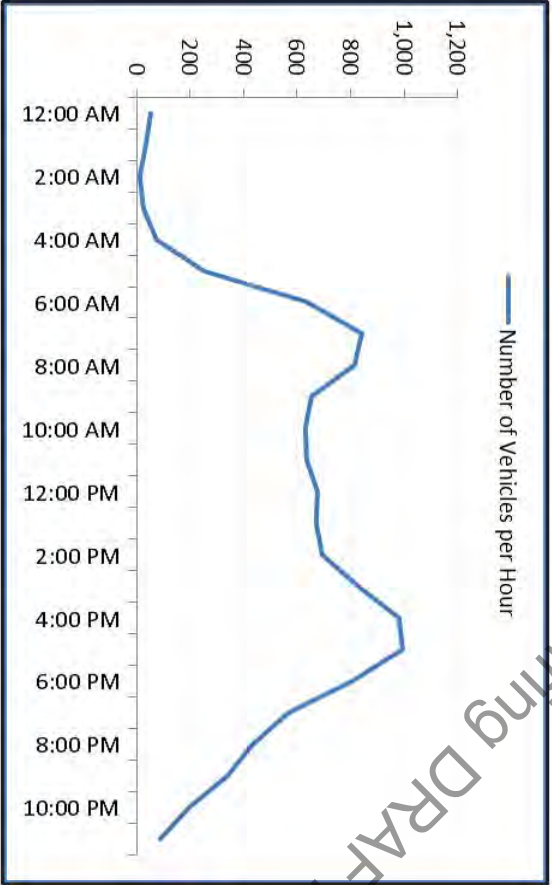
Building to achieve LOS A or B service is not appropriate and leads to the unnecessary widening of roads to accommodate peak hour traffic, resulting in roads that are overbuilt for the majority of the time. Additionally, overbuilt roadways encourage motorists to drive at higher speeds making roads more dangerous, difficult to cross, and unpleasant to walk or bike along.

The existing (2015) LOS measured for all the studied intersections is C or better in the morning and afternoon peak hours except for VT Route 15/River Road where the AM and PM Peak is LOS F for left turns from River Road onto westbound VT Route 15.

Unsignalized Intersection Level of Delay

LOS	Characteristics	Seconds of Delay
A	Little or No Delay	<10 seconds
B	Short Delays	>10 and <20 seconds
C	Average Delays	>20 and <35 seconds
D	Long Delays	>35 and <55 seconds
E	Very Long Delays	>55 and <80 seconds
F	Extreme Delays	>80 seconds

Source: Highway Capacity Manual



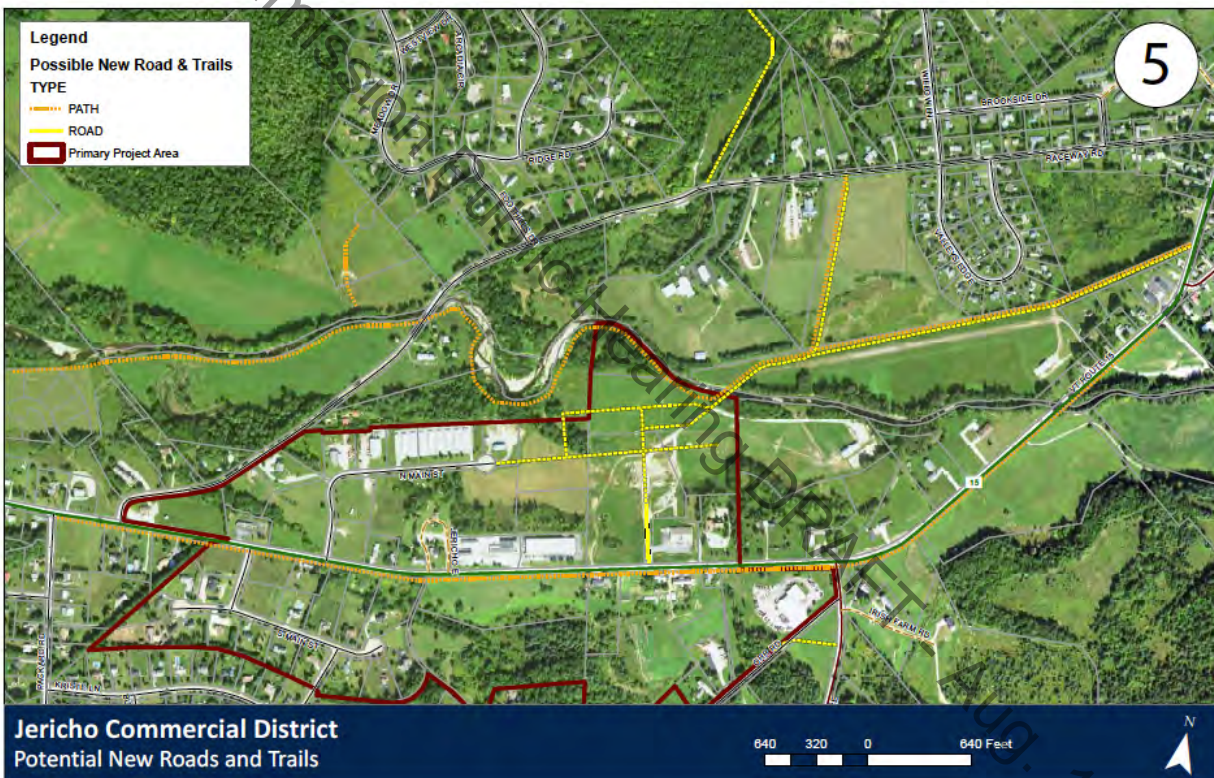
Vehicles per hour Along VT Route 15

Source: 2015 Jericho Transportation Study. Volumes recorded in 2011.

Existing travel patterns found throughout the Town of Jericho demonstrate that a significant number of vehicles pass through Jericho to other communities within Chittenden County from northern Vermont counties. This flow of commuter traffic along with Jericho commuter traffic creates significant peaking of traffic during the AM and PM peak hours as illustrated above.

RECOMENDED IMPROVEMENTS

In an effort to reduce commuter traffic and congestion along VT Route 15 in and around the Commercial District, future additional streets should be considered. For example, it might be possible to develop a new street that connects Raceway Rd. with the north side of the Commercial District (over Brown's River). This could provide an alternative access to the Commercial District that might help reduce congestion on VT Route 15 to some extent. Additionally, reconfiguring the way Orr Road meets Brown's Trace might help reduce potential vehicle conflicts (by increasing distance from the intersection with VT Route 15) and allow for additional mixed use properties to be developed.



From the 2019 Commercial District Master Plan

New streets connecting to streets outside of the Commercial District other than VT Route 15 will help reduce traffic and improve circulation. New development should be served by new or existing internal streets that comply with Complete Streets design, rather than allowing new development to individually access VT Route 15. The *2019 Commercial District Master Plan* found that there is a preference for limiting access off VT Route 15, particularly as it relates to allowing new development to access VT Route 15 and utilizing existing or future internal streets as their primary access points. This will limit new curb cuts on VT Route 15 and will limit turning conflicts in the midst of a high traffic high speed state highway.

The study identified connectivity as a key function of the Commercial District and recommended any new streets comply with Complete Streets design, to provide and enhance multi-modal transportation options. The study also suggested the Commercial District could be a preferred site for transit facilities such as a bus stop and a park and ride, to help address traffic and congestion.

Similar work was done in the Riverside area in 2018 to consider opportunities to expand the local street network to improve access to properties slated for future mixed-use development and improve flow and circulation. The *Riverside Street Network Master Plan* considered a variety of configurations and associated intersection improvements that would serve to implement the land development envisioned in the character-based code for this portion of Riverside.



Source: *Riverside Street Network Master Plan*

The *Riverside Street Network Master Plan* also considered options for the reconfiguration of the intersection at Dickinson Street and VT Rt15. As illustrated below, the plan recommended that:

the Town of Jericho consider options to advance the Dickinson Road improvements, including both the realignment of River Road/Dickinson Rd and a roundabout or signal at Route 15/Dickinson Road. These improvements will address existing traffic and safety issues and also facilitate the development of the Riverside village.

The traffic signal has significantly lower cost and impacts than the mini-roundabout. The mini-roundabout has the advantage of safety, which should be a consideration as options are developed further for this intersection. The realignment and widening of Dickinson Road should give consideration to pedestrian safety and circulation given its proximity to the school, and avoid additional traffic lanes, such as right- or left-turn lanes that are not necessary, as they can degrade safety for pedestrians.

Figure 8: Preferred Alternative for Dickinson Road from Stantec Study (2011)

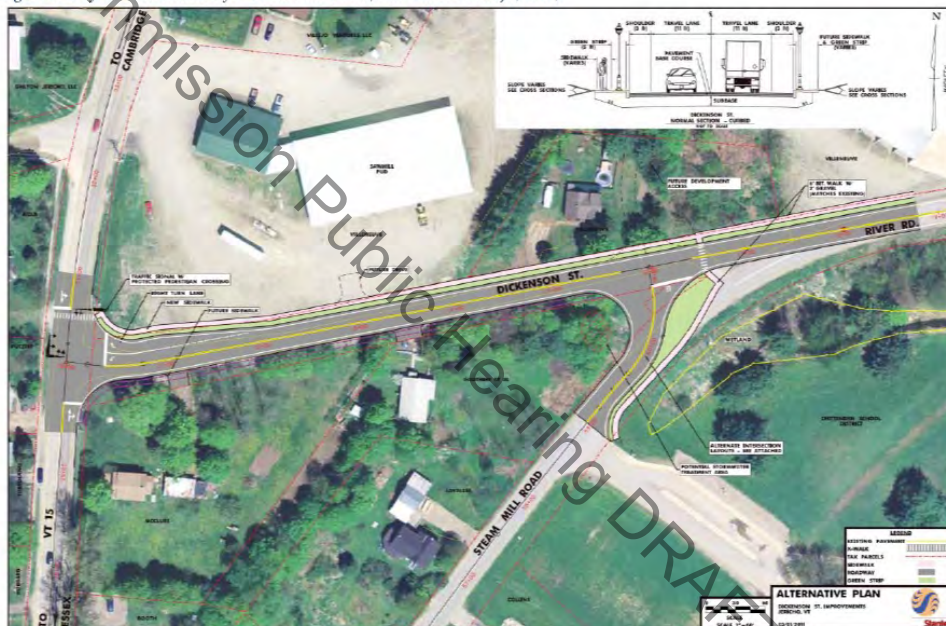
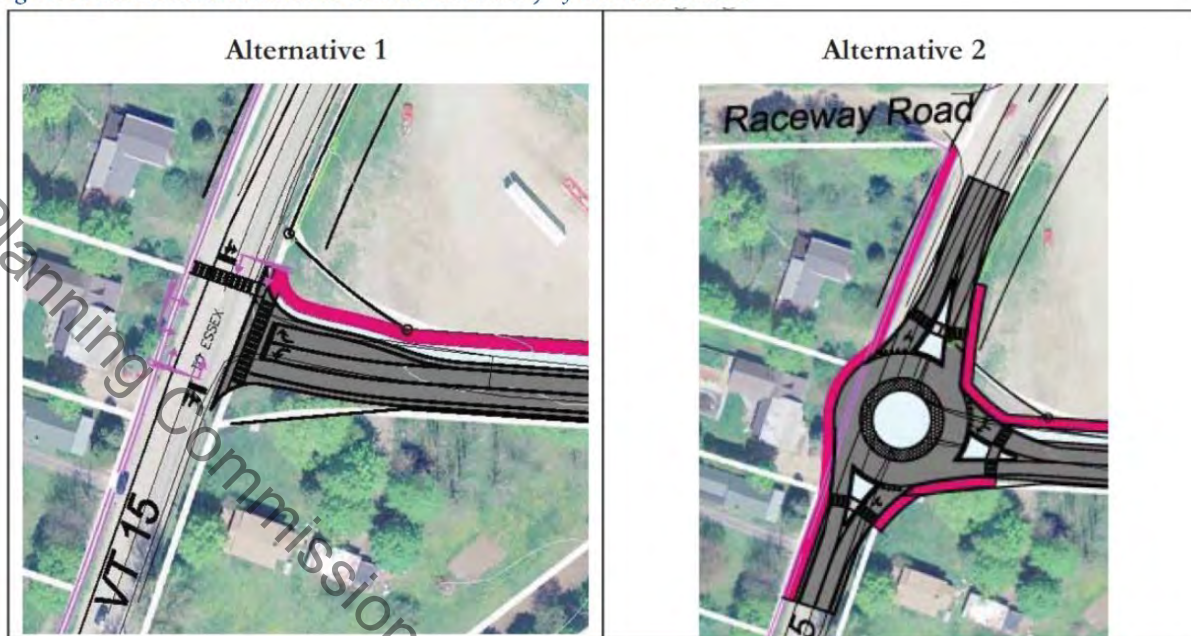


Figure 9: Alternatives considered in 2007 RSG study of Dickinson Road



Both images from the Riverside Street Network Master Plan

The 2015 Jericho Transportation Study made several recommendations for improvements to several intersections based on existing (2015) and future (2035) congestion and safety concerns at a number of intersections. The specific design improvements have not been determined, but potential intersection improvements are shown below.

Suggested Future Intersection Congestion and Safety Improvements

Intersection	Deficiency	Suggested Improvement	Properties Impacted
VT 15/River Road	Existing LOS F	Traffic Signal	TBD (Slight)
VT 15/Packard Road	Future LOS E	Second Lane	1
VT 15/Lee River Road	Future LOS F	Traffic Signal	TBD (2-3)
		Left Turn Lane	TBD (3-5)
Skunk Hollow/VT 117	Existing Safety (HCL)	Realignment	1
		Left Turn Lane	TBD (0-2)
Barber Farm /VT 117	Existing Safety (HCL)	Realignment	1
		Left Turn Lane	TBD (0-2)
Browns Trace/Lee River Road	Existing Safety	Realignment	0
		Roundabout	1

Source: 2015 Jericho Transportation Study

PARK AND RIDE/TRANSIT SERVICE

The nearest formal Park-and-Ride sites are located to the west in Essex near the intersection of VT Route 15 and VT Route 128, and to the south in Richmond at Exit 11 (I-89). Both are served by fixed-routes operated by [Green Mountain Transit](http://ridegmt.com/)³ (GMT). Several potential sites were evaluated in the *Jericho Park-and-Ride Feasibility Study and Alternatives Evaluation* (2012) and the development of a site in Jericho is a top CCRPC scoping priority. The 2019 Commercial District project identified the Commercial District as a potential location for a park and ride and bus stop that could feature pedestrian and bicycle linkages and would capture Underhill, Jericho, and Lamoille County travelers.

Green Mountain Transit (GMT) began operating commuter bus service through the Town of Jericho in 2013. The *Jeffersonville Commuter* travels between Jeffersonville and Burlington along VT Route 15 with stops in Riverside (at Dickinson Street) and in Jericho Corners (at the post office). Service consists of four weekday trips corresponding with the morning and afternoon commute peaks. Ridership has been increasing over the nearly ten years of service. Parking is available only at the Riverside stop location where a temporary Park and Ride has been established by agreement between GMT and the property owner. Both locations are connected to sidewalks for pedestrian access; bicyclists must use on-road, shared facilities.

In 2021, with assistance of the Chittenden County Regional Planning Commission, a *Tri-Town Area Transit Feasibility Study* was completed for Jericho, Underhill, and Cambridge to consider opportunities and options for developing better rural transit. Because the communities lack a sufficient population density to support traditional fixed-route service, the study focused on traditional demand response (like that currently offered by SSTA), “micromobility” (typically providing a connection between where people live and a fixed-route service in the form of bike/scooter sharing), ridesharing (such as carpool/vanpool offered by CATMA and Go Vermont), micro-transit (a fee-based demand response service within a defined service area), and a senior bus (similar to what’s operated by the Town of Essex).

