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MIDDLEBURY PLAN OF CONSERVATION AND DEVELOPMENT



September 24, 2015

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1. Introduction

Purpose of the Plan

Chapter 126 Section 8-23 (a)(1) of the Connecticut General Statutes requires that at least once every ten years, a planning and zoning commission prepare or amend and adopt a Plan of Conservation and Development. Although a State requirement, the most important function for a Plan is to help guide the future growth and development of the Town, through a series of coordinated goals, policies and strategies. The Plan should record the best thinking of the Town as to its future physical growth and development and to give direction to both public and private development.

The Plan should encompass a long term vision of the community, but while its objectives are long-range, the Plan should be capable of offering guidance for short-range land use decisions upon adoption. Although it is often difficult to address immediate issues and problems with long-range concepts and principles, short term solutions without respect to long-term purposes can dilute, even nullify the ultimate effectiveness and impact of the immediate solution.

The 2001 Plan of Conservation has been the guide for the Town over the past decades. Upon review, the Planning and Zoning Commission determined that much of the existing Plan was still valid, and that a strategic update was appropriate, which should include select issues. Much of the 2001 Plan remains valid, such as the section concerning Environment, Open Space and Transportation. These sections represent issues which the Town has been successful in their implementation, or issues which have not changed over the past decade. Therefore, this plan update concentrates on the following elements:

- Middlebury Center
- Affordable Housing
- Update of Demographic Information
- Consistency of Plan with State and Regional Plans
- Selected Land Use Areas of Town
- More Specific Regulations
- Housing
- Municipal Fiscal Environment

The other sections of the 2001 Plan remain in place as the official POCD.

Statutory Requirements

The statute states that all plans shall consider the following:

1. The community development action plan of the municipality, if any.
2. Need for affordable housing.
3. Need for protection of existing and potential public surface and ground drinking water supplies.
4. Use of cluster development and other development patterns to the extent consistent with soil types, terrain and infrastructure capacity with the municipality.
5. State Plan of Conservation and Development.
6. Regional plan of development.
7. Physical, social economic and governmental conditions and trends.
8. Human resource, education, health, housing, recreation, social services, public utilities, public protection, transportation, cultural and intercommunication needs.
9. Objective of energy efficient patterns of development; use of solar and other renewable forms of energy and energy conservation.
10. Protection and preservation of agriculture.

The plans shall:

- A. Be a statement of policies, goals and standards for the physical and economic development of the municipality.
- B. Provide for a system of principal thoroughfares, parkways, bridges, streets, sidewalks, multipurpose trails and other public ways.
- C. Promote, with the greatest efficiency and economy, the coordinated development of the municipality, and the general welfare and prosperity of its people, and identify areas where it is feasible to (i) have compact, transit accessible, pedestrian-oriented mixed use development patterns, and (ii) to promote such development patterns and land reuse.
- D. Recommend the most desirable use of land within the municipality for residential, recreational, commercial, industrial, conservation and other purposes, and include a map showing such proposed land uses.
- E. Recommend the most desirable density of population.

- F. Note any inconsistency it may have with the State Plan of Conservation and Development.
- G. Make provisions for the development of housing opportunities, including opportunities for multifamily dwellings consistent with soil types, terrain and infrastructure capacity for all residents of municipality and region.
- H. Promote housing choice and economic diversity in housing, including housing for both low and moderate income households.

The statute also states that the Plan may make recommendations for:

- 1. Conservation of trap rock and other ridgelines.
- 2. Airports, parks, playgrounds and other public grounds.
- 3. General location, relocation and improvement of public buildings.
- 4. General location of public utilities and terminals.
- 5. Extent and location of public housing projects.
- 6. Programs for the implementation of the Plan, including schedule, budget, program for enactment and enforcement of zoning and subdivision regulations, implementation of public housing, plans for open space acquisition and greenways.

2. Goals and Objectives

Goals and objectives are the essence of a Plan of Conservation and Development. They are intended to articulate the visions of the plan and ways in which these visions can be retained. Goals are general statements which articulate the vision and direction of the plan. Objectives are more specific, in that they indicate a direction for strategic implementation.

The following goals and objectives were formulated by the Commission in their review of the 2001 Plan:

Overall Goal

1. Maintain the semi - rural, small town character of Middlebury.
2. Recognize that there is a limited need for additional residential growth, beyond what has already been permitted. Therefore, the additional needs for residential development can be met with the construction of approved projects, as well as the development of small residential subdivisions consistent with the semi-rural character of the Town and environmental limitations of the land.
3. Promote the economic growth of Middlebury in a way to preserve the character of the Town, as well as provide an environment for modern emerging industries. This will require the most efficient use of properties designated for commercial and industrial development to avoid the creation of commercial sprawl throughout the Town.
4. The Plan is intended to guide the growth of Middlebury into an environmentally sustainable community, appropriate for a modern semi-rural community of the 21st century.

Open Space and Environment

Goal

Middlebury should protect significant environmental resources, including Lake Quassapaug, forested land around Long Meadow Pond and preserve its natural environments and maintain its semi-rural character.

Objectives

1. Maintain standards for insuring the protection of stream belts.
2. Encourage dedication and acquisition of the areas along the primary waterways within the Town, including Hop Brook and Long Meadow Pond as open space greenbelts throughout the Town. These greenbelts would preserve environmentally sensitive open space areas and provide the potential for pedestrian travel.
3. The protection of wildlife in Town is important. There should be encouragement and efforts made for the protection of wildlife corridors throughout the Town. This can be done by public acquisition or the use of conservation easements. The Conservation Commission can assist by identification of those corridors.
4. Work with private land trusts and local homeowners' associations to ensure the perpetual dedication of important natural features within the Town, particularly in subdivisions.
5. Continue to protect ponds and wetlands and, where possible, secure their dedication to a private land trust. Preserve the quality of existing ponds.
6. Preserve farmland, woodlands, wetlands, scenic vistas, steep slopes and ridgelines through the use of easements, conservation restrictions and land use regulations.
7. Continue to refine a protection plan for Lake Quassapaug which includes the continuation of a conservation zone for the lake, its headwaters and its immediate vicinity, as shown on map of watersheds.
8. Consider private recreational uses that encourage open space preservation and recreational use, such as golf courses.
9. Avoid the further extension of sewers to additional areas in Middlebury, except where problems exist with on-site disposal systems.
10. Develop standards for a ground water protection ordinance regulating use, storage (retention, detention and recharge) and disposal of hazardous material.
11. Work toward 20 percent of Middlebury's land to be permanently protected as open space.
12. Protect the scenic vistas and ridgelines of the Town. This can be accomplished with the use of various tools, such as revision to the zoning regulations, and subdivision regulations, as well as open space acquisition or protection.

Transportation

Goal

Middlebury should develop a transportation system that moves traffic efficiently while preserving, as far as possible, the historic character of most of the road network.

Objectives

1. Continue to work with the State Department of Transportation to implement plans for the intersection of Routes 63 and 64, in accordance with the character of the community.
2. Work with the State Department of Transportation to devise a plan for streetscape, access control, and pedestrian circulation of the area along the area of Route 64 in the area of Middlebury Center – Four Corners to enhance the business environment of the area.
3. Encourage direct vehicular and pedestrian access between adjacent commercial areas. This would have the benefit of increased safety, as it would reduce the number of turning actions on the public road. It would also reduce the need for driveways.
4. Continue to implement standards for streets within subdivision that provide for the safe passage of traffic while preserving the more rural character of the town roads.
5. Monitor the Oxford airport and State plans so that both highway and airport impacts on Middlebury are minimized. Continue the abatement plan to be done in conjunction with any planned improvements to the airport.
6. Continue to designate scenic roads, where appropriate, such as of Regan, Tranquility and Spring Roads.
7. Encourage safe pedestrian travel in all areas, especially where there are existing and potential Greenway interchanges with roadways.
8. Encourage pedestrian circulation within the Route 188 Gateway district.

