Tinmouth Town Plan

Adopted September 13, 2012

The previous version of the Tinmouth Town Plan was declared "2007 Plan of the Year" by the Vermont Planning Association. This 2012 version contains only minor changes, as the 2007 version incorporated a very thorough update.

Acknowledgements

Tinmouth Planning Commission

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Vision:

Tinmouth is a friendly, family-centered, civic-minded, rural community that values peace and quiet.

Residents of our of town gathered for a visioning session to define and focus the direction of the town at the start of the last Town Plan update, in 2000. The following vision represents the input from Tinmouth residents, as developed in 2000 and reinforced by the 2006 residents' survey:

Tinmouth residents hope to

- Maintain the rural aspects of the town including active, productive farms, open meadows, substantial forests, and scenic mountains vistas.
- Balance the needs of residents for housing, safe roads, good schools, public services, and recreational opportunities with clean waters, mixed wildlife habitat, and undeveloped land.
- Promote a small-town, neighborly atmosphere by continuing to improve Tinmouth center and support civic activities and efforts.

Objectives

It is the purpose of this Plan to guide future growth and development within the Town of Tinmouth by providing a framework of planning policies and recommendations which will assure that decisions made at the local, regional, and state levels are consistent with the following specific objectives:

1. Preserve the rural character of Tinmouth.
2. Maintain sustainable agriculture as an economic base that minimizes impact on soil, water and air quality.
3. Protect and preserve scenic and historic features, open spaces, fragile and wildlife habitats and other natural resources.
4. Maintain a population consisting of residents and families of all incomes, ages, and types.
5. Allot sufficient space in appropriate locations for agricultural, residential, recreational, and commercial development in order to meet the needs of the town.
6. Prohibit incompatible and uncoordinated development activity.
7. Allow for future growth to occur in a way which will not place an undue burden on the town to provide community facilities and services.
8. Assure that basic needs of health, safety, education, and housing will be met and maintained at satisfying levels in accordance with population growth.
9. Foster local activities, programs, development patterns, and town governance that build the town's strong sense of community.
10. Require that public utilities be located in such a way that they will not have an undue adverse effect on the scenic quality and land values of the town.
11. Require that town highways permit safe and efficient movement of vehicles through the town.

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Chapter I: Introduction

The Tinmouth Planning Commission

The Vermont Planning and Development Act enables the legislative body of all municipalities to create a Town Planning Commission which may consist of not less than three nor more than nine members. Members are appointed by the Tinmouth Select board. At least a majority of the Commission must be permanent residents of the community. In accordance with the Act, the Tinmouth Planning Commission is given the authority to prepare a Municipal Development Plan and to implement this document by the development and adoption of bylaws. The Tinmouth Planning Commission was formed in the early 1970's. Currently there are nine members serving staggered three-year terms.

The Tinmouth Town Plan

A Municipal Development Plan, once approved by the Tinmouth Planning Commission and adopted by the Select Board, is the official policy of the community with regard to future growth and development. It is intended that the Plan be used in a positive manner as a tool in guiding the direction of growth in a way that is both economically feasible and environmentally acceptable.

The first Tinmouth Town Plan was written in 1973 and has been updated and amended multiple times in the ensuing decades. This most recent version was prepared over the course of 12 months, from April 2011 to March 2012, by the Tinmouth Planning Commission . This revision contains only minor changes as the award-winning 2007 plan had a very thorough update. The 2017 update should be as detailed, and public input widely sought.

The 2012 Tinmouth Town Plan will be implemented through (1) setting specific targets for work to be completed in the next five years; (2) changing and adopting zoning and subdivision regulations and other land use controls, (3) maintaining a capital improvements budget as part of the Town's financial planning process, (4) cooperating with other government agencies, and (5) further studies.

Local, Regional, and Statewide Planning in Vermont

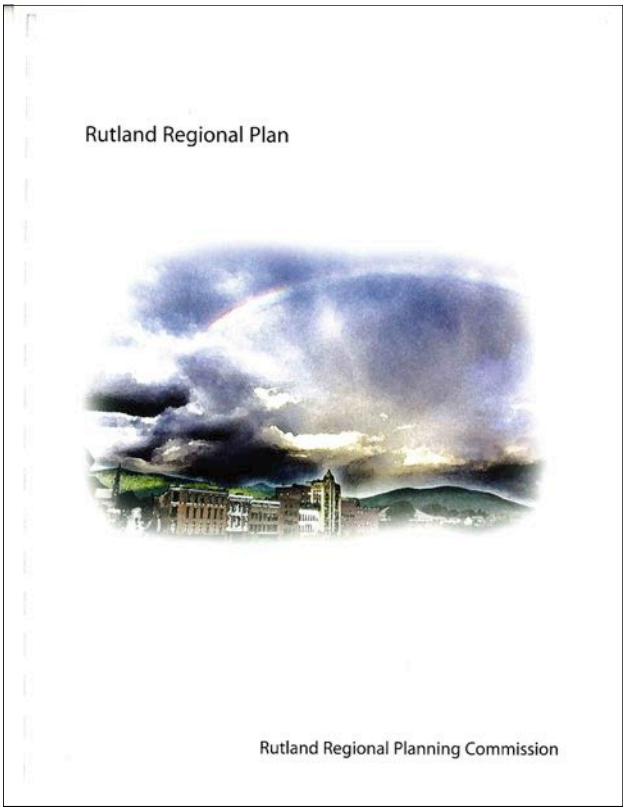
The Tinmouth Town Plan is an integral part of the regional and statewide planning process. In adopting the Town Plan, citizens of Tinmouth may anticipate the future with the knowledge that a significant step

has been taken in the development and preservation of their community. The Plan was prepared in conformance with the requirements in the Vermont Municipal and Regional Planning and Development Act (*Chapter 117 Section 4382. The plan for a municipality.*) As well, the Tinmouth Town Plan is consistent with the Rutland Regional Plan, readopted in June 2006, and is also compatible with approved plans from surrounding communities. Under the authority of the Select board, the Tinmouth Planning Commission prepared this Town Plan. It was approved by the Rutland Regional Planning Commission on September 18, 2007.

In terms of its significance in relation to State land use controls and growth policy, the Town Plan plays a key role. Vermont's Act 250 includes a provision for a review procedure through which all applications for subdivision and development must pass. During the review process, the feasibility of each project is weighed against ten criteria, guidelines set forth as environmental and economic safeguards. The ninth criterion requires that any subdivision or development must be in conformance with a duly adopted development plan, land use or land capability plan which exists on the state level. The tenth criterion insures that the proposed development is in compliance with the policies set forth in the regional plan and the more detailed local town plan. In this way planning and development at the three levels of government, state, regional and local, are integrated to form a consistent approach to the problems caused by rapid growth.

Continued Maintenance of the Plan

Because planning is a flexible, continuing process, the Tinmouth Town Plan will be reviewed and amended from time to time in light of new developments and changed conditions affecting the municipality. In accordance with Section 4387 of the Act, the Plan shall expire and have no further force and effect five years from the date of its adoption, unless it is readopted by the Select board. The Plan may be readopted in the form as expired or about to expire, and shall remain in effect for the next ensuing five years or until amended. The Tinmouth Planning Commission should review the Plan on a regular basis to ensure it remains a current a vital document.



Implementation of the Plan

Land Use Bylaws:

As a policy document, the Plan provides the legal as well as the conceptual basis of all land use control. The specific controls are accomplished by the enactment of bylaws. Since the bylaws are intended to implement the Plan, their content must reflect the findings, recommendations, and policy statements embodied in the Plan. Zoning and Subdivision Regulations were revised November 2010 to ensure compatibility with the 2007 Town Plan. This link between the Plan and any implementing regulations was made more direct with the Legislature's 2004 revisions to the enabling statutes. The 2012 Tinmouth Plan addresses these needs.

Permanent zoning regulations, adopted in 1977, allow the town to permit, prohibit, restrict, regulate and determine land development, including specifically, without limitation, the following:

1. Specific uses of land, water courses and other bodies of water;
2. Dimensions, location, erection, construction, repair, maintenance, alteration, razing, removal, and use of structures;
3. Areas and dimensions of land and bodies of water to be occupied by uses and structures, as well as areas, yards, and other open spaces and distances to be left unoccupied by uses and structures;
4. Density of population and intensity of use.

Zoning and subdivision regulations apply to all lands and uses of land within the municipality except as specifically exempted. A zoning map depicts the separate districts and their correspondent use classifications. All provisions for each class of uses or structures within each district are uniform in nature. The regulations are developed and revised by the Planning Commission and adopted by the town's voters. The regulations are enforced by the zoning administrator. Permits requiring board approval are reviewed by the Planning Commission or Zoning Board of Adjustment. Decisions by these boards may only be issued following public hearings.

Capital Budget and Program

Expenditures of public funds will be required to implement some of the recommendations contained in the Plan. In this regard, the planning commission may establish priorities for an annual capital budget and program.

Non-Regulatory Implementation Tools

Use of the town plan is not limited to regulations and adopted capital budgets. A wide range of projects, sponsored by the town itself or groups serving the town, can implement the goals of the Plan and ensure that Tinmouth's future is being coordinated. Examples could include:

- Working with non-profit housing agencies to build affordable housing in the town.
- Providing residents with information brochures on water quality issues identified in the Plan.
- Establishing a working group in town to help landowners maintain historic structures.

Relationship Between Plan and Plans for Surrounding Areas

The relationship between this Plan and the development trends and plans for the surrounding area has been considered. For purposes of this Plan, the surrounding area includes the Towns of Wallingford, Clarendon, Ira, Middletown Springs, Wells, Danby and Pawlet and the Rutland Region as a whole.

This Plan promotes residential, agricultural, conservation and small-scale commercial activities at levels consistent with the community's place at the rural, agricultural edge of the

Rutland Region and the Town's rich endowment of natural resources. This Plan recognizes the need to accommodate some population and housing growth within the Town, although the amount is relatively small given Tinmouth's unsuitable soils, varied topography and land cover, and its distance from job centers.

Review of the land use plans of surrounding communities suggests that the future land use pattern promoted by this Plan is generally compatible with those of our neighbors. Surrounding communities promote low-density land development and continuation of resource-based uses (such as agriculture) in outlying areas and higher density and commercial uses in existing built-up areas. Sensitive areas (such as flood plains) are also identified and targeted for conservation, as they are in Tinmouth.

Policy statements in the Plan are also generally compatible with those of surrounding communities' plans. Tinmouth has a long history of cooperation with its neighbors. Students are tuitioned to Mill River, West Rutland and Poultney schools. The Fire Department has mutual aid agreements with surrounding communities; the Wallingford Rescue Squad, Poultney Rescue Squad and Middletown Springs First Response cover us for emergency care. Tinmouth is a member of the nine-town Solid Waste Alliance Communities.

Chapter II: Who and What Makes up our Town?

Two critical components make up the Town of Tinmouth: its people and its landscape. The way in which we interact with one another, and with the land, is our community. Below is a short description of the basic parts that make up this town: the people we call neighbors and the land we have the ability and responsibility to manage. The rest of this plan will focus on how we have chosen - and are choosing – to provide for ourselves and our neighbors, and make use of our land.

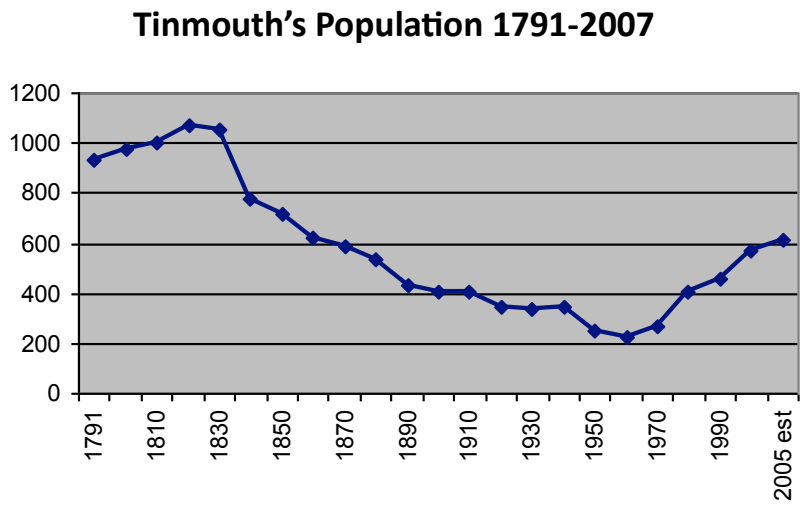
Who We Are

This section was not updated as census data were not yet available, with the exception of population. The population in the town of Tinmouth fluctuated greatly during the twentieth century as compared to Rutland County and the State of Vermont. The general trend from 1900 to 1960 was a decrease in resident population. However, in recent decades, the town has experienced a sharp increase of population, from 268 in 1970 to 567 in 2000 and to 613 in 2010. This growth ranked 17th in the Region in absolute numbers and 3rd in terms of percentage. In recent years, the pace of growth, as compared with the rest of the region, has been increasing. Between 1990 and 2000, the town ranked 10th in absolute growth (and 3rd in percentage of growth), while estimates for 2000-2005 suggest that Tinmouth ranks 4th in absolute growth and 2nd in percentage. [1]

Tinmouth's population, as a whole, is aging. Since 1990 , the average age of the town's residents jumped from 33.7 to 40.1 years in 2000 and 44 in 2010. Because of the town's population increase, though, the number of children under 19 years of age and under in 2000 and 2010 stayed virtually the same, at 140. During the same time, the over-65 population increased from 74 to 90. It is expected that all of these trends have continued to today as the nation's baby boomer population is reaching retirement age.

A parallel trend increased the proportion of non-family households. In 2000, families made up 72% of all households. This figure remains high by Rutland County standards, but is substantially lower than the 85% they comprised a decade earlier. It is not surprising, given this increase in non-family households, that the

Town Fun Day, 2003



average household size dropped to 2.41 persons in 2010 from over 2.6 in 1990.

The Tinmouth community is relatively stable. In the 2000 Census, 27.5% of the population reported having lived in a different house five years prior. That compares with 38% of the Rutland County population and 41% of the Vermont population. Of those 146 people who lived in a different home in 2000, all came from outside Tinmouth: 67% relocated from elsewhere in Rutland County, 13% came from elsewhere in Vermont, and the remaining 20% relocated from out of state.

Population Analysis:

Many variable factors influence the population changes in Tinmouth. These include economic conditions, the availability of loans for land purchase and home construction, commuting costs to places of employment, as well as changing rates of migration and birth, and the availability of housing opportunities. These figures indicate that the availability of housing options for greater diversity of household types – notably non-family households, elderly persons, and smaller households in general, has become an important issue in Tinmouth. Locally, growth pressure extending outward from Manchester and Rutland are reverberating in Tinmouth. Between 2000 and 2010, housing units rose from 330 to 362. Seasonal homes represented approximately 27% of these units, the majority of which are located adjacent to Tinmouth Pond, though more recent new development has been scattered throughout the town. In 2010, 83.5% of Tinmouth's units are owner occupied.

Our Work

Many residents are employed in towns throughout the Region. According to the 2000 Census, 29.3% of residents worked in Tinmouth. An equal number worked in Rutland, with the remaining 40% spread all across the Rutland Region and elsewhere. Evidence also suggests that residents are employed in a variety of home occupations (approximately 10% in 2000). A very small number of people who live elsewhere reported working in Tinmouth.

In the year 2010, educational, health & social services (25.3%) was the leading sources of employment for Tinmouth residents followed by retail trade (14.5%) and construction (12.7%) . [2] Despite the loss of employment in farming and agriculture, these fields still employ higher percentages of local residents than most of the communities in Rutland County.

The Vermont Department of Labor reports that in 2010, the annual unemployment figure for Tinmouth was 4.2%, compared to 7.4% for Rutland County and 6.4% for the state.

Our Community

When people speak of "community" in Tinmouth, it means much more than just the sum of the people who live in the Town. When we speak of community, we speak of how individual residents respect one another, interact, and relate to the land.

Respect

Tinmouth strives to be a community that is open to diverse ideas, perspectives, and lifestyles. We have a long history of making our living off the land through agricultural and forestry, but recognize that this is broadening to include commuters, retirees, and seasonal residents. Though new ideas and change bring out differences of opinion, we work hard to resolve the issues and move ahead together as neighbors.

Interacting with each other

The easiest way to quantify the notion of "community" in Tinmouth is by listing all of the different ways in which we come together for everyday events and special occasions. The *Tales of Tinmouth* is a testament to this, with residents from throughout the community putting it together monthly and announcing all of the issues and events going on in town. While these events are by no means the only way in which people interact, or even the only way in which residents of Tinmouth should or do relate to the Town, it frames at least part of the picture. Below is a sampling of the kinds of events that Tinmouth residents have come together to do over the years.

Large groups of coordinated volunteers have:

- Brought in the whole first cut of hay for a farmer who was injured in a tractor accident
- Rebuilt a couple of homes after house fires
- Built two additions to the school, renovated the firehouse, and built the community center
- Arranged for months worth of meals for the sick or injured
- Organized and participated in weekly softball, volleyball, and basketball games
- Hosted annual Tinmouth Community Day parade, races, games, and exhibits.
- Held monthly contra dances
- Staged regular concerts at the Old Firehouse
- Pooled garden flowers to decorate Tinmouth family weddings

The Anne and Roy Wilbur Fund is supported annually with donations of money and food to provide holiday food baskets and help with fuel, electricity, etc. It was created by members of the Tinmouth Community Church.

The Tinmouth Community Fund, established with funds left over from completion of the Community Center and held by the Vermont Community Trust, annually awards small grants for projects within the town.

The Town now has a website—tinmouthvt.org—that includes much information about the town and the town participates in Front Porch Forum, an on line e-newsletter and bulletin board.

Our Land

Bedrock Geology

The geologic formations underlying the town of Tinmouth are composed of bedrock units running in a north-south direction. These rocks were originally sedimentary (shale, limestone, dolostone, sandstone), deposited in a marine environment during the Cambrian to early Ordovician period (540 - 480 million years ago). Some of the rock units were metamorphosed into schist, marble, quartzite, and other metamorphic rocks during the mid-Ordovician period (about 470 - 440 million years ago). Folding and faulting also took place at this time, resulting in the town's existing geologic structure.

