



UTILITIES

VISION: Our utilities will meet community needs and support desired development patterns. The Town will be on the forefront of innovative approaches to providing for the energy needs of businesses and residents.

STRATEGIES

COORDINATE

Land use goals with sewer service

ENSURE

Utilities meet current & future needs

MEET

Energy needs

Utilities

Residents and businesses depend daily upon utilities ranging from sewer and water to communications. The presence of certain utilities can help attract new businesses to a community.

Coordinate Land Use Goals with the Provision of Sewer Service

Two entities oversee the provision of and expansion of sewer service in Vernon: the Vernon Water Pollution Control Authority (WPCA) and the Bolton Lakes Regional WPCA. There are also some “private” sewage pipes that connect various developments to the public system.

Much of the land north of I-84 and in the southwest of town is served by Vernon WPCA public sewers. The area around Middle and Lower Bolton Lakes is scheduled to be served by sewers in order to minimize potential public health issues and environmental impacts to the lakes. Meanwhile, most of the less developed southeast part of town relies upon on-site septic systems.

The availability of public sewers impacts the amount of and type of development that a parcel of land can accommodate. Ultimately, the Vernon WPCA and Bolton Lakes Regional WPCA decide when and where sewers are to be extended. The Planning and Zoning Commission should work closely with both WPCAs to help meet land use goals. Such coordination will have added importance because the State now requires that sewer expansions are consistent with the State’s Plan of Conservation and Development. The State generally will not fund the expansion of sewers into conservation or preservation areas, as identified in the State Plan.

To attract additional business to the industrial park near Exit 66, sewers should be extended. However, this area is labeled as “conservation” and “preservation” on the State Plan map (see page 120), likely due to the presence of the Tankerhoosen River and the aquifer. As the State updates its plan, the Town should work with the State to address this inconsistency and develop options that will protect these water resources while allowing compatible development.

The remaining areas of Vernon would be considered “Sewer Avoidance” areas where the intent is to continue to rely upon on-site septic systems unless public health issues warrant sewer extensions. Vernon should monitor potential use of Alternative Treatment Systems (ATS) and determine if measures should be adopted (see sidebar).

Alternative Treatment Systems (ATS)

An ATS is an on-site sewage treatment system that pretreats effluent before it is discharged. This type of system is used in place of a conventional septic system.

Environmental organizations are compiling guidance for communities to ensure that if an ATS is proposed, the community has the tools in place to conduct an adequate review, ensure proper monitoring and determine accountability should a failure occur.