Again, given the rural nature of the three communities, lack of population density, the aging population, and the costs and complexity of providing various services, the *Tri-Town Area Transit Feasibility Study* recommended the further consideration of two options with the greatest likelihood of success – a volunteer-based micro-transit service, and a senior bus.

BICYCLE AND PEDESTRIAN MOBILITY

The *2015 Jericho Bicycle and Pedestrian Master Plan*, which assessed the existing bicycle and pedestrian transportation systems, evaluated future conditions, and presented a list of recommendations. The sidewalks are concentrated in Jericho’s three village centers. Additionally, an informal network of paths connects Jericho Elementary School and surrounding neighborhoods. There are also recreational trail networks concentrated at Mobbs Farm and Mills Park. There are no existing paved multi-use off road facilities located within the Town. State Highways VT Route 15 and VT Route 117 and all Class 2 Town highways have been identified in CCRPC’s Regional/Pedestrian/Bicycle Plan as recommended on-road bicycle routes. None of these roadways currently meet the design criteria established for on-road bicycle use.

The Town is committed to providing continued support for alternative transportation modes of travel. The 2015 survey conducted by the Planning Commission for this Town Plan found that residents highly

³ <http://ridegmt.com/>

value additional and improved bicycle and pedestrian modes. *The 2015 Bicycle and Pedestrian Plan* also takes note of several key areas for growth in the pedestrian and bicycle infrastructure:

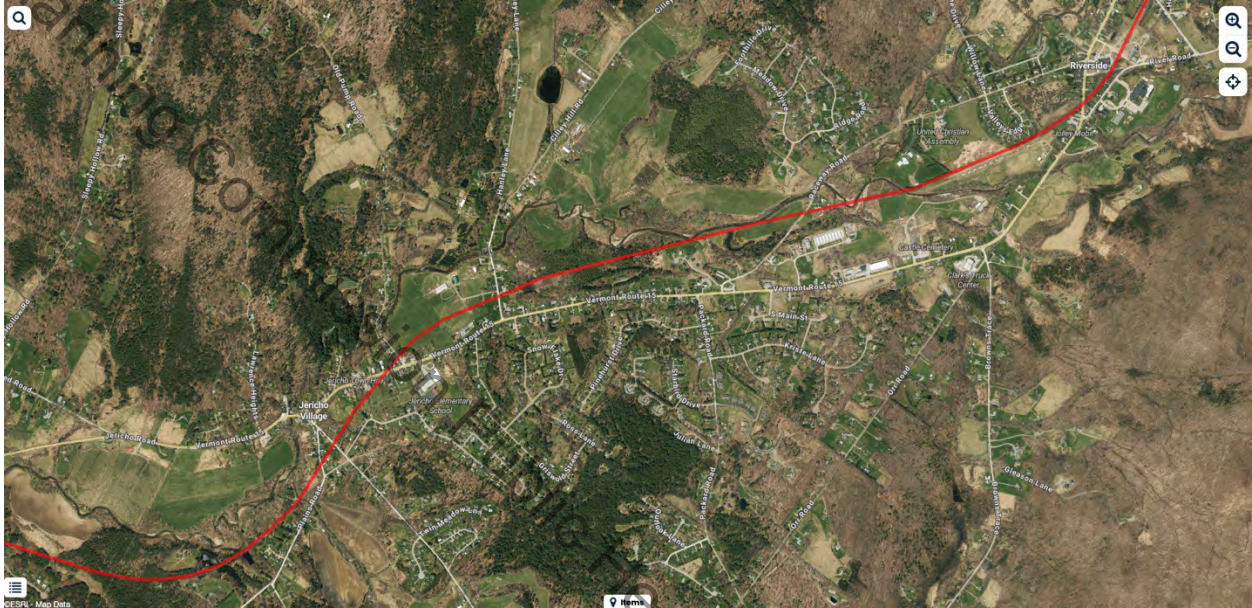
- The overall sidewalk system has improved significantly in the last decade, with key connections established in Jericho Corners, Jericho Center, and Riverside, including a crossing with a flashing beacon across VT Route 15 at the Jericho Elementary School. However, sidewalks still only cover limited stretches and do not interconnect for regional access or internal connections in the Town.
- There are critical gaps for bicycle travel along the existing road network in Jericho where the shoulder widths do not meet the VTrans guidelines for shared bicycle use.
- A comprehensive pedestrian bicycle network, with connections to regional routes, can help to promote Jericho as a travel destination. The network could tie together several important sites within the Town.
- Many important destinations in Jericho (cultural, scenic, civil, schools, etc.) cannot currently be reached safely by bicycle or walking. By providing alternate connections (i.e., sidewalks or bike lanes), residents and visitors will not be as reliant on automobiles for all trips.
- A more fully integrated pedestrian and bicycle system will encourage Jericho residents to bicycle and walk to destinations, thus encouraging a healthier lifestyle, as well as relieve congestion and reduce safety concerns.

There are several pedestrian and bicycle enhancement projects that are currently either under construction or planned for the near future:

- Browns Trace Bicycle/Pedestrian Path and Sidewalk Extension – This project will construct a bicycle/pedestrian path along Browns Trace, beginning at Pratt Road and extending to Plains Road. It will also construct sidewalk/shoulders from Plains Road to the existing sidewalk in Jericho Center. This project is funded by a 2010 Transportation Enhancement grant and 2014 Transportation Alternatives grant, both from VTrans. The goal is to eventually connect Jericho Corners to MMU High School.
- Riverside VT Route 15 Pedestrian Crossing – This project was under design in 2015 for a pedestrian crossing signal across VT Route 15 to River Street and a striped pedestrian crossing at Dickinson Street.
- Jericho Corners Connection Project – This scoping study, funded by a 2014 VTrans Bicycle/Pedestrian grant award, began in the spring of 2015 and will evaluate bicycle/pedestrian facilities in Jericho Corners Village Center and the residential neighborhoods along Lee River Road. The Town received additional grant funding in 2015 for implementation of the chosen alternative in 2016.
- Riverside Sidewalks – Conceptual plans have been developed for sidewalks on the north and south sides of VT Route 15 from Palmer Lane in Riverside to the Underhill town line. Construction of the west side sidewalk from River Road to the Underhill town line was completed in summer 2013, while construction of the sidewalk on the east side of VT Route 15 is currently in the final design stage.
- Jericho Boardwalk – This proposed pedestrian boardwalk (bicyclists must dismount and walk) would be six-feet wide and would include two or more 12-foot wide observation decks, and would be constructed completely within the public right-of-way between Wilder Road and

Varney Road in Jericho Center. The boardwalk would extend the full length of the wetland, and would include several measures to minimize potential impacts on wildlife.

- **Bike and Pedestrian Facility on VT Route 15** – The Town received a 2016 grant for a scoping study along VT Route 15 to assess options for bike and pedestrian facilities in the stretch between the Jericho Corners and Riverside. The preferred alternative chosen is a multi-use path along the south side of VT Route 15, and further consideration of an off-road path on the alignment of the former Burlington and Lamoille Railroad is currently in the planning stage.



Route of the former Burlington and Lamoille Railroad

Proposed Bicycle Facilities

The *2015 Bicycle and Pedestrian Master Plan* recommends several additional specific improvements for on-road bicycle accommodations. On road bicycle accommodations are intended to provide bicyclists with adequate shoulder width on existing roads to travel more safely with vehicles. The table below shows the highest priority on-road bicycle accommodations; these would allow bicycles to safely travel between the three village centers and to serve the greatest density of residences and businesses as well as the lower priority bicycle improvements that will enable safe bicycle travel to areas outside of Jericho. As noted above, the Town should pursue widening where needed as road improvement projects are initiated.

Proposed Town on-road accommodations are envisioned as three-to-four-foot striped shoulders. In the absence of funds necessary for shoulder widening, short-term incremental improvements can significantly improve bicycle safety by reallocating existing pavement width to provide as little as two feet of shoulder width to cyclists and pedestrians. Whenever median lines are repainted, the fog lines receive similar treatment and be re-located to provide sufficient shoulder widths for bicycles and to encourage motor vehicle travel at safe speeds. Consideration should also be given to methods for keeping shoulders clear for cyclists such as a road sweeper.

Priority and Desirable Bicycle Connections

Priority Roadway Segments
Jericho Corners to Jericho Center via Lee River Road
Jericho Center to Riverside via Browns Trace
Riverside to Jericho Corners via VT 15
Desirable Roadway Segments
Jericho Corners to Essex via VT 15
Jericho Corners to VT 117 via Skunk Hollow Road
Jericho Center to VT 117 via Barber Farm Road
Access to the Richmond Park and Ride via VT 117 and Governor Peck Road
Jericho Center to Richmond via Browns Trace
Williston to Essex via VT 117

Source: 2015 Jericho Bicycle and Pedestrian Plan

Proposed Pedestrian Facilities

While sidewalks and multi-use paths are found in many locations, additional pedestrian facilities should be considered to connect neighborhoods and fill in gaps in the existing sidewalk network. The 2015 Bicycle and Pedestrian Plan recommended that the Town install sidewalks or paths in each area when there are roadway or other improvements in the same area or when safety demands dictate it, such as if schoolchildren are present, if unsafe conditions currently exist, or to fill in gaps between existing sidewalks. Additionally, the 2015 Planning Commission survey showed residents are very supportive of improved pedestrian and bicycle connections. The 2019 Commercial District project identified a desire to utilize the railroad bed and the banks of the Browns River for a multi-use path that could ultimately connect Jericho Corners to Riverside along this route. The project also identified a priority for a multi-use path along VT Route 15 in the Commercial District. Additionally, taking a “complete streets” approach in the Commercial District, utilizing internal street designs that meet Town Road and Bridge Standards, and should provide adequate area for bicycling and walking. Table 9.4 below shows the town wide list of priority and desirable connections. Within each category there is no set order of priority.

Numerous subdivisions have been built in Jericho over the last several decades, but little work has been done to ensure connection between these neighborhoods. The Town should develop a plan for proposed connections that would be incorporated into an Official Map so that when new development is proposed they are on the table for consideration.

Priority and Desirable Pedestrian Sidewalk/Path Connections

Priority Projects	
Roadway Segment	Mode of Connection
VT 15, south side, connecting Griswold Street to Raceway Road	Multiuse Path
Packard Road, connecting Starbird Road to VT 15	Sidewalk or path

Plains Road, connecting the Tillotson Drive to the new sidewalk on Browns Trace and Jericho Center	Sidewalk
Alpine Drive, connecting to Raceway Road and VT 15	Sidewalk
VT 15, southeast side, adjacent to the Riverside development.	Sidewalk
Desirable Projects	
Roadway Segment	Mode of Connection
Griswold St. to Twin Meadow Ln/Lafayette Dr.	Sidewalk
Snowflake Dr. to VT 15	Sidewalk or Path
Varney Rd to Jericho Center	Sidewalk or Path
Kettle Creek to Mobbs Farm	Multiuse Path
MMMU to VT 15	Sidewalk or Path
Orr Rd. to Lee River Road	Sidewalk
Skunk Hollow Rd to Saxon Hill (in Essex)	Multiuse Path
UVM/Mobbs Farm to Barber Farm	Multiuse Path
Snipe Island Rd. to Wolf Run	Multiuse Path
UVM Forest to Governor Peck Rd	Multiuse Path
River Rd. to Mills Riverside Park	Sidewalk or Path
Utilize the former Central Vermont Railway railroad bed, connecting Jericho Corners with Riverside	Multiuse Path

Source: 2015 Jericho Bicycle and Pedestrian Plan

Other Considerations

Concerns have been expressed about the safety of bicyclists and pedestrians due to speeding traffic along many paved and gravel Town roads. Additional concerns have been raised about the safety of horse on Town roads. Some consideration for traffic calming may be appropriate, particularly where vehicle speeds have been noted as a concern. Measures that may be employed include:

1. Ensure that design and maintenance specifications incorporate an intended “design speed” so that improvements do not encourage and facilitate excessive speed.
2. Strategic/occasional use of radar speed trailers. Speed trailers, particularly when they are new, have been shown to have an effect on vehicle speeds. Having a Town-owned trailer that can be moved around would be a cost-effective way to addressing speeding concerns.
3. “Share the road” and bicycle warning signs can raise the awareness of



drivers that other users might be present.

4. “Watch for pedestrians & cyclists” signs can be used at sight distance-constrained locations.

Additional Topic-Specific Action Items

- Only roads which contribute to a network of interconnected roads and streets should be accepted as public roads. The Town of Jericho should not accept dead-end roads as public roads. Whenever feasible, the continuation of roads in new developments and subdivisions should be required, and rights-of-way reserved for future extension/connection of dead-end roads.
- Every ten years, update traffic data and conduct projections using similar methodology to the 2015 Transportation Study.
- Include funds in the Capital Plan for shoulder widening on roadways proposed for on-road bicycle facilities on and along roadways which connect Village Centers such as Lee River Road and Browns Trace. Shoulder widening should occur in conjunction with other planned roadway improvements.
- Work with VTTrans to ensure that any upgrades to VT Route 15 and VT Route 117 include creation of shoulder widths sufficient to accommodate a paved shoulder bicycle facility meeting the requirements of the Vermont Pedestrian and Bicycle Facility Planning and Design Manual.
- Conduct a complete inventory of all existing trails and paths, as well as easements that have been secured through the development review process. This information can then form the basis for a comprehensive plan for an interconnected network, and any future connections should be placed on an Official Map for future protection.
- Work with major local and regional employers and businesses to facilitate carpooling, ridesharing, and or transit use among their employees.
- Narrow, whenever possible, the travel lanes of paved roadways in developed areas, providing larger shoulders for bicyclists or curbs and/or a green strip between roads and sidewalks.
- When reviewing possible road upgrades, including paving, the Selectboard should consider impacts on (a) the safety of non-motorized users, (b) reducing the average speed of traffic, (c) reducing the volume of through traffic on local streets, (d) stormwater management, and (e) the aesthetics of the area.
- Implement Low Impact and Green Site design development standards for erosion and stormwater control for use in road maintenance and construction.
- Investigate alternatives to road salt to help protect waterways and roadside vegetation, and establish a policy and process for the planting and replacement of trees along all streets and roads.

9.0 JERICO'S PUBLIC UTILITIES

Key Take-aways

- The availability of public infrastructure – particularly water and wastewater - is critical to creating new development opportunities for new housing, businesses, and community services in and around the village centers.
- The creation of one or more public wastewater systems, and expansion of existing water supply systems, to serve compact mixed-use development in and around the village centers is one of the Town's highest priorities.
- With new compact development comes the need to give greater consideration to stormwater impacts especially given the increased frequency of major precipitation events.
- Not all parts of Jericho are equally well-served by broadband or wireless telecommunication services.

Public infrastructure such as water, wastewater, energy, and telecommunications form the essential backbone to supporting how a community functions. They provide us with clean drinking water, safely and responsibly manage our waste to protect our environment, provide heat and light, and enable us to connect and communicate with the outside world.

WATER SUPPLY

Jericho Corners and Riverside are both served by public water supplies. Riverside is served by the Jericho-Underhill Water District, which also provides water in Underhill. Jericho Corners is served by the Jericho Village Water District, which obtains water from the [Champlain Water District](https://www.champlainwater.org/)¹ (CWD). The Jericho Village Water District waterlines extend down Packard Road to Mount Mansfield Union High School and then to the Ethan Allen Firing Range. Boundaries of these two public water service areas are shown on Map 12.

The availability of public water greatly enhances development opportunities in these two Village Centers. Public water alleviates the need for each property to provide its own water supply, and often they can provide a higher rate of flow necessary for fire protection and water-intensive uses. In areas with public water, more area can be devoted to structures, septic fields, parking, and other infrastructure due to the lack of conflicting setbacks from private wells. This enables a more compact development pattern and diverse range of uses. The availability of public water also greatly enhances fire protection which can help to lower insurance rates as well..