Housing

Goal

Middlebury should retain single-family detached housing as its primary residential type, while allowing for a range of alternative housing types and densities consistent with maintaining the Town's character and quality of life.

Objectives

1. Revise the residential cluster regulations to restrict it to single-family detached units at densities consistent with what would be permitted by the existing and/or underlying zoning.
2. Develop regulations which provide more affordable housing opportunities for residents of Middlebury by allowing a small density increase in housing development which dedicate a certain number of units as affordable, in accordance with State Statutes.
3. Continue to encourage residential developments to preserve significant amounts of open space and critical environmental features.
4. Avoid the construction of sewer extension and new systems, except where needed to alleviate existing problems.
5. Formulate lakeside design districts for the Long Meadow and Tyler's Cove areas.
6. Maintain regulations and methods to provide adequate housing designed exclusively for the unique and special needs of the elderly, including congregate housing and life care facilities.
7. Strive to provide for acquisition of land to be used for the construction of elderly housing by private developers.
8. Encourage the development of more elderly housing, for those residents 62 and over who may not be able to otherwise afford to remain in Middlebury, or who have special medical or financial needs. However, there is no need for additional 55 and over age-restricted market rate housing, as has been widely developed in the region, as there is a significant surplus.

Economic Development

Goal

Middlebury should continue to develop a diversified economic base of service, industrial and retail businesses consistent with the planned character of the Town.

Objectives

1. Provide for community oriented shopping facilities within the Town, while relying on surrounding towns for regional shopping needs.
2. Work with large corporate employers to assure a pleasing working environment and minimal impacts in terms of traffic and other Town services.
3. Increase the commercial and industrial components of the Grand List in order to stabilize the tax base.
4. Develop a plan for provision of community facilities and the institution of development guidelines for industrially zoned area of the community.
5. Participate in a joint marketing and development strategy for the newly enacted Oxford Airport Development Zone in cooperation with the towns of Oxford and Southbury.
6. Promote the improvement of the Four Corners area as the commercial center of Middlebury in a manner consistent with market forces into a modern functional town center to meet the needs of the residents for the twenty-first century. This includes improvements to make the area more comfortable for residents and conducive for business development.

Community Facilities

Goal

Middlebury should provide needed community facilities and services in a timely and cost efficient manner.

Objectives

1. Strive to maintain a volunteer fire department while providing rapid response times to emergency calls.
2. Acquire additional public parkland for the expansion of passive recreational facilities
3. Maintain a mandatory recycling program for solid waste in accordance with Connecticut State law.
4. Maintain a sewer avoidance policy which restricts sewage system expansion to areas presently adjacent to the system.
5. Maintain and expand the municipal water system where there are problems with on-site wells and for reasons to promote adequate fire protection.
6. Amend zoning and subdivision regulations to provide for efficient and environmentally appropriate storm water treatment in accordance with contemporary environmental procedures.
7. Recognize that the Town Hall is adequate to serve the needs of the Town within the foreseeable planning period of ten years.
8. Preserve the historic character of the area around Middlebury Green, including the Town Hall, Westover School, and the other historic buildings.

3. Open Space and Environment

This section describes Middlebury's environmental setting, open space resources, and the manner and means of protecting these assets to ensure Middlebury's long term appeal as a desirable place to live and work. Middlebury's topology and soil conditions provide some natural limitations to development, and afford opportunities to preserve scenic open spaces, ridgelines, forested hillsides, and habitat for wildlife, while allowing for managed storm drainage and protection of aquifers. In addition to natural scenic beauty, Middlebury has many historic and cultural resources that need to be preserved and enhanced.

Middlebury has 15 % of its 11,810 acres of open space in permanent protection. Well planned tradeoff is needed between the pressure for tax base expansion, and the infrastructure and ongoing maintenance costs of relinquishing open space to development. These issues, with recommendations are detailed in subsections 5.1 to 5.5.

Environmental Setting

Topology and Drainage

Middlebury is located in the northwestern portion of New Haven County. The western part of the county is located in the New England uplands. The basic topology, formed by the retreat of the glaciers, consists of a series of ridges and valleys generally running north and south.

Elevations in the community range from 310 feet, at the surface elevation of the Hop Brook reservoir, to 973 feet at the top of Great Hill. The typical elevation range is 500-700 feet

Most of the community is in the drainage basin of the Naugatuck River which eventually drains into the Housatonic River. The majority of the Town falls within the Hop Brook sub-basin on the Naugatuck basin. This basin drains 6603 acres. The Long Meadow Brook sub-basin drains an additional 2677 acres.

Along Middlebury's western border, the Eight Mile Brook basin covers 2318 acres. Eight Mile Brook starts at Lake Quassapaug and empties into the Housatonic River.

A very small portion of Middlebury, 178 acres, is within the Naugatuck River basin, which runs through Woodbury before becoming the Naugatuck River and draining into the Housatonic in Southbury. The Cedar Swamp is the major water source within this basin.

The hills and valleys of the Town make topology one of the major limiting impediments to development. 20.2% of the land in Middlebury consists of slopes above 15%. Slopes of 15-25% present significant development constraints. Slopes above 25% are generally

considered unbuildable because of septic system and road siting constraints. In addition steep slopes have very shallow depths of bedrock and are often characterized by rock outcroppings.

The Town could develop a zoning regulation limiting development in areas with significant environmental restraints. Such a regulation would require a "minimum square area" of a certain size in which a septic system and building space could be placed.

Soils

Soil conditions limit development potential in much of Middlebury. As defined by the Soil Conservation Service, the Town is composed of three main soil associations as follows:

Paxton-Woodbridge-Ridgebury consists of fragipan or drumloidal glacial till uplands. Its major constraint to development is that the Woodbridge and Ridgebury soils have slow permeability because of the fragipan layer, making septic system development difficult.

Charlton-Hollis-Leicester consists of gently sloping to steep soils on broad glacial till plains. Here the major constraints to development are the shallow depths to bedrock of the Hollis soils and the wetness of the Leicester soils, both limits to septic system development.

Hollis-Charlton-Rock Outcrop consists of glacial till uplands with bedrock outcrops. Major limiting factors include the frequent rock, then shallowness to the bedrock of the Hollis soils and steep slopes.

Broad generalizations about soil associations are helpful in showing that significant portions of the community face development constraints. A more detailed review of soil types is contained in the soil survey of New Haven County, CT. published by the Soil Conservation Service.

Middlebury's soils are divided into three classifications; those suitable for development, those marginally suitable and those considered unsuitable. Relative to development potential, 26% of the Middlebury's vacant land is considered suitable for development, 27% marginal and 46.1% unsuitable because the soil is very rocky and extremely steep or consists of waterbodies, wetlands, swamps or very poorly drained soils.

Protection of soil resources is particularly important during the development process where erosion and sedimentation can occur. Having the proper soil types is also critical for maintaining functioning septic systems over the long term.

