

2 | LAND USE

2.1 Objectives

- 2-1.a Plan development to maintain the historic settlement pattern of compact downtowns and village centers separated by rural countryside (24 VSA §4302 (c) (1)).
- 2-1.b Increase the diversity and total stock of housing in Norwich by directing more intensive residential development to areas in, or adjacent to, the village while discouraging strip development along highways (24 VSA §4302 (c) (1) (A)).
- 2-1.c Preserve rural character and working lands throughout the existing rural areas of town by developing in accordance with smart growth principles (24 VSA §4302 (c) (1) (D)).
- 2-1.d Identify, protect, and preserve important natural and historic features of the Norwich landscape, including: significant natural and fragile areas, outstanding water resources (including rivers, aquifers, shorelands and wetlands), significant roads, waterways and views, important historic structures, sites or districts (including archaeological sites) (24 VSA §4302 (c) (5)).
- 2-1.e Encourage and strengthen Norwich forestlands by maintaining and improving forest blocks and habitat connectors (24 VSA §4302 (c) (6) (C), (9)).
- 2-1.f Interconnect the existing system of trails for access to nature for Norwich residents and visitors (24 VSA §4302 (c) (1) (D) (4), (8) (B)).
- 2-1.g Revise Norwich Zoning and Subdivision Regulations informed by the climate crisis, specifically the ability of existing forest cover to provide ecosystem services such as carbon absorption and sequestration.

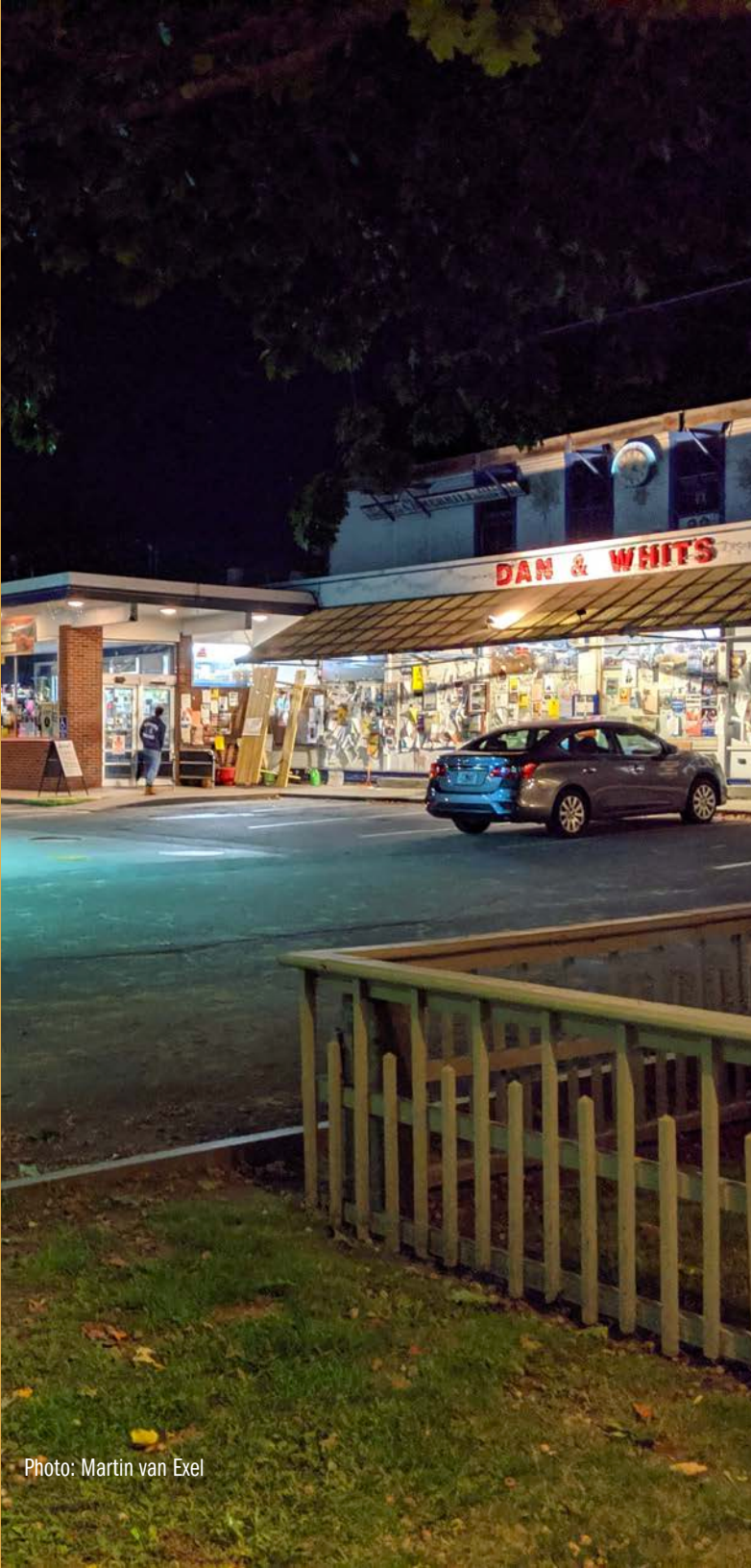


Photo: Martin van Exel

2.2 Policies

- 2-2.a Increase the resilience of Norwich by avoiding, minimizing and mitigating conflict between land development and natural riparian functions along streams and rivers.
- 2-2.b Guide development away from priority forest blocks and discourage fragmentation or subdivision of land within those blocks that would adversely impact natural resource values, including absorption and sequestration of carbon dioxide.
- 2-2.c Guide development away from visually prominent locations on ridgelines and hills as viewed from public vantage points.
- 2-2.d Encourage conservation of primary agricultural soils for current and future agricultural use.
- 2-2.e Guide development away from steep slopes and require appropriate erosion control and stormwater management practices to protect water quality and avoid increased downstream flooding.
- 2-2.f Guide residential development in accordance with the objectives, policies and actions of this plan.
- 2-2.g Encourage use of conservation subdivision design and low-impact development practices in the rural areas of town in order to protect and conserve natural resources, open space and rural character.
- 2-2.h Encourage and support continued permanent conservation of farmland, forest land and natural areas.
- 2-2.i Encourage landowners to maintain or establish riparian buffers with native woody plants.
- 2-2.j Support the work of the Norwich Historical Society and Historic Preservation Commission to help inform land use decisions.