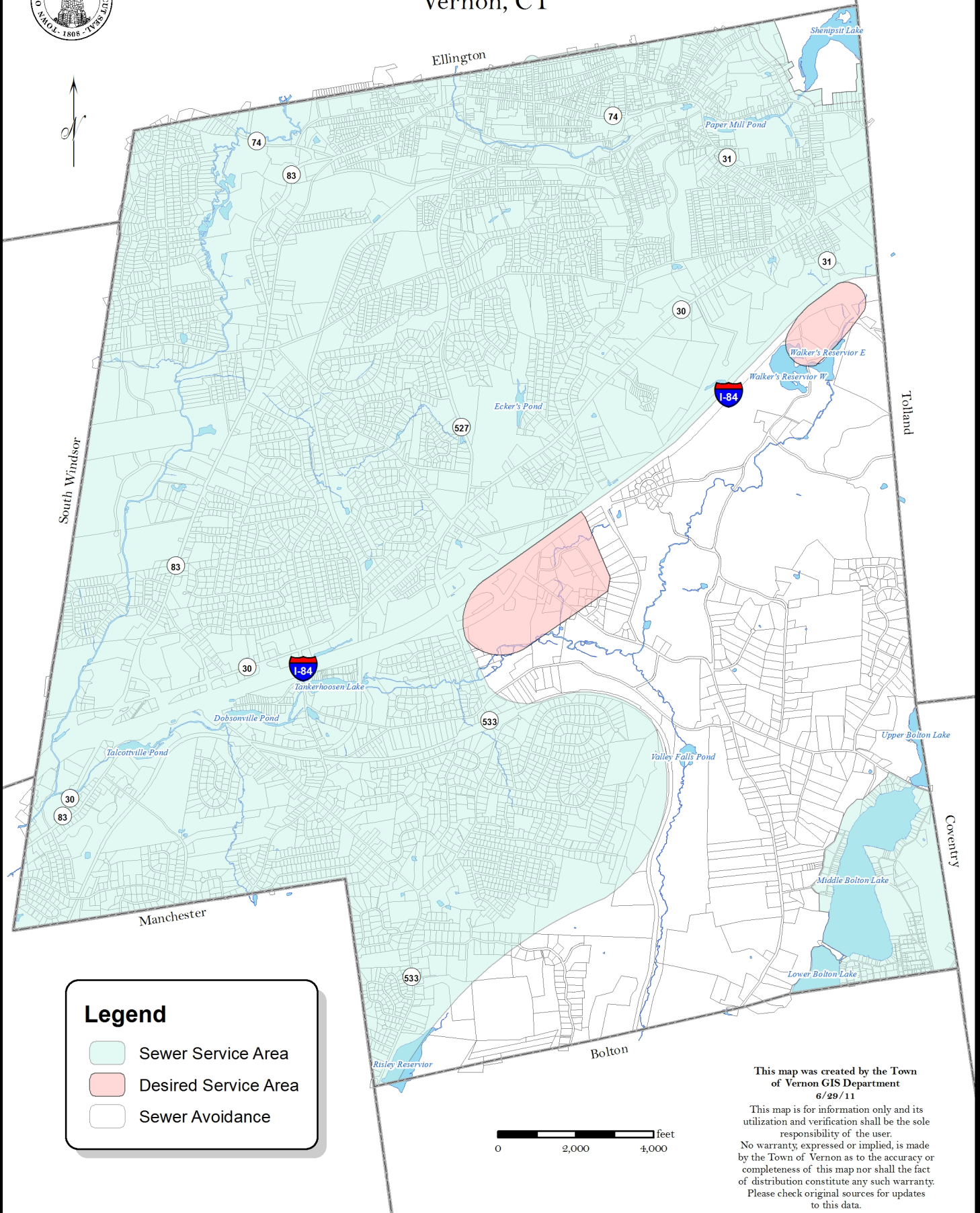
Coordinate Land Use Goals with the Provision of Sewer Service:

1. Work with the State and the WPCA to determine appropriate sewer extensions for business development purposes.






Sewer Service Plan

Vernon, CT



Legend

-  Sewer Service Area
-  Desired Service Area
-  Sewer Avoidance

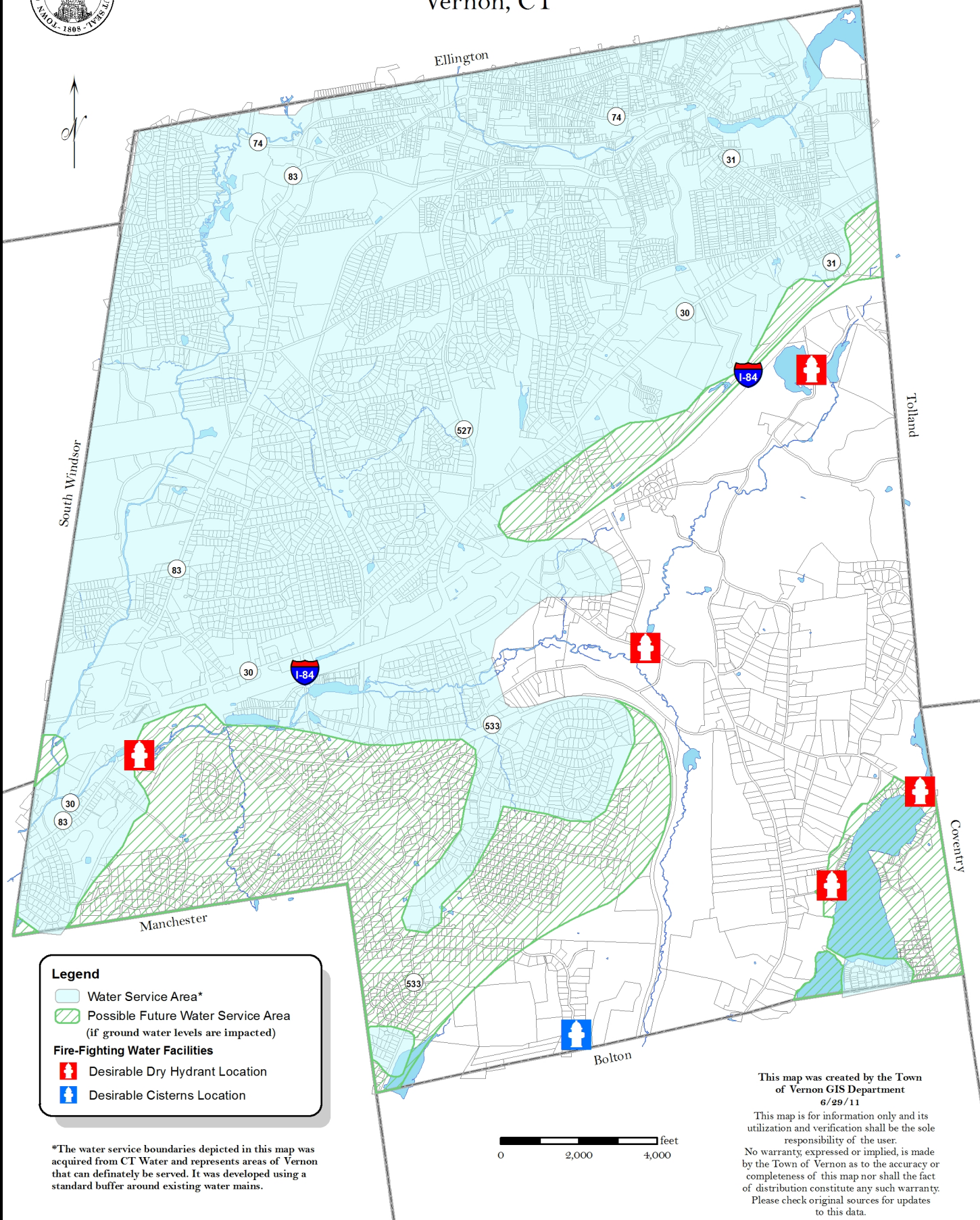
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6/29/11

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Water Service Plan

Vernon, CT



Vernon Wastewater Treatment Plant Allocations

| | % of Allocation |
|------------|-----------------|
| Vernon | 77.1% |
| Tolland | 5.63% |
| Ellington | 14.37% |
| Manchester | 1.28% |
| S. Windsor | 1.62% |

Ensure that Utilities Meet Current and Future Needs

Sewer

The most recent Sewer Facilities Plan was prepared in 1991 and partial updates were recently made when planning for treatment plant upgrades. While the plant has a capacity of 7.1 million gallons per day (mgd), actual discharge is between 3.5 to 4 mgd. Each community is allocated a portion of the full plant capacity (see sidebar).

In addition to possibly extending sewers, current and future needs related to existing sewer facilities include:

- Updating the Wastewater Facilities Plan. With additional plant upgrades required (see last bullet) the Wastewater Facilities Plan needs to be updated. The Plan would provide current and projected sewage flow from each community and could determine if there might be opportunities to sell extra capacity.
- Continued Maintenance. The Town upgrades pipes on an as-needed basis, but with some sewer pipes that are 120 years old, replacement could be necessary. Fortunately, according to local officials, the older pipes are in good condition.
- Additional upgrades to the Wastewater Treatment Plan. While recent upgrades helped to improve water quality, further upgrades will be needed to meet additional state environmental requirements.

Water

Vernon's residents and businesses obtain their water either from a water system or from on-site wells. A regional water provider, the Connecticut Water Company, is the predominant water provider to those properties on a public system. Overall they anticipate they can meet water needs of the region for at least the next 10 years.

There also are a number of smaller systems that provide water to a specific development or parcel. Issues or long term needs related to these systems were not identified.

As discussed on page 32, a number of properties south of I-84 that use on-site wells are hooked up to sewer systems. This will also be the situation around Bolton Lakes, once the new sewer system is built, and possibly other areas of the Town where sewers are extended to areas that do not have a public water supply. Because ground water will be transferred out of the watershed (well water to sewer system then discharged elsewhere), the situation should be carefully monitored to ensure that well water levels are not affected. Efforts to increase stormwater infiltration on-site (e.g., LID) could help mitigate water losses.

