

Hinesburg Town Plan

Hinesburg, Vermont

Originally Adopted 1971

Most Recent Adoption May 16, 2011

Planning Commission Proposal

PC public hearing on 9/12/2012

PC vote to forward to Selectboard on 12/12/2012

REVISIONS TO:

Section 4.7 – Wildlife Habitat

Section 4.8 – Sensitive Areas, Scenic Areas

New Map – Map X – Wildlife Habitat

Added text underlined (and in red if you have a color version)

Deleted text under strikeouts

- 4.6.2) **Revise Hinesburg's flood hazard regulations to address fluvial erosion hazard areas in addition to inundation risks in the special flood hazard areas.**
- 4.6.3) **Review and revise flood hazard regulations as needed to ensure continued enrollment in the National Flood Insurance Program.**

4.7 Wildlife Habitat

Wildlife habitat contributes to the rural character of Hinesburg and reflects the diversity of the Town's natural landscape. Wildlife species in all forms (both terrestrial and aquatic) are part of the broader ecosystem, and the health and function of both wildlife populations and wildlife habitat are essential to the proper functioning of the overall system upon which we all depend. All wildlife species require three elements for viable habitat - food, water and cover. Even with these elements, viable habitat for ~~many~~ some species is dependent on contiguous tracts of undisturbed land (e.g., core wildlife habitat). Such areas not only accommodate core habitat species (e.g., scarlet tanager, hermit thrush, black-throated blue warbler, black bear, bobcat, spotted salamander), but also serve as species reservoirs that can serve to supplement more populations of more ephemeral wildlife species in smaller and more fragmented patches of habitat. ~~to serve as reservoirs for diverse species.~~ Smaller tracts (especially forest) can serve as habitat if corridors connecting smaller and larger areas are preserved. Fragmenting habitat areas and the connecting corridors limits the availability and diversity of life supporting elements. As areas become isolated, species diversity ~~diminishes or disappears~~ may diminish, and certain species may be unable to recover when numbers become low. The status of viable and varied wildlife habitat is an important barometer of the Town's ability to maintain ~~its~~ a healthy ecosystem, and the town's rural landscape while accommodating growth.

Hinesburg's abundant forests contribute significantly to its wildlife habitat. The hilly eastern portion of Town contains the large tracts of unbroken forests that harbor many species. The Fred Johnson Wildlife Management Area, encompassing 800 acres in Hinesburg and 200 in adjacent Starksboro and the Hinesburg Town Forest of approximately 800 acres, together with private holdings, provide a continuous forest approximately 3,000 acres in size. This significant tract is almost entirely unbroken by roads or house sites. This area of Town has been identified by the State Fish and Wildlife Department as black bear habitat, the site of several deer yards, and is rich with non-game animal & plant species. Minimizing forest fragmentation by road building and development will be important if the rich diversity of this area is to be maintained.

The lowlands of the western portion of Town serve as a different type of habitat. This area is best described as a mosaic of different land uses. Forested areas range from many small woodlots to a few large areas of contiguous forest. The forests on these soils harbor some of the richest assemblages of plant species in all of New England and represent islands of high diversity amid the agricultural land. The variety of open field, early successional or transition shrub/forest, and forest habitat provides important habitat for certain game species, such as deer, grouse and wild turkey, as well as many nongame species. Although mixed habitat types are beneficial to some species, large tracts of open fields are also critical to a number of declining species. These species (e.g., Bobolinks) are declining regionally as more open field and transition shrub/forest habitat reverts to forest, as field production techniques have changed (earlier and more frequent mowing/harvesting of hay and alfalfa fields), and as lands have changed from agricultural to residential uses. Because this area of Town has also experienced development pressures, providing for the integration of continued growth and open space areas for habitat will be necessary if the area is to maintain its wildlife diversity.