The remainder of Jericho is served by either private or community wells. Unlike the other two Village Centers, Jericho Center is not served by a public water system. This reduces the potential for new, village scale development in this area. The close proximity of many existing structures in Jericho Center

¹ <https://www.champlainwater.org/>

coupled with the lack of public water also raises concerns regarding fire protection. As noted above, the Champlain Valley Water District water lines extend to Mount Mansfield Union High School, which is located approximately one mile north of Jericho Center. These lines could be expanded to Jericho Center in the future. As an alternative, some properties could be connected to a community system serving this area.

The 2019 Commercial District study discussed the benefits of extending water infrastructure within the Commercial District, recognizing its value to future businesses as well as for fire safety purposes. Based on analysis in that study, the most viable solution is to extend water service to the Commercial District by connecting to the Jericho Village Water District's system.

Wellhead Protection

Wellhead Protection Areas are the areas that immediately surround a public drinking water well and are defined in order to protect the ground water and ground water recharge areas of the Town from adverse development or land use practices, and to preserve and protect present and potential sources of water supply for the public health and safety.

The Town's Wellhead Protection Area (WHPA) Overlay District consists of three areas:

- The WHPA-1, a circle of radius 200 feet surrounding each of the water supply wells serving the Jericho Village Water District, the foothills water supply, and the Underhill Jericho Water District, the Jericho Heights water supply, and any other public water supply on the most recent "water Source Protection Areas" map prepared by the Vermont Agency of Natural Resources (ANR) Water Supply Division.
- The WHPA-2: Wellhead protection areas in active use identified on the most recent "Water Source Protection Areas" map prepared by the ANR Water Supply Division that are delineated as Zone 2 on the water system's most recent Source Protection Plan.
- WHPA-3: Wellhead protection areas in active use identified on the most recent "Water Source Protection Area's" map prepared by the ANR Water Supply Division that are delineated as Zone 3 on the water system's most recent Source Protection Plan.

WASTEWATER & STORMWATER

No central wastewater disposal system is available to Jericho residents. Private systems, including both community systems serving major subdivisions and individual on-site septic systems, process all of the sewage in Jericho.

Soil Septic Suitability is depicted on Map 13. Soils in Jericho Corners, Riverside and the Commercial District are generally favorable for onsite sewage disposal. While some soils favorable to onsite sewage disposal exist in Jericho Center, the presence of neighboring wells greatly reduces their availability for this function.

Wastewater regulations and new wastewater treatment technology may allow additional development in some parts of town. "Pretreatment technologies" can be used on poor soils and in areas with high groundwater tables that are otherwise undevelopable. Even in areas with soils well suited for onsite wastewater treatment, pretreatment can be used to increase wastewater flows or reduce the size of the wastewater disposal field. In a similar vein, the new state wastewater regulations eliminated the requirement for a replacement area for mound systems and, in some cases reduced the size of the replacement area required for conventional systems. Together, these changes will likely contribute to

increased development opportunities in rural areas that were previously thought undevelopable. However, the continued reliance on on-site septic systems to meet Jericho's housing crisis and vision for the future will never be enough.

The creation of public wastewater systems in and around the 3 village centers and commercial district is critical to supporting new compact mixed-use development opportunities for new housing, businesses, and community services. The lack of public wastewater systems has been repeatedly cited in the Town Plan and other Master Planning efforts as a major obstacle to the future growth and development of the Village Centers and Commercial District.

Through a grant provided by the State, the Town has commissioned a feasibility study to provide recommendations for providing public wastewater capacity in and around the 3 village centers and commercial district. Final recommendations are expected in early 2024. Additionally, the Ethan Allen Firing Range is considering the expansion of its facilities and capacity to house students training on-site. In order to do this, they too will need additional wastewater capacity which presents an opportunity for collaboration between the Range and Town.

In 2017 Jericho commissioned a [Stormwater Master Plan](#) to help address growing stormwater management concerns primarily along the VT15 corridor between Jericho Corners and Riverside and around Jericho Center. As impervious cover has increased, so has the volume of stormwater runoff which has resulted in problems such as annual flooding, slope destabilization, and increased stormwater flow to surface waters. Springtime flooding has persisted most notably around South Main Street of Jericho Corners due to large neighborhood developments, steep upper-extent slopes, and frozen ground preventing infiltration. Stormwater runoff is prompting slope failure due to increased and concentrated stormwater flow within specific areas. Moreover, heavy rain events are resulting in excess stormwater flow, and therefore increased amounts of sediment and nutrients, such as nitrogen and phosphorus, from paved and gravel roads, and driveways and parking lots. There has been a substantial increase in both road and ditch erosion. This erosion is being further exacerbated by water ponding due to increased runoff from properties located outside of the road Right-of-Way (ROW). Ponding is especially prevalent along VT Route 15 shoulders (e.g. the junction of VT-15 and Browns Trace Road).

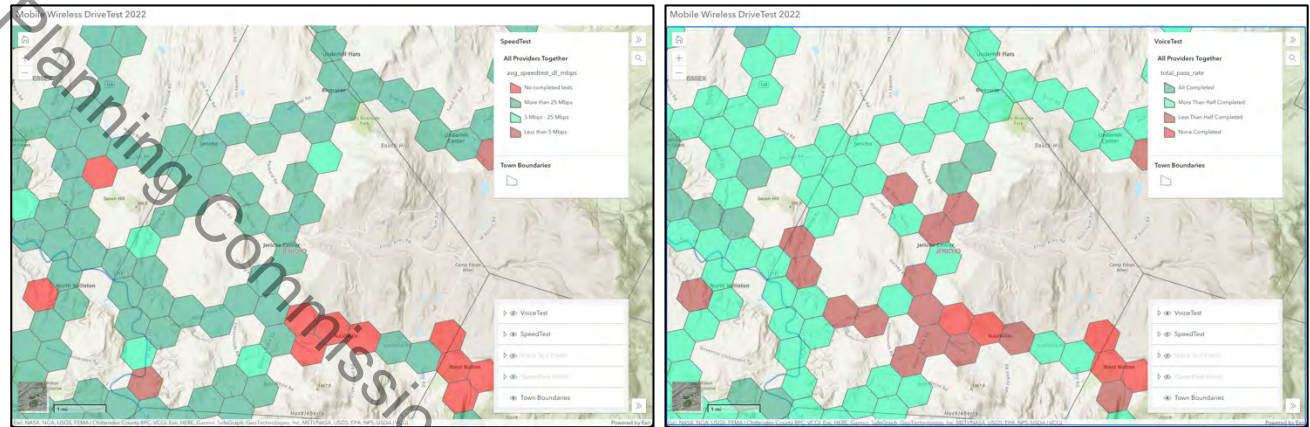
The result of this study included recommendations around 6 top-ranked best management practices opportunities all eligible for state implementation funding. Additionally, the study made recommendations for changes to town road standards and zoning regulations in order to reduce unnecessary roadway widths and review smaller incremental development projects.

BROADBAND AND TELECOMMUNICATION SERVICES

Post-pandemic more and more people are working or learning from home, and cell phones are increasingly replacing landlines as households look to reduce redundant services and expenses. Both trends are making high-speed broadband and cellular telecommunications a necessity and no longer just a luxury.

There are 3 telecommunications towners in Jericho – one in a silo on VT15 hosting Sprint, a monopole on the ridge above Mills Riverside Park hosting AT&T and VTel, and one on the ridge above Varney Rd hosting AT&T and Verizon. However, given the rural nature of Jericho and the mountainous terrain, service is spotty – especially along Nashville Road and into West Bolton.

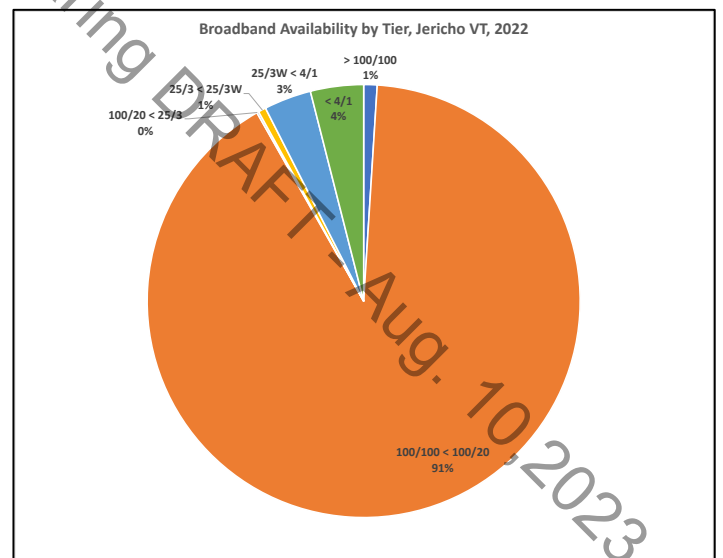
Mobile Wireless Drive Test – Speed & Voice, VT Dept. of Public Service, 2022



The Town adopted Telecommunication Regulations in 2003 to regulate Telecommunication facilities, but local control is limited by federal and state law (30 V.S.A. §248). Given that towers by necessity often must be placed on undeveloped ridgelines, the siting of new towers and associated facilities must take into account factors such as visual impacts, wildlife habitat, erosion, and potential impacts on headwaters. Collocation of new antennae on existing towers shall be preferred over the construction of new towers whenever feasible.

While broadband internet is currently available in many parts of Jericho, other parts of town have unreliable or inadequate high-speed internet. Per the VT Dept. of Public Service 2022 data, ~91% (1,903) of Jericho addresses have currently have broadband service of 100/20 (at least 100 Mbps and an upload speed of at least 20 Mbps) to 100/100 (download speed of at least 100 Mbps and is symmetrical). Only 21 addresses (along VT117) have a higher level of service.

Jericho has joined the [Chittenden County Communications Union District](#) in a joint effort with neighboring communities in a multi-year effort to plan, fund and build high-speed broadband service to currently underserved locations.



ENERGY

In an effort to become more sustainable and resilient in response to a changing global climate, the State of Vermont has taken the lead and adopted a Comprehensive Energy Plan (CEP, updated in 2022) setting ambitious statewide energy goals which form a roadmap for communities like Jericho to follow:

- *Meet 25% of our energy needs across all sectors (transportation, heating, electricity) from renewable sources by 2025, 45% by 2035, and 90% by 2050.*
- *Fully decarbonized the electric sector by 2032.*
- *Weatherize 120,000 household by 2030.*
- *Reduce greenhouse gases by 26% from 2005 levels by 2025, 40% from 1990 levels by 2030, and 80% from 1990 levels by 2050.*
- *Increase the number of electric vehicles in Vermont, and of having zero-emission vehicles account for 100% of light-duty vehicle sales in Vermont by 2035.*
- *achieve net-zero ready construction for all newly constructed buildings by 2030.*

The Town of Jericho has identified goals and strategies to contribute to these State's goals. Jericho's Enhanced Energy Plan herein describes its existing energy infrastructure, identifies specific targets for total energy use reduction and renewable energy generation, articulates strategies for meeting these targets, and maps the most suitable areas for renewable energy generation. This plan is in alignment with the Chittenden Regional Planning Commission ECOS plan (2018) and uses data from the Long-Range Energy Alternative Planning (LEAP) ² analysis completed by the Vermont Energy Investment Corporation.

This plan addresses strategies for energy management across all end-uses in Vermont, including residential uses (28% of all energy used), commercial (19%), industrial (14%) and transportation (39%) (US Energy Information Administration State Profile, 2016). To meet the state's goals, energy use in all sectors must be transformed. A swift adoption of renewable technologies and increased electric efficiency will be necessary. The strategies described in this plan will lead the town towards these goals.

ACT 174 AND SUBSTANTIAL DEFERENCE

In 2016, Act 174 established a process for "enhanced energy planning," which encourages municipalities to write plans that are "energy compliant." This plan meets the standards for energy planning established by Act 174 and outlined in 24 V.S.A. §4352. Therefore, the policies of this plan will receive substantial deference in §248 proceedings. The Public Utility Commission shall apply the land conservation measures or specific policies in accordance with their terms unless there is a clear and convincing demonstration that other factors affecting the general good of the State outweigh the application of the measure or policy. This is a higher standard of review than "due consideration," which the municipal plan's policies would otherwise receive.

² Updated LEAP modeling was not available at the time of preparing this plan, so all modeling data is from the 2018 Jericho Enhanced Energy Plan

Electricity Distribution and Transmission

Two electric utilities provide grid service to Jericho consumers (see Map 12):

- Green Mountain Power (GMP) serves approximately 1500 customers in a wide strip north and south of VT Route 15, as well as most of the southwest corner of the town. GMP took over the territory parallel to VT Route 15 when it acquired Central Vermont Public Service.
- Vermont Electric Cooperative (VEC) serves approximately 570 customers in the southeast corner of Jericho, including much of Jericho Center, as well as the far northern and western edges of the town.

Jericho's electric utility service territories grew organically from Vermont Electric Cooperative's original mandate as part of the Rural Electrification Act (around 1938) to provide electric service to unserved areas of the state. The Public Service Board (now the Public Utilities Commission) later formalized boundaries to reduce redundant utility infrastructure. Owing to this rather unusual history, utility service territories seldom follow neat geographic or political boundaries. In a few locations in Jericho, both utility companies provide service on the same road. It can be confusing and aggravating for customers of one utility who have lost power to see that neighbors served by the other utility still have it.

GMP's distribution system originates from a substation on Route 15 near the Jericho/Underhill border, served by a sub-transmission line from Fairfax. A three-phase distribution line runs west along Route 15 to the Essex town line, terminating at a Champlain Water District pumping station on the Essex side. Three-phase service also extends south along Browns Trace to a metering point about midway between Route 15 and Packard Road. All other GMP service in Jericho is single-phase, mostly branching off the 3-phase line. Service in the far southern portions of Jericho is fed from lines along Route 117 between Richmond and Williston.

Vermont Electric Cooperative provides three-phase service from a metering point on Browns Trace southward to Mt Mansfield Union High School and the Army National Guard at Ethan Allen Road. Single phases branch out from this line south along Browns Trace and west along Lee River and Packard Roads. VEC's single-phase service in the northern (Cilley Hill) and western (Skunk Hollow) portions of Jericho originates from a sub transmission line between Essex and Westford.

VEC's pole lines are generally constructed to follow the shortest straight-line route. The lines are often in the woods where damage is likely and access is difficult. In contrast, GMP's lines mostly follow public roads. The difference in construction practices results in a significant difference in reliability as illustrated by actual outage data provided by both utilities, as shown in Table 11.1.

Extension of three phased power to Jericho Center and throughout the Commercial District would increase these areas' ability to support mixed use development. The three-phase distribution line along VT Route 15 interrupts the scenic view of Mount Mansfield, a view that helps make Jericho an attractive place to live. Relocating the line underground would restore the uninterrupted view of the mountain, reduce the hazard posed by utility poles too close to the highway, improve electrical reliability, and provide a right-of-way for a sidewalk from Underhill Flats to Jericho Corners.

Although utilities are buried in new developments, there are still many lines along Jericho's roads and a number of major transmission lines running through the woods and fields. Although provision for these facilities is vital for a safe and productive society, the poles, wires, and the destruction of roadside vegetation are among the most unfortunate impacts to the landscape. Over time, existing lines should be buried and new lines should be placed underground unless there are clear environmental constraints to doing so.