Tinmouth Valley is chiefly underlain by carbonate rocks (e.g. marble, dolostone and limestone). These formations are relatively soft in comparison to those of the highlands flanking the valley, and therefore are more susceptible to erosion. A band of Shelburne Marble, of economic importance elsewhere in Vermont, underlies the lower eastern slope of Tinmouth Mountain.

Surface Geology

Overlying the bedrock formations are surficial materials of varying depth and composition. Their deposition is primarily the result of glacial activity approximately 40,000 - 10,000 years ago. Unsorted unconsolidated glacial material, known as till, was laid down directly by glacial ice and now mantles most of the town. A moraine along the eastern slopes of Tinmouth Mountain marks an extensive build-up of till when the glacial front probably was temporarily stabilized. Glacial melt waters deposited sands and gravels, forming kame moraines and kame terraces along the lower slopes of the valleys. On the floor of Tinmouth Valley, a sinuous esker was formed by the subglacial deposition of sand and gravel along a melt water channel. The bedrock of the mountains and valleys was modified by the action of the moving ice.

At one point Tinmouth Valley was dammed by ice, which created a high-level lake of substantial size. Surface deposits related to lake sediments are therefore found along the sides of the valley floor. They consist of horizontally bedded gravel, sands and clays.

Soils

Detailed information about soil classifications for individual sites can be found in the Soil Survey of Rutland County, Vermont, last updated in 1998 by the Natural Resources Conservation Service and Forest Service of the United States Department of Agriculture. Tinmouth's seasonal high water (continued on page 14).

Topography

Northwestern Tinmouth has a narrow valley with gentle slopes, bordered by mountainous terrain to its east and west.

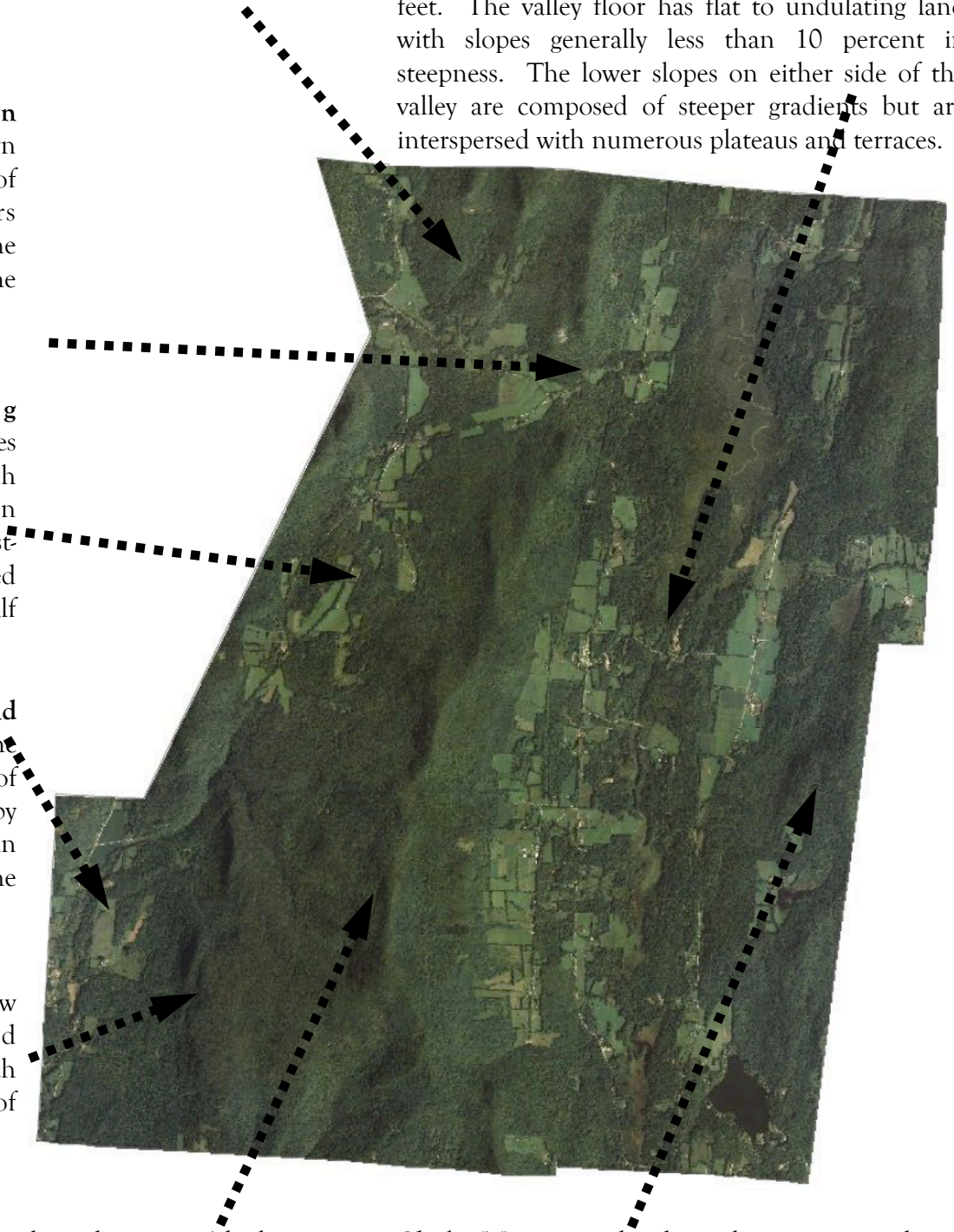
The **only connection** between the eastern and western parts of the town occurs though a gap in the northern part of the ridge.

An **undulating upland valley** lies between Tinmouth Mountain and Spoon Mountain in the west-central area, separated from the eastern half of the town.

A **narrow lowland valley** rests in the southwest corner of the town, bordered by Tinmouth Mountain and mountains in the town of Wells.

The Gulf is a narrow and steep-sloped ravine through which the headwaters of Wells Brook cascade.

Tinmouth Valley, broad and U-shaped in cross-section, has elevations ranging from 1000 to 1500 feet. The valley floor has flat to undulating land with slopes generally less than 10 percent in steepness. The lower slopes on either side of the valley are composed of steeper gradients but are interspersed with numerous plateaus and terraces.



Tinmouth Mountain has elevations which range over 2000 feet with one summit climbing to a height of 2835 feet. The slopes forming the walls of this mountain ridge generally are steeper than 20 percent with the upper east-facing slopes becoming very precipitous at the higher elevations.

Clark Mountain borders the eastern side of Tinmouth Valley. Its elevations reach a summit of 1965 feet above sea level. The slopes are steep along this ridge, but they are not as extensive as those on Tinmouth Mountain.

tables, steep slopes and high stone content can limit land use options.

"Prime" and "Statewide" agricultural soils, the Dutchess – Bomoseen – Pittstown and Georgia and Amenia soil associations with 3-8% slopes and minimal stoniness, exist in pockets surrounding the Channel valley and extend up Harrington Crossroad into the northern Gulf valley. The largest occurrence bounds East Road, starting south of Channel Road and extending north along North East Road.

Lower slopes of the Clark and Tinmouth Mountains have mixed soil types of the Paxton – Georgia – Amenia Association with seasonal high water tables, limiting agricultural activities and septic development. Higher elevation areas on both mountains have much shallower soils with heavier rock content. The Tinmouth Channel wetland area is generally covered with the high organic matter Pinnebog muck soil. Remaining valley areas in the northwest and southwest sections of the town have the deep soils of the Dutchess – Bomoseen – Pittstown Association.

Watersheds

Surface water drains in two key directions: westward, into the Poultney-Mettowee Watershed and eastward, into the Otter Creek Watershed. Both eventually lead into Lake Champlain and the Great Lakes watershed that drains via the St Lawrence River. Five sub-watersheds direct water into these two.

1. The Tinmouth Channel flows north, becoming the Clarendon River, a major tributary of Otter Creek.
2. The east slopes of Clark Mountain drain into the Valley of Vermont and the Otter Creek.
3. The southwest corner of Tinmouth drains westward through the Wells Brook into the Mettowee River.
4. The south end of Tinmouth Mountain drains towards Flower Brook, which flows westward and joins the Mettowee River.

5. The northwest section is drained by the headwater of the Poultney River.

Streams and Rivers

Tinmouth serves as the headwaters for a series of streams and rivers that serve the two watersheds described above. The three largest bodies of flowing water are the Tinmouth Channel, the Poultney River, and the Wells Brook.

Chipman Lake

Chipman Lake, in the southeast corner of the town, known also as Tinmouth Pond, is the only significant water body. It is approximately 79 acres in surface area, has an average depth of seven feet, and drains into the Tinmouth Channel. In recent years, lake residents have been grappling with an invasion of Eurasian milfoil.

According to the Vermont Department of Environmental Conservation, the Lake is

in a mesotrophic state, meaning that it has moderate nutrient concentrations. Mesotrophic lakes have moderate algae growth and relatively clear water. Often these lakes support plant growth around much of their shoreline and may have some shallow areas with abundant plant growth." [3]

"Trophic state is a classification of the degree of nutrient enrichment of a lake. As a lake ages it progresses naturally from an oligotrophic state, through mesotrophic, to a eutrophic state. The addition of cultural sources of nutrients, however, can greatly accelerate this process and result in premature eutrophication and associated water quality problems." [4] (Cultural sources of nutrients would be septic discharge, as well as agricultural, lawn, and storm water runoff).

There are no other significant lakes or ponds within Tinmouth's borders, though numerous wetlands stretch across the town.

Wetlands

Wetlands are Vermont's most productive ecosystems and serve a variety of beneficial functions: protecting water quality and quantity, retaining storm water runoff and reducing flooding, providing crucial habitat for fish, mammals, reptiles, amphibians, birds, insects and plants, serving as valuable resources for education, research and recreation, and contributing to open space character of the landscape.

The Tinmouth Channel Wetland is one of only three Class I wetlands in the state of Vermont. Class I wetlands are considered "exceptional or irreplaceable in their contribution to Vermont's natural heritage and are therefore so significant that they merit the highest level of protection" according to the 2002 update for Water Resources Board's Vermont Wetland Rules. The extensive and diverse wetland habitats range from open fens to shrubby and wooded swamps and represent numerous state significant natural communities due to the limey (calcareous) bedrock.

At the southern end tamarack swamps and a rare open calcareous peat land form the headwaters. The waterway eventually broadens so that the northern end is navigable by canoe. Historically this end was straightened or

channelized, likely so that iron ore could be transported from Clark Mountain to early iron furnaces downstream. Early surveys showed the wetlands subdivided into hay lots for nearby farmers, though these earlier agricultural disturbances are no longer evident.

Class II wetlands, also considered "significant", (and any wetlands contiguous to mapped Class I and II wetlands), are regulated as well and mapped by the State of Vermont and included in this Plan's Natural Resource maps.

Class III wetlands, although greater in number, are not protected by the Vermont Wetland Rules of 2002 because of their small size or intermittent nature, but may have local significance and may be protected by other federal, state or local regulations.

Ground Water

Groundwater resources have not been reliably mapped in Tinmouth. In general, the occurrence of groundwater is controlled by the existence and permeability of fractures and pore spaces in sediment and bedrock. The deep deposits of glacial sands and gravels in Tinmouth Valley, and to a lesser extent those deposits along the narrow valleys of Wells Brook and the Poultney River, have the greatest potential for shallow groundwater storage. The groundwater supply is sustained by the infiltration of precipitation and surface water through soil and rock material. The permeable sand and gravel deposits of the valleys allow direct recharge from the surface. The upland hills and mountains covered with thin soils are also important recharge areas. Because the bedrock is highly fractured in most parts of town, it is the primary aquifer for many Tinmouth residents. Bedrock well depth varies depending on the density of water-bearing fractures.

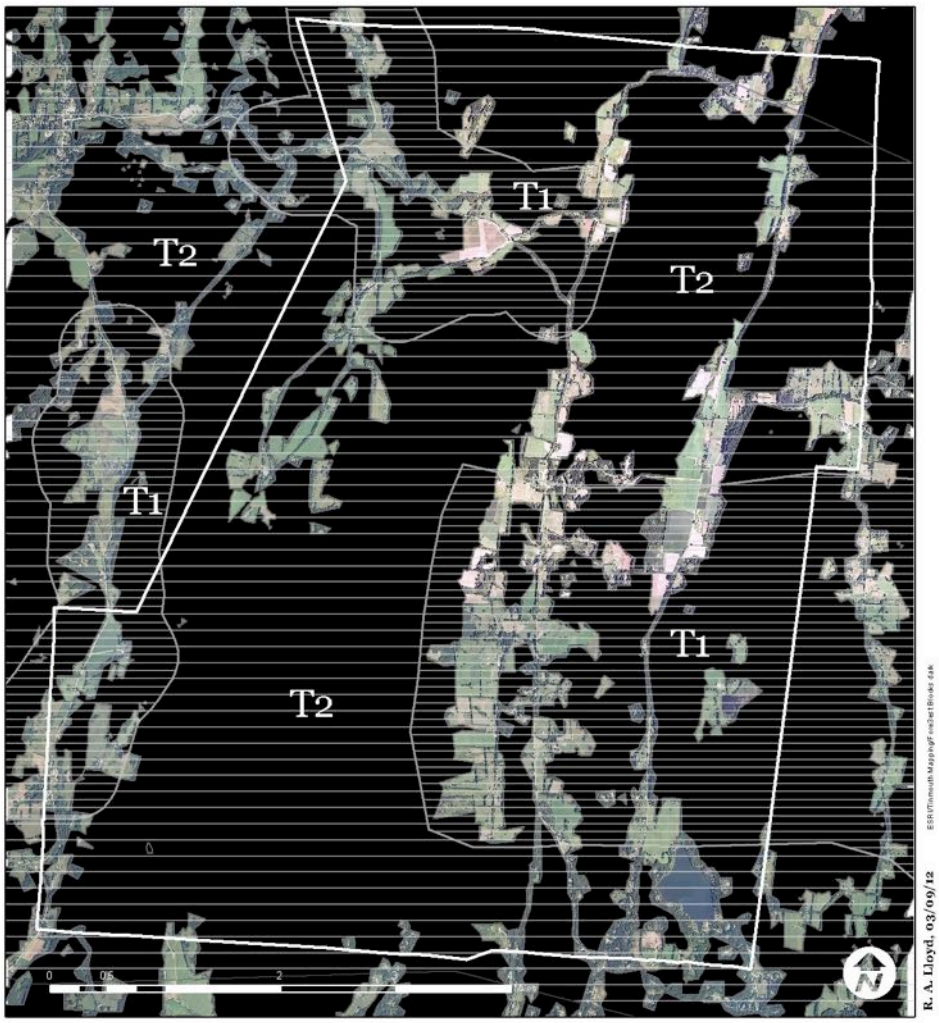
Three major groundwater sources emerge at the Hepburn, Merrill, and Wright springs on the east side of Tinmouth Mountain.

Vegetation

The composition and extent of vegetation which existed when the town was first settled was quite different from that which exists now. Early settlers modified the forest by clearing trees to open fields for crops and pasture land or to harvest products for industry (charcoal, potash, cedar oil). This was followed by successive cuttings for timber. In the past eighty years, there has been extensive re-growth of forests as farms have shrunk or disappeared on the town's more marginal agricultural lands.

Most of the town is covered with a relatively young northern hardwood forest. The trees commonly comprising this forest are beech, birch, and maple in association with hemlock, white pine, and some spruce. The Tinmouth Channel is covered with various species of wet-tolerant plants. Typical are red maple, larch, white cedar, willow, alder, sweet gale and sedges.

Approximately one-quarter of the town is in open fields. These are predominantly used for pasture or cropland to support the dairy



Continuous Forest Blocks/Wildlife Connectivity

(T2) Coarse-Scale Connected Wildlife Network: Habitat most suitable for wide-ranging mammal connectivity between Green Mojntains and the Adirondacks

(T1) Fine-Scale Connecting Lands: Locations where small patches of riparian habitat, strips of forest cover, hedgerows and fencerows are critical for wildlife connectivity

Continuous Forest Blocks

Sources: Vt. F&W Dept. & Staying Connected

Connectivity

Allows animals to move freely across their range;

Allows plants and animals to colonize new habitat as climate change, succession, or other ecological processes force them to migrate;

Reduces the risk of population isolation and provides for the exchange of genetic information among populations of animals and plants;

Allows animals to access suitable habitat to meet their daily and annual life needs;

Allows seasonal movements (migrations) to essential range or habitat;

Allows young adult animals to access new range, away from natal range; and

Allows adult animals to interact with potential mates, thus improving reproductive success and genetic fitness.

industry. Adjacent to these open fields are numerous 'old field' upland areas. They are in vegetative transition with many pioneer species.

Wildlife

Tinmouth is a unique network of ecological communities supporting a variety of animal, plant and insect life: from its small vernal pools in the forested uplands down through the pasture grasslands and woodland edges to the varied swamps, fens and rare plant communities in its wetlands.

Intercontinental migrating waterfowl visit our extensive wetlands. Neo-tropical migrants (our common summer songbirds) breed and nest in our older growth forests (providing interior forest conditions), woodland edges and brushy pastures. Moose, bear, coyotes and bobcat have smaller seasonal migrations following corridors connecting the Tinmouth Channel with the large forested blocks on the Tinmouth Mountain and Spoon Mountain ridges that run north through Ira and south through Danby, and on Clark Mountain that is contiguous with major forest blocks in Clarendon and Wallingford. Deer rely on the Tinmouth Channel for winter cover and move through the fields, woodland edges and upland forests as their diet changes through the seasons.

More localized still are the diverse amphibians relying on

the brief appearance of woodland vernal pools, Tinmouth's many species of dragonflies needing pristine wetland habitats, butterflies requiring specific host plants and fish spawning in Tinmouth's brooks.

The town is situated at the crossroads of two critical wildlife migration corridors in the Rutland Region. In part because development is concentrated along the Route 30 and Route 7 corridors, the upland plateaus and mountains of the Taconic Mountains provide excellent connectivity for wildlife in a north-south direction. In addition, Tinmouth is critical for east-west movement of wide-ranging mammal species and is central to one of the few networks of forested habitat connecting the Green Mountains and the Adirondacks.