Surface waters, wetlands and floodplains provide some of the richest habitat opportunities in Hinesburg. Some, such as the Carse beaver pond and the wetland forest along the LaPlatte, have been identified by

the Natural Heritage Program as regionally significant natural areas. Wetland and riparian areas throughout Town are important both locally and for adjoining towns as corridors for wildlife movement. These areas also merit protection for other reasons such as open space, water quality protection and recreation. A thorough look at the patterns of development, the potential impacts and the possibilities for preserving the multiple values of these areas will benefit wildlife habitat as well.

Given the vast array of wildlife species, from butterflies to salamanders to black bears, nearly every parcel of land in Hinesburg provides habitat to one or more wildlife species. Habitat types of special concern in Hinesburg include:

1. Large tracts of forest and wetlands with few, if any, roads or house sites – i.e., forest interior habitat or core wildlife habitat (see Map X).
2. Deer wintering areas (see Map 9).
3. Aquatic habitat (i.e., streams, ponds, lakes) and associated riparian (stream bank) areas (see Map 7).
4. Wetlands (see Map 7).
5. Unique habitat related to rare, threatened, or endangered species (see section 4.8 and Map 9).
6. Corridors between the aforementioned areas (see Map X).
7. Large tracts of open fields and meadows.
8. Early successional or transition shrub/forest areas.

All of eight of these habitats of special concern deserve attention. Hinesburg’s land use regulations should address the first six of these habitat types through development design standards that prevent or minimize impacts related to new building and subdivision, especially in the rural parts of town. The last two habitat types are largely ephemeral and dependent on land management practices. These two habitat types are best addressed through non-regulatory means (education, outreach, etc.).

The extents of the first six habitat types listed above are generally depicted in the maps that accompany this plan. These maps, supplemented as necessary by on-the-ground information, shall serve as a reference for development design standards within Hinesburg’s land use regulations. Definitions of the relevant terminology (e.g., core wildlife habitat, wetlands, wildlife corridors, etc.) are included in the glossary of this plan, and should also be included in the land use regulations – potentially with minor refinements.

~~As noted above, overall species or habitat diversity is one important component of the Town’s rural landscape. Critical wildlife habitat is another important piece of this equation. For the purposes of this Plan, “critical wildlife habitat” refers to those areas that provide habitat. These areas include: 1) large tracts of forest with few, if any, roads or house sites – i.e., forest interior habitat or “core forest”; 2) large tracts of open fields; 3) early successional or transition shrub/forest areas; 4) wetlands and riparian areas (i.e., stream areas); 5) unique habitat related to rare, threatened, or endangered species (see section 4.8); 6) corridors between the aforementioned areas. These critical habitats are discussed below.~~

~~Hinesburg’s abundant forests contribute significantly to its wildlife habitat. The hilly eastern portion of Town contains the large tracts of unbroken forests that harbor many species. The Fred Johnson Wildlife Management Area, encompassing 800 acres in Hinesburg and 200 in adjacent Starksboro and the Hinesburg Town Forest of approximately 800 acres, together with private holdings, provide a continuous forest approximately 3,000 acres in size. This significant tract is almost entirely unbroken by roads or house sites. This area of Town has been identified by the State Fish and Wildlife Department as black bear habitat, the site of several deer yards, and is rich with non-game animal & plant species. Minimizing forest fragmentation by road building and development will be important if the rich diversity of this area is to be maintained.~~

The lowlands of the western portion of Town serve as a different type of habitat. This area is best described as a mosaic of different land uses. Forested areas range from many small woodlots to a few large areas of contiguous forest. The forests on these soils harbor some of the richest assemblages of plant species in all of New England and represent islands of high diversity amid the agricultural land. The variety of open field, early successional or transition shrub/forest, and forest habitat provides important habitat for certain game species, such as deer, grouse and wild turkey, as well as many nongame species. Although mixed habitat types are beneficial to some species, large tracts of open fields are also critical to a number of declining species. These species (e.g., Bobolinks) are declining regionally as more open field and transition shrub/forest habitat reverts to forest, as field production techniques have changed (earlier and more frequent mowing/harvesting of hay and alfalfa fields), and as lands have changed from agricultural to residential uses. Because this area of Town has also experienced development pressures, providing for the integration of continued growth and open space areas for habitat will be necessary if the area is to maintain its wildlife diversity.