Surface Water, Ground Water and Aquifers

Most Middlebury residents draw their ground water directly from individual wells on site. Small portions of the Town are served by public water supplies. Due to the underlying geology, most supplies must be obtained from fractured rock aquifers as opposed to

more prolific sand and gravel aquifers such as those found in neighboring Woodbury and Southbury along the Pomperaug River. Some small, more productive aquifers do exist and are noted on the aquifers map.

Groundwater protection is a major environmental concern. Groundwater supplies can become contaminated from a variety of sources such as synthetic chemicals from gas stations or dry cleaners, leachate from landfills, salt stored or spread on roads in the winter, septic system contamination or agriculture wastes.

The State of Connecticut has published a guide titled "Protecting Connecticut's Groundwater", which discusses various strategies for ensuring groundwater quality and supply. The guide notes that any groundwater protection ordinance should protect all sources of groundwater, including bedrock aquifers and should regulate existing development as well as proposed uses.

The state has regulations in place that govern underground fuel storage and the disposal of hazardous wastes from large users. Regulation of small users is limited.

A more pressing need in Middlebury exists with respect to the protection of surface water resources. Almost 400 acres of the community are lakes and ponds that are irreplaceable community resources. Long Meadow Pond and Lake Quassapaug in particular face stress from surrounding developers.

In the Long Meadow Pond area, sewer services can be extended to serve new residential development. Such service does not exist in the Lake Quassapaug area. On the shores of both lakes, former summer cottages have been converted to year round use, and the Quassapaug Amusement Park is located on the shores of Lake Quassapaug. As part of a protection scheme for Lake Quassapaug, a conservation zone with three acre minimum lot size (R-120) was recommended in the 1990 POCD to ensure low development densities around the Lake. Particular attention should be paid to enforcement of erosion and sedimentation controls in the area. A buffer zone has been established providing a minimum setback from the lakeshore. In that 100 foot restricted area no building, soil excavation or removal of trees is allowed without a special permit from the Wetlands Commission in Long Meadow Pond, algae blooms and eutrophication are problems. The Town should work with the owner of the pond to improve the situation, possibly through a drawdown of the water level to allow compaction of sediment and removal of weeds. Septic system inspection and enforcement programs should also make Lake Quassapaug and Long Meadow Pond a priority.

The Lake Quassapaug Association has hired a consultant to complete a study on the lake's water quality and invasive weeds by the end of 2014. The study outlines the significant expansion of two invasive weeds: variable milfoil and Eurasian milfoil over the past ten years in Lake Quassapaug and cites the importance of managing the invasive weeds before they become pervasive around the entire perimeter of the lake. Eutrophication of the two major coves – Tyler's and Big Coves - is also an issue due to the dense growth of milfoil and lilies that decompose in the coves. The Town should work with the association to develop and implement a five year plan for the treatment

and prevention of invasive weeds and for treatment of any water quality problems found by the study.

Wetlands and Floodplains

Middlebury has regulations in place which limit construction and protect both wetland and floodplain areas. In Connecticut wetlands are defined by soil type. Those soil types that are designated as poorly drained, very poorly drained, alluvial, and floodplain are considered wetlands. The actual boundaries of the wetland are determined by site investigation during the development process. Wetlands play a crucial role in the community by serving as a natural filtering and stormwater detention system and by providing unique habitats for flora and fauna.

Currently, development is regulated on wetlands identified within Middlebury, based on State mapping. Where the Wetlands and Conservation Commission deem appropriate, applicants are requested to conduct a soils survey when zoning and building approvals are sought. The survey, performed by a registered soils scientist, can more accurately identify wetland areas. This practice of wetlands identification should be required of all applicants when a zone change, subdivision of land or commercial building request is filed.

Floodplains are regulated under a program of the Federal Emergency Management Agency (FEMA) that maps their boundaries and provides insurance to property owners in communities participating in the program. Development within 100-year floodplains (a 100 year floodplain is one that has 1% chance of occurring within a given year) is inherently dangerous and therefore strictly regulated.

As there is interest in developing the Town Center into a more vibrant and user -friendly area, care must be taken to limit overall growth and have any growth that does occur, done in an environmentally sensitive way. Run off and erosion need to be mitigated as any increase in run off from new buildings and pavement that may replace existing natural areas will negatively impact downstream areas of Long Swamp Brook and Hop Brook and the people that live there.

The development of greenbelt systems along floodplains also provides an opportunity for preservation of open space. Such streambelts can also represent a recreational resource if hiking and biking trails are constructed.

Scenic and Cultural Resources

The natural environment of Middlebury presents residents and visitors with a wide variety of outdoor experiences. Scenic vistas of hillsides, farms, lakes and ponds are apparent throughout the Town. Scenic and historic roads have also been designated within the Town and are protected by Connecticut statute (Section 7-149a). It was along one of those designated roads (White Deer Rock) that General Rochambeau

marched his army on the way to Yorktown. Quassy Amusement Park and swim area, located on the shore of Lake Quassapaug and dating from 1909 is a historic resource as well as a family oriented fun area. The Larkin State Bridle Trail, which takes advantage of a discontinued 1880 built rail line, takes people via foot, horseback, bicycle, skis, snowshoes, through history and extraordinary natural surroundings.

The Middlebury Center Historic District, listed on the National Register in 1985, includes the churches, Town Hall, Westover School, and the Library, mostly surrounding the central green. The Westover School is additionally significant in that it was designed by Theodate Pope Riddle, one of America's first female architects. Rachel Carly completed a Historic and Architectural Survey of Middlebury in 2010 with additional recommendations for listing in the National Register, including Biscoe Farm on South Street, Fenn's Farm on Artillery Road, and several other buildings. The oldest surviving house in Middlebury was built by Josiah Bronson on Breakneck Hill Road in 1738. The house also served as a tavern and hosted French officers of Rochambeau's army during the Revolutionary War.

The planned restoration of the Nichols Road house, built in the early 1700s and surrounded by 126 wooded acres is an example of successful Town cooperation, initiated by Middlebury's Historic Society to save an important artifact. The Town needs to continue to support the preservation of the scenic, cultural and historic resources that are essential elements of Middlebury's character.

Forests and Farms

Mature stands of forests, cultivated fields, and pastureland are spread throughout town and give the town its semi-rural character. Some of the forests are large protected woodlands, for example Juniper Hill (130 acres) off Route 63, while others are smaller tracts that add natural beauty to the town by their location on a local roadway or by their occurrence in residential areas, as the forest along Tucker Hill. Given Middlebury's rich farming history, the fields that remain in cultivation or in pastureland are important historically and for their scenic quality. Variety in farmland is shown in the large fields that look over Lake Quassapaug from Upper Whittemore Road and in the small cornfield off Route 64. Fenn's Farm, recently acquired by the town and the Middlebury Land Trust is one of the most significant properties in town, with views of the historic farm and its fields against a backdrop of a typical New England forest. While Fenn's Farm is protected into perpetuity by easements, other natural lands are not. Attempts should be ongoing to secure more of these significant fields and forests, large and small, as permanently protected open space.

Pathways and Hiking Trails

Middlebury is blessed with a Greenway that crosses the town from east to west along Route 64. The Greenway is well used by walkers and runners. With its landscaped borders, it adds a bit of scenic beauty to our main thoroughfare. The CT State Bridle Trail traverses the southern end of the town through mature forests, providing a

wonderful opportunity for horseback riding and running. In addition we have several areas that have marked trails on Land Trust Property that are open to the public. Trails have been established around Lake Elise, through Juniper Hill, the Clark Tract, and the CT Water Company Land. Lastly a 3 mile forested trail called the Foote Trail connects Abbot Pond to Sperry Pond (Juniper Hill). This maintained trail travels through a variety of forests and wetlands. As much as possible connections should be designed between those parcels of open space that are presently protected to encourage more footpaths, hiking trails, and establish wildlife corridors.