2.3 Actions

- 2-3.a Implement the recommendations made in this chapter (see [Figure 1](#)) and throughout this plan when revising the Norwich Zoning and Subdivision Regulations to:

- i. Maintain the rural character of Norwich by preserving working lands and forests
- ii. Recognize the important ecosystem services performed by forests
- iii. Facilitate appropriate scale mixed-use development in areas currently zoned commercial-industrial

- 2-3.b Participate in state, federal and other efforts to protect the Connecticut River, including basin plans provided for under 10 VSA §1253.
- 2-3.c Develop a plan to address any potential conflicts between existing or proposed development on the edge of the village and mapped forest blocks.
- 2-3.d Continue to advocate for the preservation and adaptive reuse of historic Lewiston.
- 2-3.e Consider how to address barriers to development related to limitations on septic capacity, including a review of the findings of the 2005 study conducted by the Norwich Sewer Committee in light of current challenges and changes in wastewater management.
- 2-3.f Consider incentive programs to encourage adaptive reuse of historic structures.
- 2-3.g Update the inventory of barns at risk, and support owners in obtaining state grants to offset rehabilitation costs.
- 2-3.h Ensure the participation of the Historic Preservation Commission in any study of improving bike-ability and walkability in the village.

2.4 Current Land Use

Norwich's current land use pattern ([Figure 2](#), [Figure 3](#)) includes a densely settled village with a commercial core in the southeast corner with low density residential development accounting for the remainder. Union Village in the north and a few other hamlets hint at an earlier agrarian settlement pattern. There are significant areas of conserved land, Appalachian Trail lands along the southern border, riverine lands on the Ompomponoosuc River and higher elevation forest lands along the western border with Sharon (see [Figure 5](#), [Figure 6](#)). Outside of the village there is some commercial development along Route 5 South. An expanse of conserved woodlands along the Connecticut River associated with the Montshire Museum gives way to school playing fields on the border with Hartford to the south.

Since the 1970s the predominant pattern of development has been subdivision of farm/forest tracts into lots for residential use some distance from the village. The rate of development has slowed significantly since the 1990s (see [Figure 4](#)). The rural character (wooded hillsides and hayfields) has largely been maintained, despite the continued loss of productive farms. There has been a recent resurgence in small-scale farming and rural enterprise.

Norwich has limited commercial development, dominated by small retail, banking and professional services in the village, and retail oriented to tourists and passing traffic on Route 5 South. The towns of Hanover, Lebanon and

Hartford are major employment and commercial centers for Norwich households.

Key Findings

TRANSPORTATION. The current settlement pattern is predicated on high levels of personal car use. Norwich currently supports Advance Transit to service the village and Route 5 South on a limited schedule. It is not feasible to extend transit routes or increase the schedule because of the low population density beyond the village. Norwich devotes considerable resources to road maintenance and repair, and low-density residential development increases these costs without significantly increasing the tax base to fund them. Increased commitments to improving transit and non-vehicular commuting would be needed to support a different settlement pattern in the future.

COMMUNITY FACILITIES & SERVICES. The existing complement of facilities and services could accommodate modest growth, particularly if it occurs in or near the village. Marion Cross School has some capacity for additional students and is an asset for the community, although wastewater management is an unresolved problem. Childcare is in short supply and limited, however. Potable water is supplied to homes and businesses in the village. Extensive recreation facilities including playing fields and a trail network for hiking and mountain biking support an active community. Absence of a wastewater system limits growth and expansion of the village and established commercial districts (Route 5 South) and imposes costs and constraints on existing property owners.

ENERGY. Current state energy goals, intended as a response to the climate crisis, require Norwich to dramatically reduce auto-dependence caused by low-density settlement and improve the thermal efficiency of the housing stock. Additional renewable energy generation is very unlikely to come from wind turbines given current technologies and existing siting needs. Large-scale solar installations away from valley floors are limited by topography. With current technology about 160 acres of solar panels (of 47,000 acres) could satisfy current electricity demand in Norwich.

HOUSING. The very low growth in new housing stock is unlikely to change within the life of this plan, given broader patterns and economic conditions. More effort to obtain compact development will be needed to achieve the energy and housing objectives of this plan. Increasing the variety of housing by type and price is needed to stem demographic changes apparent in the past twenty years (see [page 34](#)). This plan supports exploring how to provide for an expansion of the housing stock in the village, immediately adjacent to the village, and along Route 5 South.

ECONOMIC DEVELOPMENT. Norwich has a very small commercial base, which limits the number of in-town jobs. The existing commercial-industrial district is well-served by road, electricity infrastructure and transit, but requires on-site water and wastewater for development. The existing land use controls allow for traditional highway strip development and need to be amended to better reflect community values and standards. Growing employment opportunities in town can be a strategy for reducing auto-

dependence. Diversifying the tax base can also contribute to offsetting the residential property tax burden. Lastly, a broader range of economic development can encourage a more diverse community.

2.5 Future Land Use

LAND CAPABILITY. A key principle of land use planning is to guide development towards land best suited to the purpose and discourage and prevent uses inappropriate to the landscape. Capability assessments identify landform attributes which can constrain future development. The following attributes influence future land use decisions in Norwich.

STEEP SLOPES are poorly suited to development. The landform of Norwich is dominated by narrow valleys and steep slopes. As severe weather events increase in frequency and intensity, reviewing land use regulations as they pertain to development on steep slopes will be needed.

SOIL TYPE is a major determinant of development in the absence of municipal wastewater systems. Norwich does not operate a municipal wastewater system. Norwich provides potable water in the village through the Fire District, accessing aquifers to the north of the village, which allows for denser settlement.

RIPARIAN AREAS (INCLUDING FLOODPLAINS) are sensitive environments often subject to flooding. Historically these areas have been used for agriculture (fertile silt deposits

from stream action) and industrial power generation (for mills prior to the advent of electricity). Today, repeated private property and public infrastructure losses due to flooding and erosion from severe storms is best resolved by avoiding continued development in these areas.

Future Land Use Map

The Future Land Use Map illustrates Norwich's desired future land use pattern by identifying Planning Areas. These areas are not intended to align with the current zoning district boundaries, nor represent the boundaries of any future zoning districts. Rather, they graphically depict the direction land development will likely take in response to the objectives, policies and actions established in this plan, which will inform any proposed changes to the town's zoning districts.

THE VILLAGE PLANNING AREA encompasses Norwich's historic village with a settlement pattern and architecture typical of 19th century Vermont. It is characterized by a mix of residential, commercial and civic land uses at higher densities. Buildings are set close to the street with pedestrian access and circulation. There is a concentration of commercial activity in the core surrounded by predominately residential land uses. Potential future growth is limited by physical constraints, commitment to the traditional village scale and form, and absence of wastewater infrastructure (the village is served by municipal water). The intent of the Village Planning Area is to maintain the historic village settlement pattern, architectural character and mix of uses.