Utility Outage Data

Year	VEC			GMP		
	cstmrs	total outage hours	avg outage hours	cstmrs	total outage hours	avg outage hours
2010	554	37648	67.96	1692	41	0.02
2011	560	9623.7	17.19	1691	106.4	0.06
2012	570	8436.5	14.80	1677	105	0.06
2013	571	17693.2	30.99	1667	363.3	0.22

Source: VEC and GMP

These statistics suggest that any consumer within VEC's Jericho service territory should consider installing a backup generator or a battery system. In-home battery storage systems can be leased from Green Mountain Power, but there is currently a waiting list for the program and purchasing the systems can be prohibitively expensive. This may change over time, making technology more accessible. VEC doesn't currently offer a battery storage system to offer VEC rate payers at the time of writing of this plan.

Electricity Generation

Private solar (photovoltaic or PV) collectors and solar hot water heaters are becoming popular in Jericho and Vermont as a whole. According to the State Department of Public Service and the Vermont Community Energy Dashboard, 264 solar arrays have been permitted in Jericho as of May 2019, as shown in Table 11.2. As of this writing, the Town of Jericho is pursuing a 1.6 MW solar array on the former landfill at Mobbs Farm.

Table 11.2 Existing Renewable Electricity Generation in Jericho

	Sites	Power (MW)	Energy (MWh)
Solar	264	2.8	3,434
Wind	0	0	0
Hydroelectric	0	0	0
Other	0	0	0
Total	264	2.8	3,434

Source: Community Energy Dashboard, May 2019

Innovative financing plans offered by several companies have reduced the upfront cost of solar PV and water heating systems. Favorable power purchase terms offered by local utilities (so-called "net metering" arrangements) have made these investments attractive over the long term. As a result, individual PV systems have been installed at many locations in Jericho. Browns River Middle School now uses solar PV lighting in its parking lot. At least three community solar arrays with a combined capacity of 665 kW have been installed, benefitting many households.

Natural Gas

In 2007, Vermont Gas began expanding service into Jericho and currently serves more than 700 customers in Jericho. These gas lines primarily serve VT Route 15, the Village Centers of Jericho Corners and Riverside and surrounding residential neighborhoods. Natural gas is not currently available in Jericho Center and portions of the Commercial District. The 2019 Commercial District study identified that extending the natural gas line between the Browns River and Brown's Trace and into the Commercial District would support economic development. Vermont Gas is planning an extension along Packard Road to eventually serve the Ethan Allen Firing Range.

While electric utilities have a regulatory obligation to serve all consumers within their designated service territory, Vermont Gas is obliged to prove the economic feasibility of any proposed new construction. Generally, this restriction limits gas service to highly developed areas or locations with an "anchor load" such as a large industrial or institutional facility. Natural barriers such as river crossings or rock formations can make it economically impractical to serve all potential customers within the approved "footprint."

Natural gas infrastructure in Jericho could be positive for economic development and for lowering home heating costs, but its energy impacts are more complicated. Greenhouse gas emissions from natural gas use are lower than fuel oil, making it a possible bridge fuel from fuel oil to renewable technologies. However, once they have invested in installing natural gas infrastructure, building owners may be unlikely to switch heating sources again. In the future, this infrastructure may be utilized for renewable natural gas (biomethane), a nascent technology whose availability may increase over the life of this plan. Going forward, the town's energy committee should focus efforts on promoting the benefits of switching from fuel oil to renewable energy sources for heating, rather than to natural gas.

ANALYSIS AND TARGETS

Current inventories of energy sources and projections of future energy use are found below. Future energy use targets come from the Long-range Energy Alternatives Planning (LEAP) analysis³ for Chittenden County, completed by the Vermont Energy Investment Corporation (VEIC). LEAP shows the most likely path for Jericho to meet the State's energy goals, based on current technology. For detailed information on LEAP, see the [2018 Chittenden County ECOS Plan – Supplement 6](#)⁴.

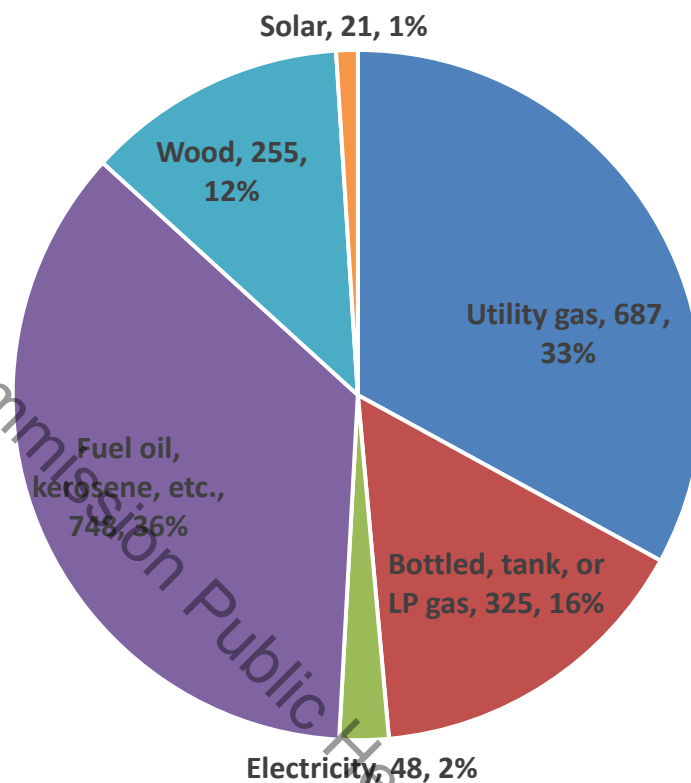
Thermal Energy

To meet Jericho's energy goals, most thermal energy use must come from renewable sources in the future. Most heating in Jericho comes from fossil fuels – either fuel oil, kerosene, or gas. Fossil fuel-based energy use is costly from an economic and environmental perspective. Additionally, some residents use wood to meet supplemental heating needs. Use of fuel oil/kerosene, propane and wood must be estimated through the American Community Survey. Vermont Gas makes data available regarding the use of natural gas.

³ Updated LEAP modeling was not available at the time of preparing this plan, so all modeling data is from the 2018 Jericho Enhanced Energy Plan.

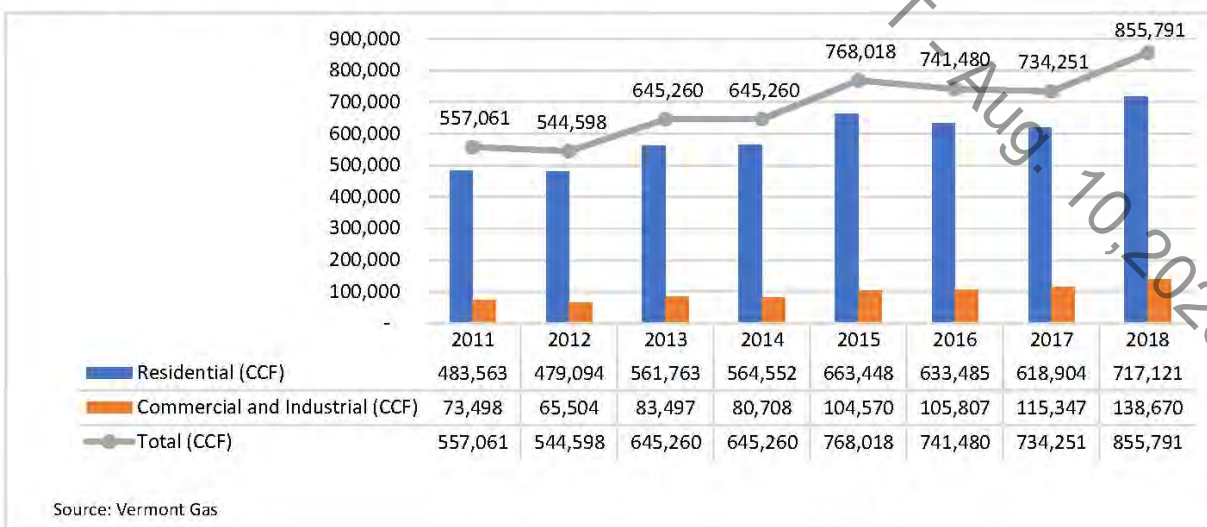
⁴ <http://www.ecosproject.com/2018-ecos-plan>

Home Heating Fuel Source, Jericho VT (2021)



Source: U.S. Census Bureau (2017-2021). House Heating Fuel American Community Survey 5-year estimates. Retrieved from <<https://censusreporter.org>>, Table B25040

Figure 1. Natural Gas Usage in Jericho, 2011-2018



Between now and 2050, the LEAP model⁵ projects major changes in thermal energy use for residential, municipal, and commercial buildings. The LEAP model assumes that total thermal energy use will decrease due to (1) increased building weatherization, (2) advances in energy efficient technology, and (3) increased use of heat pumps and wood heat across building types. The tables below show the LEAP model results for commercial and residential thermal energy use between 2015 and 2050.

LEAP Model Estimates of Future Commercial Thermal Energy Use, 2015-2050

	2015	2025	2035	2050
Total Commercial Thermal Energy Use (MMBtu)	63,018	61,673	58,743	51,959
Percent of Commercial Establishments Weatherized by Target Year	14%	25%	27%	48%
Energy Saved by Weatherization by Target Year (MMBtu)	1,514	3,315	4,597	11,078
Commercial Establishments Using Heat Pumps (%)	1%	27%	44%	50%
Commercial Thermal Energy Use by Heat Pumps (MMBtu)	116	5,001	9,886	14,771
Commercial Establishments Using Wood Heating (%)	9%	12%	13%	14%
Commercial Thermal Energy Use Attributable to Wood Heating (MMBtu)	4,682	7,462	10,278	15,048

**Please note that 2015 data is modeled and therefore there may be a difference between data reported in 2015 and the 2015 data point from the LEAP Model. Sources: LEAP Model, Department of Public Service, Department of Labor*

⁵ Updated LEAP modeling was not available at the time of preparing this plan, so all modeling data is from the 2018 Jericho Enhanced Energy Plan

Jericho and surrounding areas have an abundant wood supply. While much of the new growth has little value for timber production, it is still valuable for energy. As noted above, many residents use cordwood as a supplemental heat source. Mount Mansfield Union High School and Browns River Middle School currently use woodchip burners to generate heat. Each winter, the high school burns

LEAP Model Estimates of Future Residential Thermal Energy Use, 2015-2050

	2015	2025	2035	2050
Total Residential Thermal Energy Use (MMBtu)	190,860	171,104	145,076	100,445
Percent of Residences Weatherized by Target Year	1%	14%	36%	100%
Energy Saved by Weatherization by Target Year (MMBtu)	679	7,987	21,816	68,284
Percent of Residences Using Heat Pumps	3%	18%	37%	60%
Residential Thermal Energy Use from Heat Pumps (MMBtu)	1,909	11,090	22,816	33,451
Residences Using Wood Heating (%)	14%	14%	14%	14%
Residential Thermal Energy Use from Wood Heating (MMBtu)	29,876	31,421	31,451	27,634

**Please note that 2015 data is modeled and therefore there may be a difference between data reported in 2015 and the 2015 data point from the LEAP Model. Sources: LEAP Model, Department of Public Service*

approximately 600 green tons of wood, and the middle school burns approximately 300 green tons of wood. However, these systems are both about 25 years old, and may need replacing during the life of this plan. Any replacement systems should also be wood or another renewable fuel.

Replacement of old furnaces and wood stoves with new, cleaner burning pellet-burning furnaces should be considered to protect air quality. Pelletized wood and grass and “waste-to-fuel” methane digestion can be used to generate heat or electricity.

While not energy generation in the traditional sense, passive solar, or the direct use of sunlight for heat and light, can reduce energy use and costs. Passive solar design is discussed at greater length in “Land Use Planning and Site Design” below.

Electricity

Residential uses are responsible for most of Jericho’s current electricity consumption. While the LEAP model projects a reduction in total energy use (electric, thermal and transportation use) by 2050, electricity use is projected to increase. This is due to the projected electrification of the light duty transportation fleet and the increased use of heat pumps, especially for residential heating.

Jericho Electrical Usage (KWH)

Sector	2019	2020	2021
Commercial & Industrial	5,943,884	5,840,973	6,577,374
Residential	14,291,692	15,792,303	16,755,901
Total	20,235,576	21,633,276	23,333,275
Count of Residential Premises	1,975	2,036	2,051
Average Residential Usage	7,236	7,757	8,170

Source: Source: Efficiency Vermont and the CCRPC, 2022

LEAP Model Estimates of Future Electrical Energy Use, 2025-2050

	2015	2025	2035	2050
Total Electricity Use (MWh)*	12,982	15,641	19,935	25,835
Total Electric Energy Saved (MWh)	272,700	3,242,100	6,544,800	12,241,200
Residences that have increased their Electric Efficiency	3%	30%	58%	98%
Commercial Establishments that have Increased Their Electric Efficiency	3%	30%	58%	98%

Source: LEAP Model

*Please note that 2015 data is modeled and therefore there may be a difference between data reported in 2015 and the 2015 data point from the LEAP Model. Because of the difficulty of projecting industrial electricity use and the small amount of industrial activity in Jericho, projected industrial electricity use is not included in these data.

Transportation

Transportation accounts for approximately one-third of all energy use in the United States and probably more in Jericho, due to Jericho's rural character. It represents a major use of fossil fuel and the single biggest source (approximately 44%) of greenhouse gas emissions in Vermont.

Measures that reduce the use of the single-occupancy motor vehicle include planning for compact, mixed-use development in village centers, pedestrian and bicycle friendly roadways, local park-and-ride facilities, carpooling, and public transit. Jericho has worked closely with Green Mountain Transit to bring regular bus service to two of Jericho's Village Centers. The town has installed new sidewalks in Jericho Center and elsewhere to provide for safer bicycle and pedestrian traffic and encourage more non-driving travel. These measures are discussed at greater length in the Transportation Chapter of this Plan.

In addition to reducing single occupancy vehicle use, vehicles must shift away from fossil fuels to meet Jericho's energy goals. To meet the state's goals of having zero-emission vehicles account for 100% of light-duty vehicle sales in Vermont by 2035 major changes will be needed in the transportation sector. The LEAP model projects that 89% of light duty vehicles will be electric cars and 96% of energy used by heavy-duty vehicles will come from biodiesel rather than fossil fuels. The Town of Jericho can encourage this fuel shift by providing charging spaces in public parking areas and working with partners to educate residents on vehicle benefits. There are currently only 2 Level 2 chargers available to the public in Riverside at the Union Bank.

LEAP Model Estimates of Future Transportation Energy Use, 2025-2050

	2015	2025	2035	2050
Total Light Duty Transportation Energy Use (MMBtu)	279,001	232,433	147,231	64,169
Electricity Used for Light Duty Transportation (MMBtu)	221	3,100	21,365	45,092
Light Duty Electric Vehicles (% of Vehicle Fleet)	1%	6%	41%	89%
Biofuel Blended* Energy Used for Light Duty Transportation (MMBtu)	278,780	229,334	125,866	19,077
Biofuel Blend*Light Duty Vehicles (% of Vehicle Fleet)	99%	94%	59%	11%
Heavy-Duty Transportation Energy Use from Biodiesel (Percent of Total)	4%	33%	58%	96%
Heavy-Duty Transportation Energy Use from Fossil Fuels (Percent of Total)	96%	67%	42%	4%

**Please note that 2015 data is modeled and therefore there may be a difference between data reported in 2015 and the 2015 data point from the LEAP Model. *These measures biofuels blended with fossil fuels. A common example is gasoline with ethanol mixed in. Sources: VTrans, LEAP Model*

While many forms of non-fossil fuel cars may be available in the future, current technology suggests that electric vehicles are the most likely to replace gas-burning light duty vehicles, and biodiesel-capable engines are the most likely to replace heavy-duty vehicles. Widespread adoption of non-fossil fuel vehicles will depend on cost competitiveness, reliability and other factors that play into individual and business choices. This is especially true with regards to the Town of Jericho's vehicle fleet, which consists of medium and heavy-duty trucks for road work and plowing. The Town evaluates fuel efficiency when replacing vehicles, but technology and cost competitiveness must advance significantly before the Town will consider alternative fuels for its road maintenance vehicles.