Open Space Resources

Although Middlebury has areas of commercial and suburban development, scattered throughout town are natural landscapes in the form of fields, forests, and wetlands including lakes and ponds. It is these small and large natural areas that give Middlebury its overall semi-rural character. That these areas exist is due, in part, to the public and private efforts at open space preservation. A significant amount of open space has been permanently protected but a large percentage remains protected only through the wishes of its current owners. Table 5.1 presents data on the composition of all of Middlebury's open space resources, including those permanently protected and those not.

TABLE 3-1 OPEN SPACE RESOURCES

| | | |
|--|--------|---------------|
| I. Permanently Protected Open Space: | | |
| Land Trust | | |
| Flanders Nature Center | 61 | |
| Middlebury (in fee) | 646 | |
| Easements except those on town owned land | 205 | |
| Federal Land (Hopbrook) | 249 | |
| State Land (Bridle Trail) | 32 | |
| Town Owned Land (parks and restricted) | 519 | |
| Brookside and Avalon Farms Open Space | 85 | |
| Total: | 1797 | = 15% of town |
| II. Other Open Space Resources (not permanently protected) | | |
| Region 15 owned land | 88 | |
| Town Owned Land (not restricted) | 252 | |
| Private Recreational Space | | |
| Quassy, McDonald, QYC, MSC, Tennis Center | 52 | |
| Public Act 490 | 2323 | |
| Total: | 2715 | = 23% of town |
| Total Town Open Space: | 4,512 | = 38% of town |
| Total Town Acreage: | 11,810 | |

Permanently protected open space consists of those lands that are dedicated to open space preservation and cannot be developed. The largest tracts are owned or held in easement by the Middlebury Land Trust. For each MLT property, management plans are currently being developed to maintain the health of the forest, fields or wetlands and develop trails. Federal Land consists of Hopbrook Forest and Recreation Area and State Land is the land on which the Bridle Trail is located. Town owned protected open space consists of public parks; Bristol, Meadowview, and Ledge wood, and recreation areas; the Little League Fields, and the MRA. The Town recently acquired two significant open space parcels by the CT Water Company Land (126 acres) in the east central region of the town and those adjoining Ridgewood (175 acres). Private Association land includes dedicated open spaces in Brookside and Avalon Farms.

The second category of open space includes town and privately owned land that is not protected from further development in the future. Region 15 land contains all the public schools in the area that may be surrounded by playing fields or passive open space. The town owned land may contain buildings (Shepherdson, Town Hall and Library, for example) and may be further developed in the future. Private land that is currently in open space includes recreation areas on Lake Quassapaug, and a large tract of land owned by White Deer Rock Land Corporation in the northwestern region of the Town owns 495 acres that includes mature forests, wetlands, and a private golf course (Highfield Country Club). Westover School (144 acres), and the Timex Corporation (75 acres) contain large areas of open space and natural landscapes in addition to buildings and recreational areas. White Deer Rock Land Corporation and Timex are counted in Table 5.1 under Public Act 490.

Other very significant resources are those lands classified as farm or forest under the Pubic Act 490 program. Owners are eligible for the assessment reduction if one of the following conditions is met:

- The farmland is active and an owner derives a certain percentage of his/her income from farm production, or
- A minimum of 25 acres is forested and is approved by a state forester.

In Middlebury, owners of 2323 acres of land take advantage of this program, down from 3156 acres in 2001. Property owners incur a penalty if the land is changed or if it is sold. The penalty is based on a percentage of the sale price and decreases the longer the property has been in the program. After 10 years, no penalty is incurred upon sale or development.

Committed Open Space

State statutes allow the Planning and zoning commission to establish the community standard for a third category of open space through the Plan of Development. The standard, if adopted and mapped, would allow for a reduced tax assessment for parcels not meeting definitions of forest or farmland but which, in the eyes of the community, have a high value as open space.

The 4,512 acres of open space represents approximately 38% of the total land holdings in Middlebury. Of this 38%, the land controlled by land trusts represents 8% of the total area, town owned dedicated open space represents 4%, and federal, state and privately dedicated open space accounts for another 3%. Permanent protection therefore is assured for only 15% of this land. Open space and rural landscapes are vital to the preservation of the town's character and quality of life. This protection will also benefit the town by providing protection for our underground water, providing areas for passive recreation, and encouraging rich diverse growth of native plant thereby leading to healthy diverse forests and wetlands. The largest least fragmented natural forests are in the southern and northern areas of town. These acres are not permanently protected and plans should be put in place to preserve into perpetuity as much of this land as possible. The ongoing challenge for the community is to provide permanent protection to 25% of our town land, to preserve our most important natural features and open spaces, including farms in addition to forests and wetlands. This will give residents a wholesome and enriching environment in which to live.

Preservation Mechanisms

A variety of techniques are available for the preservation of open space and the protection of environmentally sensitive areas.

Town Purchase and/or Land Trust Purchase

Opportunities should continue to be sought to preserve through purchase, important natural lands and scenic vistas. In 2006 the town bought Fenn's Farm to be preserved in perpetuity. The Middlebury Land Trust holds an easement on the farmland and forest surrounding the homestead. Although fiscal constraints may limit future opportunities for the town to purchase open space outright, this kind of collaboration may be useful in the future. It is vital that the town and the Middlebury Land Trust be proactive in their pursuit of open space parcels of value. Particularly important are large tracts of non-fragmented forest, cultivated farmland, and parcels that represent a needed link in our open space system.

Dedication to the Town or Land Trust

The town and Middlebury Land Trust will have the opportunity, through future subdivision development, to take title to additional land. The town, through the Planning and Zoning Commission, is in a position to restrict re-subdivision and to protect lands through open space dedication to a land trust, town or association. It is in a position to choose the land within a development that benefits the town, protects valuable open space and wetlands, and makes connections to other protected parcels of open space. In general, the town should only accept land that is unique, enhances the rural character of the town, or offers additional opportunities for passive or active recreation. The Planning and Zoning Commission functions as the informal coordinator of the open space system in Middlebury. In most cases land from subdivisions has been dedicated to the land trust who are probably best suited for stewardship of the land.

Dedication to Homeowner's Associations

Open space or cluster subdivisions offer an opportunity to protect more open space than is usually donated by developers in standard subdivisions. In such instances, land from subdivisions may be dedicated to homeowners' associations for upkeep and maintained as open space. The town should insure that the area dedicated to the association contains sufficient land without significant environmental constraints so that there are opportunities provided for recreation within the development. The Town should also inspect the homeowners' association documents in an attempt to insure that any association created will remain viable. Provisions should be made for the Town or a private conservation organization to take such open space in the event it is abandoned by a homeowners' association, abused or not used for its intended open space or recreational uses.

Conservation Agreements, Restrictions and Easements

Conservation easements are often used to provide permanent protection of open space areas without the actual deeding of full property rights. Land owners agree to restrict the density and future development rights of the property, often in exchange for tax advantages from the reduction in its value. In many cases, the location of future development is restricted.