Contiguous forest habitat provides a significant contribution to the local community's interests in its natural heritage, identity, and working landscape. These lands provide many ecological functions for fish, wildlife, plants, and all the natural processes that sustain them. Further, they provide extremely valuable connections for people to enjoy and appreciate the land and its abundant resources. To this end, we will work to inform landowners of these values and offer assistance for any conservation actions that are in keeping with the local community's conservation interests

Climate

The 2011 precipitation in Tinmouth was 39.12" inches. Evaporation and the transpiration of plants return a large percentage of this amount directly to the atmosphere. The remaining water forms surface water or it replenishes the ground water supplies underlying the valley floors. The temperature ranges from a mean January temperature of 9.8 degrees F to 82.1 degrees F in July. The annual chance of sunshine in Tinmouth is 53%. The mean length of growing season is 130-140 days.

Chapter III: How We Use the Land

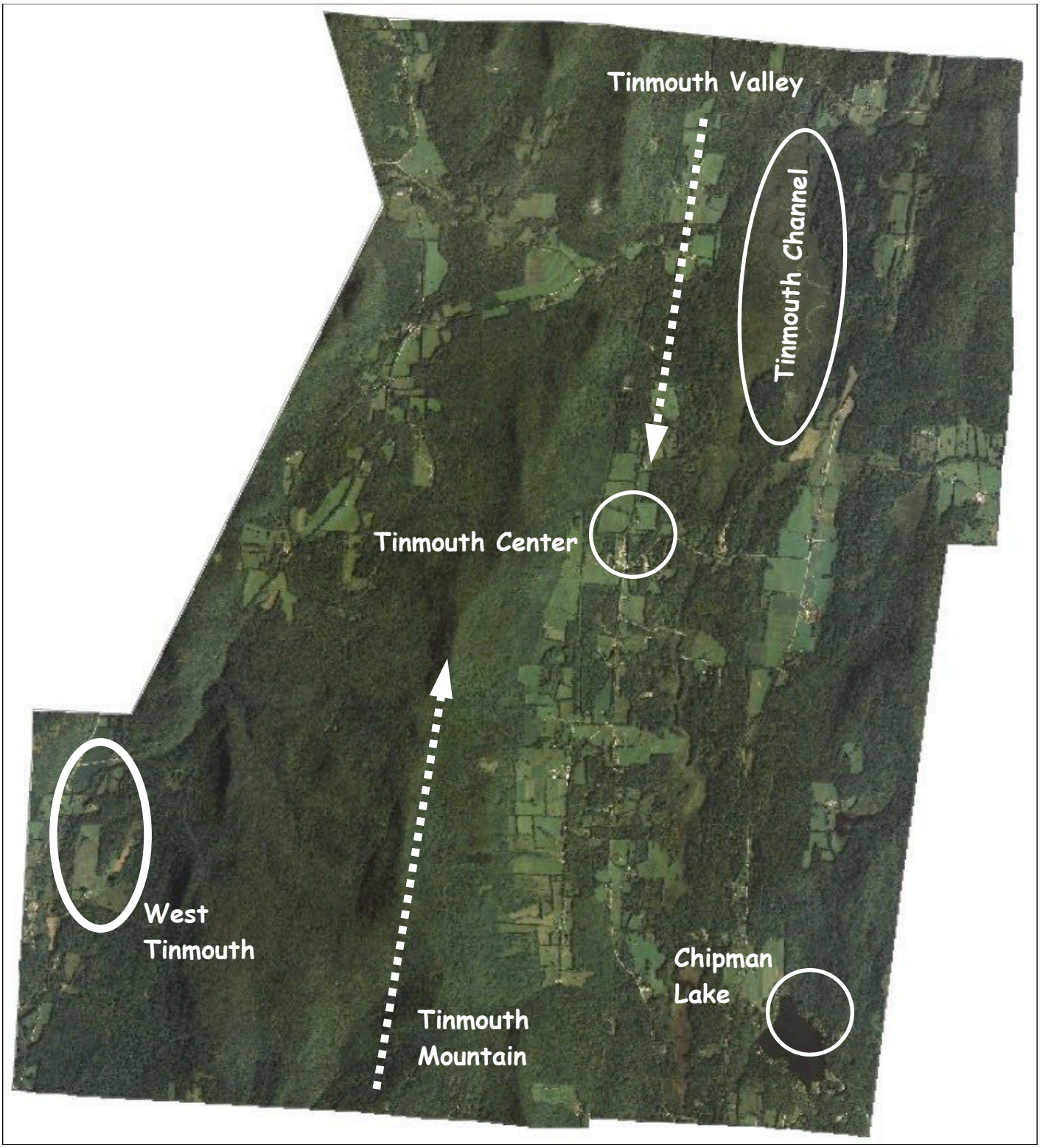
This chapter of the Plan organized to cover the ways in which landowners, residents, and visitors use the land and in Tinmouth; the challenges we face with the ways we currently use the land and water; and ways in which we can solve the problems we have today. How we would like to see the land and water used in the future is addressed in Chapter 5: "Making Good Decisions about the future"

Historic and Current Settlement Patterns

Present land use in Tinmouth is rural-residential in character and is related to agriculture. The density of settlement is very low, and its distribution has been influenced by the physical composition of the land. Tinmouth Valley contains the major concentration of settlement. At its center is a small hamlet which serves as the focus of community activity. Besides containing numerous residences and several commercial establishments, the hamlet is the location of the town's community facilities. These include the town offices, library and sheds, the fire station, the Old Firehouse, the elementary school, community center, and the church.

The southern portion of the valley has a relatively high proportion of settlement, mostly occurring along town roads. This area is also the location of a major concentration of seasonal dwellings which ring the shoreline of Tinmouth Pond (Chipman Lake). Other concentrations of settlement occur in the valleys along the southwest and northwest boundaries of the town. Because of the ridge formed by Tinmouth Mountain, the West Tinmouth area is quite remote from the eastern portion of the town.

Settlement and Land Features of Tinmouth



Settlement Pattern Analysis

Tinmouth remains a community founded upon farming, even though for a long time the majority of its residents have worked outside the town. As development slowly takes place, however, it is possible that the town's agricultural character and landscape may continue to wane. The number of working farms has continued to decline in Tinmouth. Dairy farming is predominant in Tinmouth as in the rest of Vermont. Despite the diminishing number of farms, Tinmouth has a considerable amount of undeveloped open land and forest areas. Preserving these spaces and encouraging working use of the landscape is vital to maintaining the rural character valued by Tinmouth residents.

Land Ownership

There were 534 parcels in town in 2005. The majority of land in town is owned and managed by individuals or small businesses. Approximately 49% of all private parcels are over 10 acres in size. The largest category of parcels includes those under two acres, none of which is developable. About 200 parcels lie between 2 and 25 acres in size, about 37% of the parcels, but only 11% of the land. Approximately 330 of all parcels in town have at least one home or other principal structure on them.

Publicly owned and privately restricted land

The community, in collaboration with the Vermont Land Trust and others, has been very active in conserving land. Approximately 8000[5] acres have been placed under conservation restrictions which prohibit subdivision or development and limit uses to agriculture and forestry. This accounts for 44% of the total 18,335 acres of land in Tinmouth. This land includes:

- The municipal buildings, firehouse, church, and cemeteries.
- A tract of land, consisting of 1,256 acres that includes almost all of the Tinmouth Channel Wetland, is owned by the State of Vermont.
- The Tinmouth Purchase Recreation Area
- A power line right-of-way owned by the Vermont Marble Company Power Division which extends the entire length of the Tinmouth

Tinmouth Acreage Analysis

Acreages	number of parcels	% of total parcels	Total acres in category	% of total acreage
0 to 1.99	156 (1)	30.9%	111.164	0.1%
2 – 9.99	101	20.0%	501.882	2.7%
10 -24.99	97	19.2%	1410.882	7.7%
25 – 49.99	57	11.3%	2000.951	10.9%
50 – 99.99	50	9.9%	3498.056 (2)	19.1%
100 – 249.99	32	6.3%	5020.759	27.4%
250 - 1200	12	2.4%	5790.817 (3)	31.6%
Totals	505	100%	18,334.84	99.5%

(1) May include some very small parcels that appear in digital tax map but may not be recorded. (2) Includes 80-acre Tinmouth Pond. (3) Includes large Tinmouth Channel lot.. Acreages do not include roads.

Restricted Land Analysis

Several organization associated with the Town have been active in conserving land in Tinmouth. The Select board worked with the Vermont Land Trust and the Vermont Housing and Conservation Board to buy land for the Tinmouth Purchase Recreation area in 1997, and with the State of Vermont to designate the Tinmouth Channel a Class I wetland in 2003. The Tinmouth Land Trust has worked with landowners to broker the donation or sale of development rights to the Vermont Land Trust. Most of the Vermont Land Trust projects have also incorporated and set aside land for future residences, approximately 25 total. Several of these have been designated specifically for affordable housing. Future conservation work should pay close attention to supporting farming and forestry in the town and conserving the town's natural heritage while ensuring that economic opportunity and the ability for new housing to be built at an affordable cost is not lost.

Most of the conserved land is also Vermont's Current Use program, which prohibits subdivision and prescribes good forestry and farm management practices. In addition to the conserved land, about 5500 acres is in Current Use.

Current Uses of Land, Analysis, and Solutions

Homes and homesteads

Tinmouth's year round and seasonal residents live, for the most part, in widely dispersed, single-family housing along the major roads in town. There is slight, but by no means large, concentration of housing at the junction of Route 140 and Mountain View Road near the town center and another along the southern portion of East Road. The highest density of residential development is the largely seasonal housing surrounding Chipman Lake in the southeast corner of Tinmouth.

Over the past 35 years, the number of homes in Tinmouth has more than doubled. Of Tinmouth's 330 housing units in 2000, 81% were single-family detached homes. Another 14% were mobile homes, while the remainder were in two-unit structures (usually duplexes). Most housing units are owner-occupied: 84% in 2000, with the remaining 16% renter occupied. Both types saw increased numbers in the 1990s. Owner-occupied homes jumped by 37%, from 142 units to 194. Renter-occupied homes increased from 23 to 27 units.

Tinmouth has a sizeable but declining number of seasonal housing units. On the 1999 Grand List, 112 parcels are classified as "vacation" out of 286 residential parcels total. This data corresponds with the 2000 Census, which showed 90 seasonal units of the 330 total units, down from 109 a decade earlier Approximately 27 of the housing units in the town are vacation homes or used only seasonally. Seasonal housing units typically have fewer rooms than year-round housing units.

The high concentration of summer camps around Chipman Lake account for most of these units in Tinmouth, though in recent years many of these homes have been converted to year-round units.

Recent trends in housing construction

A total of 44 permits were issued over the past decade, and of those 52% were for constructed homes and 48% were for manufactured housing which includes mobile homes. Of the total permits issued, nine were for the replacement of existing structures, usually a new manufactured home on the existing foundation. The average size of all new homes built was approximately 1,100 square feet with the largest new home at 2,500 square feet and the smallest at 640 square feet. There were no permits issued for subdivision development during this time.

The number of home sales per year between 1985 and 1999 are juxtaposed with the median sale prices by year. These figures include both R1 and R2 [6] properties as well as manufactured housing. The average lot size, for all home sales, was 20.5 acres. The smallest residential lot (with home) sold was 1/2 acre and the largest was 293 acres.

Of the 62 total home sales transactions, 54.8% were on lots with 6 or less acres and averaged 2.4 acres in size. The remaining 45.2% were on lots larger than 6 acres and averaged 42.5 acres in size. Manufactured housing sales were only 6.5% of all home sales over the entire 14-year period.

Home and Homestead Analysis

The new homes added to the town over the past 35 years have generally been well integrated into the community and followed principles that make Tinmouth unique: small homesteads in valley areas surrounded by mowed fields and / or forested areas. All additional housing places increased burdens on the town's transportation network (see below for details) and services (see chapter 4), but recent growth has not overwhelmed either of these.

Three recent features of new housing development have, however, highlighted issues worth noting and addressing in this Plan. They are:

1. *Homes placed in the center of fields:* A small number of new homes have been located in the middle of former agricultural fields, effectively splitting the fields into two or three segments. More creative development of the site could have allowed for equal access and amenities to the landowner while preserving the future viability of agricultural activities for decades into the future. The Tinmouth zoning regulation's agricultural overlay was designed to address this issue. This regulation should be monitored for its effectiveness over time and altered if necessary.

2. *Homes built in key wildlife habitat areas or corridors.* Identification of wildlife habitat and corridors is an ongoing effort in Tinmouth. Key areas were identified in 2002 and were afforded some additional protection through larger lot sizes

connecting the Tinmouth Channel to highland areas across North East Road and across North End Road in two places. Lot size requirements appear to be addressing the issue at least partially, though they do not address small habitat areas.

3. Conversion of homes around Chipman Lake for year-round use. Town records indicate that several homes in the immediate vicinity of Chipman Lake have been converted to year-round homes. This has had the positive impact of ensuring that there are more people to watch over the neighborhood during the winter and allowing more people who love the town to live here throughout the year. Two key concerns, however, are the increased use of private roads that may not have been designed for winter use, and additional use of septic systems, lawn fertilizers, etc, that may be contributing to phosphorus loading and the growth of Eurasian Milfoil in Chipman Lake.

Homestead Policies

- The preservation and renovation of existing housing stock is encouraged over demolition and re-building.
- Land should be managed and developed in ways that sustain a variety of future uses, including agriculture and woodland management.
- New construction and renovations that increase homestead energy efficiency are strongly encouraged

Homestead Actions

- Provide residents with information about how individuals can support wildlife habitats and corridors. A Conservation Commission was created in 2011.
- Provide residents with information about increasing energy efficiency through house siting, design, and renovation, and ways to help finance such work. An Energy Committee has been formed to work on these and other issues.

Economic Development

During the first part of the 19th century, Tinmouth evolved as a small rural community. The population, greater than exists now, supported a diverse economic base. Iron mines, a marble quarry, saw mills, agriculture, and commercial establishments provided this relatively large economic structure. People of varied backgrounds and economic levels lived and worked together in what was essentially a self-contained and self-sufficient community.

Significant modification of that economic base has taken place over the years. In the more recent past, the town's economy was primarily related to agriculture, particularly the dairy industry (see below). The economic base is also influenced by a seasonal increase in population during the summer, related to the development of vacation homes within the town. The changing nature of employment has a significant effect on land use. The Tinmouth Town Plan intends to accommodate these changes, especially the growth of home occupations by local residents.

A seasonal snack-bar and garage are located in the hamlet of Tinmouth, but most commercial uses are dispersed throughout the southern part of Tinmouth Valley. These consist of: a garage, seasonal cottages, a campground, B&B's, a dog training school, and a seasonal guest lodge, among others. One farm runs a seasonal farm stand. Another offers a a community supported agriculture (CSA) progam. Tinmouth's Farm to School Committee helps promote nutritional education throughout the community by connecting students with local farmers and adding local produce to school meals. Many home-based businesses operate

in town. The recently published 2007 town listing included 45 businesses.

Businesses Analysis

The impact of commercial uses is minimal within the town. Businesses draw mostly local patrons and do not generally present traffic, pollution, or noise concerns. The town is not likely to see a substantial increase in commercial activity in the near future because of its location and small population. The 2006 residents' survey, moreover, supports this. 42% of respondents reported that they would not like to see any additional retail businesses in the town. Of the remaining 55% that answered the question, responses indicated that small-scale businesses such as a hardware store, general store, or small restaurant would be desirable, and / or that regardless of how they felt, retail businesses were not likely to be opened in Tinmouth in the foreseeable future.

Businesses Policy

- The town of Tinmouth supports the development and expansion of home-based businesses, forestry, and farming.

Open Fields and Forests

Open fields and forestland dominate the town's landscape. The degree to which this landscape is actively managed varies by property and location within the town. Today, 75% of the town's land is considered to be forested, while 25% is in open fields. These figures underscore a slow, but dramatic change in land use over the past century. It is estimated that in the early 1900s, 75-80% of lands in Vermont were in farm use, with Tinmouth as no exception.

Residents of Tinmouth identify strongly with the open fields that cover most of the Tinmouth valley and other flat or rolling parts of the town. Historically, much of these areas – save the most wet parts of the Tinmouth Channel – were actively farmed in one form or another. Today, open fields are still common on the less-steep slopes in town and make up approximately half of the 8,500 acres of land enrolled in the State's Current Use Program. The program, which reclassifies land to a lower taxable rate in exchange for farm and forest conservation, has been a popular choice for Tinmouth residents. The State of Vermont reimburses the Town for the majority of the difference in taxes collected. Agricultural use includes:

- *Dairy and beef farms.* There are nine active dairy and beef farms in Tinmouth. The Census reported 40 Tinmouth residents working full time in the agriculture, forestry, fishing, or mining industry in 2000, up from 31 in 1990. These four industries employed 14.4% of the population over age 16 in Tinmouth in 2000.
- *Hayfields.* Approximately 40 hayfields are used to support farms in the Tinmouth area and beyond. Landowners facilitate this system in part to make

some income from the land and in part to keep the land open and to retain the town's character.

- *Horse Boarding:* The care of horses has grown as a business in southern Vermont in recent years. There are currently two active horse boarding facilities in Tinmouth, but the potential exists for more given the availability of open fields and the overall growth of the market.

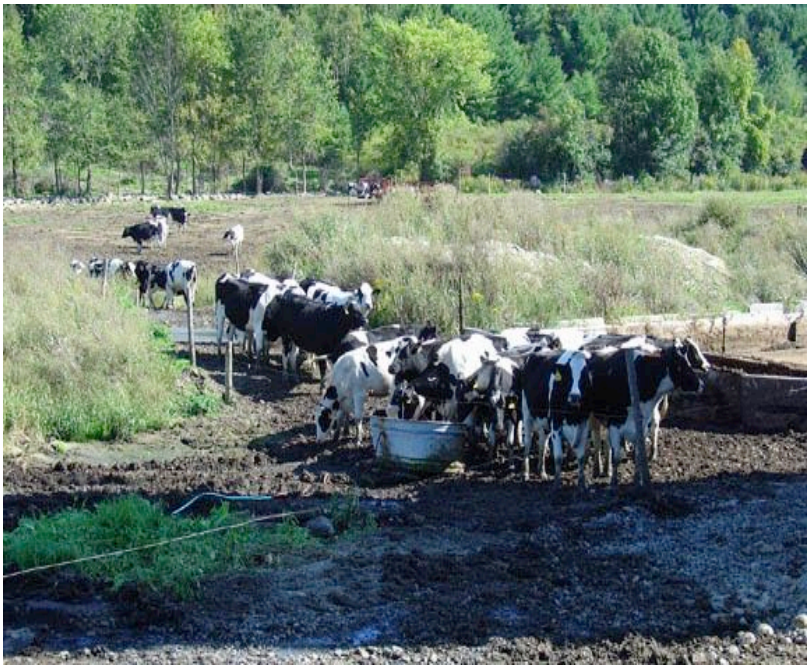
Forested areas cover virtually all of the land not actively cleared or considered to be wetlands, including the overwhelming majority of land on steep slopes or at high elevations in the community. Logging has remained a source of income and employment for town residents. Managed forest area accounts for approximately 6,100 acres of land enrolled in the State's Current Use program. Those lands are scheduled with 20-30 year harvest rotations.