Finally, areas without public water need a source of water for fighting fires. The Fire Marshal and Fire Chief recommend that cisterns are installed at key locations in areas that lack public water service.

Drainage

The Town has begun mapping its drainage infrastructure so that there will be a complete inventory of the location and size of pipes and other structures. According to the Department of Public Works, continued inspections and maintenance of the existing drainage system is the priority. As discussed on page 37, the Town may wish to adopt additional protocols to ensure that privately owned drainage facilities are properly maintained.

The Town should pursue low impact development techniques, which promote on-site infiltration. Reducing the amount of storm water that runs off of properties (and into drainage pipes) relieves burdens on the Town's drainage infrastructure and can reduce the need for constructing and maintaining additional drainage structures (see page 37 for details).

Communications

Outside of upgrades to public safety communication systems, issues related to telephone, cable, cellular and other communications have not been identified. The Town has taken a proactive approach to meet its own communications needs by developing a fiber optic network. The Town should encourage providers to make available the most up-to-date communications systems in Vernon to attract businesses that depend upon such technology and to enhance residential quality of life. The Town could also provide free WiFi throughout the Town. This type of amenity can be important when attracting new businesses and can benefit home-based businesses.

Ensure that Utilities Meet Current and Future Needs:

1. Continue to maintain the sewer system and plan for upgrades as needed.
2. Longer term, monitor water levels in areas with on-site wells and public sewer service to determine if ground water levels are impacted.
3. Continue to inventory and maintain current drainage infrastructure.
4. Implement low impact development (LID) measures to reduce stormwater flow into the Town's drainage system.
5. Keep private utility providers apprised of future development potential to ensure adequate availability of utilities.
6. Ensure that Vernon offers up-to-date communication options.

Meet Energy Needs

Connecticut Light and Power (CL&P) provides electrical service in Vernon. Recent upgrades to the Rockville substation and the addition of new substations in surrounding towns have improved electrical service. CL&P anticipates having adequate capacity to serve Vernon over the next 10 years.

Yankee Gas provides natural gas service to parts of Vernon. To accommodate growth in natural gas use, upgrades to Vernon's facilities are planned. The process for the upgrade has begun and eventually will require approval by the Connecticut Department of Public Utility Control. Yankee Gas aims to have the new gate station on-line by 2012.

Workshop attendees expressed a desire to see the promotion of alternative energy options. The Planning and Zoning Commission may wish to review zoning regulations and amend as needed to accommodate appropriate alternative energy. The Town established an Energy Committee and has undertaken efforts to reduce energy consumption at town facilities such as Board of Education buildings and the Wastewater Treatment Plant.

The Town Council recently created an Energy Improvement District to facilitate the "sharing" of excess energy generated by smaller scale energy producers. Such a district can benefit businesses by reducing energy costs and by providing greater reliability. This district can help the Town achieve its business development goals.

Meet Energy Needs:

1. Continue to seek alternative energy approaches to reduce energy consumption and energy prices for businesses and residents.
2. Review zoning regulations and update as needed to allow appropriate alternative energy structures.

Chapter 7: Future Land Use Plan

In this Chapter:

**Future Land Use
Plan**

**Consistency with
State and
Regional Plans
and Policies**

About the Future Land Use Plan

The recommendations of the preceding chapters are combined into a Future Land Use Plan for Vernon. The Plan reflects the stated goals and recommendations; it should be used in conjunction with the plan maps found in the chapters.

It is important to note that the Plan is focused on the future – it does not imply that existing houses or businesses must “convert” to the future desired land use.

Future Land Use Plan

Natural Resources

| | |
|--------------------|---|
| Constraints | Exhibit significant environmental constraints (e.g., wetlands, watercourses, steep slopes, floodplain) and represent the highest priorities for preservation or conservation. |
|--------------------|---|

Residential

| | |
|-------------------------|--|
| Low Density | Single-family residential development is expected to occur at densities of less than 1 unit per acre or less based on current zoning and natural resource constraints. |
| Moderate Density | Single-family residential development is expected to occur at densities of less than 3 units per acre.* |
| Highest Density | Single-family residential development is expected to occur at less than 4.4 units per acre.* |
| Special Zones | Areas that have been developed with multi-family, planned residential, or mobile homes. |