The non-profit Land Trust is the most likely candidate for developing and administering such agreements. Wetlands and land that is currently in the Public Act 490 tax assessment reduction program are the most likely candidates for conservation restrictions. In addition, such restrictions could be used for the preservation of scenic views and ridgelines.

Linkages, Streambelts, and Wildlife Corridors

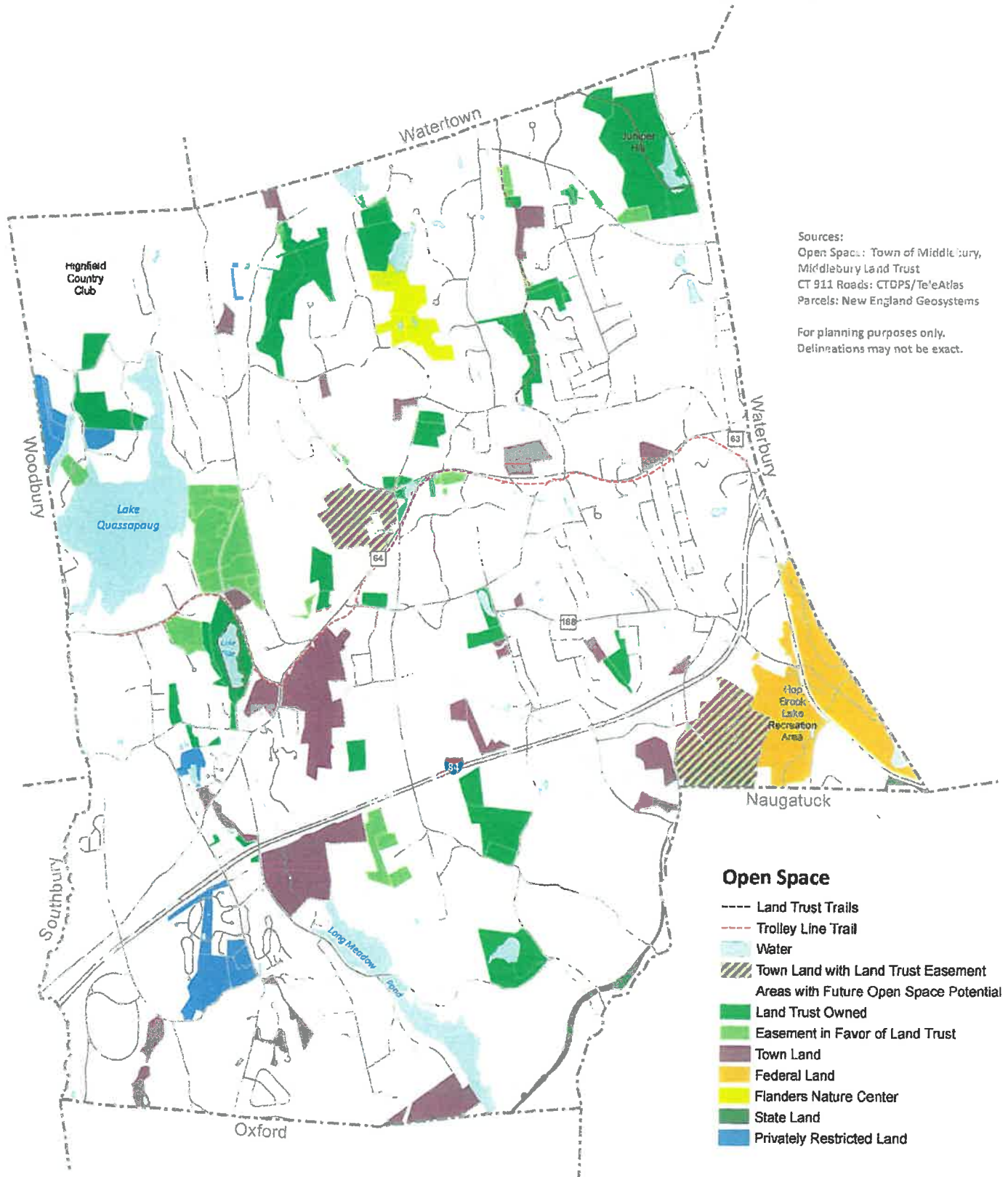
Streambelts offer excellent opportunities for linking open space areas. In Middlebury, a good start has been made on preserving portions of the Hopbrook floodplain. This effort should be continued and the possibility of developing a hiking and biking trail along the streambelts of Goat Brook, Long Swamp Brook, and Hopbrook pursued. In addition to building pedestrian trails, corridors should be established to facilitate migration and dispersal of wildlife. Habitat fragmentation caused by highways and dense development is a serious threat to wildlife as it may isolate populations and reduce species richness. Although corridors may vary in size and composition, their goal is to structurally connect open space habitats. Riparian corridors can serve that purpose by linking populations that are dependent on isolated wetlands or by linking natural areas along a streambelt to allow for wildlife movement. The Planning and Zoning Commission and the Land Trust should make note of permanently protected open space areas throughout the town that lie in close proximity but need connectivity. Efforts need to be made toward preservation of these potential wildlife corridors particularly along streambelts.

Open Space Preservation and Environmental Objectives

The following are general recommendations for continuing and enhancing Middlebury's open space policies:

- Procurement of unique open space areas by the Town or in collaboration with the Land Trust. Priority targets should include Bronson Meadow and Sperry Pond.
- Development of protective easements along boundaries of lakes, ponds, major brooks, wetlands
- Preservation of farms, forests, ridge lines, steep slopes, scenic vistas
- Limited expansion of the Town Sewer system
- Prevention of development within floodplains
- Development of appropriate open spaces for educational/recreation use
- Connection of open space segments within the Town and between towns to create natural corridors for hiking and wildlife
- Continuation of refinements to the protection plan for Lake Quassapaug
- Emphasis on achieving 25% of Middlebury's land to be permanently protected open space.

Middlebury Committed Open Space



0 0.5 1 2 Miles



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4. Demographic Information

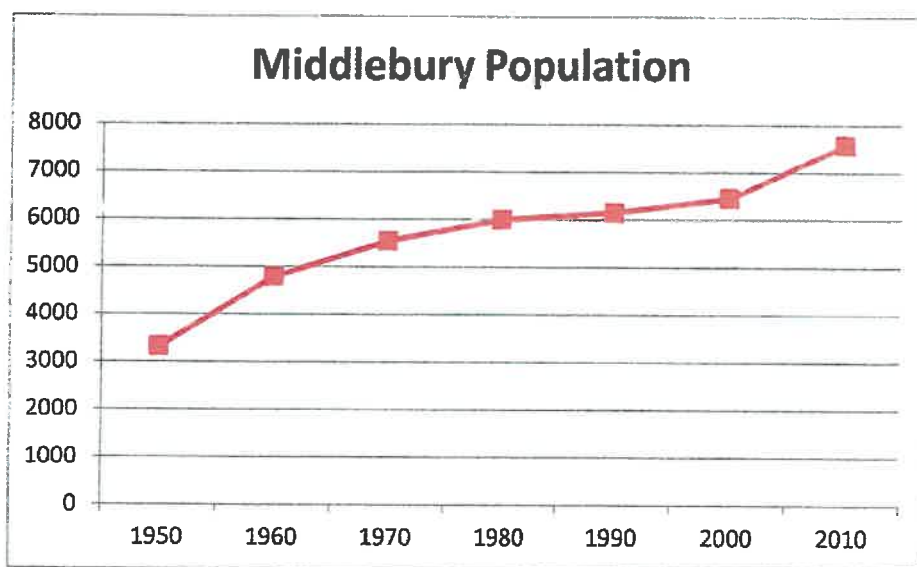
In the formulation of a Plan of Conservation and Development, it is important to evaluate trends and the current situation in the Town. We are fortunate to be updating the plan as the 2010 Census data becomes available, because the use of 2000 Census data is irrelevant. However, only a limited amount of Census data has been released.