THE MIXED USE PLANNING AREA includes land in two areas of Norwich. The area in Lewiston reflects the remnants of an earlier industrial development pattern focused around the railroad depot and river. The railroad continues to own a portion of the property (exempt from local regulation). No significant changes in its use are anticipated during the life of this plan. The other area is on the east side of Route 5 South, part of the Connecticut River Scenic Byway. This area has evolved and developed in response to the transportation corridor it is bounded by (U.S. Route 5 and I-91). It is currently developed with a mix of commercial, institutional and residential land uses. While most of the land is developed, the current land use pattern is low density. The intent of the Mixed Use Planning Area is to reflect the existing development pattern and recognize that there may be opportunity for some mixed use infill with small businesses and housing over time, if constraints posed by the lack of infrastructure and institutional ownership of these lands are addressed.

THE RESIDENTIAL PLANNING AREA is composed of lands already developed into residential lots at moderate densities or suitable for such development due to their proximity to the village, access to transportation, and relatively few natural resource constraints. It is the intent of the Residential Planning Area to accommodate future residential development at densities similar or somewhat higher than currently exist in the area — as feasible — given the availability of infrastructure to support it.

THE RURAL PLANNING AREA includes lands outside the village that retain their rural character, although largely

subdivided into residential lots. The settlement pattern is irregular in response to natural features and terrain. Much of the roadscape remains dominated by views of open meadows and wooded hillsides. The intent of the Rural Planning Area is to protect the rural character and maintain a low overall density of development in these areas which are further from the village and major transportation corridors.

THE RESOURCE PROTECTION PLANNING AREA is composed of lands with resource constraints or hazards that significantly limit their potential for future development, and lands not available for future development due to public ownership or private conservation easements. Despite the constraints, most of this land is part of a residential lot, albeit at extremely low densities. The intent of the Resource Protection Planning Area is to recognize the constraints and limitations that exist on a large portion of the land in Norwich. Little change in the use or development of these lands is anticipated and this plan discourages further disturbance or fragmentation of the remaining undeveloped portions of these lands through incremental, large-lot residential development. The high and medium priority forest blocks have been mapped and can form a basis for future decision-making.

2.6 Forest Blocks and Habitat Connectors

The Vermont Agency of Natural Resources (ANR) has mapped and assessed the habitat value of forest blocks in Norwich as part of a state-wide exercise. Since 2018

municipal plans have been required by state statute (Act 171) to identify forest blocks and habitat connectors, and to plan for land development in these areas to minimize forest fragmentation and to promote forest health and ecological function.

The mature trees on these forest lands also perform critical ecosystem services including absorbing and sequestering carbon dioxide — a greenhouse gas. The combined area of the mapped forest blocks in the resource protection area is 17,202 acres. There is also considerably more forested land in other areas of town.

This plan and any implementing regulations treat mapped forest blocks in Norwich of 500 acres or more in area (as shown in **Figure 8**) as priorities for protection. The impact of proposed development on forest blocks may be considered during state regulatory processes. Due to the scale of the state forest block mapping, the boundaries of priority forest blocks should be more precisely delineated based on a site-level assessment before being used for regulatory purposes by the town or state. The mapped priority forest blocks occur in the rural residential district. Norwich subdivision regulations already consider natural resources, including steep slopes and forest cover. Nevertheless, alternative approaches could be explored. This could include a new resource protection zoning district with a significantly higher minimum parcel size to better protect against fragmentation of forest blocks. Other key areas to review include the development density algorithm to ensure development in forest lands is minimized.

2.7 Village Center Designation

Norwich's village center designation expired in 2018 (see [Figure 10](#)). It cannot be renewed until Norwich has a duly adopted plan subsequently approved by TRORC.

Village center designation supports the town's land use policies preserving the historic scale and pattern of development, while encouraging private investment in historic buildings. Participation in the designation program promotes infill and improves the walkability of the village. The program offers both the town and property owners within the designated area benefits including:

- ▶ Owners of income-producing buildings can access tax credits for eligible improvements;
- ▶ Land in or within ¼ mile of the village center could be eligible for the state's Neighborhood Development Area program;
- ▶ The town is more competitive when seeking state grant funding for projects in the village center.

2.8 Compatibility

Norwich is part of the Claremont-Lebanon micropolitan area (as defined by the US Census Bureau) which takes in Grafton and Sullivan counties in New Hampshire and Orange and Windsor counties in Vermont. The town is a member of the Two Rivers Ottauquechee Regional Planning Commission (TRORC) which comprises 30 towns in Orange and Windsor counties in Vermont. The history of Norwich is tied closely with Hanover and Lebanon, NH. Norwich is part of a bi-state school district, and Norwich residents depend on Hanover, Lebanon and Hartford for employment

opportunities and access to retail and service functions. Many planning issues including housing supply and transportation (including bike-pedestrian accommodations) will involve a regional response.

NEIGHBORING TOWNS. There are no proposed changes to zoning districts or land use policies that will affect the neighboring towns of Thetford or Sharon. This plan identifies constraints to development in the Route 5 South Commercial-Industrial district, which borders Hartford to the south, caused by the need for on-site potable water and wastewater systems. The development potential of this district could change if municipal wastewater was provided. This plan is recommending that wastewater options for the village, adjacent areas and the commercial-industrial district be explored.