Business and Other

| | |
|---------------------------------|--|
| Commercial Zones | Areas that have developed or are intended to develop for commercial uses. |
| Industrial Zones | Areas that have development or are intended to develop for industrial use. |
| Commercial / Industrial | Areas that might be suited for either commercial or industrial uses. |
| Mixed Use | Areas with a mixture of residential, business and civic uses in a downtown / village setting (Rockville). |
| Exit 67 Opportunity Zone | Area for business development that is planned and designed to create an attractive gateway to Vernon and to protect sensitive natural resources. |
| Exit 66 Opportunity Zone | Area for business development that warrants further study to determine appropriate uses and form. |
| Farm | Heritage farms. |

Open Space and Institutional

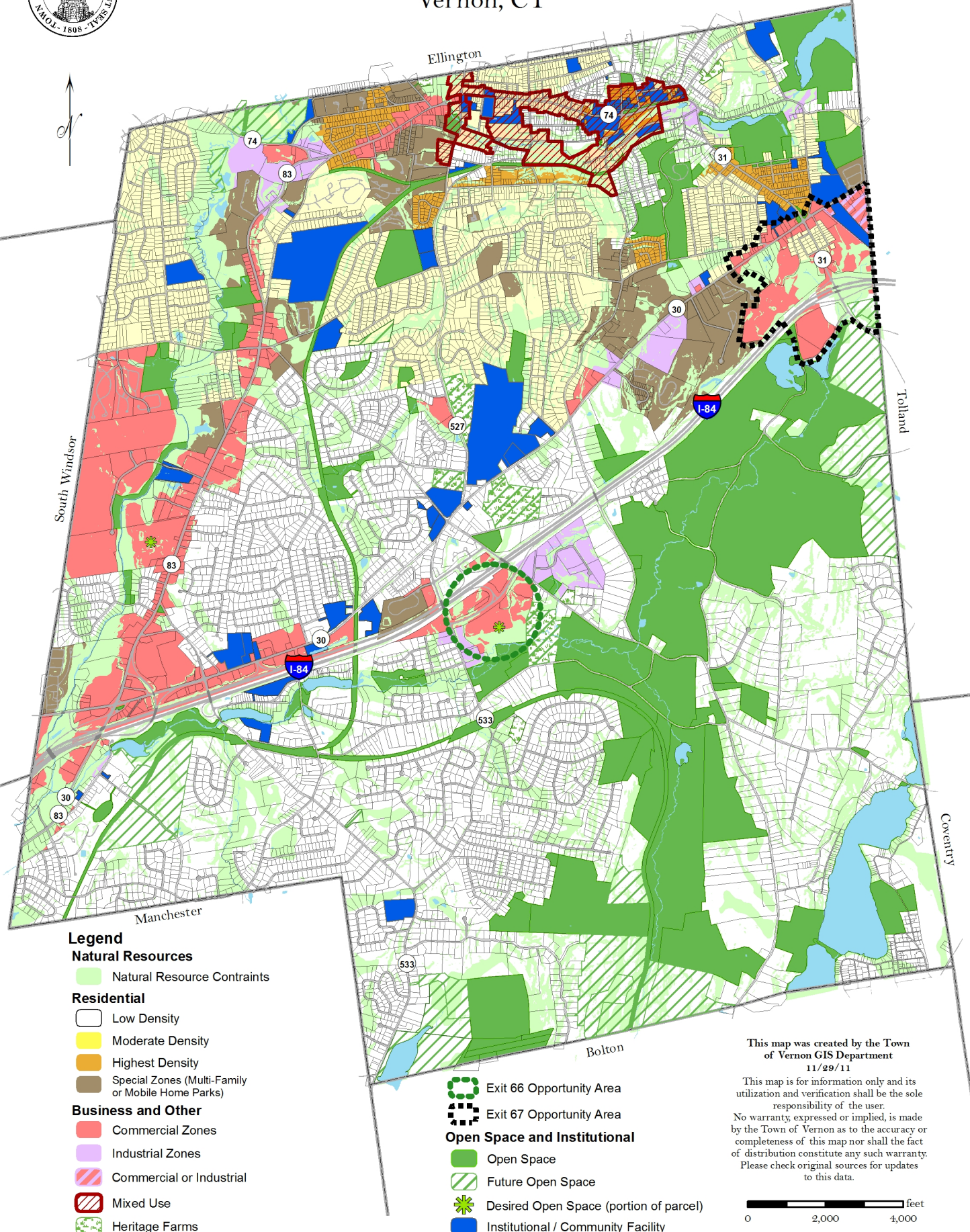
| | |
|---|--|
| Open Space | Land intended to remain for open space purposes (note that some community facilities also contain Open Space). |
| Future Open Space | Areas that would make a significant contribution to Vernon's Open Space network if preserved. Includes Managed Open Space. |
| Institutional / Community Facility | Existing public facilities and institutional uses (note that some community facilities contain Open Space). |