Surface waters, wetlands and floodplains provide some of the richest habitat opportunities in Hinesburg. Some, such as the Carse beaver pond and the wetland forest along the LaPlatte, have been identified by the Natural Heritage Program as regionally significant natural areas. Wetland and riparian areas throughout Town are important both locally and for adjoining towns as corridors for wildlife movement. These areas also merit protection for other reasons such as open space, water quality protection and recreation. A thorough look at the patterns of development, the potential impacts and the possibilities for preserving the multiple values of these areas will benefit wildlife habitat as well.

Goals and Recommendations

4.7.1) To protect important natural areas, ~~critical wildlife habitat~~ **wildlife habitats of special concern**, and overall biodiversity, with the help of landowners.

- a) Work with the VT Fish and Wildlife Department, UVM, and other partners to conduct and maintain inventories of natural areas and wildlife habitat, with the help of landowners.
- b) Protect areas of sufficient size and character to support continued preservation of ~~critical wildlife habitat~~ and hunting through mechanisms like landowner covenants, conservation easements, etc.
- c) When reviewing new development, encourage the preservation of the ~~five~~ **six** ~~critical wildlife habitats~~ **of special concern** discussed above—i.e., core forest, large tracts of open fields, early successional or transition shrub/forest, wetlands and riparian areas, unique habitat for rare, threatened, and endangered species.
- d) Support the eradication of invasive plants that threaten the future of natural areas, forests, and farm lands.

4.7.2) To provide connectivity among natural areas and ~~critical~~ **core** wildlife habitat.

- a) Identify connections that would enhance existing wildlife habitat.
- b) When reviewing new development, encourage areas separate from housing sites to provide connectivity between ~~forest blocks~~ **core wildlife habitat**, riparian corridors, and wetlands.
- c) Develop a greenway network with ~~wildlife habitat~~ corridors separate from trails and human movement. Consider protection of these corridors via lower levels of development (also see sections 3.4.5 and 4.9 for related recommendations).

4.8 Sensitive Areas

Natural Areas & Significant Natural Communities

Natural communities are an integrated way of viewing the landscape that recognizes the connections between plants, animals, and their physical environment. They may be very large, such as the Northern Hardwood Forest in the eastern foothills of Hinesburg, or very small, such as a vernal pool less than an acre in size within the larger forest matrix. Significant natural communities and natural areas are areas of land or water that retain their natural character and contain unusual or significant flora, fauna, geological or similar features. These areas are the best examples of the various biological communities that presently or historically existed in town. The Vermont Natural Heritage Program identifies natural communities and areas within Hinesburg that are of statewide or regional significance. Currently these include:

1. Goldie's Colluvium. Northern hardwoods natural community and large population of two uncommon fern species.
2. High Rock. Cliff natural community and large population of uncommon smooth-stemmed cliffbrake.
3. Hinesburg Limey Cobbles and Swamp. Series of dolomite hills with good examples of northern hardwood forests and several uncommon plant species. Also a large wetland complex and site of an endangered species, bog wintergreen.
4. Lincoln Hill. Old growth red oak, cliff and outcrop natural communities and red pine woodlands.
5. Porcupine Hill. Very good example of an uncommon mature red pine woodland.
6. Upper LaPlatte Floodplain Forest. Unusual bur oak-green ash floodplain forest and population of rare nodding trillium.

Natural communities and areas of local, statewide, or regional significance contain some of the most significant and irreplaceable natural resources of a town. These areas are particularly vulnerable to the impacts of development or misuse. Ideally these areas should be large enough to act as biological refuges where human disturbance is kept to a minimum and should represent the diversity of Hinesburg's natural features. Planning for their protection, while accommodating landowners' needs, will be one of the main issues in planning for the protection of the Town's natural resources. See section 4.9 for specific recommendations.