The following data will provide important information for consideration by the Commission as they review the goals and policies of the plan:

TABLE 4-1 POPULATION GROWTH IN MIDDLEBURY

| Year | Population | Increase | % Change |
|------|------------|----------|----------|
| 1950 | 3318 | | |
| 1960 | 4785 | 1467 | 44.2 |
| 1970 | 5542 | 757 | 15.8 |
| 1980 | 5995 | 453 | 8.2 |
| 1990 | 6145 | 150 | 2.5 |
| 2000 | 6451 | 306 | 5.0 |
| 2010 | 7575 | 1124 | 17.4 |

Source: 2010 US Census



The data above shows that the population of Middlebury has more than doubled since 1950. The largest increase occurred during the decade of the 1950's, but the increased population during the first decade of the twenty-first century was almost as large, dwarfing the increases during the previous four decades.

TABLE 4-2 AGE GROUPS IN MIDDLEBURY 2010

| Subject | Number | Percent |
|--------------------|---------------|----------------|
| Total population | 7,575 | 100.0 |
| Under 5 years | 355 | 4.7 |
| 5 to 9 years | 562 | 7.4 |
| 10 to 14 years | 584 | 7.7 |
| 15 to 19 years | 506 | 6.7 |
| 20 to 24 years | 287 | 3.8 |
| 25 to 29 years | 248 | 3.3 |
| 30 to 34 years | 266 | 3.5 |
| 35 to 39 years | 532 | 7.0 |
| 40 to 44 years | 593 | 7.8 |
| 45 to 49 years | 639 | 8.4 |
| 50 to 54 years | 611 | 8.1 |
| 55 to 59 years | 588 | 7.8 |
| 60 to 64 years | 502 | 6.6 |
| 65 to 69 years | 408 | 5.4 |
| 70 to 74 years | 272 | 3.6 |
| 75 to 79 years | 212 | 2.8 |
| 80 to 84 years | 201 | 2.7 |
| 85 years and over | 209 | 2.8 |
| Median age (years) | 43.9 | (X) |
| 16 years and over | 5,946 | 78.5 |
| 18 years and over | 5,712 | 75.4 |
| 21 years and over | 5,509 | 72.7 |
| 62 years and over | 1,607 | 21.2 |
| 65 years and over | 1,302 | 17.2 |

Source: 2010 US Census

The age data shows a generally older population in Middlebury, with a median age of 43.9; and more than 17% of the population 65 and older.

TABLE 4-3 HOUSING TENURE 2010

| | Number | Percent |
|---------------------|--------|---------|
| Owner – Occupied | 2449 | 89.1 |
| Renter – Occupied | 299 | 10.1 |
| Total Housing Units | 2748 | 100.00 |

The Town of Middlebury remains a community with an overwhelming predominance of owner-occupied dwelling units.

TABLE 4-4 EDUCATIONAL ACHIEVEMENT IN MIDDLEBURY

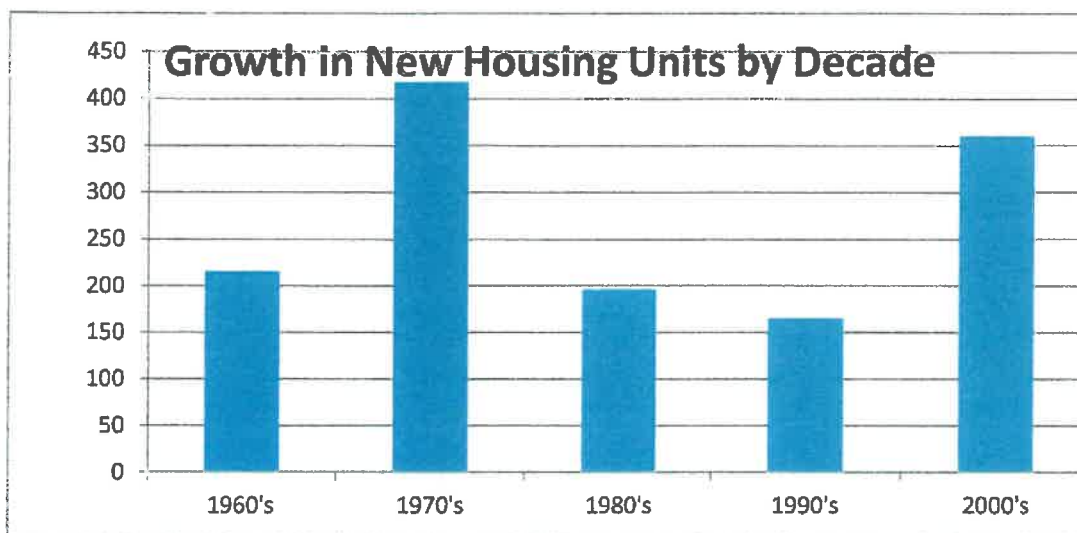
| | Total | Male | Female |
|---|--------------|--------------|--------------|
| Population 25 years and over | 4,971 | 2,484 | 2,487 |
| Less than 9th grade | 2.7% | 1.7% | 3.7% |
| 9th to 12th grade, no diploma | 3.3% | 4.5% | 2.2% |
| High school graduate (includes equivalency) | 21.0% | 18.6% | 23.4% |
| Some college, no degree | 18.5% | 22.3% | 14.7% |
| Associate's degree | 8.5% | 7.0% | 9.9% |
| Bachelor's degree | 25.8% | 27.6% | 24.1% |
| Graduate or professional degree | 20.1% | 18.3% | 22.0% |

Middlebury is a highly educated community, with over one-half of the 25 and older population holding college degrees.

TABLE 4-5 GROWTH IN HOUSING UNITS

| Year | # of Housing Units | Increase | % Change |
|-------------|--------------------|------------|-------------|
| 1960 | 1533 | | |
| 1970 | 1749 | 216 | 14.1 |
| 1980 | 2168 | 419 | 24.0 |
| 1990 | 2365 | 197 | 9.1 |
| 2000 | 2531 | 166 | 7.0 |
| 2010 | 2892 | 361 | 14.3 |

Source: 2010 US Census



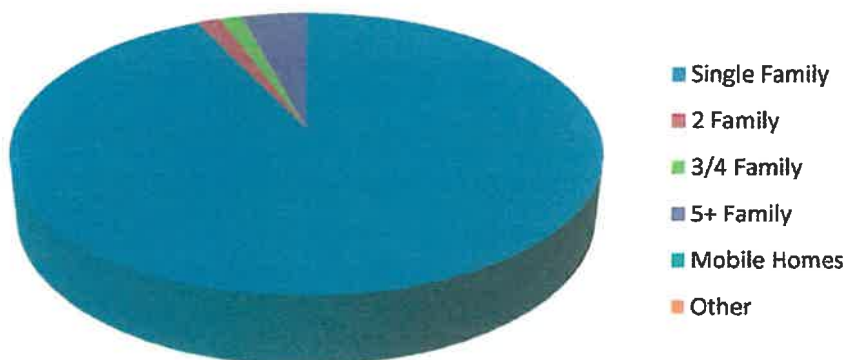
The growth in housing units in Middlebury during the past decade more than doubled the housing growth during the 1990's, and exceeded the growth within all decades during the past half-century, except the 1970's.