The table below show the number and type of Electric Vehicles that are currently registered to addresses in Jericho:

Jericho Electric Vehicles

Vehicle Type	2019	2020	2021
All Electric	34	42	59
Plug In Hybrid	38	40	53
Total	72	82	112

Source: Efficiency Vermont and the CCRPC, 2022

ENERGY EFFICIENCY AND CONSERVATION

The least expensive energy is the energy we don't use. Simple actions such as replacing inefficient lighting and appliances can save energy and money. Other more complex improvements such as increased building insulation and air sealing can save even more. Energy audits are essential in determining which insulation and air-sealing improvements should be made, as well as the effectiveness of the measures undertaken. Jericho should promote energy audits which often reveal low-cost improvements residents can make themselves.

Municipalities and schools can be models for energy conservation and efficiency. The Jericho Elementary and Underhill I.D. schools have installed more efficient outdoor lighting. The 2008 renovation of the Jericho Town Hall included installation of modern windows, improved insulation, energy efficient lighting, and HVAC systems. Energy efficiency retrofits were completed at the Jericho Community Center, Jericho Highway Garage, and Mount Mansfield Union High School, but more work is needed. Jericho should lead by example and continue to make energy efficient retrofits to other municipal buildings, such as the Town Library. Any work performed needs to be completed so as to not disturb the historic character of a building.

Efficiency upgrades completed as a result of a comprehensive energy audit qualify for incentives from Efficiency Vermont (EVT), Vermont's energy efficiency utility. EVT offers rebates and incentives for homeowners' purchase and installation of energy efficient products and works with commercial and non-residential property owners to plan and implement energy conservation strategies. Energy efficiency services are also available from Vermont Gas Systems and from Champlain Valley Weatherization Services for qualified households. Projects undertaken with Efficiency Vermont are shown below. These efforts will help the Town meet its goals of decreasing per capita total energy use by 2050.

Efficiency Vermont Residential Projects, Jericho	2019	2020	2021	Total
Total Residential Projects (includes projects below)	195	208	237	640
Home Performance with ENERGY STAR® Projects	10	6	7	23
Other Weatherization Projects	4	3	6	13
Residential New Construction Projects	1	1	1	3
Other Selected Measure and Engagement Counts				
Home Energy Visits	9	1	2	12
Heat Pump Water Heater Installations	11	16	18	45
Cold Climate Heat Pump Installations	49	77	114	240
Wood Heating Installations	8	5	23	36

Efficiency Vermont Commercial & Industrial Projects, Jericho	2019	2020	2021	Total
Total Commercial & Industrial Customer Served	58	46	35	139
Total Commercial & Industrial Projects	43	42	36	121
Small & Medium Business Walkthroughs	0	0	0	0
Cold Climate Heat Pump Installations	7	0	3	10
Heat Pump Water Heater Installations	1	0	0	1
Wood Heating Installations	0	0	0	0

	2015	2025	2035	2050
Table 11.11 LEAP Model Estimates of Future Total Energy Use Per Capita (Excluding Industrial Electricity Use) 2015-2050				
Total Energy Use (MMBtu)	577,173	518,577	419,070	304,723
Population	5,082	5,202	5,279	5,511
Total Energy Use Per Capita (MMBtu)	114	100	79	55
Reduction in Total Energy Use Per Capita since 2015	--	-12%	-30%	-51%

Source: LEAP Model

**Please note that 2015 data is modeled and therefore there may be a difference between data reported in 2015 and the 2015 data point from the LEAP Model. Industrial electricity use is recognized as the most difficult element to project in the LEAP model, because of regional discrepancies in data from the commercial and industrial sector. Therefore, projected electricity use and total energy use are reported two ways: with industrial electricity use included and excluded.*

Land Use Planning and Site Design

Land use planning can significantly reduce energy consumption. Directing development toward Jericho's three Village Centers and the Commercial District can reduce Jericho's energy consumption. It works in several ways:

- Concentrating residential development and infrastructure close to local services reduces the need to commute by automobile. Transit service is more viable when populations are concentrated rather than spread out over wide distances.
- Natural gas lines are more often found in areas with higher population density. Existing natural gas infrastructure may provide opportunities for conversion to renewable natural gas in the future. Additionally, dense areas may be candidates for future combined heat and power systems.

Multi-family dwellings and mixed-use structures are usually more efficient than single family dwellings due to decreased exposure from common walls. Even for single family residential development, the small lot sizes allowed in the Village Centers will probably result in smaller dwellings, which require less energy for heating, air conditioning, and lighting than large ones. Site design can also reduce energy use and costs:

- Southern exposure for building sites provides immediate energy savings as well as potential future benefits.
- Large window areas on the southern side of a building allow passive solar heating in the winter months.
- South facing roof areas favor solar panels.
- Clearing areas with solar access in mind facilitates future use of the sun.

- Shelterbelts north of a building can buffer against cold winter wind and on the south side of a building can provide cooling shade in the summer.

A variety of site design techniques can also reduce energy use and costs:

- Southern exposure for building sites provides immediate energy savings as well as potential for passive collection and active generation.
- Large window areas on the southern side of a building allow passive solar heating in the winter months.
- South facing roof areas favor solar panels.
- Clearing areas with solar access in mind facilitates future use of the sun.
- Shelterbelts north of a building can buffer against cold winter wind and on the south side of a building can provide cooling shade in the summer.

As new development occurs, each project should be taking proactive measure to reduce their consumption of energy including through transportation, use clean and renewable sources of energy, and incorporate opportunities for on-site generation and storage. Creating the necessary infrastructure to support more use and availability of clean electricity will also be key. This includes ensuring the reliability and capacity of the grid to support increased demand, and the convenient placement of EV charging stations so people can feel more comfortable relying on electric vehicles for their transportation needs.

GENERATION

Meeting the goal of 90% renewable energy by 2050 will require a significant increase in electricity generation throughout Vermont. As part of Chittenden County's regional energy plan, the *2018 ECOS Regional Plan*, the Chittenden County Regional Planning Commission set a high and low range generation goal for each of the County's municipalities. Jericho's range is annual generation of 14,523 to 25,201 MWh, in addition to the 1,347 MWh already being generated in the municipality as of 2017.⁶

The Town of Jericho is open to considering all forms of renewable energy generation, including solar, wind and hydroelectric. Wind energy has been controversial in other locations due to concerns about aesthetics, noise, and wildlife mortality. With appropriate constraints, including limiting the amount of land that would need to be cleared, small-scale wind energy production (as a general rule, one or two turbines with a hub height of no more than 50 meters) could contribute to Jericho's renewable energy generation goals. While Jericho historically once used local hydrological sources for much of its energy needs, it currently does not use any energy derived from hydro-electric generation. The redevelopment of hydro-electric is impeded by high capital costs and state and federal regulations conceived for larger facilities.

⁶ Chittenden Country Regional Planning Commission has set high and low generation targets for the county and each municipality (see [Supplement 6 of the 2018 ECOS Plan for the methodology](#)). Any amount of generation within this range means that the town is producing its share of renewable energy generation for the county.

New Renewable Electricity Generation Targets

	2025		2035		2050	
	Low	High	Low	High	Low	High
Generation Targets – Any Technology (MWh)	4,149	7,200	8,299	14,401	14,523	25,201

Sources: LEAP Model and CCRPC Modeling

These targets are in addition to the 1,347 MWh already being generated in Jericho as of 2017.

These goals are technology neutral, but estimating generation potential in Jericho for various technologies helps contextualize the goals. As shown below, Jericho has a large amount of renewable energy potential, but only a small part of it would need to be developed to meet the generation goals. Environmental and regulatory constraints are also accounted for in the analysis of wind and solar potential to identify prime and base areas. Prime areas are locations with high energy potential that are free from state/local known constraints. Base areas are locations with high energy potential and with a presence of state/local possible constraints.

Land Available in Jericho for Wind and Solar Generation

	Prime Area Potential	Base Area Potential
Solar	575 acres (3% of town)	3,855 acres (17% of town)
Wind	447 acres (2% of town)	4,889 acres (22% of town)

Source: CCRPC and the Department of Public Service, Vermont Center for Geographic Information

Estimates of Future Renewable Electricity Generation Potential

	Power (MW)	Energy (MWh)
Rooftop Solar*	4	4,712
Ground-Mounted Solar* – Prime	72	88,219
Ground-Mounted Solar* – Base	64	78,791
Wind – Prime	18	54,815
Wind – Base	196	599,538
Hydro	See Map 17 for Potential Sites	
Biomass	See Map 7 for Forested Areas	
Methane	Unknown	Unknown
Other	Unknown	Unknown

Source: CCRPC and the Department of Public Service

*Rooftop solar potential is calculated by assuming that a certain percentage of rooftops can hold solar systems. Ground-mounted solar potential reports how much land could be developed with solar based on its aspect and elevation, and does not remove space taken up by impervious surfaces like roofs. Therefore, rooftop solar potential cannot be added to ground-mounted solar potential, as this would lead to some generation potential being double counted.

With only 0.7% of its total acres developed with solar, or 0.9% of its total acres developed with wind, Jericho could reach its high generation target.

Figure 2 - Land Area Needed to Meet Jericho's High Target with 100% Wind



Figure 3 - Land Area Needed to Meet Jericho's High Target with 100% Solar



* The acreage includes rooftop generation.

Energy Generation Siting

In order to reach the renewable electricity generation targets, Jericho will need to identify the most suitable areas to site these facilities. As articulated in the Town Plan, Jericho values its natural resources, its rural character, and its scenic view sheds, listing their protection and preservation as its first two goals. While it is important for Jericho to move towards secure and affordable energy sources, they must also have minimal environmental impact. Not all areas are suitable for renewable energy development.

The State of Vermont and the Town of Jericho have defined certain resources as known and possible constraints. Known constraints are areas in which development, including renewable energy generation, is not appropriate. Possible constraints are areas in which the effects of development, including renewable energy generation, may need to be mitigated. State-defined constraints are protected by the ECOS Regional Plan and state agency review during the Public Utility Commission review process. These constraints ensure that energy generation in Jericho is subject to the same standards as other kinds of development.

State-Defined Known Constraints*	State-Defined Possible Constraints*
- FEMA Floodways - DEC River Corridors - State-significant Natural Communities - Rare, Threatened, and Endangered Species - Vernal Pools - Class 1 and 2 wetlands (VSWI and advisory layers)	- Agricultural Soils and Hydric Soils - Act 250 Agricultural Soil Mitigation Areas - FEMA Special Flood Hazard Areas - Vermont Conservation Design Highest Priority Forest Blocks (Forest Blocks – Connectivity, Forest Blocks – Interior, Forest Blocks - Physical Land Division) - Highest Priority Wildlife Crossings - Protected Lands (State fee lands and private conservation lands) - Deer Wintering Areas
<i>*Also Shown on Map 18</i>	<i>*Also shown on Map 19</i>

The Town of Jericho has added additional constraints based on local policy. These resources are discussed in detail in the Natural Resources chapter of this plan. Going forward, Jericho will work with developers, including those developing energy facilities, to avoid adverse impacts to the known constraints mapped and defined in this plan, and minimize and mitigate impacts to the possible constraints mapped and defined in this plan.

Locally Defined Known Constraints	Locally Defined Possible Constraints
- Groundwater Supply Source Protection Areas (Shown on Map 6) - Primary Conservation Areas as protected in the Tiered Conservation Priorities (Shown on Map 9)	- Secondary Conservation Areas as protected in the Tiered Conservation Priorities (Shown on Map 9) - Village Centers (shown on Map 14,15 & 16)⁷

While it is important to identify constraints to renewable energy generation, it is also important to identify preferred sites. Articulating preferred sites for renewable energy generation is important because of the growth of net metering (the process by which homeowners or businesses feed electricity they generate directly into the grid and are paid the retail rate or higher for that electricity). Vermont's Net Metering Rules (Rule 5.100, effective 7/1/2017) define preferred sites for net-metered renewable energy generation (any renewable technology besides hydroelectric). Net metering on preferred sites

⁷ Unlike the other constraints in this plan, development is encouraged in the Village Center areas. However, using the limited land area planned for growth for land intensive energy generation and transmission facilities is counter to this plan's broader goals of compact, energy efficient development. Energy generation is appropriate in the Village Centers if it is incorporated into a preferred site, such as a parking lot or the roof of a building.

can be larger (up to 500 kW instead of 150 kW) and receive better net metering rates. (See the latest *Vermont Public Utility Commission Rule Pertaining to Construction and Operation of Net-Metering Systems*). Though they receive benefits, preferred sites are still subject to review by the Public Utilities Commission.

Preferred sites are:

- On a pre-existing structure
- Parking lot canopies over permitted paved areas
- Previously developed land
 - Brownfields
 - Landfills
 - Gravel pits
 - Superfund sites
- On the same parcel as a customer taking 50% or more of the output
- Town-designated sites (Town-designated preferred sites can be identified in a duly adopted municipal plan or through a joint letter of support by the town planning commission, town legislative body and regional planning commission)

A NOTE ON SCENIC VIEWS

Scenic views are important to the Town of Jericho, and this plan includes many implementation items calling for new incentives or regulations to preserve the town's scenic beauty. Though more specific local policies are still in development, Section 248 still requires energy generation facilities not to have an undue adverse effect on the scenic or natural beauty of an area.

The Town encourages applicants to work with neighbors and the planning commission to use strategies from the [Views to the Mountain Manual](#) to mitigate any that are projects proposed in the viewsheds identified as "most scenic" in that report.

Actions Taken So Far

In 2009, the Jericho Energy Task Force (JETF) was formed to tackle energy-related projects within the Jericho community, including energy efficiency, transportation, food production, and renewable energy. Since its inception JETF's projects have included:

- Street lighting efficiency improvements - In 2011 the task force took advantage of incentives offered by EVT to upgrade Jericho's streetlights for increased efficiency. The upgrade project, completed at no cost to Town taxpayers, removed about 10 unnecessary fixtures and converted the 70 remaining fixtures to light-emitting diode (LED) technology. Because of the lower lease rate on the LED fixtures, the Town is saving several thousand dollars annually on lighting costs while enjoying uniform lighting. Jericho was one of the first towns in Chittenden County to have all LED street lighting.
- Home Energy Challenge - In 2013 the task force won \$10,000 from Efficiency Vermont for

encouraging community members to weatherize their homes via the Home Energy Challenge. The money helped make the Jericho Community Center more energy efficient.

- Northeast Solar Energy Association Home Energy Tour - for three years, the JETF hosted tours of local energy efficiency projects.
- Button Up Workshops - four workshops were held at the Deborah Rawson Memorial Library and more are planned.
- Winter Movie Series - for seven years we have sponsored energy-related movies, presentations and lectures at the Deborah Rawson Memorial Library and Jericho Community Center.
- Home energy visits were completed by volunteers and further visits are being planned with professional assistance.
- Energy efficiency presentations and informational displays at local functions such as Town Meeting and Green Up Day.
- Home Energy Makeover Trailer at Harvest Market.
- Two years of electric vehicle displays and education took place at Harvest Market.
- An eco-driving workshop was held.
- Button Up Day - Energy efficiency information in cooperation with Jeri-Hill Hardware.
- Bicycle Commuting and Hands on Bicycle Repair workshops.
- Advised the Select Board and Planning Commission on energy-related matters.
- Assisted with the establishment and continuation of a GMT bus line.
- Collaborate with other town energy committees to share information and advocate long-term policy changes.

Potential Equity Impacts

Act 174 requires that municipalities assess the potential equity impacts of the policies and objectives included under Pathway Standards 6-9 to help ensure the transitions required to meet Vermont's renewable energy goals and GHG requirements work to make energy more accessible and democratically managed for all Vermont communities.