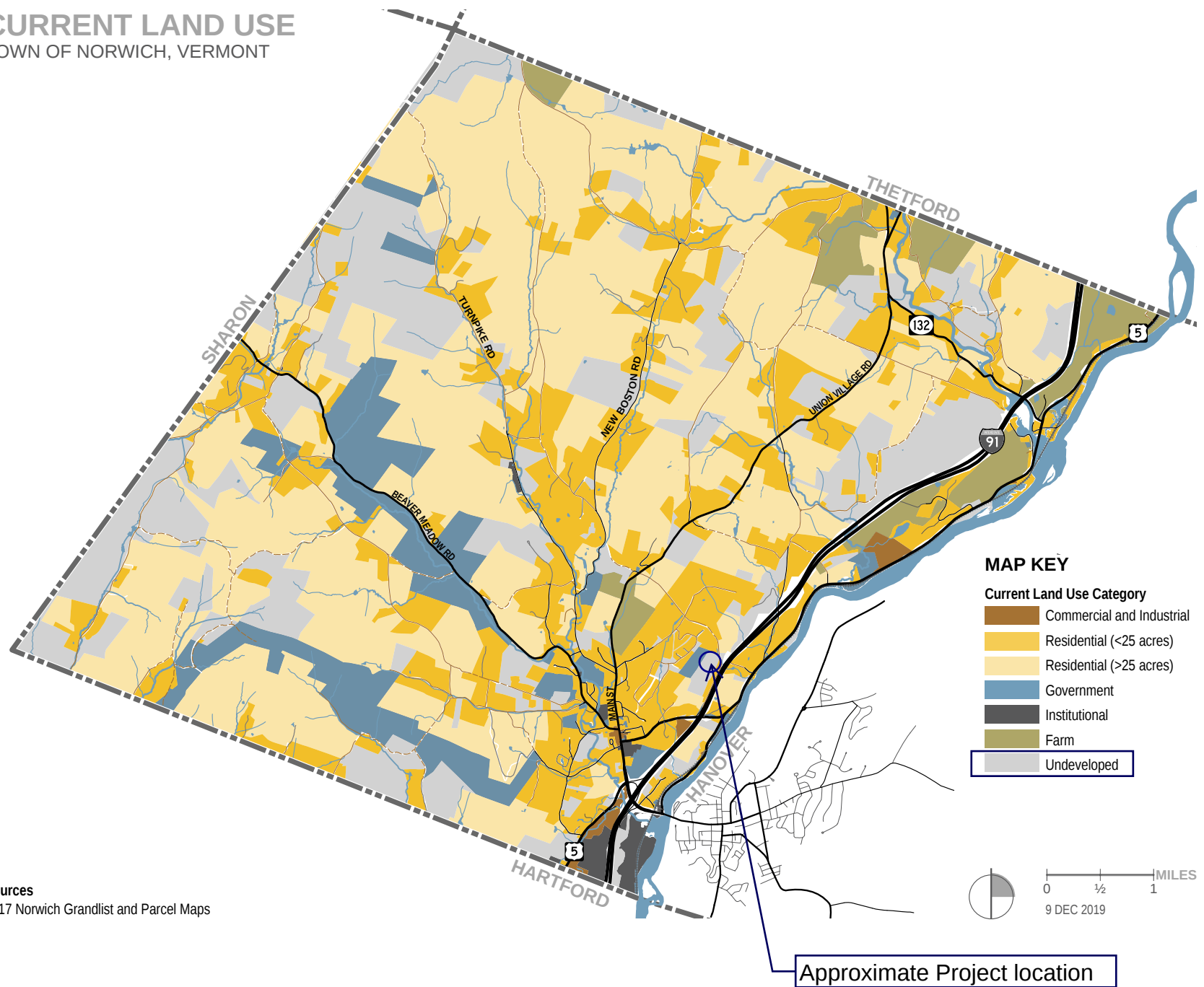
TRORC LAND USE AREAS. In previous regional plans the area east of I-91 (Lewiston neighborhood and lands to the east of Route 5 South) were identified as an 'interchange area'. In the 2019 TRORC [regional plan](#), this designation has been dropped for Norwich and been replaced with mixed use and rural land use areas. Other adjustments were made, including defining principal retail, and allowing for mixed use development with some retail when combined with housing. These amendments followed discussion with Norwich. There is now a greater degree of compatibility between this plan and the regional plan. Norwich appreciates the greater flexibility and an application of regional land use areas that more closely resembles current land use patterns.

Figure 1. Future Land Use Recommendations

Land Use Type	Recommendation
Village	1 Reapply for Village Designation
	2 Assess Current Wastewater conditions
	3 Improve public infrastructure to enhance walkability, access management and stormwater management
Mixed Use	1 Explore changing Commercial-Industrial to a mixed use zoning district with performance and design standards governing scale of development, site plan etc. to mitigate impact
	2 Ensure adequate provision for housing is made in this new district
Residential	1 Assess Current Wastewater conditions
	2 Explore creating a new residential zoning district (dependent on wastewater assessment)
Rural	1 Review effectiveness of subdivision regulations in limiting rural sprawl
Resource Protection	1 Explore creation of a new zoning district that would take in lands with forest blocks of 500 acres or more to reduce possibility of fragmentation