Hills and Ridgelines

A ridgeline is defined as a line marking or following a ridge, top of a hill or ledged area, behind which is open space or horizon. Ridgeline development creates highly visible structures that become prominent features on the landscape, detracting from the natural beauty and nature of Vermont and rural Hinesburg. If the development is visible from a large area, it intrudes upon the rural contours and disrupts the natural environment.

The eastern portion of Town, with its higher elevations, contains the most visible of the Town's ridgelines. Although topography is not as dramatic on the western side of Town the hillsides are visually important because of their contrast to the surrounding lowland. A third area of importance is the land around both Lake Iroquois and Lake Sunset. The slopes rising from the lake shores contribute to the beauty of the settings for both lakes.

The hill areas of Hinesburg are important features for the Town for a variety of reasons covered throughout this plan. Their importance as natural areas and for the scenic values of their ridgelines should be considered as well. Uncontrolled or improperly planned development threatens the environment of hills and ridgelines. Wind energy and telecommunication towers, while supported elsewhere in this plan, require special attention if they are proposed on hillsides and ridgelines.

Goals and Recommendations

4.8.1 To protect ridgelines and hillsides from improperly planned development.

- a) Delineate ridgelines and hillsides requiring protection.
- b) Develop strategies, including development review standards in zoning and subdivision regulations, to protect ridgelines and hillsides.

Scenic Areas

The scenic resources of Hinesburg are numerous and varied - including steep wooded hillsides, streams and lakes, and vast stretches of mowed fields. Together these elements form a pattern that we see every day and have come to associate with Hinesburg's character. These areas also form the impression others have of Hinesburg and affect the way the Town is seen as a place to visit, work or live. Generally, changes to the scenic character of the Town happen incrementally. Although each change is small in itself, the cumulative impact over time is large.

An essential first step in protecting Hinesburg's scenic qualities is to identify those areas that are integral to the scenic landscape. Views from points along streets and highways, from public recreation areas and trails, from shorelines and watercourses, and from other areas where public access is available are a priority in a plan to preserve scenic resources in Hinesburg. An inventory should consider topographic variety, diversity of the landscape features and the length of the view as criteria in assessing priority scenic areas. Scenic resource inventories along public roads were conducted by a consultant in 2007 as part of the Conservation Commission's work drafting a Greenspace Plan. Additional inventory and assessment work was done by Planning Commissioners and community members in 2012. A compilation of potentially scenic vantage points along public roads was developed; however, more work is needed to refine this and other methods to identify important scenic resources. Furthermore, substantial public input is also necessary to ensure the areas identified correspond to resources important to the overall community.

4.9 Greenspace Planning

Greenspace (also referred to as open space) is defined as those areas of the Town's landscape that are valued for their natural resources, ecosystem services, agricultural or forest production, recreational opportunities, scenic views, or other public benefits. Greenspace lands are typically undeveloped and have no building structures in current service, with the notable exception of recreational lands and farmlands (active or not), maple sugaring operations, or other similar enterprises directly related to traditional farming practices. Size, spatial context and land use are key considerations in classifying greenspace. Greenspace lands may be actively managed or left in their natural state. They can be publicly or privately owned and may or may not be legally protected.

Regardless of size, ownership status, management, or landscape context, greenspace serves to protect sensitive ecosystems, air and water resources, wildlife habitat, scenic landscapes, and other important features of the natural environment. Examples of greenspace include (but are not limited to) agricultural lands, forestlands, shrub lands, ridgelines, wetlands, undeveloped shorelines, lakes, ponds, scenic views, public parks, and preserves.

The location and approximate boundaries of a variety of natural resources have been mapped by local, regional or State sources. With most of these mapped resources available as data layers in the Vermont Geographic Information System (GIS), they can be viewed collectively for any parcel or area within the Town. This system permits cohesive greenspace planning and gives Town officials the ability to protect significant natural resources both in the preparation of zoning regulations and during review of proposals for development.