Open Fields and Forestry Analysis

Open fields and forest land are both closely tied to the town's identity, In the town's 2006 resident survey 86% of respondents said that working farms in Tinmouth were "important" or "very important" to them. These results were consistent among both year-round and seasonal residents. The same survey revealed large numbers of respondents who said they would *not* want to see retail development on working farms (74%), forest land (69%) and former farm fields growing back up (43%). The conversion of farmland to forest over the past century has taken place primarily on poor soil and / or steeper slopes. Dairy farming in particular has suffered in recent decades because of competition from large-scale farms across the country and this problem will continue for the foreseeable future because of national agriculture policies. In addition, it should be noted that larger farms in neighboring communities have suffered equal, and perhaps more substantial declines in recent years. At this point, the number of active farming operations in Tinmouth make the town somewhat of an anomaly in the area. This is due, at least in part, to the dedication of landowners and town officials to promoting farming through perseverance, assistance between neighbors, and land use policies that support farming and open space conservation.

Open Fields and Forestry Policies

- Keep active, sustainable agricultural and forestry practices a top priority for land use in Tinmouth.
- Logging operations should take place at appropriate times of year.
- Remind qualifying land owners of the current use program option.
- Retain farms and large contiguous forest blocks wherever possible.



Open Fields and Forestry Actions

- Review land use regulation to ensure that sustainable agriculture and forestry practices are a top priority and information is available to landowners.
- Provide information to residents about the importance of undisturbed vegetated buffers along

the edges of water bodies.

- Identify patches of contiguous forest, those that are relatively large, in good condition (e.g., relatively unfragmented or un- developed).
- Include a map of contiguous forest patches in the town plan and include language stressing the importance of contiguous forest in conserving the town's natural heritage.

Water Quality Issues

Similar to other areas of Vermont, nonpoint source pollution is the major source of water quality concerns in the Town of Tinmouth. Unlike point source pollution, such as a direct discharge or outfall pipes, nonpoint source pollution is more diffuse, harder to quantify and more difficult to control. Examples are runoff from parking lots, back roads, fertilized lawns, and runoff from agricultural fields. It has been well documented that urban and suburban nonpoint sources contribute more phosphorus and sediment per acre than from the working landscape. Urban land covers only a small portion of the Champlain Basin, yet it produces approximately 37% of the average annual nonpoint source phosphorus load to Lake Champlain – much more phosphorus per unit area than either agricultural or forested land, according to the United State Geological Survey and Vermont Agency of Natural Resources. To a large extent, nonpoint source pollution control and nonpoint source pollution prevention focuses on the watershed approach, through land use management.

Water Quality Analysis

The majority of the threats and impairments to lakes and ponds in Tinmouth are caused by non-native nuisance aquatic species. The Poultney and Mettowee Basin has the highest concentration of lakes with dense populations of Eurasian water milfoil statewide. Tinmouth Pond has been documented as having a "moderate" level of milfoil infestation, indicating that locally abundant water milfoil growth here and there along the shoreline is evident. Members of the Tinmouth Pond Milfoil Project (TPMP) have experimented with the use of a suction harvester to remove milfoil beds. With support from the town, the TPMP has purchased two "Solarbees", devices that aerate the water, improves water quality and inhibits milfoil propagation and growth. There are many other methods used for controlling Eurasian water milfoil on lakes and ponds in Vermont, including hand-pulling, the use of bottom barriers, mechanical harvesting, and biological controls. Adequate resources are a significant limiting factor to Eurasian water milfoil management at Chipman Lake and elsewhere in the state as recreational activities continue to spread it. One factor that should hamper its spread to nearby lakes and ponds is the lack of a formal public access to the Pond.

Wetlands protection is gaining momentum in southwestern Vermont. The Tinmouth Channel, that lies within the Otter Creek watershed, was designated in 2001 as one of three Class One wetlands in the

state. Wetlands are usually associated with riparian areas and forested areas. Other wetland conservation efforts are underway in the West Rutland Marsh and Otter Creek headwaters.

Water Quality Policies

- Drainage, filling, and fragmentation of wetlands associated with development and road construction should be minimized.

Water Quality Actions

- Increase public awareness of the important functions and values of wetlands.
- Invite conservation districts and other partners to provide workshops for citizens as to the value of wetlands to reduce flooding, filter nutrients, and recharge ground water.
- Direct landowners towards federal programs available for enhancement or protection wetlands.

Changes in Plant Diversity and Ecosystems

Tinmouth has a rich diversity of plant and animal species, as identified in Chapter II of this Plan. Some of our land development practices have dramatically impacted these ecosystems, however. Early forestry and agricultural endeavors changed the types of plants and animals most common to the Town, replacing forested areas with limited numbers of grasses and crops grown on the land. In recent years, while some of the biodiversity of the forests has grown back, residents have begun to introduce non-native, and in some cases, invasive plant species to the town. Invasive plants, once introduced to an area, typically spread very quickly and overtake existing species.

In Tinmouth, several invasive plant species have gained a foothold. These include barberry, buckthorn, honeysuckle, purple loosestrife, garlic mustard, Japanese knotweed, Eurasian milfoil, and wild parsnip. The plants have been introduced in two ways: by gardeners inadvertently planting these species and by those undertaking construction or road work, disturbing soils and allowing plants carried by the wind, vehicles, boats, or wader, to settle without competition.

Diversity Analysis

Invasive plants are extremely difficult to control. By definition, they tend to thrive in their new host communities because they have few or no predators and adapt quickly to changing environments.

In recent years, several newer homes have also created more manicured lawn area than had previously taken place in Tinmouth. Keeping diversity among the Town's plants is critical not only for the health of the Town's wildlife and its unique natural areas such as the Tinmouth Channel.

Diversity Policies

- Where planting is to take place, native plant species should be considered and invasive species completely avoided.

Diversity Actions

- Inform residents about the harmful effects that over-use of fertilizers on lawns and gardens can have on the growth of invasive plants and algae in nearby streams and ponds
- Inform residents about ways to minimize the disturbance of lands when clearing or digging on their lands.
- Inform residents of the benefits of allowing native plants to grow, undisturbed, at the edges of streams and ponds.
- Require undisturbed vegetated buffers along all stream banks and shorelines in the town's zoning regulations.
- Limit the disturbance of natural habitats when performing maintenance on town roads.
- Identify locations of known wildlife crossings along town and state roads.
- Incorporate a map of wildlife crossing areas into the Town Plan and prioritize these areas for conservation

Movement Across the Land (Tinmouth Transportation Network)

The rural character of Tinmouth, like many other small Vermont communities, is supported in large part by its network of rural roads comprising the town highway system. The road system is an integral part of the town's scenic landscape, settlement patterns, and economic well-being. The network of highways and roads forms a system that provides for the efficient and safe movement of traffic and ease of access to individual properties, while at the same time maintaining the rural character of the town.

There are 39.68 miles of roads in the town, most of which are maintained locally. Route 140, which is the main east-west passageway, serves Tinmouth Center and provides an important link with the adjacent municipalities of Wallingford and Middletown Springs. East Road, North East Road, Mountain View Road, Route 140, North End Road and, seasonally, the Gulf Road offer north-south passage through Tinmouth, at lesser volumes, and connect the community to the towns of Clarendon and Ira to the north, and Danby and Pawlet to the south. Some portions of Route133 – state maintained and state controlled – lie in Tinmouth's southwest and northwest corners. The most heavily traveled roads in Tinmouth are Route 133 near the intersection of Route 140 (with counts ranging from 1,300 to 1,500 vehicles a day over the past decade) and Route 140 near West Hill road (with counts ranging between 900 & 1,000 cars daily). East Road and Route 140 near Harrington Cross Rd. are also heavily traveled. [9]

"Many of Vermont's back roads have been widened, straightened, paved, or otherwise 'improved' to accommodate increased traffic and provide new access. Often, these modifications have caused unnecessary damage to environmental features and in turn have degraded the scenic, economic, and cultural values associated with the community." The Vermont Back Road. [10]

Transportation Network Analysis:

As presently constituted and maintained, the road system is adequate to the needs of the town and, barring significant changes in the town settlement patterns, should not be changed. On a few occasions each year (Town Meeting and the Volunteer Fire Department's Game Supper, for example), parking in and around the Town Center is over congested. Another problem noted is the design of the intersection of Route 140 and East Road from the south. The higher traffic flow crosses the T, while Route 140 from the west, which has the right of way, interrupts that flow: there have been many near-accidents at that

point.

Buildings and uses located within close proximity to highways and roads may result in unsafe conditions or high public costs if the road requires widening. These situations can be avoided if buildings are set back an adequate distance from the highway.

Transportation Network Policies

The roads in Tinmouth should be designed and engineered primarily for local use and maintenance, low traffic volumes and axle-weights, lower speeds, tolerant of curves, grade changes, and minimal shoulders (if they are paved at all).

Improvements to town roads shall be carried out in a manner which will protect, conserve, and enhance scenic features and wildlife.

Maintain or improve the current level of service on all roads on town; give priority to maintenance and rehabilitation of roads over increasing speed or traffic capacity.

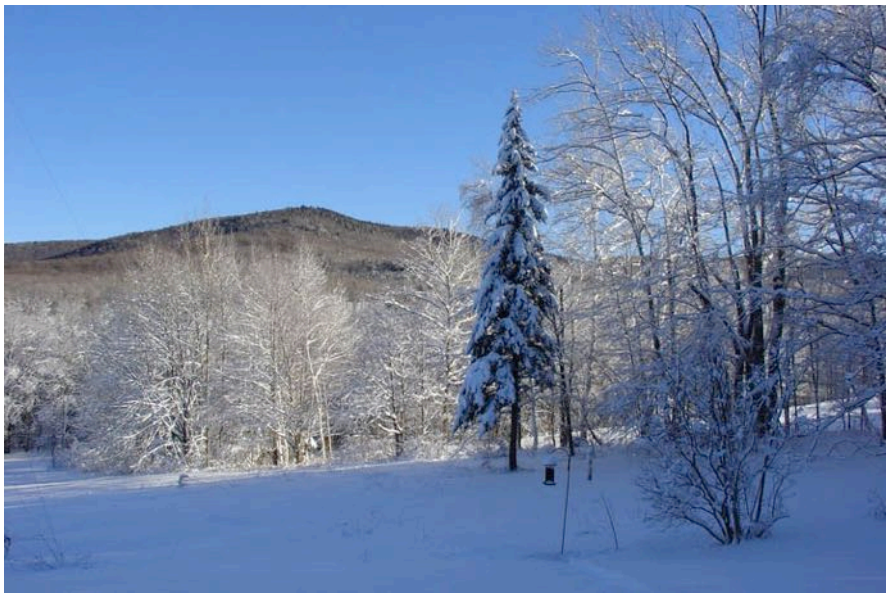
Transportation Network Actions

1. Rural Character and Safety

- Balance the needs for mobility and accessibility with the need to preserve the valuable scenic, natural, historic, cultural and community resources.
- Maintain or enhance the rural environment or setting as a primary design goal. Design criteria for improvements should include esthetics and the project's setting equally with engineering considerations.
- Limit heavy truck use on all roads. Prohibit regular heavy industrial truck use of roads as thoroughfares.
- Post and enforce speed limits on selected Class 2 and Class 3 roads.
- Designate the seasonal road through the "gulf" as a scenic back road; only improvements which would not disrupt its scenic qualities should be allowed on this road.
- Discourage planning and construction of traffic thoroughfares through Tinmouth.
- Road improvements must be fit to the community rather than have the community fit to the road.
- Maintain a transportation system that promotes the other goals and policies of this plan and makes it easier to direct desired community patterns of land use and economic development.

2. Maintenance and Improvements

- Ensure that all roads are maintained and upgraded to be safe for not only automobile and farm traffic,



but allow for pedestrian, bicycle, horses and other shared uses.

- Plan land use and take actions to avoid the need to expand the capacity of town highways.
- Plan investments in roads to support desired land use patterns and to improve the livability of Tinmouth. Road improvements must be fit to the community rather than have the community fit to the road improvements.
- The impacts on erosion, siltation, and aquatic life of stream crossings necessary for development should be minimized by maintaining fish passage, preserving or enhancing habitat, and limiting in-stream disturbance.

- Before supporting any new transportation projects, policies or improvements, analyze and compare a reasonable range of alternatives:
  - **A.** Evaluate alternatives in terms of environmental costs, energy use or conservation, social costs, and public investment; and
  - **B.** Compare the ability of each alternative to meet the goals and policies of the town plan.

Outdoor Recreation

Residents of Tinmouth and visitors to the town use the land for all types of recreation: hunting, fishing, trapping, hiking, snowshoeing, cross-country skiing, cycling, snowmobiling, ATV riding, boating, and horseback riding, among others. The impacts of these activities vary widely, though most affect defined areas. The town's expansive forest and open areas make it ideal for these and many other recreation activities. Enjoyment of the land and water in the town is one of its key binding features and one of the reasons that residents are so strongly connected and committed to the long-term health of these natural features. The Tinmouth Purchase Recreation Area is a Town-owned tract of land for the use and enjoyment of its residents and visitors.

Of particular note are the activities that have potential impacts on wildlife and natural resources within the town and on the quality of life of neighbors. They include:

- Erosion caused by overuse of trails by ATVs, mountain bikes, hikers, and horses. Repeated wear on the same trails – especially during the springtime – can create ruts and develop erosion patterns on steeper slopes. In general, users of trails in Tinmouth have been respectful of this and have not created significant problems. If use of these trails increases in the future, steps may need to be taken to limit soil erosion.
- Noise pollution created by ATVs and snowmobiles. Overuse of trails can alter wildlife habitat and travel corridors because of the noise created by engines. Little research has been done in this area in Tinmouth

to determine whether the current use has had a substantial impact.

- Aquatic nuisance species can be carried between bodies of water by boats and fishing gear.

Recreation Analysis

Recreational uses of the land and water in Tinmouth are generally low-impact, both because of the types of recreation most commonly exercised, and because of the limited use most trails, lands, and waterways receive. The slow conversion of land around residents' homesteads, as more people make their living inside the house or outside the town instead of using the land – will mean a change in the town's appearance and could alter the plant and animal habitat in the town and exacerbate water quality issues in the town's streams.

Recreation Actions

- Provide residents with information about trail designs and maintenance techniques that present erosion.
- Consider acquiring access to Tinmouth Pond for use by town residents.
- Provide information to boaters and anglers reminding to clean their gear carefully between outings to prevent the spread of aquatic nuisance species.

Utility Transmission Lines

Running in a north-south direction along the base of the eastern slopes of Tinmouth Mountain is the GMP transmission lines and right-of-way corridor (formerly owned by the Vermont Marble Company).

Utility Transmission Analysis

The distribution of a system must be efficient, but if improperly located, the character of scenic areas, views, and contiguous land uses can be adversely affected. In this regard, the town is concerned that they would be inconsistent with the objectives set out on page 3.

Utility Transmission Policy

- The town supports the continued use of the existing rights of way for power transmission.
- The town strongly advocates for a public and open local debate over the construction of any new utility grade power generation or transmission facilities.

Utility Transmission Action

- Electric transmission lines and major transmission facilities are strongly discouraged. .

Historic Sites and Structures

There are a number of structures and locations within Tinmouth which have historical value. All of these sites are important locally because of their socio-cultural value, but the "Leonard Place" and the "Sawyer House" have statewide significance.

The majority of Tinmouth's historic structures are related to the town's agricultural heritage. When we think of "historic structures" in Tinmouth, we generally think of long-standing farmsteads, barns, and the stone walls that were built both to show property lines and stow rocks that turn up each year in the soil. A handful of places in town – most notably the hamlet, which been designated as an Historic District on the National Register of Historic Places – have historic structures that remind us of our civic past.

Several of the historic structures indicated on the Scenic and Historic Sites Map are worthy of preservation. The 'old store' in Tinmouth Center has been renovated to house town offices and a library. Next door is the Old Tinmouth Firehouse, which has been renovated into a public gathering place and concert venue.

Historic sites and structures are offered a limited degree of protection under the Vermont Statutes, Act 250 being the only regulatory mechanism addressing them. In granting permits for subdivision of lands, the District Environmental Commission must find that the proposed project "will not have an undue adverse effect on the scenic or natural beauty of the area, aesthetics, historic sites or rare and irreplaceable natural areas." [9]

Historic Structure and Site Analysis

While residents of Tinmouth have a great love for the history of the town and its structures, there are, at present, no town-sponsored regulations or programs supporting their continued existence. The greatest challenge to keeping these structures is upkeep and maintenance. There does not appear to be substantial pressure to remove or redevelop these sites.

Historic Structure and Site Policy

- The Town of Tinmouth strongly supports the conservation and maintenance of historic sites and structures within the town. Future development should retain these elements of our past. Any highway work should pay special attention to the presence of stone walls. Whenever feasible, structures of historical significance shall be adaptively converted to new uses which would maintain their architectural or cultural value to the community.

Historic Structure and Site Actions

- Work with landowners to apply for historic structure (including barn) preservation funds.
- Tinmouth Center should be designated a Design Review District and so established in permanent zoning regulations.
- Create an Old Barn Commission that will work with land owners to rehabilitate barns through grants programs, low interest loans, and town events.

Chapter IV: How We Provide for our Neighbors

This chapter of the Plan is focused on the services and assistance that we, as Tinmouth residents, are responsible for or choose to provide to our neighbors.

Affordable Housing

Housing, for the most part, is a land use issue. How many houses should the town permit to be constructed, and where? The ground rules are set out in the Zoning Regulations. Housing is also a social issue of concern to some residents. When housing in Tinmouth is unaffordable, there may be less diversity in its population and, potentially, the loss of its younger and older residents to other communities.