TABLE 4-6 HOUSING UNITS BY TYPE OF STRUCTURE

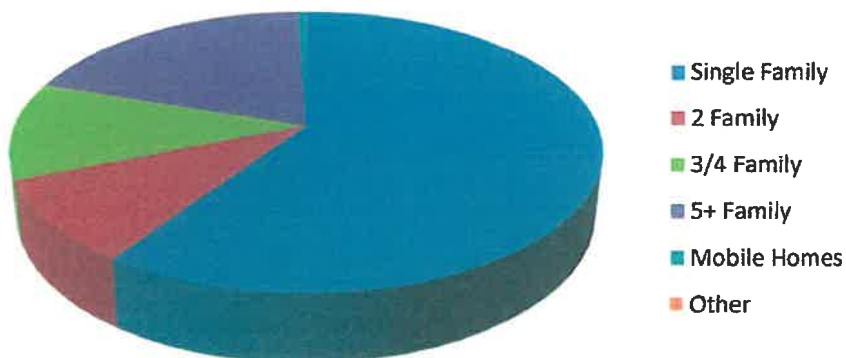
| Type of Structure | Percent Distribution/ Middlebury | Percent Distribution New Haven County |
|-------------------|-------------------------------------|--|
| Single Family | 92.9 | 59.4 |
| 2 Family | 1.5 | 9.4 |
| 3/4 Family | 1.4 | 11.2 |
| 5+ Family | 4.2 | 19.3 |
| Mobile Homes | 0 | 5.4 |

Source: 2010 US Census

Distribution of Housing Types - Middlebury 2010



Distribution of Housing Types - New Haven County 2010



The housing stock of the Town of Middlebury is overwhelmingly single-family, however, this data, from the State Department of Economic and Community Development, includes townhouses as single-family (attached) units.

5. Housing

The Connecticut State Statutes require that the housing situation of a community, including affordability, be analyzed as a component of the Plan of Conservation and Development Update. This is particularly important as it is likely to change over the interim periods between the required decennial Plan Updates.

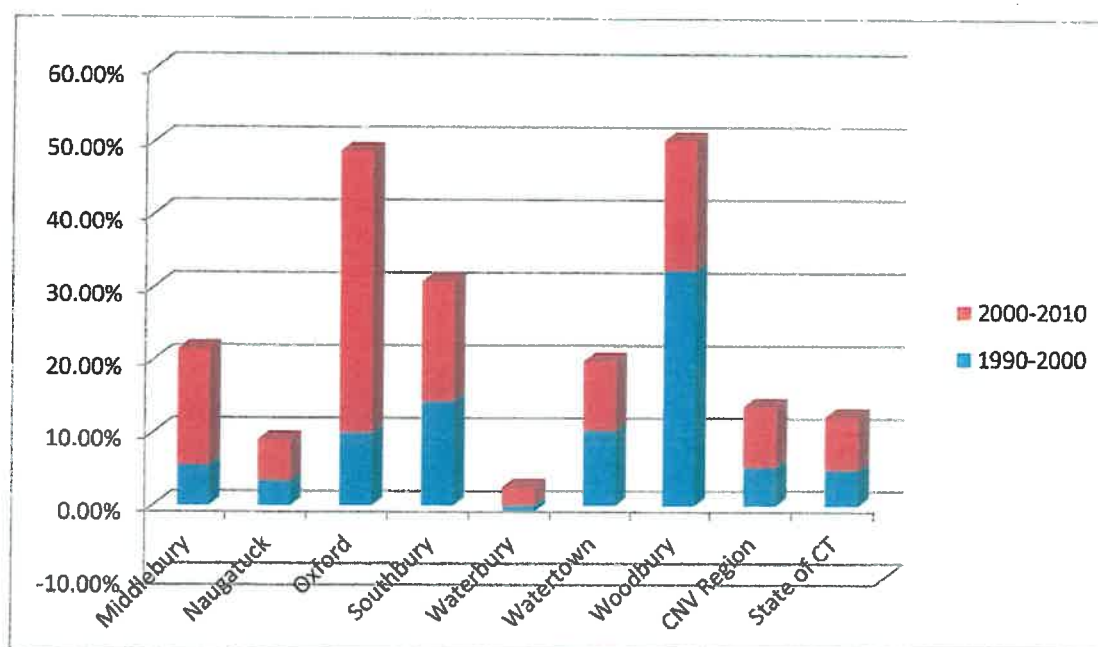
Existing Housing Conditions

It is important to assess the existing housing conditions of Middlebury and compare it with historical trends and conditions in neighboring communities of the Central Naugatuck Valley. The following information provides the basis for this analysis and is largely derived from the report by the Council of Governments of the Central Naugatuck Valley; entitled "A Profile of the CNVR: 2011."

TABLE 5-1 HISTORICAL NUMBER OF TOTAL HOUSING UNITS – MIDDLEBURY, SURROUNDING TOWNS AND CENTRAL NAUGATUCK VALLEY REGION 1980-2010

| Geographic Unit | Total Housing Units | | | | Percentage Change | |
|-----------------|---------------------|-----------|-----------|-----------|-------------------|-----------|
| | 1980 | 1990 | 2000 | 2010 | 1990-2000 | 2000-2010 |
| Middlebury | 2,168 | 2,365 | 2,494 | 2,892 | 5.5% | 16.0% |
| Naugatuck | 9,728 | 1193 | 12,341 | 13,061 | 3.4% | 5.7% |
| Oxford | 2,197 | 2,030 | 3,420 | 4,746 | 10.0% | 38.8% |
| Southbury | 5,835 | 6,826 | 7,799 | 9,091 | 14.3% | 16.6% |
| Waterbury | 40,854 | 47,205 | 46,827 | 47,991 | -0.8% | 2.5% |
| Watertown | 6,618 | 7,522 | 8,298 | 9,096 | 10.3% | 9.6% |
| Woodbury | 2,924 | 2,924 | 3,896 | 4,564 | 32.3% | 18.0% |
| CNV Region | 88,159 | 104,295 | 109,780 | 118,975 | 5.3% | 8.4% |
| State of CT | 1,158,884 | 1,320,850 | 1,385,975 | 1,487,891 | 4.9% | 7.4% |

PER CENT OF INCREASE OF HOUSING UNITS – MIDDLEBURY, SURROUNDING TOWNS, REGION AND STATE



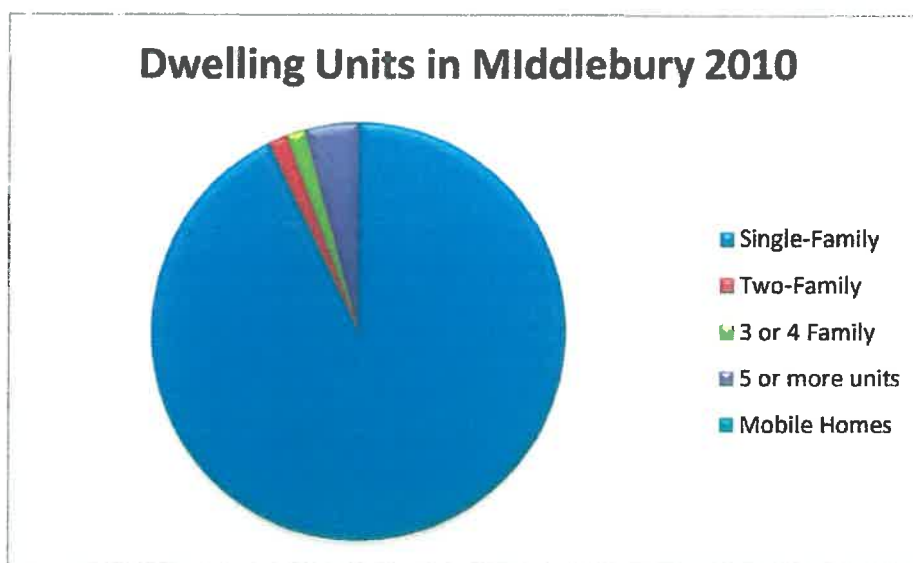
The chart above indicates the percentage growth of housing units within area towns over the past two decades. Middlebury has higher growth rates than the overall rates of the State or the Region, but lower rates than the nearby communities of Oxford, Southbury and Woodbury.