CURRENT LAND USE

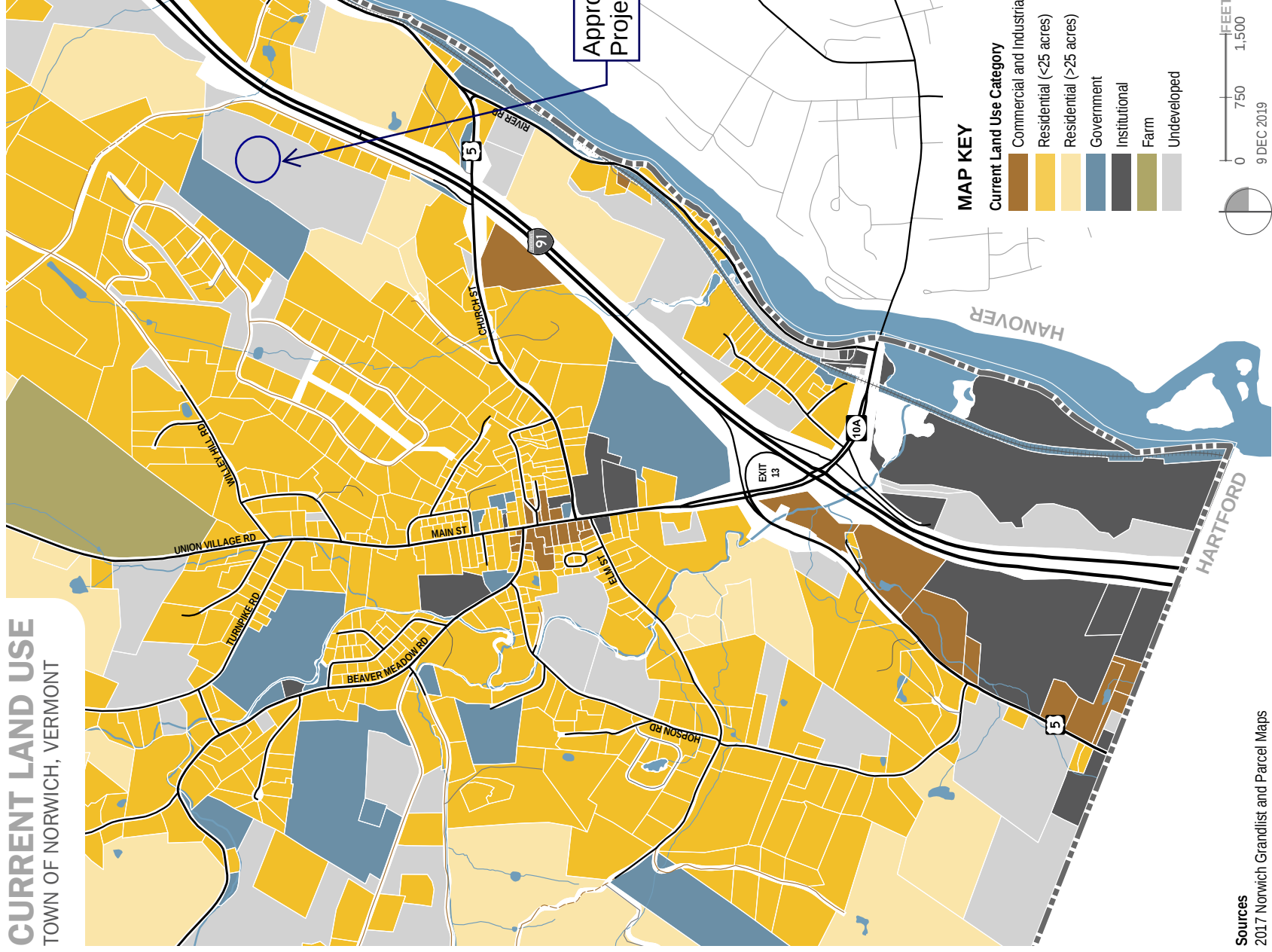
TOWN OF NORWICH, VERMONT



Sources
2017 Norwich Grandlist and Parcel Maps

CURRENT LAND USE

TOWN OF NORWICH, VERMONT



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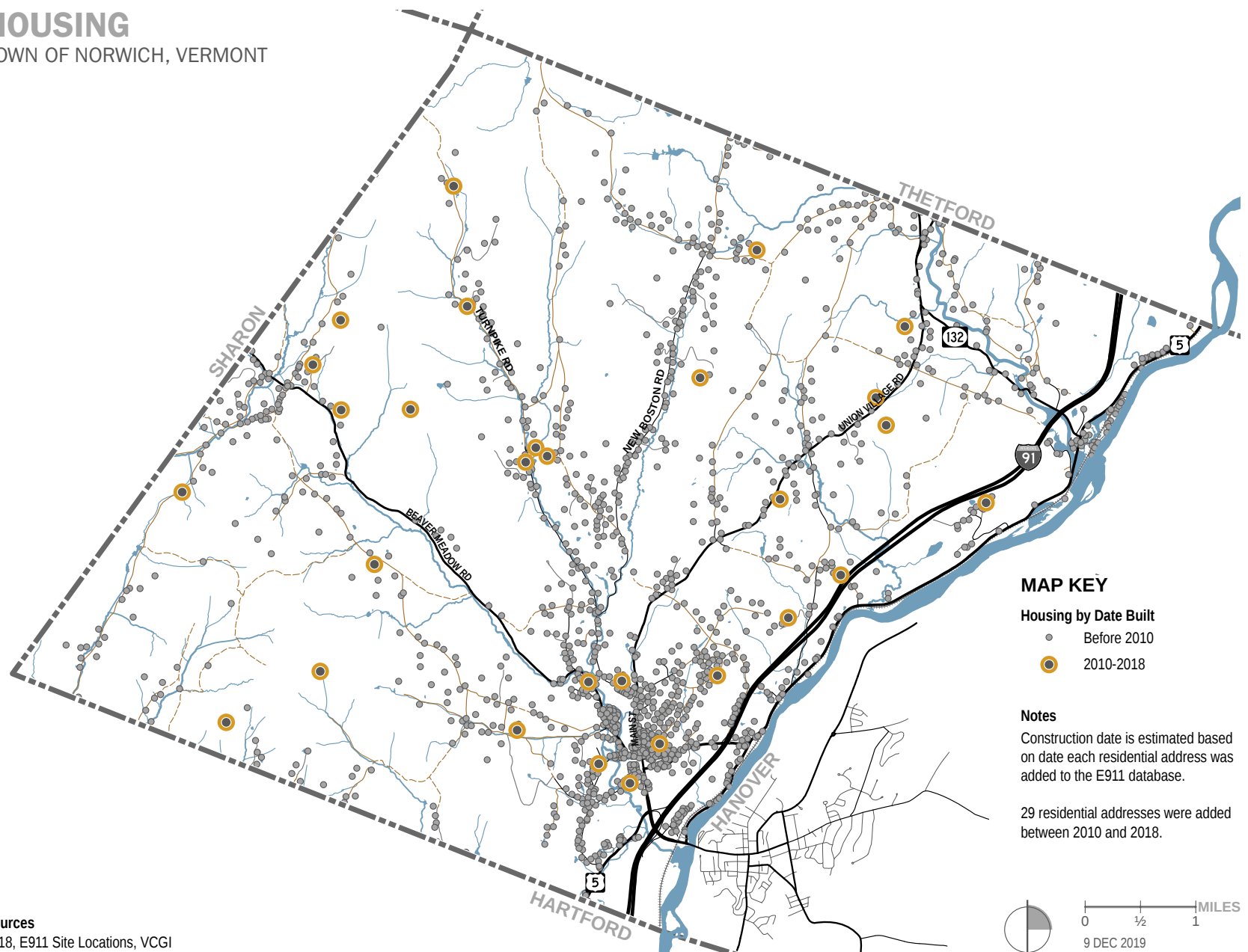
NORWICH 2020 TOWN PLAN