Housing is "affordable" when households with incomes at or below the county median income pay no more than 35% of their gross income on housing costs. (See Definition of Affordable Housing; HUD standard is 30%) In Tinmouth, costs normally associated with rural housing development, such as on-site sewerage, drilling and piping for water supply, larger lot sizes (whether due to zoning or consumer tastes), telephone, TV, and electric connection fees, among others, may contribute to a smaller proportion of housing units in town being considered "affordable." Since the last review of the town plan the housing market has changed dramatically. Instead of rising prices for existing housing, prices are falling, and sales are still slow. Though Vermont has fewer foreclosures than most states, most every issue of the *Rutland Herald* contains legal

advertisements for foreclosure proceedings. When these houses are resold they drag the market down further, but they also create opportunities for financially qualified buyers to purchase an affordable house in many cities and towns.

A study commissioned by several housing organizations in Rutland County in 2004 identified two key factors affecting the affordability of housing:

"The market for moderate-income, first time homebuyers is tied closely to mortgage rates. If mortgage rates increase substantially, the market will become very tight. The greatest concern for all potential first-time homebuyers is the need for a stronger local job base to provide households with the minimum income of about $32,000 to afford a first home."

In 2000 over half of Tinmouth homeowners with mortgages were paying more than 30% of their income in housing costs. However, they did own a dwelling (house or mobile home on a lot), and proved not to be a significant market for new "affordable" housing when it was offered.

How Tinmouth Relates to Housing Needs Throughout Rutland County

Tinmouth is not an island, but an artificial set of boundaries created in the 18th Century and largely erased by the automobile. The "Tinmouth" housing market is simply a subset of the Rutland County market or, more broadly, the southwestern Vermont market. It may or may not be more expensive than some other towns, due to the cost factors described above. But in that market there are now a substantial number of homes for sale for under $100,000 – mostly, to be sure, in Rutland City. Among the dramatic changes since 2007 is a virtual collapse in mortgage interest rates. A $100,000 mortgage costs as little as $500 a month; PITI (principal, interest, taxes, and insurance) as little as $650 due to the "income sensitivity" provisions of the state school tax. These are "less than rent" figures, theoretically affordable by a family with an income as low as $15,000, no debt, and good credit. A mobile home or double wide on a lot in Tinmouth might cost as little as $100,000. New construction, whether built on site or in a factory, costs substantially more. But families with relatively low incomes are not necessarily priced out of the Rutland County market any more.

Local Subsidized Housing

Tinmouth is not a very suitable place, from a county-wide perspective, to build affordable single family housing - if indeed it can be built anywhere in the county without substantial subsidies. The town offers few jobs or services. So life in Tinmouth is life with the automobile. Most families, even of modest means, find it essential to own and operate two cars, despite the high cost of gasoline. Heating oil has also risen in cost, so that a winter's heat can cost $3000 or more even for a small house. Thus the cost of

living in an "affordable" house in Tinmouth is not insubstantial, and notably more than living nearer the county's towns and urban areas.

One solution to the cost of constructing affordable housing is to cluster small houses on small lots. Some of the land that would otherwise have been part of each building lot is turned into common open space. This solution was invented in growing suburbs where open space was disappearing. The open space was regarded as the benefit received by the public at large for higher density than would otherwise be allowed. Tinmouth has ample open space - two thirds or more of the town - so this solution offers the town very little. Conversely, closely spaced housing on small lots is inconsistent with the town plan, the town's zoning (save for a planned unit development), and the apparent desire of current residents for a rural rather than a suburban environment.

One recent, subsidized affordable housing project in Tinmouth has four half-acre building lots on 10 acres, with the remaining 8 acres to be held in common and managed jointly by all the owners. The land was donated by the owners of 215 adjacent acres of open land held under a conservation easement prohibiting further subdivision. In the planning stage there was interest expressed by several Tinmouth families in these houses. To date, only one house has been built and sold, and not to a Tinmouth resident or relative of one. To make it affordable, the purchase was heavily subsidized by the developer, using various sources of public (mostly Federal) grant money. Several reasons for the slow success of this project present themselves. Due to affordability limitations on the subsidies, some interested parties had incomes too high or too low to qualify. Several had credit problems or couldn't raise even a small down payment. The communal ownership arrangement was not satisfactory to some. Others were put off by the legal limitations on the amount of appreciation the purchaser could enjoy on resale, to keep the houses "perpetually affordable" – a requirement of the original subdivision permit. Several prospective purchasers simply said they didn't want to live in a subdivision, but on a large lot of their own. Others calculated the costs of commuting to distant jobs. Finally, the last four years has seen a severe recession, centered on the housing market, which has greatly decreased the pool of first-home buyers.

Housing Affordability Analysis:

Tinmouth is a small community, and efforts to alleviate affordable housing needs should be implemented on a scale appropriate to the population. In a rural town, efforts to provide affordable housing units may include: zoning which allows for living situations such as "mother-in-law apartments" and duplex housing, both allowed here; identification of existing structures that could be rehabilitated for affordable or senior housing; construction of mobile homes and "double wides" on individual lots,; and informal counseling and assistance to families in need of affordable housing. In addition, Tinmouth's tradition of volunteer service might make housing constructed by Habitat for Humanity feasible.

Housing Affordability Policies

Producing new affordable housing for a resident or a child of a resident is a worthwhile goal. Creating affordable housing for "the market" - for anyone who happens to want to buy one – creates different issues. Proposals for affordable housing projects should be carefully considered to be sure that any proposed compromise with our rural environment is worthwhile.

Housing Affordability Actions

Increase public awareness of housing need within the community and identify land and buildings within the town that would be suitable for specific affordable housing needs at town events and articles in the *Tales of Tinmouth.*

Collaborate with not-for-profit housing organizations and government agencies to pursue affordable housing options consistent with the character of the town, to meet housing needs of Tinmouth residents.

The Future

This plan is for five years, based on conditions in 2012. Real estate trends are slow to change, so it should remain realistic for that time. However, economic and political conditions can change quickly, and could invalidate this section of the plan in less than five years. Therefore, the Planning Commission should keep abreast of economic changes, and propose modifications to the Plan or the Zoning Regulations if it believes that this section is no longer appropriate.

Child Care

The availability of child care for our residents is a big factor related to the affordability of living in Tinmouth. Parents of young children need to have safe, accessible, and affordable child care options; otherwise, choices have to be made between earning a living or raising a family. There currently is least one licensed or registered child care facility in Tinmouth, located at the School.

Child Care Analysis:

It is difficult to assess the need for child care facilities in Tinmouth because of the high proportion of adults who commute to other communities to work. It is expected that many parents choose to have their children near to their places of work, thus potentially reducing the need for facilities in Tinmouth. Parents and / or child care providers in Tinmouth should be asked to provide input on the need for additional child care facilities

Child Care Policies

- Encourage maximum flexibility for parents to have access to quality child care providers.

Child Care Actions

- Permit the use of single family homes in Tinmouth for small-scale family child care facilities.
- Meet with current child care providers and parents of young children to determine if there is a need for additional child-care capacity in town.

Childhood and Lifelong Education

Tinmouth Elementary School

Tinmouth has a four-room school for its elementary students, pre-K through grade 6. The school, which in 2012 had 51 students, is a focal point for the entire community, drawing together parents, children,

	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
School Enrollment	53	53	56	50	51

voters, and citizens from throughout the community. In 2000, town residents donated time and money to

construct the Tinmouth Community Center, which serves as the lunchroom and gymnasium as well as ____ another classroom for students at the school.

As the table above shows, enrollment at Tinmouth Elementary has fluctuated over the past decade but has generally rested at between 40 and 50 students per year. It is expected that these numbers will be relatively stable for the next five years at least, as enrollments in grades 1-3 at the school are steady at 4-6 students per year. This core of students will remain at the school through grade six. The student-teacher ratio at Tinmouth Elementary School was 8.96:1 in 2006-07, slightly below the 9.57:1 median for all schools in the Rutland Southwest Supervisory Union and the statewide median of 11.19 students per teacher. Tinmouth Elementary School, however, was also well above the statewide median for teachers as a proportion of all staff, with 52.31% of all full-time equivalent positions at the school being direct teachers,

	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
H. S. Enrollment	45	38	30	32	31

compared with a statewide median of 46.39%.

High School Students

Students in grades 7-12 attend classes as tuition students in high schools located in surrounding towns. Primarily these students attend Mill River Union High School. Enrollment at Mill River has declined slightly over the past five years, and saw a substantial decline (alongside many schools throughout the state) from its peak in 1997-98.

K-12 Education Policies

- Provide Tinmouth students with the highest possible opportunities for education.
- Ensure that any discussion over the future of Tinmouth Elementary School take place in an open and inviting setting and that residents be kept well-informed.

Post-Secondary Education

Tinmouth, like many communities throughout Vermont, generally loses its college-aged population to other locations. While several post secondary choices do exist in the Rutland Region – namely Castleton State College, Stafford Technical Center, Green Mountain College, the College of St. Joseph, and Community College of Vermont – a substantial number of students from Tinmouth choose to leave the area, at least temporarily. Of the town's 567 residents in 2000, 28 were between the ages of 20 and 24.

Several statewide efforts have been initiated to retain Vermont's youth through financial incentives and

greater varieties of educational opportunities. Some time will have to pass before the effectiveness of these recent policies can be measured.

Post-Secondary Education Analysis

Youth relocation from Tinmouth and other rural communities is nothing new, and will likely continue into the future. Students are encouraged in school to learn about world cultures, economies, and political systems. It should be of no surprise that many take the opportunity to learn about these first hand. In Tinmouth, the challenge of losing college-aged students to other areas is coupled with an ongoing opportunity to attract other young people who want to explore living and working in the community. This is especially the case for younger individuals and families that would like to develop or take over a farm. The Town can support this by welcoming new residents and providing newcomers with the education of how to build a successful enterprise in the town.

Post-Secondary Education Policies

- Work with local land owners, the University of Vermont's LandLink, the Vermont Land Trust, the Tinmouth Land Trust and others to connect new farmers with farmlands available for lease or purchase in Tinmouth.

Lifelong Learning

Learning includes both formal and informal education. We are fortunate to have many different avenues for education in our community. For adults, this includes activities at the Tinmouth Library and Rutland Free Library, gardening classes in Tinmouth and Wallingford, and a series of cultural events from music to quilt shows and others. Informally, Tinmouth residents have a tradition of working together to solve problems and assist others in their work or in their homes.

Lifelong Learning Analysis

It is important that all Tinmouth residents have access to ongoing education. It spurs creativity and ingenuity at home and at work, and helps to fulfill our lives.

Lifelong Learning Policies

- The Town will continue to support the Tinmouth Library and Rutland Free Library
- The Town will continue to make its buildings available for educational events of interest to its residents.

Effective Emergency Management

Having emergency services available is among the basic needs of residents in Tinmouth. The Town, together with its non-profit partners, is active in all four phases of emergency management: mitigation,

preparedness, response, and recovery.

Mitigation

In 2011, the Town adopted a Pre-Disaster Hazard Mitigation Plan. The Plan identifies the most likely types of emergency incidents and locations where these incidents are most likely to take place. The Plan also sets forth a prioritized list of tasks to be completed to reduce the damage from future emergencies. Key

issues in Tinmouth include the potential for flooding or road closures in a handful of locations, as well as the presence of students at Tinmouth Elementary School during school hours. Priorities in the Mitigation Plan include ensuring that Town records are safely stored, that the Town maintains an up-to-date Rapid Response Plan, and that the Town seek entry into the National Flood Insurance Program. Refer to the Mitigation Plan for details.

The Town has also completed an inventory of its bridges and culverts and adopted a series of codes and standards for road maintenance that ensure sustainable practices. Having these programs in places can reduce the Town's match against State dollars for certain public works maintenance projects.

Preparedness

The Town has an appointed Emergency Management Coordinator who is responsible for working with town officials and first responders to maintain an up-to-date Rapid Response Plan. The RRP should be examined and re-adopted on an annual basis to ensure that the phone numbers for key individuals are correct and that other key elements, such as making sure that all shelters are approved by the American Red Cross, are maintained.

Response

Fire Protection: The Tinmouth Fire Department is a volunteer organization. It belongs to a Mutual Aid Pact with Clarendon, Danby, Middletown Springs, Pawlet, Poultney, Ira, Wallingford and the Wells Fire Departments. The recently refurbished Fire Station is located in Tinmouth Center next to the Town Office and all fire protection equipment is owned by the department. The Fire Department has faced the challenge of retaining membership, as have most departments in the State. The recruitment of many junior firefighters to support the adult crew has helped the Department to remain a vital and effective organization in recent years.

Police Protection: The town is served by a First and Second Constable elected at Town Meeting. In addition, Tinmouth is covered to a very limited extent by the Vermont State Police and the Rutland County Sheriff. The two town constables have limited law enforcement training.

Emergency Medical Services: The eastern portion of Tinmouth is covered by Wallingford Rescue Squad, which is five miles away. The west part of Tinmouth is served by the Poultney Rescue Squad and Middletown Springs First Response. The distances of these services from the town is a limiting factor in providing immediate emergency aid. The town has also participated in the state E-911 numbering system.

Recovery

The Town maintains records of costs incurred in the recovery from disasters, including road repairs, culvert replacements, etc. Recording and reporting this information to Vermont Emergency Management and the local Agency of Transportation District Office helps the State to apply for Presidential declarations of disaster in larger events and can make the town eligible for substantial reimbursement of costs. The Town's emergency management officials, as well as residents in general, have also historically been very supportive of residents who have suffered damage or losses in an emergency and provided whatever assistance is needed or available.

Emergency Management Analysis

The Town of Tinmouth has been every active in its emergency management responsibilities. Because of the town's small population and rural setting, response to some types of emergencies will not be as quick as they might be in larger communities, but the town's residents have taken strides to be as self-sufficient as possible in the event of an emergency.

Emergency Management Policies:

- Facilities and effective equipment as well as training for fire protection shall be provided within the financial capabilities of the fire department and town.
- Actively participate in multi-town emergency preparedness activities while striving to be self sufficient wherever possible.

Emergency Management Actions

- Consideration should be given to the formation of an inter- town police force between Tinmouth and adjoining communities.
- Consideration shall be given to the formation of a First Response Squad to work with the Wallingford and Poultney Rescue Squads.
- Encourage town residents to join the Volunteer Fire Department
- Promote emergency safety among households in Tinmouth by including preparedness tips in the Tales of Tinmouth.

Recycling and Solid Waste Disposal

Sewage and solid wastes can cause serious health and environmental problems if not properly treated and disposed of. It is essential for the Town to require and, where appropriate, to provide adequate and safe disposal systems for these waste products.

In 2002, Tinmouth voted to adopt an Interlocal Contract with the towns of Benson, Chittenden, Fair Haven, Middletown Springs, Rutland Town, Shrewsbury, Sudbury, and West Haven as the way to help address the solid waste needs of these communities. The contracting towns are known as the Solid Waste Alliance Communities (SWAC). SWAC contracts with a part-time administrator to represent the member towns at state-wide solid waste and hazardous waste meetings, disseminate information to the towns, obtain grants for the benefit of the SWAC towns, coordinate recycling pickups, oversee shared equipment, and help maintain a Solid Waste Implementation Plan (required by State regulations) covering all SWAC towns. SWAC arranges household hazardous waste collections that are available to residents four days per year with drop-off service available through an agreement with the Rutland County Solid Waste Management District throughout the year. The cost of these collections is shared by the SWAC towns.

Tinmouth operates a solid waste transfer station, open for use by residents twice a week. In order to use the facility, a sticker is required on the resident's vehicle.

Recycling and Solid Waste Analysis:

Reducing the quantity of waste materials is essential to controlling the cost of solid waste disposal. Recycling and reusing materials keeps them from the landfill as does composting organic matter.

Recycling and Solid Waste Policies:

- The town shall continue to meet the requirements of all State solid waste laws.
- The town should work with the State, SWAC, and private organizations to educate residents on the importance of reduction and recycling of waste materials and actions we can take to achieve goals.

Recycling and Solid Waste Actions:

- Complete a comprehensive plan for the transfer station's facilities and operations
- Regularly publish recycling guidelines in the *Tales of Tinmouth*
- Provide residents with information about at-home composting through the *Tales of Tinmouth*.

Community-Sponsored Recreation

Recreational activities are both a use of land and a service supported by residents and town officials. The use of land for recreational purposes is discussed in Chapter III. The Town supports many recreational activities in several different facilities. The activities that take place within these facilities make up a big part of the community that is Tinmouth.

Recreational facilities owned or supported by the town include:

- The ***Tinmouth Community Center***, opened in 2000. The facility was built using money and time donated by many Tinmouth residents. Today, it serves as a lunch room and gymnasium for the Tinmouth Elementary School, a large meeting hall, and a public recreation facility for residents and visitors to Tinmouth. It is also the home of the Volunteer Fire Department's annual game supper and is a staging area for the Tinmouth Community Celebration each year.
- ***The Tinmouth Library,*** located behind the Town Offices, is open two days per week. The Library is staffed by a volunteer librarian and several others who work to keep the Library's holdings current and offer reading and writing groups and educational talks to residents of all ages. The number of users of the library has increased substantially over the past ten years. All residents are also members of the ***Rutland Free Library,*** which has a wider range of books, periodicals, and programs. The two libraries complement each other, together provide among the best services to residents of any town in the

Region.

- ***The Old Firehouse,*** a small meeting area and concert hall, located between the Town Offices and the new Fire Station. The Stage was refurbished in the late 1990s thanks to multiple grants from the Vermont Division for Historic Preservation and the work of Tinmouth residents. It is one of a handful of community-supported concert halls in the Region.

- ***The Tinmouth Purchase Recreation Area***, a 193-acre woodland lot near the top of Tinmouth Mountain, purchased by the Town in 1997 with assistance from the Vermont Land Trust and the Vermont Housing and Conservation Board. Accessible by foot, snowmobile, or horse for hiking, riding, picnicking, etc
- Ball field near the Community Center

Recreational Program Analysis

Tinmouth has a lot going on for a community of its size. This can be attributed to the ongoing efforts of volunteers who organize the events and to residents and visitors who attend regularly and make events a tremendous success.

Recreational Program Policies

- The town strongly supports the use of its facilities for recreational activities of interest to residents.
- Continue membership with the Rutland Free Library and support for the Tinmouth Library.

Recreational Program Actions

- Publicize recreational events in the Tales of Tinmouth to encourage participation by all town residents.
- Consider developing a recreation area on town lands adjacent to the town garage.