* Two-family dwellings are permitted by right and could double this density.



Future Land Use Plan

Vernon, CT



Legend

Natural Resources

- Natural Resource Constraints

Residential

- Low Density
- Moderate Density
- Highest Density
- Special Zones (Multi-Family or Mobile Home Parks)

Business and Other

- Commercial Zones
- Industrial Zones
- Commercial or Industrial
- Mixed Use
- Heritage Farms

- Exit 66 Opportunity Area

- Exit 67 Opportunity Area

Open Space and Institutional

- Open Space
- Future Open Space
- Desired Open Space (portion of parcel)
- Institutional / Community Facility

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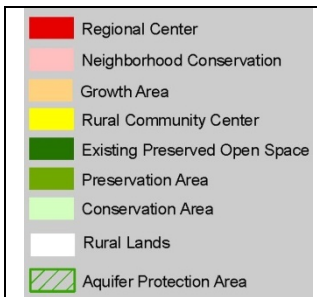
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Consistency with State and Regional Plans and Policies

In accordance with Connecticut General Statutes Section 8-23, the Vernon POCD was compared to:

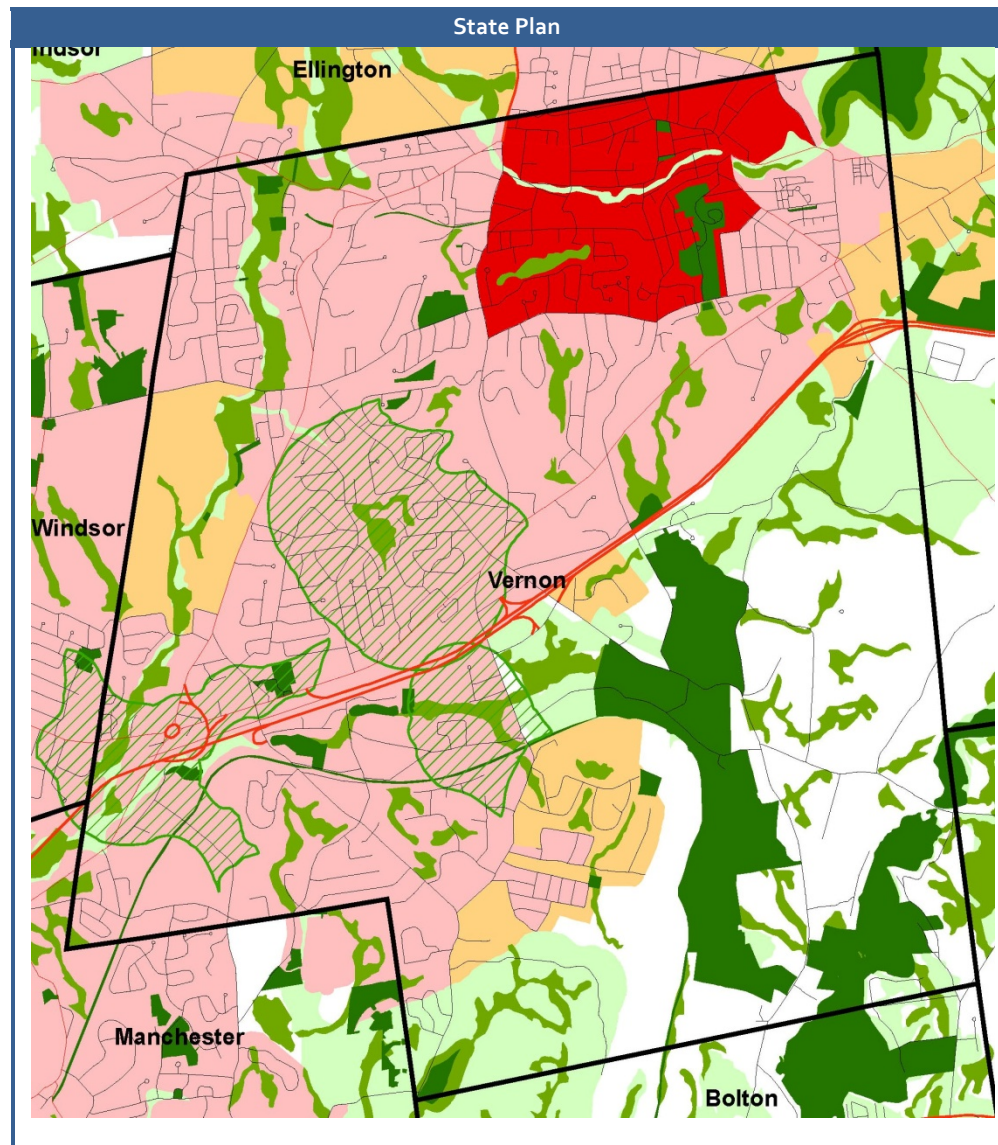
- 2005-2010 *Conservation and Development Policies Plan for Connecticut* (the most recent state plan),
- 2009 *Regional Plan of Conservation and Development*, and
- State Growth Principles