ADOPTED MARCH 7, 2020

LAND USE

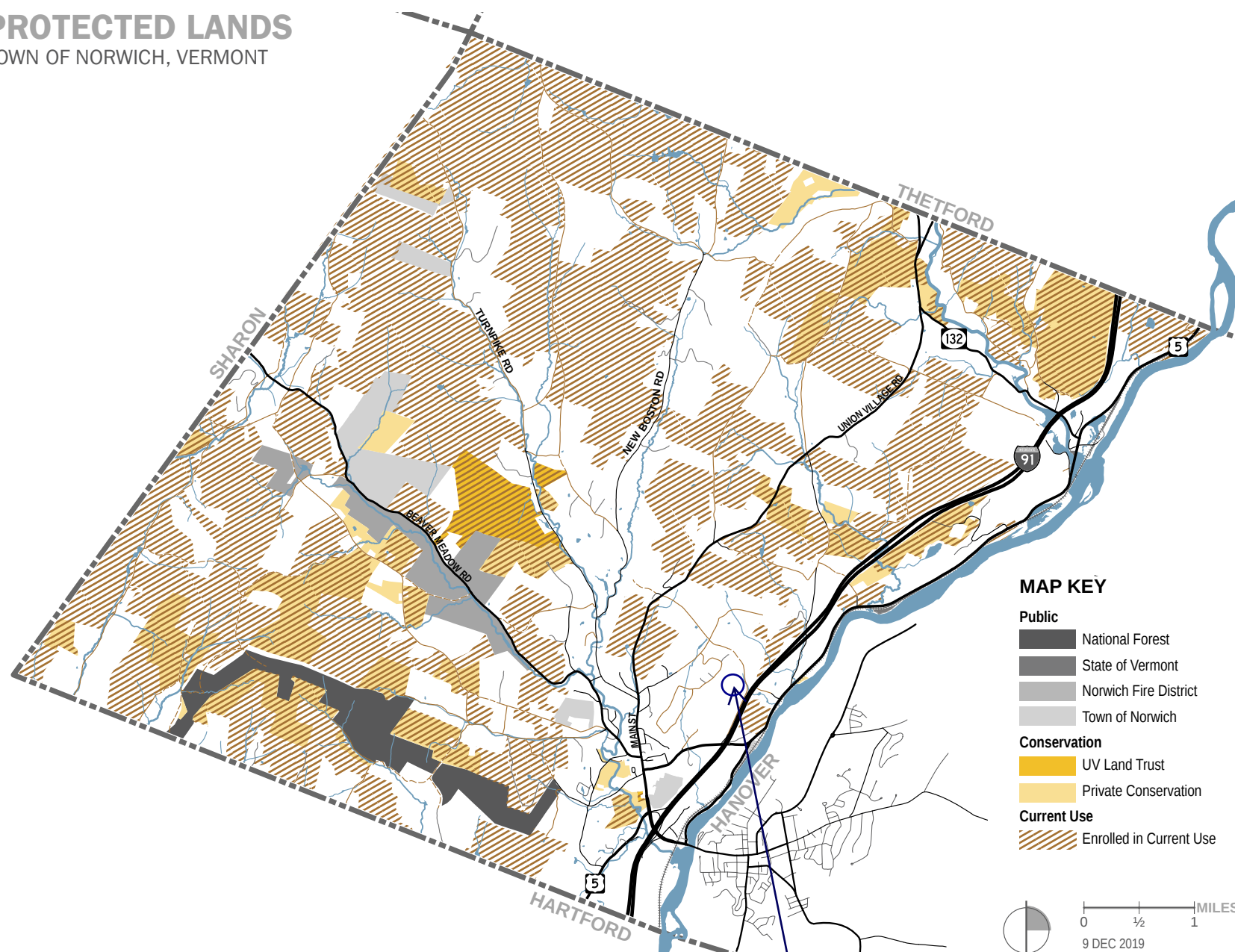
HOUSING

TOWN OF NORWICH, VERMONT



PROTECTED LANDS

TOWN OF NORWICH, VERMONT



MAP KEY

Public

- National Forest
- State of Vermont
- Norwich Fire District
- Town of Norwich

Conservation

- UV Land Trust
- Private Conservation

Current Use

- Enrolled in Current Use



Approximate Project location