Efficient Use of Energy

Over the past few years, energy consumption has again become an important topic across the State and Country. In Tinmouth, overall energy use is low because of the sparse population and few businesses or town facilities. Transportation is the leading source of energy use in the Rutland Region and throughout the State. In 2001, it accounts for 32 percent of all energy consumed in the State. [13] Further, energy consumption used for transportation increased by 23% between 1990 and 2001.

According to the *Driving Global Warming* report, commuters living in Tinmouth averaged 3,554 lbs of carbon dioxide emissions annually, ranking the town 149th of 253 in per capita commuting emissions. [14] That figure is well below those of the highest towns in the State (Starksboro, High Gate and Grand Isle each with over 6,000 lbs per commuter annually), but also well above the lowest emitters per capita (Rutland City, Burlington, Middlebury, and South Burlington averaging under 2,050 lbs per commuter annually).

Home energy use in Tinmouth is a combination of heating oil, electricity, and wood. A number of homes in town use household-scale windmills, active solar panel, or passive solar design to provide energy, reduce heating costs, or heat water.

No town-wide energy efficiency programs have been established in Tinmouth, though an energy committee was created by the Select board in the spring of 2007 to address local energy consumption. For the past few years a farm in Tinmouth has hosted Solarfest, one of the largest renewable energy events in New England. This activity has helped raised the level of energy knowledge in the town.

Energy Use Analysis

It is no surprise that energy use for transportation is high in Tinmouth. Because of the town's rural setting, most residents need vehicles to commute to work, school, and services. At this point, there are no viable alternatives, however, as the numbers of jobs in town are limited, and the small population of the town will likely not support a local store. Carpooling to work may be an option, since over 1/3 of all employed Tinmouth residents work in Rutland City or Rutland Town. Local wind energy production is an option for Tinmouth residents and businesses. Western slopes of the town's mountains have relatively strong sustained wind speeds. Solar systems used for heating water and providing electricity are also becoming increasingly competitive options.

Energy Use Policies

- The town of Tinmouth advocates for greater energy efficiency in all forms.

Energy Use Actions

- The town will provide assistance to the newly-formed energy committee to reduce energy consumption in Tinmouth
- In any future construction of town buildings, attention should be explicitly given to ways to minimize the potential future costs of energy.
- The town should explore means of alerting potential builders to such simple energy conservation information as findings that a south facing design, without any other considerations, reduces heating costs by about 10%. This information could be provided when a building permit is applied for.
- Establish a regular car-pool program for Tinmouth residents headed to the Rutland area for work, school, or errands.
- Establish a park & ride area for residents.

Town Governance

Our town operates on the shoulders of volunteers dedicated to Tinmouth, and is supported by a small team of employees who keep our roads clear, our records in order, our school running effectively, and our transfer station operational.

There are seven town-based boards in town:

- *The Select board* is an elected, three person board responsible for overall governance of the town. It oversees the work of town employees, proposes budgets for voter review, and sets town policies.
- *The Planning Commission*, appointed by the Select board, currently has nine members and is responsible for developing the town plan, zoning regulations, and subdivision regulations, as well as reviewing subdivision and planned unit development applications. It is also responsible for working with the Select board and other organizations and individuals in town to implement the plan.

- *The Zoning Board of Adjustment*, appointed by the Select board, currently has seven members and is responsible for reviewing applications for conditional uses and variances from the zoning regulation and for hearing appeals of decisions made by the zoning administrator.
- *The Energy Committee*, newly formed in 2007, is appointed by the Select board and is responsible for assisting the town and its residents to reduce energy consumption wherever possible.
- *The School Board,* elected by the voters, has three members. It sets overall policy for the Tinmouth Elementary School and proposes annual operating budgets for review by the voters.
- *The Tinmouth Community Center Board,* elected by the organization's members, is responsible for the maintenance and any new projects associated with the Community Center.
- *The Tinmouth Housing Rehabilitation Loan Board.*

In addition to these town-sponsored boards, there are a handful of non-profit organizations whose missions are to serve the town.

- *The Tinmouth Land Trust* works with landowners to encourage land conservation and affordable housing and, where appropriate, sale of land or development rights to organizations such as the Vermont Land Trust for conservation purposes.
- *The Tinmouth Volunteer Fire Department* currently has 26 members, including several juniors. The Department's mission is to provide emergency response services to the town and to neighboring communities on a mutual aid basis. The Fire Department typically receives half of its annual budget from taxpayers in town, with the rest coming from fund raising events, donations, and grants.
- *The Tinmouth Library Board* maintains our small library and runs activities throughout the year to encourage literacy.
- *The Tinmouth Community Church Board* is responsible for the upkeep and programming at our church located in the Center.
- *The Tinmouth Community Fund* gives small grants to support town spirit and a sense of community.
- *The Tinmouth Historical and Genealogical Society.*
- *The Tinmouth Pond Milfoil Association.*

The town is supported by a small staff that includes a town clerk / treasurer / zoning administrator, town office assistants, road commissioner and road crew, and transfer station attendants.

Governance Analysis:

Tinmouth has a long history of open and public decision-making. In 2006, voters adopted the Australian ballot system for Town Meeting. Boards and committees are served by dedicated individuals from various backgrounds. The community of Tinmouth is a vitally important piece of the town. Work and school schedules, which regularly send residents outside the town's borders, bring with them challenges for the town's sense of community, but also opportunities to bring new ideas together in service of one another.

Governance Policies

- The Town of Tinmouth seeks to engage in open and public governance at all times.

Governance Actions

- Consult with the public to evaluate ease of access to town decision making and make improvements where warranted.

- Continue to support the publication of the *Tales of Tinmouth.*
- Participate in the Front Porch Forum Initiative

Health Care and Elderly Services

In Rutland County, a variety of health and human services are available to residents. These include the Rutland Regional Medical Center, Rutland Area Visiting Nurses, Rutland Area Community Services, the Southwestern Vermont Area Agency on Aging, Long Term Care Ombudsman, Legal Service Attorney for Elders, One-to-One Program, InterAge Program, 2007-2008ermont Department of Health, Association-Retarded Citizens, Rutland County Parent/Child Center, Vermont Association for the Blind, Rutland County Women's Network and Shelter. Tinmouth residents draw on the services of many medical practitioners in the area, as well as more distant resources such as the Dartmouth Hitchcock Medical Center in Lebanon, NH, and the Fletcher Allen Hospital in Burlington, VT.

Chapter V: Making Good Decisions About our Future

The future character and prosperity of Tinmouth will be a reflection of how we use the land. If uses change, so will the character. The purpose of this plan is to propose where changes in use might have minimal effect, as well as where present uses should be conserved. The broad goal is to allow new development of varying types, new uses and, at the same time, to preserve the overall character of the town.

Future Land Use Districts

The Land Use Districts, defined in the following paragraphs, are a guide for the growth and development of the Town. The five land use districts in Tinmouth are the Tinmouth Center, Rural Residential, Lake Shore, Protection, and Conservation Districts. There also Agricultural and Flood Hazard Overlay Districts. These land use areas provide for a variety of residential, commercial, agricultural, and recreational opportunities for the future while considering local environmental constraints as well as existing land use patterns. This is not a zoning regulation, although it provides guidance for zoning changes and updates. The future land use map, designating the boundaries of each district, is an integral part of the plan.

Tinmouth Center

Tinmouth Center is the historic focal point of the town. This village is a crossroads containing a very low -density grouping of buildings without any public infrastructure such as water, sewer, sidewalks, streetlights, or parking. The elementary school, church, community center building, town green, municipal offices, library, Old Firehouse, historic town shed and creamery, fire station, a grouping of historic homes, and minor commercial uses are located here. Thus, it provides a center for community interaction, a container for community memories and a focus of community identity.

Tinmouth Center Analysis

It is hoped and expected that Tinmouth Center will remain the gathering spot for town residents. It is not

anticipated that this will be a location for substantial future development, however. Poor soil conditions and lack of any public infrastructure make future development no more feasible in the hamlet than elsewhere in the community, and the minimal number of services available in the area limit the potential benefits of compact development in that particular area.

Tinmouth Center Policies

Tinmouth Center shall remain the focus of the Town in terms of town services and gatherings.

The density and character of settlement shall be compatibly integrated with the existing form of Tinmouth Center and may include a range of housing types from single family homes to two-family units, retail commercial services, municipal and community buildings, village green and other public open and recreational space for the use and benefit of the citizens of Tinmouth.

Tinmouth Center Actions

- Explore options to promote renovations of existing buildings and any new construction to be compatible with the historic character of Tinmouth Center.

Rural Residential District

Settlement in the outlying areas of the town historically has been associated with farming and related agricultural uses. For this reason, homes have been generally located on land that is suitable for residential purposes and at the same time, they have been compatibly related to the pattern of open fields and woodlands.

Rural Residential District Analysis

Recent rural settlement has not been related to farming, but rather to the construction of single-family homes as permanent residences or vacation homes. This type of housing and country lifestyle is highly valued, yet usually breaks up continuous tracts of land formerly used for agriculture and forestry and often contributes to sprawl. The creation of a Rural Residential District is an attempt to accommodate the demand for rural housing, (usually a single-family home, a few farm animals, a garden and one or two small out-buildings), with minimal economic and environmental impacts.

The development of residential housing in Tinmouth (described in detail in the Housing section of the Plan) creates the largest growth pressure in town. Every effort should be made, within this district, to have development sited in locations that preserve open space, forested areas and natural resources.

Rural Residential District Policies

- The Rural Residential District shall promote densities that maintain a rural character.

- Buildings, driveways, and other structures should be in places with lower quality agricultural soils and away from key wildlife habitats and other areas with sensitive natural environments.
- Density of development should be guided by the limitations of the land and specified in the town plan and zoning bylaws (as described in Chapter I).
- Regulations may provide for special considerations or increased densities of development if the proposed development substantively conserves or protects important natural areas or includes the establishment of affordable housing.
- Efforts to develop the land using "smart growth" concepts are strongly encouraged. A variety of tools should be used to meet this goal. The use of PUDs, described later in this plan, is one method of achieving these goals.

Lakeshore District

Chipman Lake (commonly known as Tinmouth Pond) has long been the focus of seasonal recreation activities – swimming, boating, etc. The shoreline is characterized by numerous pre-existing small lots, with minimal setbacks from side lot lines and the lake, accommodating vacation camps and cottages, sometimes with small outbuildings. During the summer, the lakeshore is also home to the largest single concentration of population.

Lakeshore analysis

In recent years, some seasonal cottages have been converted to year-round residences or, in some cases, torn down and replaced by more substantial buildings. If this trend continues, there may be a need to examine road conditions and access to properties for year-round emergency services.

Lakeshore Policies

- New structures should be sited with the greatest possible sensitivity to minimizing intrusion on neighbors and the shoreline.
- New construction should include measures to limit the amount of sedimentation and nutrients delivered into the Pond.
- Wherever possible, undisturbed vegetated buffers should be established along the shoreline to promote health of the Pond.

Lakeshore Actions

- Create a special committee to investigate the need for special zoning in the Lakeshore District to mitigate conflicts arising from high density development.

Conservation District

Conservation areas contain lands that are very sensitive to development for a variety of reasons. They generally contain significant natural resources such as large forest blocks, high elevations, steep slopes (often with shallow soils), wetland areas and stream banks, wildlife habitat and corridors, among others, and areas of scenic, ecological, cultural or historical significance. Soils in this district also typically have shallow depths to bedrock.

In 2002, the town added land to this district in the areas surrounding the Tinmouth Channel and connecting the Channel to Tinmouth Mountain. The decision to add this land followed an extensive public

input process and is intended to help maintain the quality and function of this unique wetland and wildlife habitat.

Conservation District Analysis

While the goal of maintaining larger, less disturbed land area in the town has been supported by the Conservation District, land development over the past 25 years has not always forwarded the intent of maintaining viable agricultural and forestry lands or wildlife habitats. The Planning Commission has learned that supplemental tools, in addition to simply minimum lots sizes, are necessary to help land owners identify and conserve sensitive areas within the Conservation district.

Conservation District Policies

- Conserve sensitive areas within the Conservation District while allowing for limited, low intensity development
- Allow for Planned Unit Developments that conserve sensitive areas and promote efficiency of utilities and road infrastructure

Conservation District Actions

- Alter the town's zoning and subdivision regulations to promote the conservation of sensitive areas.

Protection District

Protection areas contain land that is unconditionally protected from development such as lands above the 2,500-foot contour, lands that are in the floodplain, and significant natural features and wetlands. These include the 1245-acre Tinmouth Channel (a Class 1 wetland), the Poultney River source wetland, Crow Hill Wetland, Ballou's Swamp, the top of Tinmouth Mountain above 2500 feet, and the narrow, steep sided Tinmouth Gulf.

Protection District Analysis:

Lands in the protection areas are suitable for low-impact recreational uses, such as nature and hiking trails, hunting, and other human-powered low impact recreation. Intensive recreational activities, such as "four-wheeling", are not appropriate or should occur only in designated areas. The state of Vermont requires that agriculture and forestry be allowed in all zones, which includes the protection areas.

Protection District Policies

- The Town of Tinmouth shall prohibit permanent structures in the Protection District.
- Subdivision of land within the Protection District is strongly discouraged.

Agricultural Overlay District

Agriculture is an important part of the economy, image, and lifestyle of Tinmouth. The continued economic success of this activity is directly related to the availability of large amounts of undeveloped land with moderate slope and productive agricultural soils. Retaining large tracts of undeveloped land in areas identified as high resource value for agriculture is vital to ensuring the future viability of farming in Tinmouth. Based on current land use as well as consideration of soil associations and slopes, some lands

have been identified as of the greatest agricultural resource value that require protective measures. These lands were incorporated into a special "Agricultural Overlay" district in the town's zoning regulations in 2002. This district's regulations strongly encourage new development to be situated on the edge of farms and other open fields instead of in their centers.

Ridgeline Protection Overlay District

To retain the undeveloped character of these prominent features of the Tinmouth landscape, protect important habitat corridors for wildlife as well as viewsheds from Tinmouth and surrounding communities, and prevent development on shallow soils and/or steep slopes, a "Ridgeline Protection Overlay District" has been created. The District protects wooded ridge profiles that are highlt visible from many directions by buffering the ridgelines for a distance of five hundred (500) feet on both sides.

Where and How Development is Encouraged

Intermediate Slopes And Terraces

The area of intermediate slopes and terraces is a transitional zone between the valley floor and steep slopes. Its landscape form is characterized by undulating topography interspersed with small terraces, plateaus, and knolls. Because of this diversity, settlement in these areas will have minimal visual impact if properly sited.

Intermediate Slope and Terrace Policies

- Settlement shall generally occur in the areas of intermediate slopes and terraces and be sited to take advantage of natural terrain and other scenic features.

South-Facing Slopes

In the winter, cold prevailing winds are from the northwest. During the same season, the sun's orientation and altitude decreases, reducing the duration and angle of exposure on northern slopes. Snow and frost accumulations tend to be greater and remain longer than on southern slopes. In the same regard, growing seasons for vegetative cover are shortened, These factors produce a stressful microclimate. Consequently, buildings usually require greater amounts of insulation and/or energy to provide comfortable interior climates. By contrast, buildings oriented towards a southern exposure benefit from longer periods of sun during the winter, protection from wind, and longer growing seasons.

South Facing Slope Policy

- Where practical, settlement should occur on south-facing slopes.

Forest / Open Field Edge

Maintaining Tinmouth's active farms, open fields, wildlife corridors, and unbroken productive forests are all top priorities of this plan. It also important, however, for residents and landowners to have room for future development. Building along the border between these open and forested areas will have the least impact on the community's economic potential and natural habitat and will give all residents and visitors the opportunity to share the scenic beauty of the town.

Forest / Open Field Edge Policy

- Development is strongly encouraged to take place on the border between open fields and forested land to avoid the loss of either important resource.

Planned Unit Developments

The Town of Tinmouth has adopted both zoning and subdivision bylaws that include provisions for the establishment of rural residential groupings as areas of residential planned unit development. This procedure would respect the overall rural settlement densities allowed, but would allow a more intensive grouping of residences if compensated by the reservation of open space in the remainder of the involved land. Planned Unit Development (PUD), in contrast to typical tract subdivision, would encourage flexibility of design and development of land in such a manner as to promote the most appropriate use of land, to facilitate the adequate and economical provision of streets and utilities and to preserve the natural and scenic qualities of the open lands and forests of the town. When updating the zoning and subdivision ordinances, the planning commission will re-examine and update the sections pertaining to Planned Unit Development.

Planned Unit Development Policies

- The use of residential Planned Unit Development as a tool for development to occur alongside conservation of the town's key natural, scenic, and historic resources and character as presented in this Plan is recommended.

Areas sensitive to development

An analysis of the natural processes and formation comprising Tinmouth indicates that there exist certain areas which, because of their fragile nature, irreplaceable value, or vital function in maintaining the environmental health and quality of the town, require special conservation and protective measures related to future development. While some of these areas are protected under current planning and zoning, e.g. the Protection District and the Wellhead Protection Areas, some are not. Below, the nature and importance of these fragile areas are described and policies are set forth for any future development in the town.

Steep Slopes

When the steepness of slopes exceeds 15 percent, the suitability of land for settlement decreases significantly. On steep slopes, surface water runoff is high. When vegetation is removed for the construction of roads and buildings, the area for absorption of precipitation is reduced. In turn, the susceptibility to increased rates of runoff may result in excessive erosion. The proper functioning of subsurface disposal systems is severely limited on steeper slopes. Slopes greater than 20 percent in steepness present difficulty in complying with the Vermont Health Regulations governing subdivisions. In addition, settlement on steep slopes can be costly to the town for the maintenance of roads and possible construction of potential utilities. Settlement on these areas will be extremely visible from other areas within the town.

Steep Slope Policies

- Construction or other development activities on slopes grater than 15% should include erosion control measures.
- Settlement shall generally avoid areas where the steepness of slope is over 20 percent.
- Settlement on steep slopes shall be restricted to low densities and locations which will have the minimal visual impact on scenic quality.