State Plan Map



The Vernon POCD is generally consistent with the State Plan map with one exception. This POCD supports continued business development adjacent to I-84 in the Exit 66 area and supports extending sewers to this business area.

The State Plan labels this area as Preservation and Conservation, likely due to the water resources located here. The Town should work with the State to determine options that will protect these water resources while allowing compatible development.



State Growth Principles

The Vernon Plan of Conservation and Development has been evaluated for consistency with the six State Growth Principles.

| State Growth Principle | Vernon POCD |
|--|---|
| Principle 1 - Redevelopment and revitalization of commercial centers and areas of mixed land uses with existing or planned physical infrastructure. | FINDING - Consistent Redevelopment / revitalization of Rockville is a key strategy in the POCD. Continued development in commercial areas is promoted; most such areas are served by sewer and water infrastructure. |
| Principle 2 - Expansion of housing opportunities and design choices to accommodate a variety of household types and needs. | FINDING - Consistent It is expected that Vernon will continue to provide an array of housing types, particularly affordable and rental opportunities. The POCD aims to attract more homeowners to better balance its housing stock. |
| Principle 3 - Concentration of development around transportation nodes and along major transportation corridors to support the viability of transportation options and land reuse. | FINDING - Consistent Future development is expected to occur mainly along major transportation corridors and in Rockville. Most of these areas are served by public transit. Vernon also has an extensive sidewalk network which the POCD aims to enhance and extend. |
| Principle 4 - Conservation and restoration of the natural environment, cultural and historical resources and existing farmlands. | FINDING - Consistent Protecting natural resources, particularly water resources, is a key component of the POCD, along with preserving historic buildings and remaining working farms. |
| Principle 5 - Protection of environmental assets critical to public health and safety. | FINDING - Consistent Protecting natural resources, particularly water resources, is a key component of the POCD. |
| Principle 6 - Integration of planning across all levels of government to address issues on a local, regional and state-wide basis. | FINDING - Consistent Many strategies in the POCD require continued collaboration with regional and state entities, especially regarding transportation issues. |

Regional Policies

The Vernon Plan of Conservation and Development has been evaluated for consistency with the goals set forth in the Regional Plan. The Vernon POCD is consistent with the Regional Plan map also.