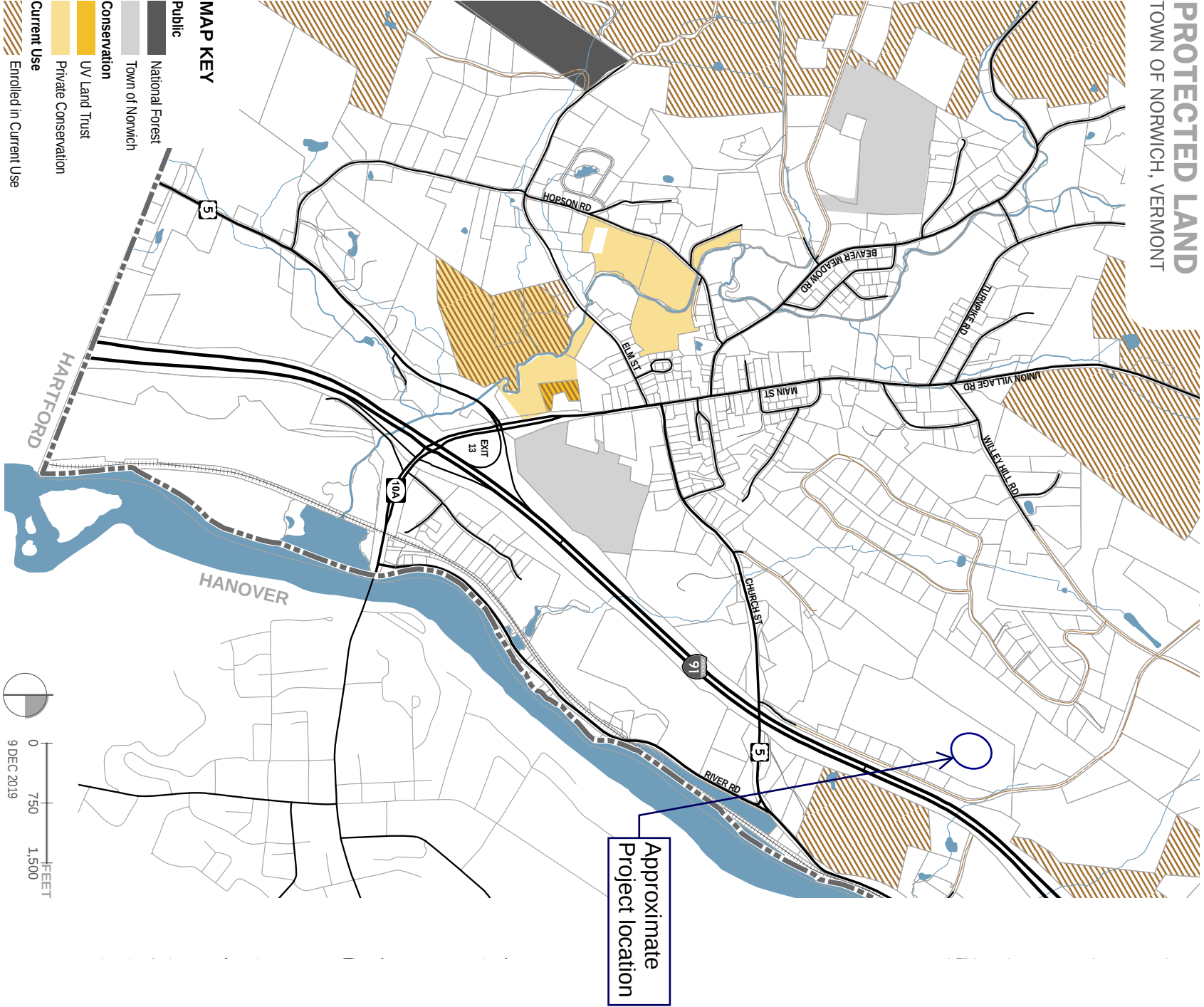
NORWICH 2020 TOWN PLAN

ADOPTED MARCH 7, 2020

LAND USE

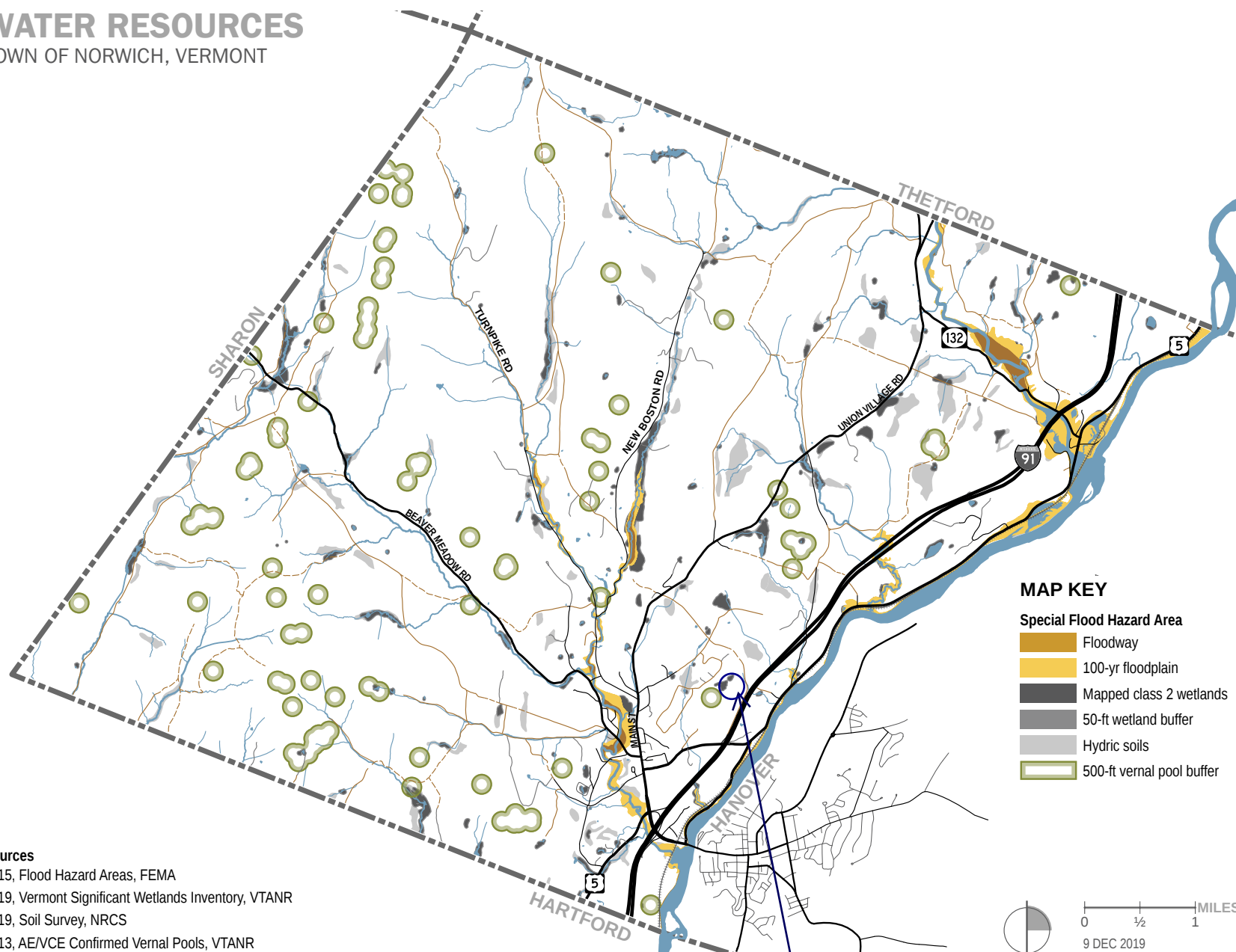
PROTECTED LAND

TOWN OF NORWICH, VERMONT



WATER RESOURCES

TOWN OF NORWICH, VERMONT



Sources

2015, Flood Hazard Areas, FEMA
 2019, Vermont Significant Wetlands Inventory, VTANR
 2019, Soil Survey, NRCS
 2013, AE/VCE Confirmed Vernal Pools, VTANR