In 2023 the Jericho Selectboard adopted a *Declaration of Inclusion* which guides all Town actions, policies and operating procedures including these related to energy.

While our energy efficiency and generation goals apply across our entire community, we need to be aware that the impacts of making such dramatic changes will not impact every household, business, property, or individual in the same way. There are and will be lower income households and new businesses trying to establish themselves who will be disproportionately burdened by higher costs of new technologies and energy sources. It will be incumbent on the Town, working with other governmental, non-profit, and business partners, to maintain an awareness of these impacts, and find ways to help reduce the costs of making energy-related improvements to homes or businesses.

As such, we must remain prepared to respond accordingly by being:

- **Inclusive, Transparent, and Innovative** in how we engage with our community and especially

those who have been, or may be, disproportionately impacted.

- **Aware and Accountable** for our goals, policies, and actions.
- **Restorative** as we consider the impacts caused past harms and inequities.
- **Responsive** to opportunities to effect positive change and offering information, tools, and resources.

While Jericho has little control over most energy choices, generation, and distribution, we do have a lot of control over land use and development in our community. Here is where we stand to make the greatest difference as community to overcome existing inequities and barriers by:

- **working to greatly expand the types, sizes, price-points, and location of housing throughout the town.** Growing the number of smaller and more diverse housing will make it possible for a greater diversity of households (race, age, ethnicity, income, etc) to call Jericho home and become part of our community. This housing will also be more energy efficient and more affordable to purchase and maintain.
- **working to grow and nurture more compact mixed-use development in and around existing centers.** Compact mixed-use centers will enable more people to make more trips without the need for a vehicle which will reduce transportation costs and GHG emissions.
- **working to reduce the complexity, time, and expense of the development review process.** To create more housing and mixed-use development, the Town's development standards and review processes need to make it very clear and easy to do what we say we want.
- **providing useful information about the various incentive, rebate and assistance programs offered.** This can be made possible through collaborations between the Jericho Energy Task Force (JETF) and Diversity, Equity, and Inclusion Committee.

Additional Topic-Specific Action Items

- Maintain an updated schedule of impact fees to mitigate the effect of new development on the cost of improving affected utilities, facilities, and services.
- Require new and relocated utilities to be located underground and develop a plan to reduce the number of overhead lines with a goal of complete elimination.
- Identify cost effective improvements to reduce energy consumption and cost at all public and quasi-publicly owned buildings through professional energy audits.
- Include low cost energy efficiency retrofits as part of the annual building maintenance budgets, and high cost energy efficiency retrofits in the Capital Budget.
- Adopt fuel efficiency standards and consider the cost-effectiveness and viability of diverse fuel-types, such as biodiesel, natural gas, and electric, when purchasing and/or leasing new vehicles. Maintain a regular schedule of vehicle maintenance to ensure efficient operation and minimum emissions.
- Develop and implement a comprehensive education program that includes educational materials/web resources and workshops regarding energy audits, weatherization, energy efficiency options, “eco-driving techniques,” fuel efficiency, EV, biodiesel, and current incentive programs.
- Consider requirements for new EV charging stations and solar-ready roofs for new mixed-use, commercial, and multi-family development.
- Identify locations for new public electric vehicle charging stations in each of the Village Centers, such as the Jericho Market, and the Commercial District. Work with GMP, VEC, and others to identify funding sources.
- Inventory public and quasi-publicly owned lands, buildings, and properties and evaluate their potential for renewable energy, including but not limited to solar, wood/biomass, and carbon sequestration.
- Educate residents about opportunities for installing solar panels or other renewable systems and to purchase or lease in-home battery storage systems, especially combined with net metering projects, to reduce the need for generators.
- Ensure that homeowners’ associations do not impede the Town’s energy policies through bylaws and covenants which include, among other things, minimum house types and sizes and restrictions on solar panels.
- Consider local incentives for new mixed-use, residential, and commercial development implementing high performance building standards (e.g. LEED, Passive Haus, etc), passive solar siting, and installing renewable energy systems.
- Consider subdivision and site plan standards that promote solar gain and utilization of other renewable energy resources, and encourage landscape designs that promote the efficient use of energy.

10. JERICOH'S COMMUNITY FACILITIES & SERVICES

Key Take-aways

- The number of school-aged children has been declining which will have a long-term effect on the taxpayer's ability to maintain the quality of our schools.
- There are few gathering places, and particularly no local options for large indoor community gatherings, shelter or recreation during in climate weather.
- The growing demands of supporting the Town's fire and EMS services falls primarily on a large group of aging volunteers and who struggle to find enough volunteers willing and able to make the large time commitment.
- The Town's elected officials and paid staff also face a wide range of growing demands, and ways to provide additional capacity is going to be essential in order to keep up.
- The Town's tax base is heavily unbalanced towards residential land uses, and is not growing at a rate sufficient to counteract inflation.

While wires and pipes associated with our public utilities form the backbone of our “hard” infrastructure, it mostly comes down to people who make up our community’s “soft” infrastructure.

EDUCATION

Education is one of the most important community services provided by the Town when viewed in terms of social impact and is the most significant in terms of cost. The schools function as a social focal point for the community, deeply involving most students and their families and significantly affecting all students for the rest of their lives. The schools are among the largest employers in Jericho. Data on educational indicators for Jericho is available from [the Vermont Agency of Education](https://education.vermont.gov).¹

There are three schools operating in Jericho. The Jericho Elementary School (JES) serves most Jericho children, kindergarten through grade four. Browns River Middle School (BRMS), also located in Riverside/Underhill Flats serves grades five through eight, and Mount Mansfield Union High School (MMU) serves all children in grades nine through twelve from the towns of Jericho, Underhill, Richmond, Bolton, and Huntington. Public schools located in Jericho are depicted on Map 12.

Jericho is a member of the [Mt. Mansfield Modified Union](#)



¹ <https://education.vermont.gov>

[School District](#)² (MMUUSD) along with the towns of Bolton, Huntington, Richmond, and Underhill. The district consists of eight schools - five elementary schools, two middle schools and a high school, a preschool program at the former Underhill ID school - and provide an outstanding education to over 2,400 students. Technical opportunities are available for Jericho high school juniors and seniors through the Center for Technology at Essex or the Burlington Technology Center. Some adult technology programs are also available at those locations.

The MMUUSD has experienced declining enrollments since 2022-12 - down by ~10% districtwide. Because of this, the Underhill Incorporated District ("the Underhill I.D.") was closed at the end of the 2018-2019 school year after a decline in enrollment from 153 to 88 since 1995, and the Jericho Elementary and Underhill Central School also have experienced similar declines. Today the ID Schools hosts two of MMUUSD's school-based preschool programs for ~35 students - [Saxon Hill School](#) and [First Roots](#) - and the MMUUSD Central Office.

MMUUSD owns and operates a fleet of school buses, which transports the children of Jericho to their schools. Through the nationwide [Safe Routes to School \(SR2S\) program](#)³, students, particularly at Jericho Elementary School and Browns River Middle School are encouraged to walk or bike to school. SR2S includes two key areas— programmatic activities and infrastructure improvements. An example of a programmatic activity includes the JES and BRMS “walking school bus” program through nearby neighborhoods. BRMS has also successfully used is the “First Friday” program, where students and their families are encouraged to walk to school on the first Friday of every month.

The Town of Jericho is largely responsible for planning SR2S infrastructure improvements designed to encourage children and families walking and biking to school. Jericho is investing in streetscapes and sidewalk infrastructure intended to promote walking and biking that will likely be used by students and their families to get to school. The Town received a grant in 2015 to install a pedestrian crossing signal across VT Route 15 to River Street and a striped pedestrian crossing at Dickinson Street.

Early Education

During the 2014 Legislative Session, legislators passed the Universal Preschool law (Act 166), which provides universal publicly funded prekindergarten education of a minimum of ten hours for 35 weeks annually for all 3-, 4-, and 5-year-old children who are not enrolled in kindergarten. This law gave districts the option to start providing a \$3,000 voucher for each eligible child to attend 10 hours per week in a pre-qualified preschool. Although this law is not mandatory until the 2016-2017 school year, the MMUUSD decided to offer vouchers during the 2015-2016 school year because it will greatly benefit children.

Parents of preschoolers can use this voucher to have their child attend any qualified preschool, whether the school is housed in one of the Town's school buildings or not. The elementary schools in the district surveyed preschool families and asked what preschool options they were considering for their children. The survey found that many people wanted a program that was housed in an elementary school. Jericho Elementary, Underhill ID and Underhill Central schools all had space available to house a preschool. The schools opted to not create their own preschool programs. Instead, Underhill ID has rented space to Saxon Hill School and Jericho Elementary along with Underhill Central have both rented space to the Greater Burlington YMCA to run a qualified preschool in their buildings. In this way, the district will have increased preschool opportunities for families.

² <https://www.mmuusd.org/>

³ <https://saferoutes.vermont.gov/>

After School and Summer Programs

Jericho Elementary School and the Underhill ID School have after school programs managed by the [Greater Burlington YMCA](#).

The Jericho Recreation Program operates a 6-week full-day summer program for children ages 5 to 14. Younger children attend camp at Jericho Elementary School. Older children attend camp at Browns River Middle School. Saxon Hill School operates several part-week camp sessions, some for children up to age 9, during the summer months.

Child Care

In Jericho there are ~356 children (~37% of the Town's population) under the age of six which is higher than for more of our neighboring communities with the exception of Westford (Source: US Census Bureau, American Community Survey, 2021 5-yr estimates).

Jericho has 5 state-licensed childcare providers and 1 Registered Home daycare with a total capacity of 168 children⁴. The existing childcare programs in Jericho have little capacity available, especially when compared to with the number of families seeking childcare. Although the need may be met as many families may seek childcare outside of Jericho.

Jericho's Land Use and Development Regulations, family-based daycares are permitted in all districts, and center – based child care and preschools are permitted in the Village Center District and conditional in the Agricultural, Rural Residential, Commercial, and Village Districts.

PUBLIC SAFETY

Most of the emergency services in Jericho, with the exception of police, is heavily reliant on local volunteers. Fire and EMS services face several challenges in providing adequate service to a growing and changing community. Three primary considerations are the availability of EMT's & firefighters, availability of water, and access to the structure or area.

At one time most members worked in the service area, but now all but a few members work outside, making it difficult to respond to alarms occurring on weekdays, hence the growing need to develop paid positions. Both face a growing challenge of finding qualified people who are willing to make the commitment of time necessary and of retaining them in membership beyond the first few years. This challenge is exacerbated by the cost and availability of housing to attract new members to the community and the aging of our community where a smaller and smaller proportion of community members can meet the physical demands of the job.

⁴ VT DCF - Bright Futures, [Child Care Information System](#), 2023

Fire Protection

Fire protection is provided by the Underhill-Jericho Fire Department, Inc. (UJFD), a combination fire department that is primarily comprised of volunteers. The Department serves Jericho and Underhill and is staffed by two full-time firefighters/EMT's (40 hours per week) and approximately 40 volunteers, serving as firefighters, fire police, dispatcher, auxiliary and specialists, all of whom live in the service area. The UJFD operates two stations with the headquarters located at 420 Vermont VT Route 15 in Underhill Flats. The Underhill station houses one engine, one engine/tanker, one heavy rescue, one water supply pumper, one utility/brush truck with gator, and a first response/command vehicle. The Jericho Substation is located at 288 Browns Trace and houses one engine and one tanker. The Department has mutual aid agreements with surrounding communities to provide additional and specialized equipment when needed.

Emergency 911 calls are answered by the Vermont State Police in Williston. Each department member carries a radio and is alerted to emergency calls dispatched by the Vermont State Police. Any members who are available respond to the alarm.

The department is financed by a contract with the two towns, with Jericho currently assuming 60% of the total annual budget. An annual budget is prepared by the department and reviewed by both Selectboards. The budget includes a capital plan for the regular replacement of equipment. Fire department members are paid an hourly stipend for emergency calls and weekly training.

In areas served by public water, water supply for fire protection is provided through pressurized hydrants. In areas not served by public water (which is the majority of the service area), the UJFD relies on a "tanker shuttle" or "large diameter hose lay" to provide water for fire suppression. These techniques remove firefighters from the fire ground, requiring more manpower to control fires. Alternative water sources such as cisterns or ponds connected to a dry hydrant can alleviate some of these pressures and increase the likelihood of successfully extinguishing a fire in a timely manner.

The Insurance Services Office (ISO) rates communities based on their ability to suppress fire through the Public Protection Classification program (PPC). Communities are rated on a scale of 1 to 10, with 1 representing superior fire protection and 10 essentially meaning an area has no fire protection. This rating is based on equipment and personnel (50%), water supply (40%), and alarm response rate (10%). Jericho is rated Class 4 in areas served by public water and Class 6 in all other areas. The PPC provides an objective, countrywide standard that helps in planning and budgeting for facilities, equipment, and training. The PPC is also used by insurance companies to set fire insurance premiums, with lower ratings generally translating into lower premiums.

Police

Jericho currently contracts with the State and the Chittenden County Sheriff for local law enforcement services, including speed control. While the Town supports the continuation of this arrangement, a study commissioned by the Vermont State Legislature recently recommended that the State Police cease contracting with Towns for Law enforcement. Other options would include a new local or regional police force.

EMS

Ambulance service for most of Jericho is provided by Essex Rescue, Richmond Rescue, and St Michael's Rescue. These organizations are primarily staffed by volunteers, some of whom live in Jericho. Most members are qualified Emergency Medical Technicians, and all receive ongoing training through area hospitals and the state Emergency Medical Services. The Underhill Jericho Fire Department also provides first response services for accidents and situation in Jericho.

Hazard Mitigation Planning

The Town participates in the National Flood Insurance Program, has an established Local Hazard Mitigation Plan (approved by FEMA 3/6/17 and valid for five years), and has a Town Emergency Operations Plan that provides a directive for emergency preparedness and response planning. However, due to development predating the regulations there are approximately 10 residences located within the 100-year floodplain, according to an analysis performed for the [2011 Town of Jericho All-Hazards Mitigation Plan](#)⁵, thereby making local emergency preparedness all the more important.

Over the course of the last decade, we have also seen a growing demand for other forms of public safety services in the way of crisis intervention, hazard mitigation, and community response for non-fire/medical events and natural disasters. Opioids, domestic violence, mental health crisis, floods, and public health events like the recent pandemic are all challenges our community responders are faced with on a regular basis. We will need to re-evaluate the adequacy of our ability to respond to the demand itself, and our ability to support those who are answering the call in someone's time of greatest need.

SOLID AND HAZARDOUS WASTE DISPOSAL

The Jericho town landfill has been closed since the early 1990's, and the Town is a member of the Chittenden County Solid Waste District which operates a landfill and recycling center in Williston. It also operates several drop-off sites for waste and recyclables, including sites in Essex and Richmond. The Waste District also operates a mobile unit for the drop-off of certain hazardous waste materials. Many town residents, though, employ private haulers to pick up their trash and recyclables. Several private haulers provide this service. There have been discussions about having the Town contract with haulers to reduce wear and tear on Town roads.

LIBRARIES

Jericho Town Library is a municipal library, established by a vote on Town Meeting Day, March 7, 1899. The collection was situated in various private homes during the early 1900s. With need for more room, the library moved to the former Jericho Academy in 1915, preserving this historic structure built in 1825. In 1955, the State of Vermont paved Browns Trace Road and the building was moved across the street to its present location on the Jericho Center Green. The Town of Jericho acquired the building in 2005, although the library is still managed by the Jericho Town Library non-profit organization. The second floor of the library was recently renovated allowing for the transformation into a Makerspace for all ages and a play area for families with young children. Planning is



Jericho Town Library

⁵ <https://jerichovt.org/town-documents>

underway to improve access.