| Regional Plan | Vernon POCD |
|--|---|
| <p>Conservation Goals</p> <p>Natural Resource Conservation</p> <ul style="list-style-type: none"> • Protect air, water, and soil quality in the region • Grow and develop in harmony with natural resources • Promote active natural resource stewardship <p>Watersheds and Water Quality</p> <ul style="list-style-type: none"> • Improve and maintain water quality • Protect water supply and increase water conservation efforts • Reduce nonpoint source pollution • Continue combined sewer overflow and point-source pollution discharge reductions • Use innovative wastewater treatment techniques for new developments <p>Open Space and Farmland Preservation</p> <ul style="list-style-type: none"> • Support protection of more open space in the region • Encourage preservation of farmland in the region • Encourage preservation of water company land as open space • Coordinate and prioritize open space preservation throughout the region • Expand and protect open space along major rivers <p>Food System</p> <ul style="list-style-type: none"> • Preserve the Capitol Region's working lands • Improve regional residents' access to food resources • Improve the health and nutrition of the region's population • Reduce environmental impacts of the food system | <p>The Vernon POCD provides for the continued preservation and conservation of natural resources, with a focus on reducing pollution, and improving and maintaining water quality. The POCD recommends many strategies including zoning updates and continued open space protection to protect resources.</p> <p>The POCD sets a goal of continued preservation of open space and identifies desirable future open space parcels. Open space has played and is expected to continue to play an important role in protecting rivers in Vernon.</p> <p>The POCD also supports the preservation of remaining heritage farms.</p> |

| Regional Plan | Vernon POCD |
|--|--|
| Development Goals | The Vernon POCD generally recommends that future growth occur in areas with existing sewer, water and transportation infrastructure. Redevelopment in Rockville and of vacant buildings is important. |
| Land Use and Zoning <ul style="list-style-type: none"> • Guide growth to regional centers and areas of established infrastructure • Increase redevelopment and infill development efforts • Revise zoning and subdivision regulations to address local and regional land use concern | The POCD recommends numerous updates to land use regulations to achieve land use goals. |
| Public Water and Sewer Service <ul style="list-style-type: none"> • Ensure an adequate and high quality water supply • Reduce environmental impacts of sewage discharge • Use existing water and sewer infrastructure to guide future growth • Balance water supply and ecosystem considerations | The POCD supports updating the Wastewater Facilities Plans and upgrades needed to improve water quality. The POCD includes a strategy to align sewer infrastructure with desired future growth. Possible future issues related to a balanced water supply are identified in the POCD, particularly for the Bolton Lakes area. |
| Transportation <ul style="list-style-type: none"> • Provide a range of viable transportation options within the region • Improve interregional and interstate transportation • Coordinate land use, environmental, and transportation efforts • Anticipate and plan for future transportation needs | The POCD accounts for a range of transportation options including public transportation, biking and walking. The POCD addresses overall circulation and access, and other land use / transportation related issues. |
| Housing <ul style="list-style-type: none"> • Increase the range of choice in housing for people of all incomes and all ages, especially for those who have the least choice • Enforce Federal and State fair housing laws • Encourage and support the maintenance of viable residential neighborhoods • Support preservation of region's rental housing stock, and expansion of housing opportunities for renters • Continue to improve the transportation system to better link housing, jobs and services, thus expanding housing choices | Vernon currently provides an array of housing choices, particularly for renters. The POCD aims to better balance the Town's housing stock and promote homeownership. The POCD includes strategies to maintain existing neighborhoods. It is anticipated that new multifamily / residential developments would occur in or near bus corridors and include sidewalks which can help better connect residents of those developments to jobs and services. |
| Economic Development <ul style="list-style-type: none"> • Revitalize Hartford as the economic, residential, entertainment, and cultural center of the Capitol Region • Coordinate and promote regional land use, infrastructure, and fiscal policies for economic development • Increase the recognition of a regional identity • Maintain a focus on workforce development • Support and improve regional business development strategies and efforts | The POCD includes a range of economic development strategies to increase the tax base, and provide jobs and services to Vernon residents and residents of the region. |

Chapter 8: Conclusion

In this Chapter:
Conclusion

Conclusion

This Plan of Conservation and Development aims to maintain a high quality of life in a cost-efficient manner and to help Vernon prepare for and address changes and challenges that the future may hold. The Plan can aid the Town in its land use decisions for the next decade.

Ultimately, the Plan sets forth overarching goals that will likely remain important to residents over the next decade. The Plan is intended to be flexible, however, as the actions and specific strategies to achieve these goals (and the goals themselves) might change over time. In some cases, new trends or challenges may emerge that warrant a re-thinking of strategies. In other cases, new tools, resources, and knowledge might present new ways to address issues highlighted in this Plan.

In all cases, the Vernon Plan of Conservation and Development will be most effective if viewed as a living document that serves as a guide to the Planning and Zoning Commission, other boards and commissions, and other decision-makers. Implementation will be key. We invite our residents to help us with this important task.