Ridgelines and Elevations Above 2500 Feet

As part of the Taconic Mountain Range, the land in Tinmouth rises to relatively high elevations and presents two prominent north-south ridgelines. At high elevations, generally above 2500 feet, and ridgelines precipitation is greater, air and soil temperatures are lower, soils are shallow and low in nutrients, slopes are steep, wind speeds are higher, and reestablishing vegetative cover is typically a slow process. Such characteristics create an environment which is intolerant to intensive use. If significantly disturbed, excessive erosion may result. These high mountain areas also play a vital role in the water cycle. The greater amounts of precipitation filter through the thin soils, eventually reaching major ground water supplies. Uses which result in the removal of vegetation and soil cover are especially detrimental to the natural drainage of water. In addition, areas of high elevation and ridgelines are strong visual features and form a large part of what residents consider to the town's unique landscape. Clear-cutting or development in these areas stand out dramatically from long distances. .

High Water Table

Areas with a seasonal or year-round high water table within 4 feet of the ground surface place very critical constraints on settlement. Use of subsurface sewage disposal results in pollution of surface and ground water. Cellars are frequently filled by excessive seepage of water. While high water tables may occur in many areas throughout the town, available soils information generally suggests that this condition is directly related to the occurrence of the Muck and Peat association and commonly related to the Bernardston-Pittstown association. In addition to the constraints above, the Muck and Peat association, because of its low bearing capacity, cannot provide stable support for the construction of buildings.

High Water Table Policies

- Development is strongly discouraged in areas with high water tables.

Shore and Stream Banks

As the interface between land and water, shorelines and stream banks must be considered as being fragile areas. Certain species of wildlife are greatly dependent upon the particular habitat of these areas. Vegetation along the water's edge acts as a stabilizing force, preventing erosion and siltation, and providing shade to cool water temperatures. Streams are under public ownership, and access is required for fishing and hunting. Building too close to shorelines reduces the scenic quality of surface water, as evidenced by the settlement which has occurred around Tinmouth Pond. Effluent leaching from septic systems placed too close to the water's edge are very likely to pollute ground water and surface water.

Shore and Stream Bank Policies

- Shorelines and stream banks shall be retained in a natural state and protected from uses and settlement which would cause erosion, prohibit public access, and reduce scenic qualities.
- Vegetated shoreline and stream bank buffers shall be required for all new development near year-round water bodies.
- Surface water shall be protected from settlement and uses which would reduce their water quality or despoil the scenic appeal of their stream banks and shorelines through setbacks, buffer strips, minimal land disturbance for construction erosion control.

Shore and Stream Bank Actions

- Prepare and publicize information for residents about the ecologic and long term financial benefit of protecting stream banks and shorelines.

Wildlife Habitats and Corridors

The Town of Tinmouth is positioned in the center of key wildlife corridors and habitat areas. Mostly unbroken forest areas stretch from Dorset through Danby and Tinmouth into Ira through the mountain ranges. Of particular importance are links between mountain areas and the Tinmouth Channel, a critical water source and habitat area for mammals, insects, birds, and reptiles. Development throughout the Town of Tinmouth should be careful to minimize impacts on wildlife by ensuring the continuance of connected forest and wet areas.

Wildlife Habitat Policies

Industrial Wind Farms

The debate over large-scale wind turbines is growing in Vermont. One older wind farm in Searsburg has operated for several years. With relatively small turbines, and is seeking to expand with much larger ones. Others are under construction or have been authorized by the Public Service Board in the Northeast Kingdom and Milton. Their turbines are 420 feet to 480 feet high and in arrays of up to 22 machines stretched along miles of ridgeline. Utility scale wind turbines — over 125 feet at the maximum blade height — and "wind farms" of two or more turbines are incompatible with the scenic beauty and rural residential character of our town. Although the town lacks legal jurisdiction over such development, the PSB should be made aware that it is incompatible with the town, as demonstrated by our ridgeline ordinance. Smaller turbines for individual family or farm use, under 125 feet high and not on ridgelines, are permitted by the Zoning Regulations.

Glacial Eskers

The glacial eskers, on the floor of Tinmouth Valley, define a rare and unique geological area. They contain a large and porous gravel deposit which serves as a large-scale cache for water serving the Tinmouth Channel. While mostly located within the town's Protection District, they stretch into neighboring land use districts.

Glacial Esker Policy

- Tinmouth's glacial eskers shall be protected from use and settlement which would destroy their scientific or water-carrying value.

Aquifer Recharge Areas

The quantity and quality of the town's ground water supply is directly related to the type and intensity of uses which occur in areas of high aquifer recharge. Extensive settlement can greatly reduce these areas of recharge and also increase surface runoff, thus decreasing infiltration of surface water. Also, the quality of ground water may be threatened through numerous subsurface sewage disposal systems. Because a potable water supply of sufficient quantity is of critical necessity, these fragile recharge areas require protection.

Aquifer Recharge Area Policy

Aquifer recharge areas shall be protected from uses and settlement which would significantly reduce their permeability or be of danger to the quality and/or quantity of ground water supplies.

- Wildlife habitats (wetlands, deer yards, bear range and surface water) and corridors between habitats shall be retained in their natural state and protected and buffered from uses and settlement which would reduce their vital function. Rare and endangered plants and animals and their habitats will be protected and preserved.
- Fragmentation of forest blocks shall be avoided and connectivity between blocks encouraged.

Wetlands

The wetland areas within the town contain special vegetative communities. They form a distinctive and unique landscape pattern of high scenic quality.

Wetland Policies

- Wetland areas shall be retained in their natural state for the provision of wildlife habitats, retention areas for surface runoff, recreation, and scientific value. A naturally vegetated buffer strip of at least 100 feet in width will be maintained around all wetlands identified on the town's wetland inventory map. Direct discharges into wetlands are prohibited.
- Wetland areas shall be protected from uses which would reduce their scenic quality. Class I and II wetlands and Class III wetlands of concern to Tinmouth are mapped on the plan's Natural Resources map.
- Reminder re Class I and II wetlands: Information regarding actual wetland boundary and conditional use determination for individual sites can be obtained from the Department of Environmental Conservation. The current Vermont Wetland Rules should be consulted for allowed uses and zoning permit restrictions.

Productive Woodlands

Timber is a potential resource of commercial value. Productive growth and management are dependent upon extensive areas of connected forestland with suitable soil conditions for tree growth.

Woodland Policies

- Maintain large forested blocks of land within the Town of Tinmouth and between Tinmouth and neighboring communities.
- New development should take place on the edges of forest areas to avoid the interruption of connected woodland areas and loss of viable silvicultural activities.

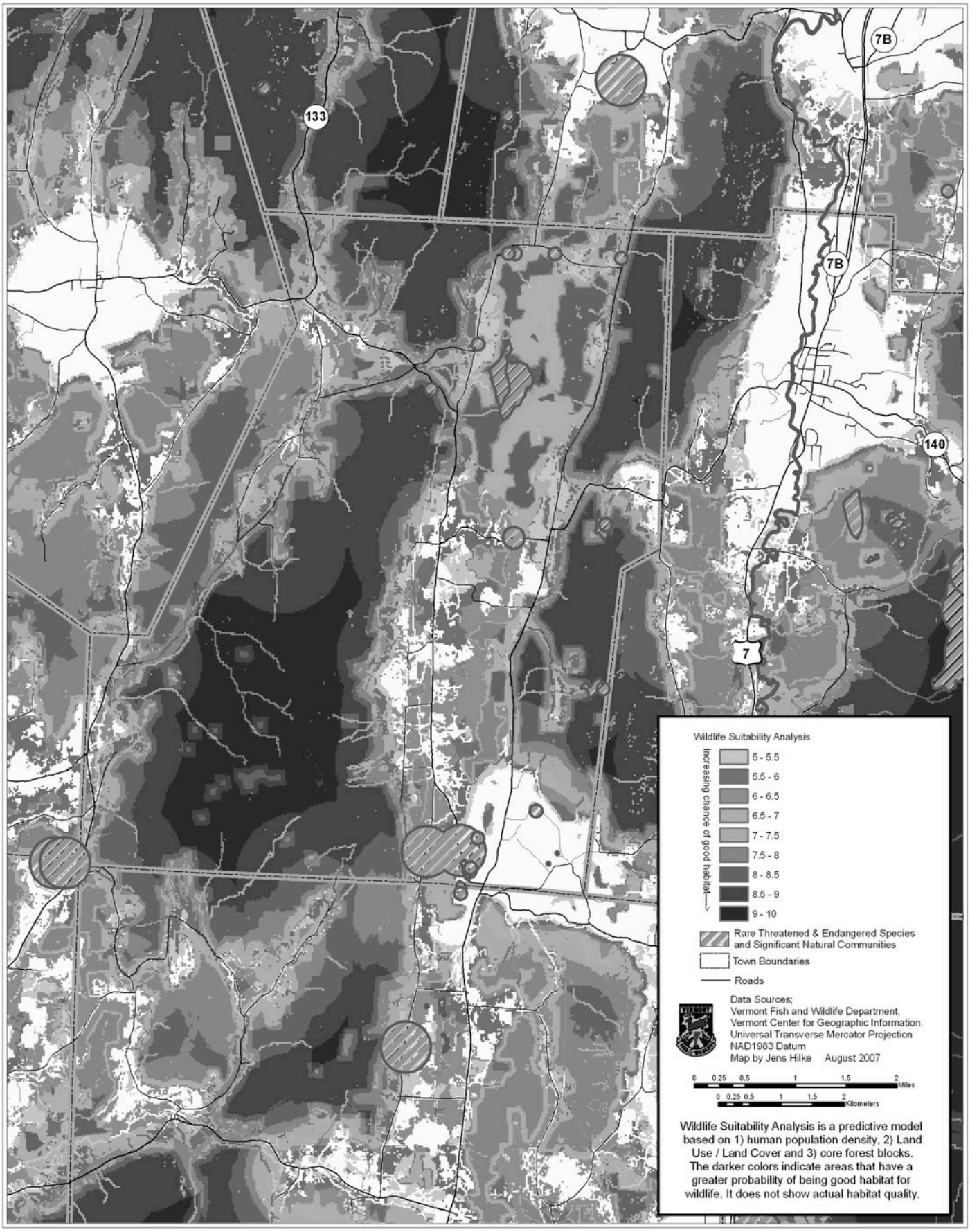
Open Fields

Open fields are the foundation of the town's agricultural heritage and future (See Chapter III). In addition, the contrast between open fields and the woodlands that enclose them form the most apparent visual aspect of the town's landscape pattern. The fields open up long views across Tinmouth's valleys. Therefore, their scenic quality is highly vulnerable to settlement. Tinmouth's landscape pattern has evolved primarily as a result of agricultural pursuits. The isolated groupings of farm dwellings and buildings are characteristic of these activities. They provide focal points of scenic and historic interest.

Open Field Policies

- Settlement shall generally avoid exposed locations in open fields and should occur in a clustered

Wildlife Habitat Suitability Analysis



pattern at their edge.

- Views to farms shall generally be preserved, and settlement should be clustered to emulate the isolated groupings of farm structures.

Floodways and floodplains

Future development in floodways or floodplains is discouraged. The potential for flood damage in these areas is high and is likely to cause expense to land owners, the town, and state and federal government.

Floodplains Policies

- The town shall review development in the floodplain in accordance with National Flood Insurance Program regulations and the town's flood insurance rate maps.

Standards for New Development, Regardless of Location:

Conflicting Activities

Tinmouth residents have a tradition of sharing living and working space. Unlike many communities which have slowly segregated their land uses from one another – including farming from housing – Tinmouth retains a rural character precisely because of its mix of homes and small, home-based businesses and farming operations. At the same time, residents recognize that there are certain activities which can create conflict if located in proximity to one another, most notably activities that include blasting or drilling. Because of Tinmouth's widespread residential and agricultural activities, essentially all of the town is located in a potential conflict area with these uses.

Conflicting Activities Policies:

- Quarrying, mining, blasting and working for mineral resources shall be prohibited, except for naturally occurring sand and gravel deposits.

Prevention of Strip Development

Because of the topographical constraints on Tinmouth's highway system, growth may tend to occur in strip-like fashion. Strip development is a form of residential settlement occurring in a linear path along rights-of-way of roads and highways which often restricts visual and physical access to interior lands. Numerous "curb cuts" providing access to both homes and businesses increase the possibility of automobile accidents from entering and exiting traffic. As development proceeds, the value of these roads as transportation corridors is reduced. Traffic is often impeded, and the cost of snow removal and busing for

school children may rise dramatically when secondary roads become settled. In effect, inefficient utilization of land results from development strung along road networks. Access controls and setback requirements can be effective in controlling this type of growth.

> "The term 'parcelization' is used to describe changes in ownership patterns whereby large tracts are divided into smaller parcels. The act of parcelization is mostly a legal exercise where large tracts of land are divided into smaller ownerships or land holdings. The result of parcelization may simply be an increase in the number of people who own a specific parcel of land. However, when larger parcels are divided and sold or transferred into multiple parcels, often through the process of subdivision, the result can be disjointed land ownership patterns that promote new housing and infrastructure development (roads, septic, utility lines, etc.). When this development occurs, it can fragment the landscape and negatively affect plant and animal species, wildlife habitat (called habitat fragmentation), and water quality. It can also affect the viability of large tracts of forestland to contribute to Vermont's rural economy. Forest fragmentation and habitat fragmentation are often the result of parcelization and its associated development."
>
> From Final Report of the Forest Parcelization Roundtable 2007 Jamey Fidel, Vermont Natural Resources Council

Strip Development Policies:

- Important scenic views shall be protected from strip development or other patterns of settlement which would substantially disrupt their scenic values.
- Strip development does not encourage community integrity and results in traffic congestion, excessive use of town roads and hazardous traveling conditions. The number of curb cuts along town highways and roads shall be limited.
- The function which each town highway serves is directly influenced by adjacent settlement patterns. To maintain efficient and safe vehicular movement, settlement must occur so as not to adversely affect these functions.

Access Control

Numerous and uncontrolled accesses along town highways may create hazardous conditions for the safety of the traveling public. They may also result in unwarranted damage by obstructing or diverting the flow of water onto a highway. The Select board is empowered by Vermont State Law to impose reasonable conditions on any proposed plan for development of land in order to reduce the number of access points required for that project. At their discretion, the Selectmen may make such regulations as are necessary to protect and promote the safety of the traveling public, but shall in no case deny reasonable ingress and egress to property abutting the roadways.

Access Control Policies

- Access to town highways is controlled by the Select board via their driveway ordinance. This policy should be reviewed periodically and kept in force.

Accessibility of Properties

The municipal costs for provision and maintenance of the town highway system is a substantial share of the town's annual budget. New roads to land which is not reasonably accessible can significantly increase these costs beyond the revenue generated by new settlement.

Accessibility Policies

- Lands which do not lie within 1/2 mile of a town or state highway which is presently maintained year round, are considered to be not reasonably accessible. Roadways providing access to such lands

which might be maintained by the town, shall not be taken over by the town unless evidence is given that sufficient revenue will be generated by the new settlement to provide adequate funds for maintenance of such roads. This policy shall not preclude the construction of roadways of distance greater than 1/2 mile from a town road, providing they are maintained under private ownership.

Subsurface Sewage Disposal

Development has traditionally been limited by the restrictions on individual subsurface sewage disposal systems to treat domestic wastes. The capability of the land to accommodate the proper installation and functioning of these systems so as not to result in a hazard to public health has been a major constraint in Tinmouth. Areas characterized by shallow depth to bedrock, steep slopes, and high water tables have been identified as presenting critical constraints on settlement using subsurface sewage disposal. For areas not presenting critical constraints, the general capability for on-site subsurface disposal of sewage has been identified from an analysis of soil associations and slopes. These areas have been classified and mapped as having slight to moderate, moderate to severe, or severe limitations.

Under new laws, the Agency of Natural Resources has universal jurisdiction over sewage and water supplies. New regulations allow the use of innovative and/or alternative disposal systems. Administration of the regulations is by the Wastewater Division, and the town has no knowledge or control of what has been permitted or installed. The town should recognize that traditional sewerage disposal restrictions may no longer be a controlling factor of the pattern and density of settlement. Therefore, other methods of protecting fragile areas and managing growth will become more important in the future.

All New Development

New Development Policies

- Consider the creation of a development review board, (replacing the board of adjustment) to evaluate all building and development proposals with a new/revised set of procedures and powers. This would allow the planning commission to focus on planning and development of a capital budget.
- Include provisions in both the zoning and subdivision regulations which allow for review of site conditions, settlement patterns, natural features, the placement of driveways, the location of buildings, and other aspects of residential development that may impact sensitive natural areas, water quality, open spaces, the working landscape, and important views and vistas.
- Upon completion of the Town Plan, 1) re-evaluate the zoning ordinance for compatibility with the Plan, and 2) consider innovative ways to accommodate growth while simultaneously protecting forests, farmlands, and open spaces in the community.
- Consider 'incentive/flexible zoning' to allow for higher density (clusters) housing developments to preserve farmland and undeveloped land.
- Consider 'incentive/flexible zoning' to allow for higher density (clusters) housing developments if they meet affordable housing criteria or serve special populations such as the elderly, and single parent households.
- Minimize functional conflicts and require that developers be responsible for relieving traffic problems which are generated by their developments.
- Critically review and evaluate proposed development which generates unsafe traffic conditions, especially along sections of highway with low sufficiency ratings.

Endnote Page

1) Source: US Census Bureau, www.census.gov

2) Figures provided in American Community Survey 5-year estimates, 2006-2010.

3) Vermont Department of Environmental Conservation, Water Quality Division, Lakes and Ponds Section. http://www.anr.state.vt.us/dec/waterq/cfm/lakerep/lakerep_select.cfm visited 5-22-2007

4) Vermont Department of Environmental Conservation, Water Quality Division, Lakes and Ponds Section. http://www.anr.state.vt.us/dec/waterq/cfm/lakerep/lakerep_select.cfm visited 5-22-2007

5) Tinmouth Channel Wildlife Management Area: 1,245.7 acres (4 separate properties) and VLT Easements: 6696 acres (25 separate properties), and one property with the Nature Conservancy 58 acres.

6) R1 is all properties five acres or less and R2 properties are greater than five acres.

7) Tinmouth Town Listers.

8) Vermont Agency of Transportation, Automatic Traffic Recorder Station History 1992-2006

9) Longfield, Jr., Robert F. The Vermont Backroad: A Guide for Protection, Conservation, and Enhancement of Its Scenic Quality. March 1974.

10) Vermont Statutes Annotated, Title 10, Section 6085.

11) Rutland County housing Needs Assessment, Development Cycles, January 2005

12) State Energy Data 2001: Consumption, United State Energy Information Administration, pp 295-300.

13) Driving Global Warming, Vermont Public Interest Research Group, p. 32

14) See Chapter II: Who and What Makes up Our Town for details.