The Deborah Rawson Memorial Library is in Riverside and funded by both Jericho and Underhill, and is operated under the Jericho-Underhill Library District by a Trustee Board comprised of residents of both towns. Each library offers a wide-ranging collection, special programs on a variety of topics for all ages, computers for patrons' use, and outreach programs for community needs. Both libraries are located within Jericho's Village Centers.

CEMETERIES

Jericho has three historic cemeteries which it maintains: Castle, Lowrey, and the Jericho Center Cemetery. The Jericho Cemetery Commission was organized by the Selectboard in 2014 with the responsibility for the care and maintenance of the Town Cemeteries.

The **Castle Cemetery** is located next to the Good Shepherd Lutheran Church on VT Route 15, and contains the grave sites of Dezier (Hawley) Castle whose death was the first in Jericho (1786), David Castle, Jericho's first selectman (in 1776) and his wife Phebe Sanford, and several members of the Brown family, Jericho's first settlers. Many of the grave markings in the Castle Cemetery are in need of repair and/or restoration.

The **Lowrey Cemetery**, located on Raceway Road, was given by the Lowrey family in 1801. Together with Castle and Brown families, the Lowreys were among Jericho's earliest settlers.

The **Jericho Center Cemetery** is partly owned by the Town and partly privately owned. This cemetery contains the final resting place of Wilson "Snowflake" Bentley.

While Jericho Center Cemetery recently expanded to include an adjoining three acres, there is limited cemetery space in Jericho. As the Town's population ages there may be an increased need for this resource. In some areas, this may be an appropriate use of PUD Open Space that does not have high natural resource or recreation value, provided appropriate agreements can be reached by the applicant/homeowners association and the Selectboard.

A private Cemetery, the Pleasant View Cemetery, located in Jericho Corners, is operated by the Jericho Cemetery Association; in it are buried members of many families prominent in Jericho's past, among them Day, Galusha, Howe, Whitcomb, Williams, and Wilbur.

TOWN GOVERNMENT

Town political and governmental functions are carried out by a dedicated team of elected and appointed Jericho residents supported by a small paid staff.

Elected

- The three elected members of the **Selectboard** are responsible for overall town operations. They are elected at Town meeting for three year terms. In 2014 a ballot item failed to increase the membership from three to five members.
- The **Town Clerk** provides many services such as the issuance of Dog Licenses, Marriage Licenses, filing Vital Records including Birth, Death, and Marriage Certificates, recording real estate transactions, processing Motor Vehicle renewals, preserving all documents for the Town, and providing Notary Public services. This position is an elected position serving a 1-year term.

Appointed

- The **Planning Commission** is a 7-member board primarily responsible for updating the Town Plan every 5 years and updating and revising the Land Use and Development Regulations. These positions are appointed by the Selectboard to 3-year terms.
- The **Development Review Board** is a 5-member board with 3 additional alternate positions. It is primarily responsible for reviewing development proposals, which include conditional uses, site plans, subdivisions, appeals and variances. These positions are appointed by the Selectboard to 3-year terms.
- The **Conservation Commission** is a 9-member board, under the direction of the Selectboard. They are available for conducting studies, applying for grants, and providing input for the various Boards in regards to the natural resources within Jericho. These positions are appointed by the Selectboard to 3-year terms.
- The **Trails Committee** is a 7-member board that was established as an advisory committee to help maintain existing non-motorized public trails and pathways and to educate the public on their use, as well as to identify and assist in creating new public trails and pathways. Members are appointed by the Selectboard for 3-year terms.
- The **Energy Task Force** is a 9-member board formed by the Selectboard to help promote energy awareness and efficiency in Jericho. Key areas of focus are energy efficiency, transportation, food production and renewable energy.
- The **Mobbs Farm Committee** is tasked to manage and oversee maintenance of the Town's 278-acre Mobbs property in Jericho. The Committee interfaces with the public and the Jericho Selectboard on all management activities.
- The 3-member **Jericho Cemetery Commission** was formed by the Selectboard in 2014 with the responsibility of caring for and maintaining the Town cemeteries.
- The 7-9 member **Recreation Commission** was formed by the Selectboard in August 2015 with the purpose of coordinating the recreational opportunities in town.
- The **Animal Control Officer** is the contact for all issues related to domestic/wild animals. This position will assist with lost/found animals, unlicensed dogs, some wild animal concerns and animals-at-large.
- **Town Health Officer** is appointed by the Selectboard and is responsible for all public health issues in town including enforcing the rental housing code and any animal bites.
- **The Tree Warden** provides assistance to the Selectboard in determining the health of trees and identifying potentially hazardous trees within the public right-of-way.
- **The Fire Warden** is appointed by the state, with the approval of the Selectboard, to have jurisdiction over wildland fire suppression and activities in town. In Jericho, the Fire Warden has given designation to the Jericho Underhill Fire Department to engage in fire suppression.
- Several arcane appointed positions include the **Fence Viewers, Weigher of Coal and Inspector of Lumber and Shingles**. These positions are largely ceremonial in nature and are a memorial of Jericho's past.

Hired

- The **Town Administrator** appointed by the Selectboard is responsible for the day-to-day general administration issues, not covered by one of the other departments. This position currently has a full-time administrative assistant.
- The **Planning and Zoning Office** provides support to the Planning Commission and Development Review Board. Duties include preparation of Town Plans and Land Use Regulations; oversight of planning studies; review of subdivision, conditional use, site plan and other development applications; and issuance of building permits and certificates of occupancy. Currently the office is staffed by a full time **Town Planner** and part time **Zoning Administrator**.
- The **Listers Office** provides and manages property assessment information. Annual inspections are conducted on properties where improvements have been made, and any town wide reappraisals are managed out of this office. Most questions regarding the value of one's property can be answered here. The three lister positions are appointed by the Selectboard for a 3-year term. The **Assessor** position is a contract position approved by the Selectboard.
- A part-time **Assistant Town Clerk** assists the elected Town Clerk. A part-time **Financial Coordinator** is responsible for the daily management of our accounts payable and payroll issues.
- The **Treasurer** maintains oversight of all accounts and investments. The Treasurer also collects tax payments two times a year and deals with resulting delinquent tax matters.
- A **Road Supervisor** and **Road Crew of 4**. The Jericho Highway Department is responsible for the paved and gravel road maintenance & reconstruction; bridge repair and maintenance; public building upkeep; tree conservation & hazard tree removal; snow & ice removal on roads & designated sidewalks; and, storm drainage/catch basin repair & maintenance.
- The **Summer Recreation Director** is responsible for overall administration and management of the 6-week children's program and is supported by two seasonal Assistant Directors and several counselors. Outside of the actual program dates, the Summer Recreation Director has limited office hours.

Most Town government activity takes place at the Jericho Town Hall, a former schoolhouse on VT Route 15 in Jericho Corners, originally erected in 1893. The Town Hall includes offices for the Town Clerk, Treasurer, Listers, Town Planner, Zoning Administrator and storage for maps and records. It provides space for meetings of Town officers and boards. In 2008, the Town completed a major renovation of the Town Hall, which completely reconstructed the interior of the building and resulted in all three levels of the building being available for public use.

Jericho has a traditional small-town government facing dozens if not hundreds of complex modern challenges. Long gone are the days when a small group of volunteers meeting one or two nights a week can be expected to effectively manage such a complex set of issues across a wide range of topics, a multi-million-dollar budget, and dozens of paid staff and volunteers. The burden is far too great, and is itself a major obstacle to encouraging a new and more diverse set of residents to become more involved.

Jericho's professional capacity is also stretched to the limit with dozens of important projects underway at any given time, and challenges that reach outside of their individual areas of expertise. To effectively take on the many challenges ahead, there is going to need to be more capacity and particularly in the areas of project management, grantmaking and administration, real estate development, and municipal finance.

Property Taxes

For years, Jericho's tax base has been dominated by residential property and previous versions of the Town Plan have noted Jericho's high reliance on residential property for financing public services. This makes Jericho's tax base very susceptible to fluctuations in a single sector – housing.

The percentage of residential property in the grand list gradually increased from 79% in 1970 to over 90% in 2015. The greatest decline in Jericho property has been in farm property, down to less than half a percent in 2015 from 11% in 1970. Other categories have remained relatively steady, though there has been a noticeable increase in the value of commercial property since 1999.

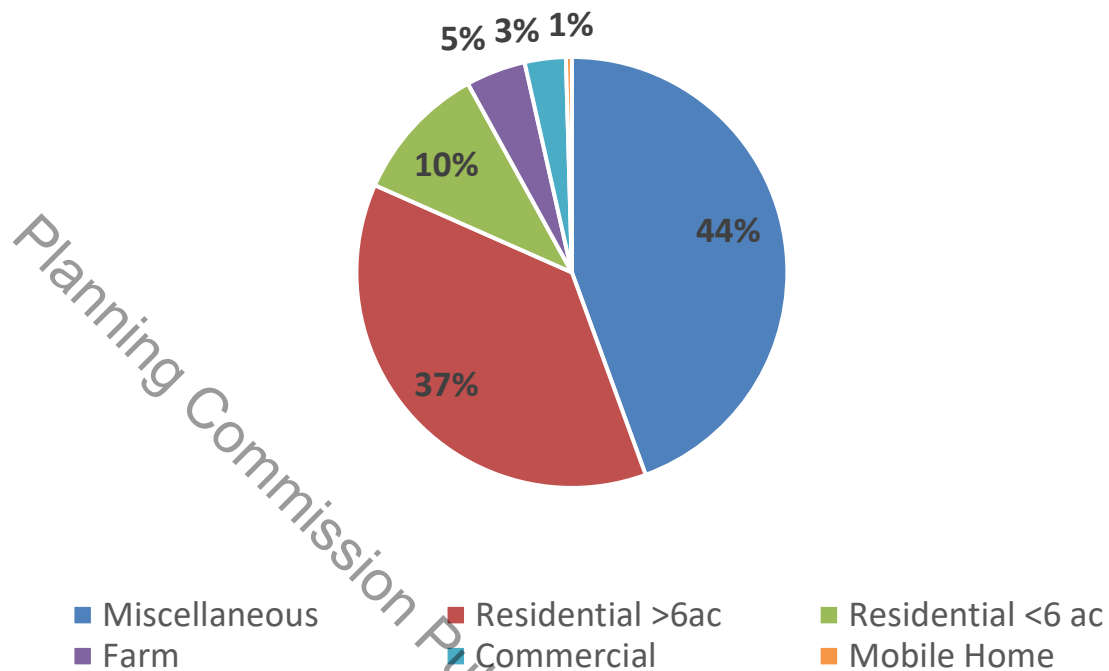
Percentage Contribution to Grand List by Land Use Category 1970-2015

Category	1970	1980	1990	1999	2010	2015
Residential(1)	79	87.6	83.6	82.4	88.6	92.8
Vacation	1	0.7	0.6	0.3	0.2	0.1.
Commercial	1	2.7	0.6	1.5	2.8	1.6
Industrial	5	0.0	0.0	0.0	0.0	0
Utilities	0	1.5	0.3	0.4	1.3	0.6
Farm	11	3.5	1.2	0.7	0.9	0.4
Other (2)	3	3.9	13.7	14.6	6.1	4.5

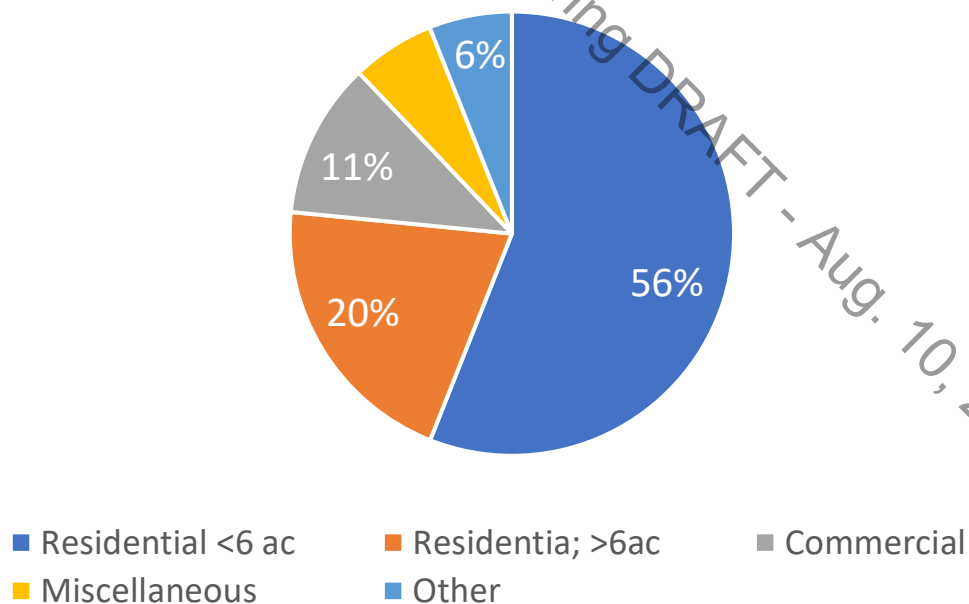
(1) Residential includes Residential I and II and Mobile Homes – U and L. (2) Other includes government, woodland, miscellaneous. Source: Jericho Grand List (1970-2015)

Since 2015 Jericho has completed a re-assessment of properties and the land use categories have changed which makes direct comparisons to previous years problematic, but the issue remains the same – Jericho's Grand List remains unbalanced. More than 75% of the 2022 Grand List is comprised of residential land uses with only 11% commercial.