Approximate Project location

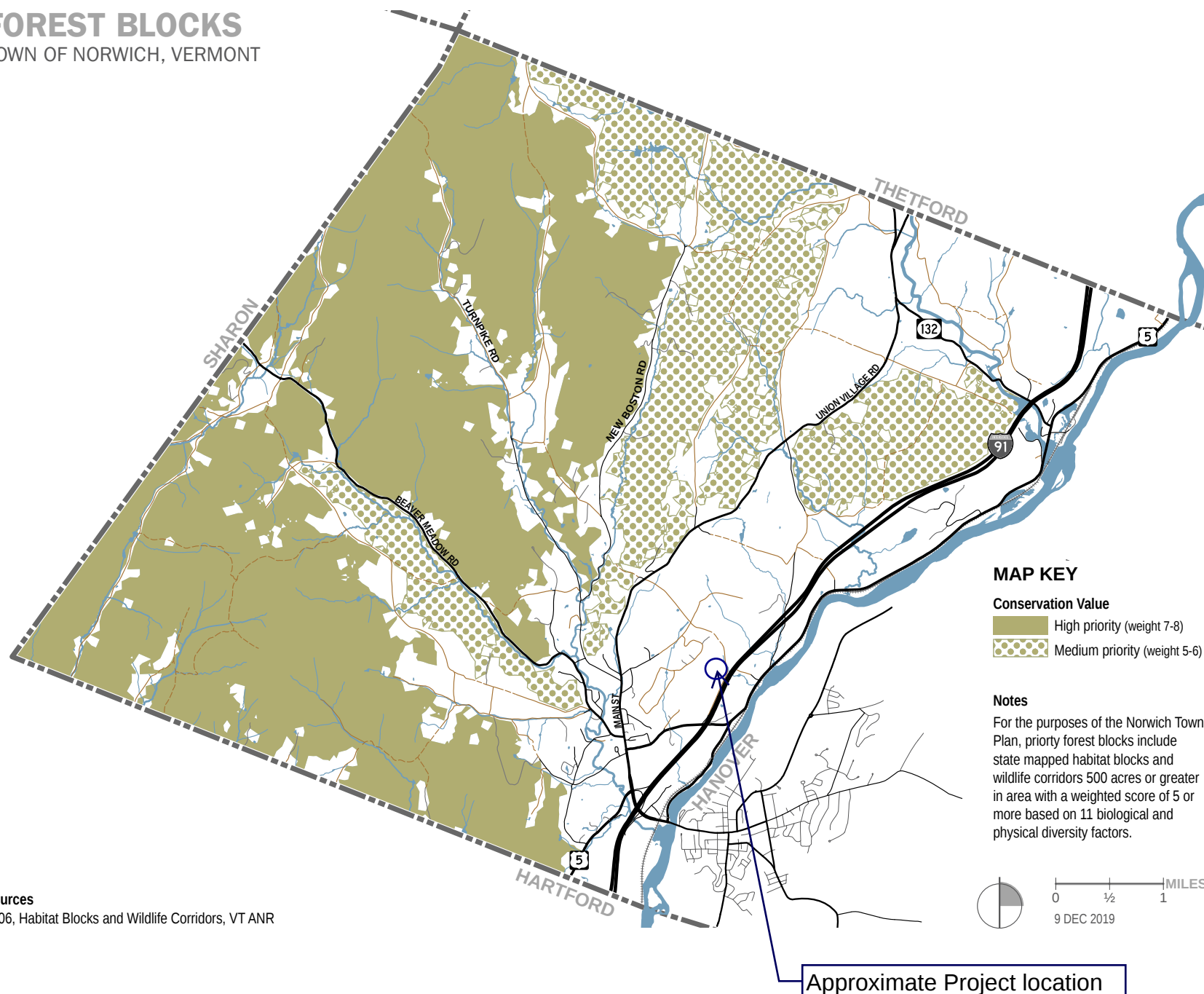
LAND USE

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ADOPTED MARCH 7, 2020

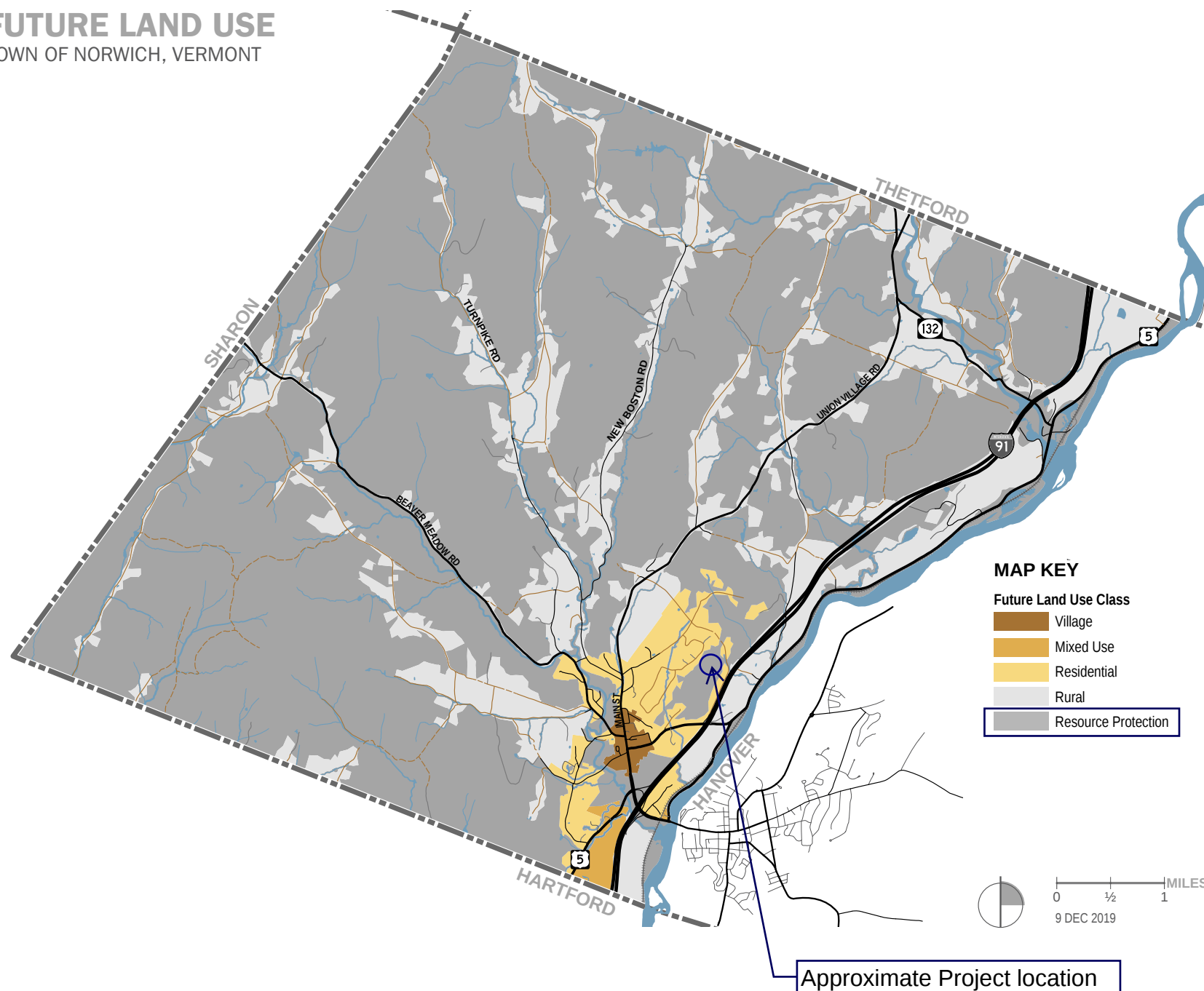
FOREST BLOCKS

TOWN OF NORWICH, VERMONT



FUTURE LAND USE

TOWN OF NORWICH, VERMONT



FUTURE LAND USE

TOWN OF NORWICH, VERMONT