Town Maps

Future Land Use

This map shows the Town's intended land use for the future as reflected in the current Zoning Regulations. The Legend explains the different categories in general terms. More detailed explanations can be found on pages 44-48. In obeying regulations, landowners should consult with the Vermont Department of Environmental Conservation to obtain more precise information about the location of the wetlands.

Natural Resources

This map highlights significant natural features, some of which — such as slopes of 25% or greater — severely limit development. Others — such as deer and bear areas — indicate wildlife habitat that should be left undisturbed to the extent possible. The rare plant and animal sites should be left undisturbed.

Restricted Lands: Public and Private

This third map shows the Tinmouth Channel Wildlife Management Area, which belongs to the Sate of Vermont, the Tinmouth Purchase Recreation Area, which belongs to the Town of Tinmouth, and the extensive areas of privately owned lands to which either the Vermont Land Trust or the Nature Conservancy holds a conservation easement. Although these easements differ in some details, all of them prohibit further subdivision and generally limit their use to forestry and agriculture. Several of these 24 conservation projects allow the construction of a limited number of single-family residences. The Wellhead Protection Area, set aside to protect the quality of water for sale extracted from an active spring , has virtually the same restrictions as a conservation easement.

Two other areas are represented:

TinHotspots

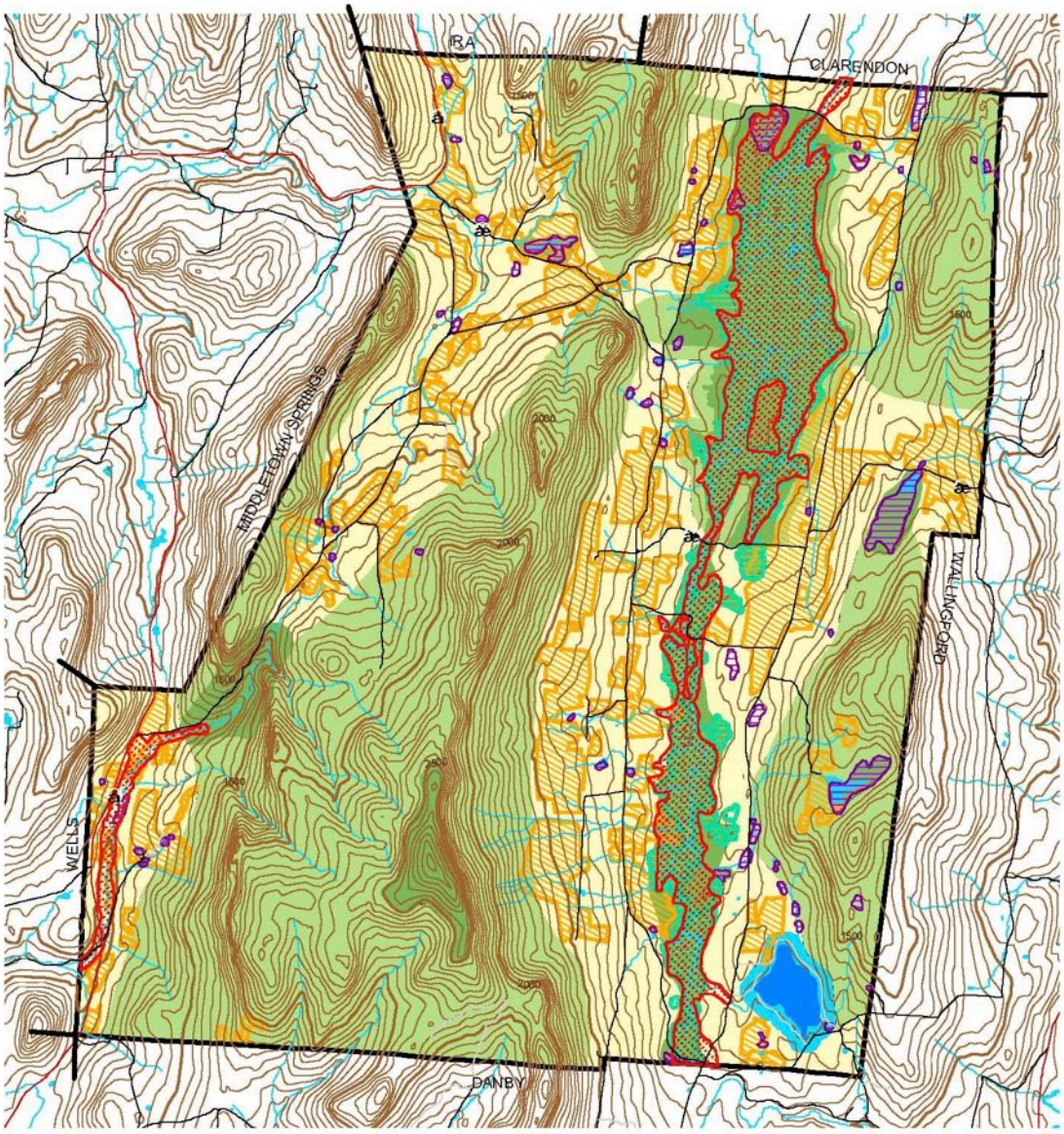
This dataset is the result of an effort to map biological "hotspots" in Vermont based on the "element occurrences" in the Nongame and Natural Heritage Program database. The NNHP database, compiled and maintained by the VT Department of Fish and Wildlife, records over 4000 locations of rare, threatened, and endangered plants, animals, and exemplary natural communities throughout the state. 2332 of the highest quality and rarest of these point locations were mapped, and polygons were drawn economically around concentrations of mapped points. These polygons, are taken to represent areas of high biological significance or diversity

Representative Landscape Area

This coverage represents the results of an analysis of landscape diversity in Vermont. Polygons in the dataset represent as much as possible of the physical diversity in each of the state's 8 biophysical regions (BPRs)-- hence the name "representative landscapes" (RLs). Units of physical diversity were based on elevation, bedrock type, surficial deposits, and landform. An understanding of the location of areas of high landscape diversity offer conservation scientists a key to identifying areas of high biodiversity value.

Future Land Use Map

Tinmouth Vermont



Legend

- Conservation: 25 acre minimum
- Lake Shore: high density
- Protection: no development
- Rural Residential: 5 acre minimum
- Wetlands, Class One: no development
- Wetlands, Class One, 100 foot protection zone: no development
- Wetlands, Class Two: no development
- Wetlands, Class Two, 50 foot protection zone: no development
- Flood District: no development
- Agricultural Overlay: limited development
- Parcel Boundaries
- Pond
- State Highway
- Town Highway Classes 2, 3, 4
- Private Road / Unknown
- 50 Foot Contours
- 500 Foot Contours

Notes:
This map is for planning purposes only.
Road classification is from the Vermont General Highway Map for Tinmouth, 2004.
Flood overlay is derived from FEMA Flood Insurance Rate Maps.
Agricultural overlay and future land use districts were developed by the town of Tinmouth.
Wetlands are from the Vermont Significant Wetlands Inventory.
Class One wetlands require a 100 foot protection zone and Class Two wetlands require a 50 foot protection zone.
Tinmouth town boundary is derived from several sources:
Tinmouth Parcel data (RussellGraphics, 2002)
Middletown Springs Parcel data (RussellGraphics, 2005)
Wallingford Parcel data (RussellGraphics, 1999)
and a town line survey performed for the town of Middletown Springs by ALX Environmental, 2002.

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W E
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1000 0 1000 Meters

August 15, 2007

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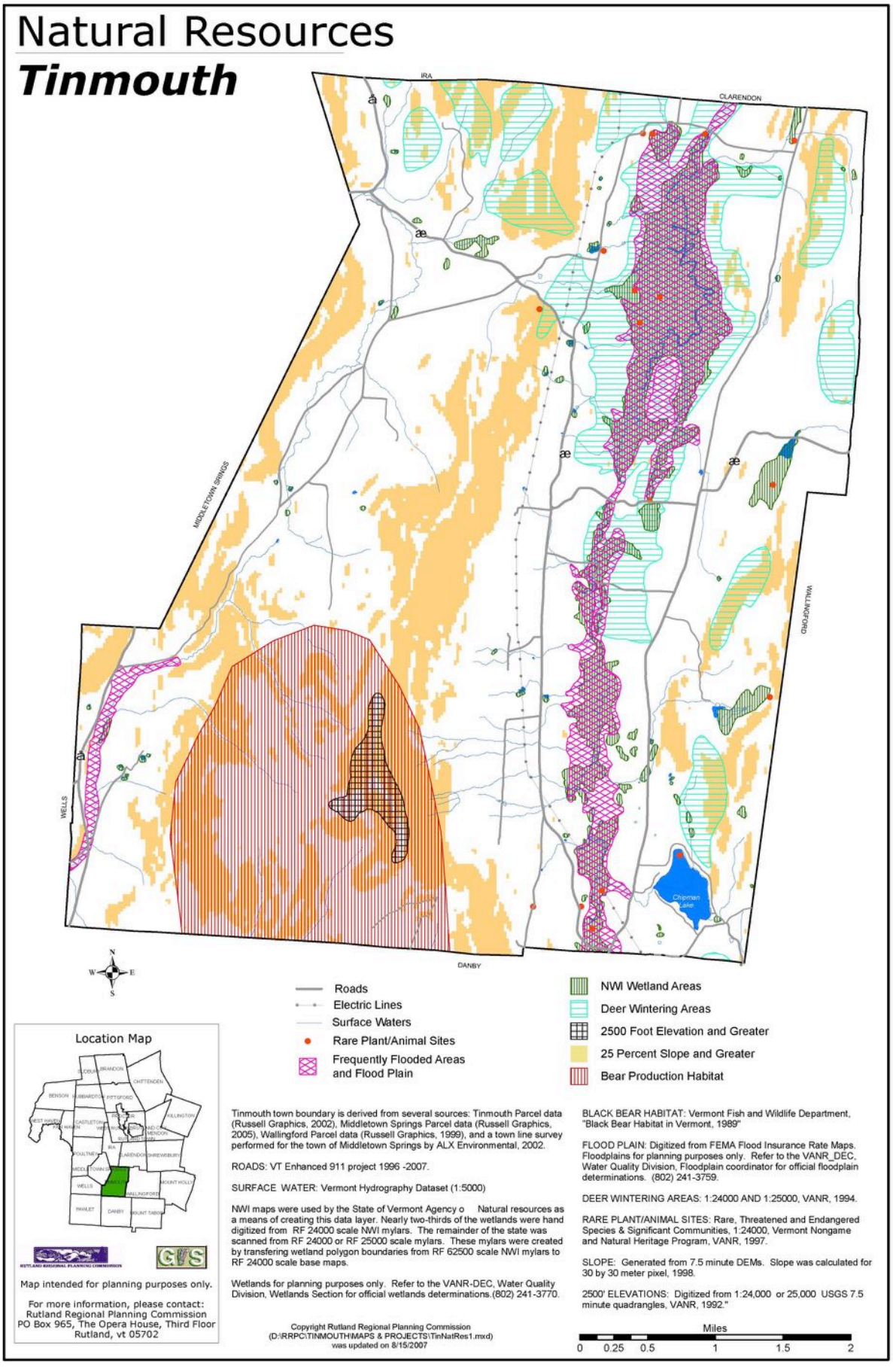
Natural Resources

Tinmouth



Location Map

Map intended for planning purposes only.

For more information, please contact:
Rutland Regional Planning Commission
PO Box 965, The Opera House, Third Floor
Rutland, vt 05702

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ROADS: VT Enhanced 911 project 1996 -2007.

SURFACE WATER: Vermont Hydrography Dataset (1:5000)

NWI maps were used by the State of Vermont Agency o Natural resources as a means of creating this data layer. Nearly two-thirds of the wetlands were hand digitized from RF 24000 scale NWI mylars. The remainder of the state was scanned from RF 24000 or RF 25000 scale mylars. These mylars were created by transfering wetland polygon boundaries from RF 62500 scale NWI mylars to RF 24000 scale base maps.

Wetlands for planning purposes only. Refer to the VANR-DEC, Water Quality Division, Wetlands Section for official wetlands determinations.(802) 241-3770.

BLACK BEAR HABITAT: Vermont Fish and Wildlife Department, "Black Bear Habitat in Vermont, 1989"

FLOOD PLAIN: Digitized from FEMA Flood Insurance Rate Maps. Floodplains for planning purposes only. Refer to the VANR_DEC, Water Quality Division, Floodplain coordinator for official floodplain determinations. (802) 241-3759.

DEER WINTERING AREAS: 1:24000 AND 1:25000, VANR, 1994.

RARE PLANT/ANIMAL SITES: Rare, Threatened and Endangered Species & Significant Communities, 1:24000, Vermont Nongame and Natural Heritage Program, VANR, 1997.

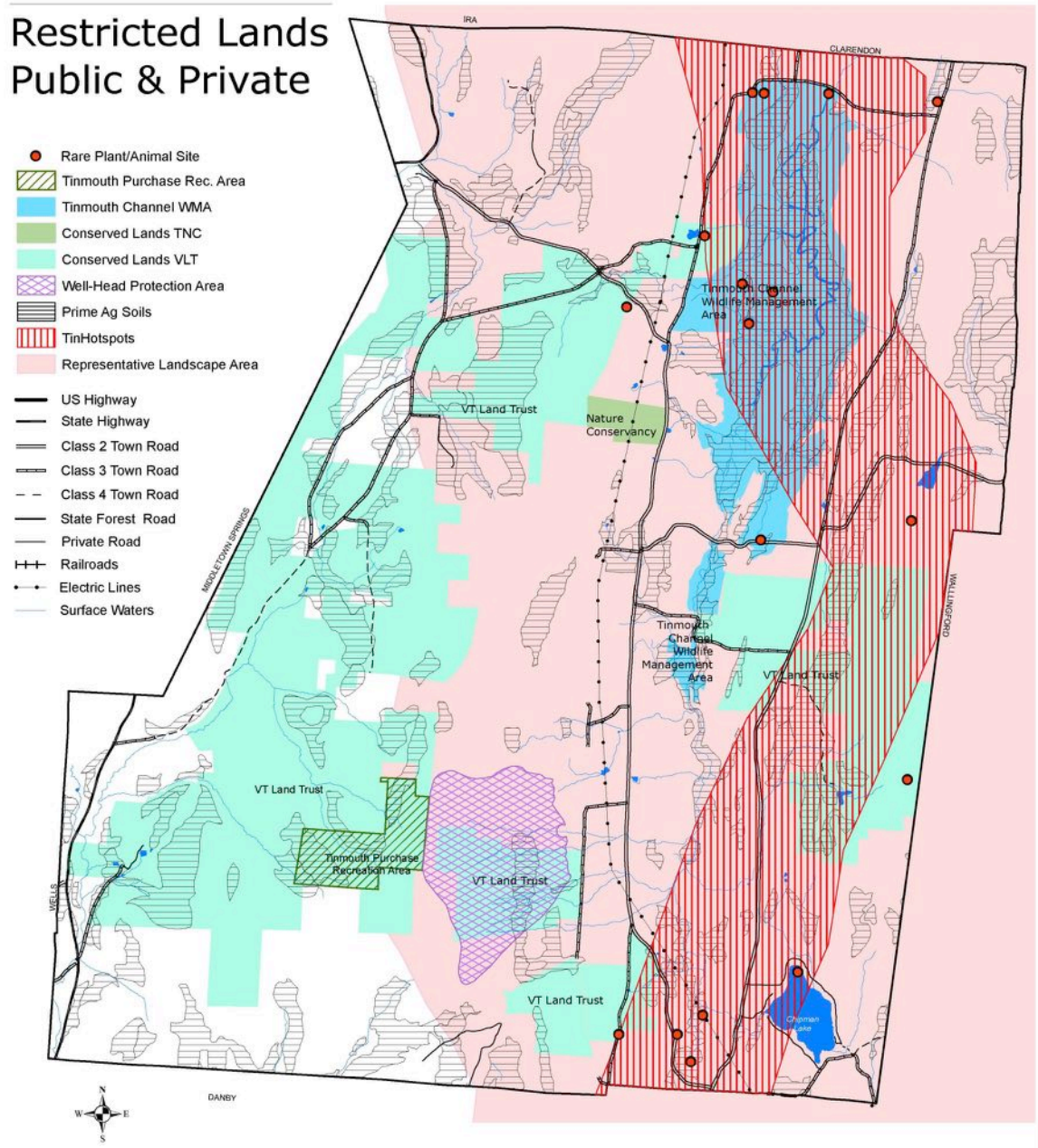
SLOPE: Generated from 7.5 minute DEMs. Slope was calculated for 30 by 30 meter pixel, 1998.

2500' ELEVATIONS: Digitized from 1:24,000 or 25,000 USGS 7.5 minute quadrangles, VANR, 1992."

Miles
0 0.25 0.5 1 1.5 2

Tinmouth

Restricted Lands
Public & Private



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SURFACE WATER: Vermont Hydrography Dataset (1:5000)

WELLHEAD PROTECTION AREAS: SPA's for groundwater sources (wells, springs), 1:24,000 USGS QUADRANGLES, VANR-DEC- Water Supply Division and VT Department of Health, 1998.

FLOOD PLAIN: Digitized from FEMA Flood Insurance Rate Maps.

Floodplains for planning purposes only. Refer to the VANR_DEC, Water Quality Division, Floodplain coordinator for official floodplain determinations. (802) 241-3759.

Miles
0 0.2 0.4 0.8 1.2 1.6

PUBLIC/CONSERVED LANDS: Vermont Conserved Lands Database 1:5000 parcel data,UVM-SNR-SAL, 1999.

SURFACE WATER PROTECTION AREAS: SPA's for surface water sources (stream, pond, etc.) 1:24,000 USGS quadrangles, VANR-DEC-Water Supply Division and the VT Department of Health, 1998.

SOURCE PROTECTION AREAS: Surface and subsurface areas from or through which contaminates are reasonably likely to reach a public water source. GPS coordinate information 1994. Halliburton NUS Corp. original dataset: 1:24,000 USGS quadrangles, VT Department of Health.

SPA's for planning purposes only. Refer to the VANR-DEC, Water Supply Division, for official SPA determinations. (802) 241-3400.

ROADS: VT Enhanced 911 project 1996 -2007.

- Provisions for minimum setbacks from highways for buildings and other uses shall be included within a permanent zoning regulation. The setback distance for regional highways and collector roads shall be greater than those required for other roads.