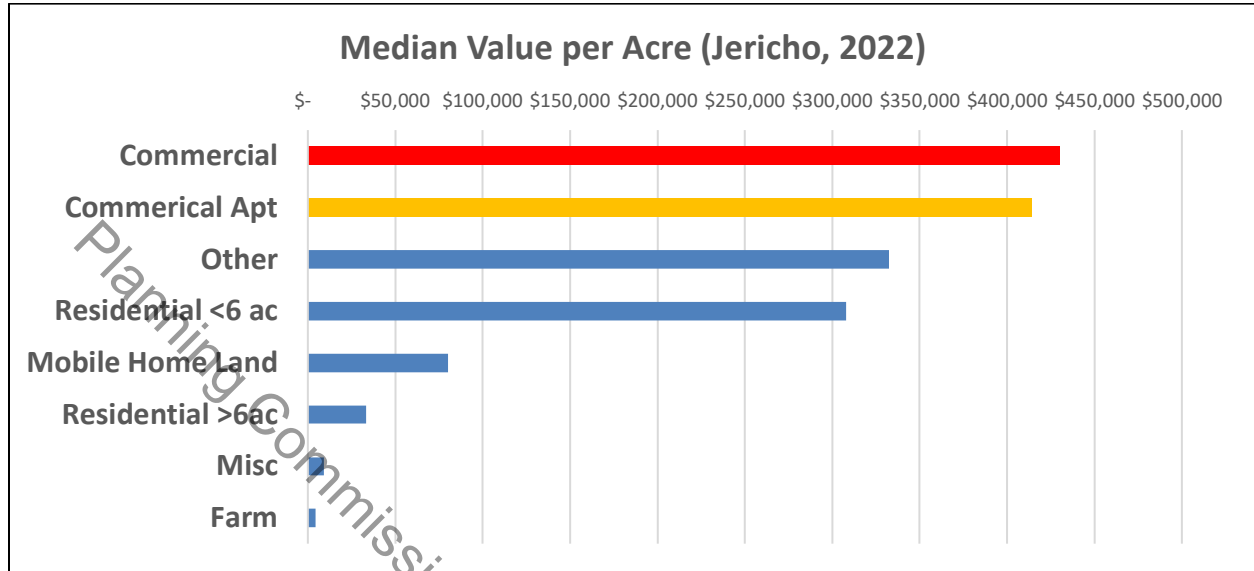
Jericho Grand List Acres (2022)



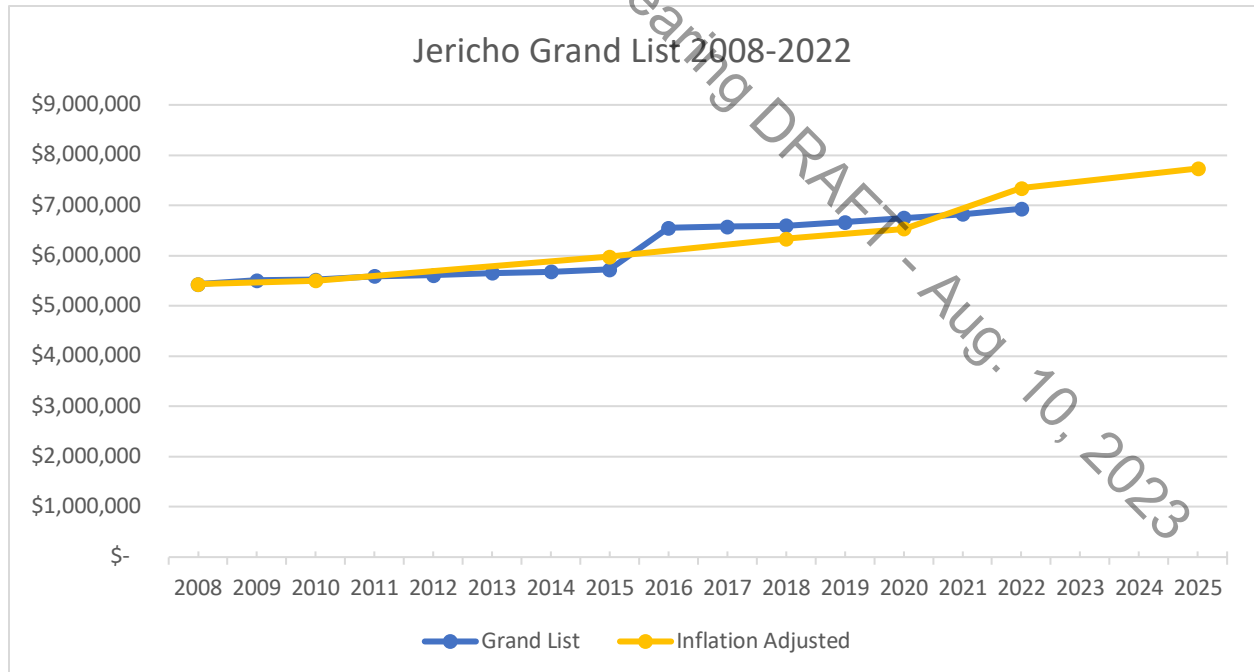
Jericho Grand List Value (2022)



Properties, and specifically businesses, supported by proper municipal infrastructure in compact mixed-use settings also have a significantly higher per acre land value than suburban or rural properties.



Since 2008, Jericho's Grand List has grown by an average of 1.73% per year – from \$5,433,290 to \$6,933,120 in 2022. However, for the same period the average inflation rate was 2.19% with cumulative inflation of 35.18%. Jericho's 2022 total Grand List would have had to have been \$7,344,000 just to have kept pace.



In general, the cost of providing services to residential uses is higher than the property tax revenue they produce, while the opposite is true for commercial, industrial, and agricultural uses. With the passage of Act 60 and Act 68, school property tax revenues are distributed statewide rather than to individual communities which has changed the local financial benefits of commercial and industrial development.

The importance and benefit of a more diverse and stable tax base remain, and the Town will need to focus more on efforts to grow local businesses. However, opportunities for creating and expanding small businesses are constrained by a lack of suitable infrastructure and the cost of land and development.

Additional Topic-Specific Action Items

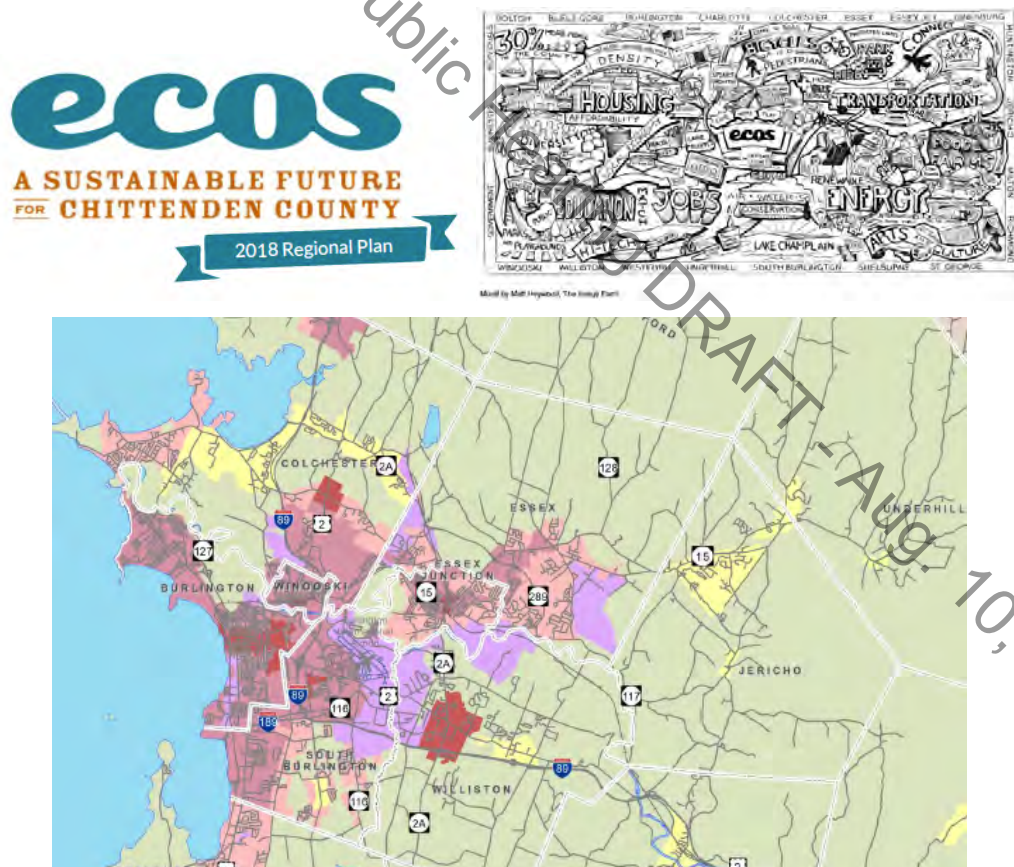
- Identify areas which lack adequate water supply for fire protection and develop plans to improve the water supply in rural areas. Require new developments to provide facilities such as fire ponds, cisterns and/or hydrants in accordance with this Plan.
- Evaluate the adequacy of the Public Works Specifications for driveways to new home sites against the Fire Department's recommendations for access, and include standards for dry hydrants, fire ponds and cisterns.
- Consider development of a municipally operated/contracted trash/recycling/composting pick up.
- Evaluate potential recreational uses for the Village Water District parcels located in Jericho Corners.
- Evaluate the immediate and future need for community and neighborhood parks and recreational facilities.
- Formulate an Official Map identifying potential locations for new parks, trails, and other recreation facilities.
- Establish a plan for capital expenditures to improve the maintenance and use of space in municipal buildings such as the Jericho Town Hall, Town Library and Highway Garage.
- Provide mapping, planning, historical research support and land design to plan for future needs of the Town Cemeteries.
- Conduct regular joint meetings of various Town boards and committees.
- Conduct a formal study about Jericho childcare needs and barriers/challenges to owning or operating high quality daycare in Jericho.

11. STATUTORY CONSISTENCY AND REGIONAL COMPATIBILITY

Vermont's planning enabling legislation ([24 VSA Chapter 117](#)) requires among other things that a municipality's plan be compatible with the regional plan and with approved plans of other municipalities in the region. According to 24 VSA 4302 (f) (2), "for one plan to be "compatible with" another, the plan in question, as implemented, will not significantly reduce the desired effect of the implementation of the other plan."

The Town of Jericho is one of nineteen municipalities comprising the Chittenden County region. The general development of Chittenden County has occurred such that the "core municipalities" to the west of Jericho (Burlington, South Burlington, Winooski, Colchester, Essex, Williston, and Shelburne) contain the heaviest concentrations of commercial and industrial development, while the outlying towns, including Jericho, are more residential in nature. In addition to residential housing, the outlying towns also provide valuable forest, agricultural, recreational, historic, and natural resource opportunities for the region. In the past decade, commercial and higher density residential development has begun to occur in several outlying towns, including Milton, Hinesburg, Richmond, and Jericho. For the most part, these communities have attempted to focus this development into existing village centers.

Jericho's Village Centers and other future land use districts are compatible with the village, rural and other planning areas from the [2018 ECOS Regional Plan](#)¹.



¹ <http://www.ecosproject.com/>

While preparing this Town Plan, Jericho has reviewed the Future Land Use Maps in the five adjacent communities. In general, Jericho's Town Plan is compatible with the goals and objectives of all neighboring towns. Any concerns from adjacent towns' residents and/or officials with individual proposals for development may be addressed during the Development Review process.

Essex lies to the northwest of Jericho. Along most of the shared border, the Rural/Agricultural Residential District in Jericho is compatible with Agriculture-Residential and Conservation Districts in Essex. Along VT Route 15, Jericho's Village District ends at the Essex Town line. This is a suitable ending point for the village, and no similar district is found on adjacent land in Essex. Further south, one portion of Essex's Industrial District extends to the Jericho Town line. The terrain in the easterly portion of this district appears marginally suitable for such use. No access should be permitted to the Industrial District from Jericho's rural Skunk Hollow Road. Jericho and Essex should continue to collaborate to preserve iconic scenic vistas in of hills, pastures, and Mount Mansfield, in the towns' adjacent lands along VT Route 15.

Underhill lies to the northeast of Jericho. Along most of the shared border, Forestry, Open Space, and Rural/Agricultural Residential Districts in Jericho are compatible with Rural Residential and Conservation Districts in Underhill. An overlap of land uses occurs in Riverside/Underhill Flats where the village is split between the Towns of Jericho and Underhill. The Towns share a state Village Center Designation for this area. Land use plans in both towns are compatible. Jericho and Underhill have a long history of shared services and organizations, including a joint fire department, land trust, park district, library district, water district, and elementary school. This close relationship makes collaboration and proactive communications between the two towns critical.

Bolton lies to the southeast of Jericho. Predominant land uses are rural residential and open space. Conservation and Rural I Districts in Bolton are compatible with Rural/Agricultural Residential, Forestry, and Open Space Districts in Jericho. The Bolton Town Plan includes consideration for the creation of a "West Bolton Hamlet" centered at the intersection of Stage and Notch Roads in order to recognize and enhance the compact settlement patterns in the area. Changes in this area could include more compact residential development as well as opportunities for small businesses. While the Town boundary is just at the far edges of this area (~0.5 mi), there could be benefits for Jericho residents on Nashville and Leary roads who might not need to travel so far to access convenient goods and services.

Richmond lies to the south of Jericho. Along most of the shared easterly border, Richmond's Agricultural/Residential District is compatible with Jericho's Forestry District. Along Browns Trace is Jericho's 3-acre Low Density Residential District which borders Richmond's 2/3-acre High Density Residential District. Although Richmond's residential density is higher, the uses are essentially compatible. Richmond's High Density Residential District encourages high density housing, where Jericho's Rural Residential and Agricultural district, on the other side of the town line allow much lower density residential development. At Richmond's northeast corner, along VT Route 117 and Governor Peck Road, two areas have been designated as Commercial and Commercial/Industrial Districts. The abutting areas in Jericho are primarily residential. Any non-residential uses in these areas in Richmond should be reviewed carefully for potential impacts on Jericho parcels.

Williston lies across the Winooski River to the southwest of Jericho. Most adjacent land in the two communities is in the floodplain – Floodplain District in Williston and River Overlay District in Jericho.

Required Items for Municipal Plans pursuant to Vermont State Statute.

This plan is consistent with the goals established in 24 VSA §4302, and contains all elements as required by state statute (24 VSA §4382(a)). See the table below that illustrates the relationship between the statutory required elements and where you can find them within the 2024 Jericho Town Plan.

Required Element	Location in Plan
1. Statement of objectives, policies, and programs of the municipality to guide the future growth and development of land, public services and facilities, and to protect the environment...	Located throughout each chapter in Volume 1.
2. A land use plan , consisting of a map and statement of present and prospective land uses...	• Volume 1: <i>Future Land Use</i> • Volume 2: 4.0 - Land Use • Maps: #1 & #22. • Appendix 1: <i>2019 Commercial District Master Plan</i>
3. A transportation plan , consisting of a map and statement of present and prospective transportation and circulation facilities...	• Volume 1: <i>Building a Connected Community</i> • Volume 2: 8.0 - Mobility • Map: #11. • Appendix 1: <i>2015 Jericho Transportation Study, 2015 Jericho Bicycle and Pedestrian Facility Master Plan, 2018 Riverside Street Network Master Plan, & 2021 Tri-Town Area Transit Feasibility Study</i>
4. A utility and facility plan , consisting of a map and statement of present and prospective community facilities and public utilities showing existing and proposed education, recreation, and other public sites...	• Volume 1: <i>Growing a Vibrant Community & Building a Connected Community</i> • Volume 2: 9.0 - Public Utilities & 10 - Community Facilities and Services • Maps: #12, 14, 15, & 16. • Appendix 1: <i>2017 Stormwater Master Plan & 2017 Recreation Needs Assessment and Planning report</i>
5. A statement of policies on the preservation of rare and irreplaceable natural areas, scenic and historic features, and resources ...	• Volume 1: <i>Stewarding a Resilient Community & Growing a Vibrant Community</i> • Volume 2: 2.0 - History and Cultural Resources & 3.0 - Natural Resources • Maps: #2, 3, 4, 5, 6, 7, 8, 9, 10, 14, 15, & 16.
6. An educational facilities plan consisting of a map and statement of present and projected uses and the local public school system...	• Volume 1: <i>Growing a Vibrant Community</i> • Volume 2: 10 - Community Facilities and Services • Maps: #12, 14, 15, & 16.
7. A recommended program for the implementation of the objectives of the development plan...	• Volume 1: <i>Getting it Done</i> • At the end of each chapter in Volume 2.
8. A statement indicating how the plan relates to development trends and plans for adjacent municipalities, areas, and the region developed under this title...	• Volume 2: 11 - Statutory Consistency and Regional Compatibility

Required Element	Location in Plan
9. An energy plan , including an analysis of energy resources, needs, scarcities, costs and problems within the municipality, a statement of policy on the conservation energy...	• Volume 1: <i>Building a Connected Community</i> • Volume 2: 9.0 - Public Utilities • Maps: #12, 17, 18, 19, 20, & 21.
10. A housing element that shall include a recommended program for addressing low and moderate income person's housing needs as identified by the regional planning commission...	• Volume 1: <i>Introduction, Creating Housing Choices for All, & Growing a Vibrant Community</i> • Volume 2: 4.0 Land Use & 5.0 - Housing • Maps: #1 & 22.
11. An economic development element that describes present economic conditions and the location, type, and scale of desired economic development, and identifies policies, projects, and programs necessary to foster economic growth...	• Volume 1: <i>Stewarding a Resilient Community & Growing a Vibrant Community</i> • Volume 2: 4.0 Land Use & 6.0 - Economy • Maps: #1 & 22.
12. A flood resilience plan that identifies flood hazard and fluvial erosion hazard areas... and designates those areas to be protected...	• Volume 1: <i>Stewarding a Resilient Community</i> • Volume 2: 3.0 Natural Resources • Map: #5.