TABLE 5-2 DWELLING UNIT DISTRIBUTION IN MIDDLEBURY - 2010

| Unit Type | Number of Units |
|-------------------|-----------------|
| Single-Family (1) | 2698 |
| Two-Family | 43 |
| 3 or 4 Family | 42 |
| 5 or more units | 122 |
| Mobile Homes | 0 |

Source: Connecticut Department of Economic and Community Development; Compiled by Turner Miller Group New England

(1) Single-Family units include both detached and attached units.

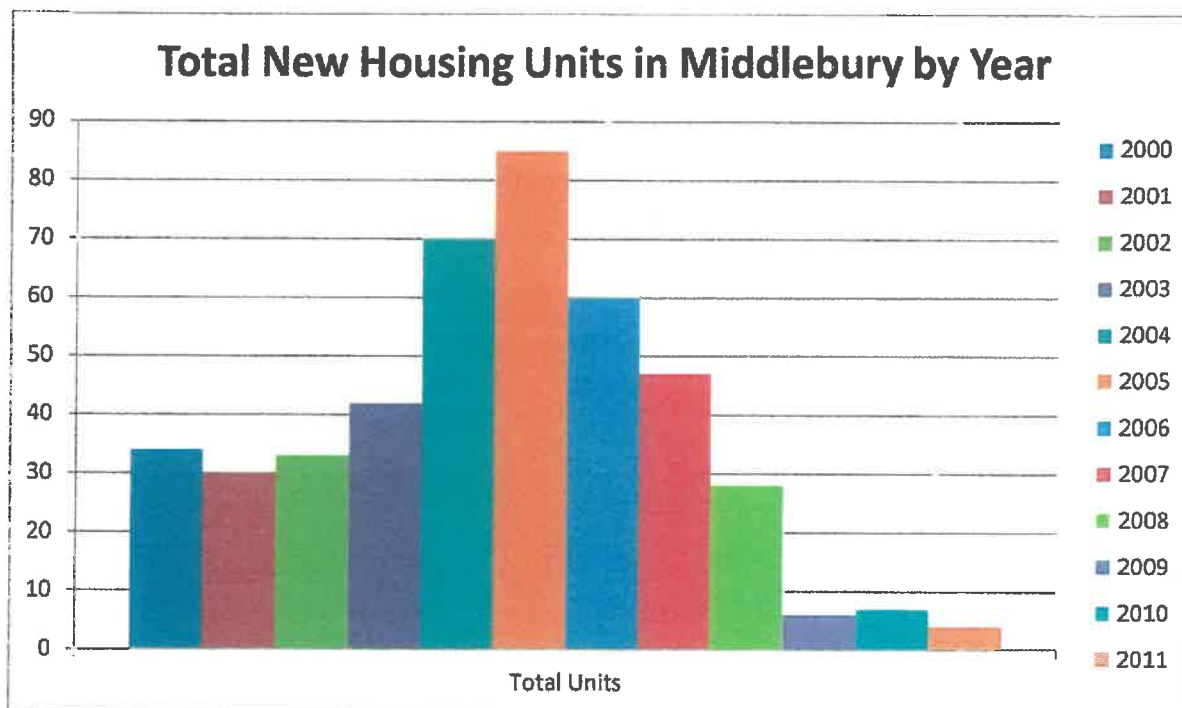


The housing stock of Middlebury consists overwhelmingly of single-family residences. The Department of Economic and Community Development includes attached single-family houses, or townhouses, within this category.

TABLE 5-3 NEW HOUSING UNITS IN MIDDLEBURY

| | Total Units | Single-Family Unit | 2 Unit | 3 or 4Units | 5 or More |
|------|-------------|--------------------|--------|-------------|-----------|
| 2000 | 34 | 34 | 0 | 0 | 0 |
| 2001 | 30 | 30 | 0 | 0 | 0 |
| 2002 | 33 | 33 | 0 | 0 | 0 |
| 2003 | 42 | 42 | 0 | 0 | 0 |
| 2004 | 70 | 70 | 0 | 0 | 0 |
| 2005 | 85 | 85 | 0 | 0 | 0 |
| 2006 | 60 | 60 | 0 | 0 | 0 |
| 2007 | 47 | 19 | 0 | 22 | 6 |
| 2008 | 28 | 28 | 0 | 0 | 0 |
| 2009 | 6 | 6 | 0 | 0 | 0 |
| 2010 | 7 | 7 | 0 | 0 | 0 |
| 2011 | 4 | 4 | 0 | 0 | 0 |

Source: Connecticut Department of Economic and Community Development; Compiled by Turner Miller Group New England



The number of dwelling units in Middlebury has grown considerably within the past decade. The greatest growth occurred during the years of 2003 through 2007. However, similar to overall economic patterns, the residential growth rate since 2007 has declined significantly. There is great uncertainty as to the rates of residential growth over the next several years, but all indications are that residential development is

expected to increase slightly, but remain at historically low levels over the next several years.

TABLE 5-4 HOUSING UNITS BY TENURE - 2010

| Geographic Unit | Total Occupied Units | Owner Occupied Units | Rental Occupied Units | Percent Renter Occupied |
|-----------------|----------------------|----------------------|-----------------------|-------------------------|
| Middlebury | 2,748 | 2,449 | 299 | 10.9% |
| Naugatuck | 12,339 | 8,376 | 3,963 | 32.1% |
| Oxford | 4,504 | 4,131 | 373 | 8.3% |
| Southbury | 8,213 | 7,035 | 1,178 | 14.3% |
| Waterbury | 42,761 | 20,081 | 22,680 | 53.0% |
| Watertown | 8,672 | 6,920 | 1,752 | 20.2% |
| Woodbury | 4,214 | 3,282 | 932 | 22.1% |
| CNV Region | 109,735 | 74,793 | 34,942 | 31.8% |
| State of CT | 1,317,087 | 925,286 | 445,801 | 32.5% |

Source; Council of Governments Central Naugatuck Valley; "A Profile of the CNVR: 2011" as analyzed by the Turner Miller Group New England.

The chart above compares the percentage of housing as rental versus ownership. Rental occupancy is a traditional source of lower cost housing. The information above indicates that the percentage of rental occupied housing is among the lowest in the area; below that of the Central Naugatuck Region and the State.

Housing Affordability

TABLE 5-5 MEDIAN VALUE OF OWNER-OCCUPIED HOUSING UNITS 2000 to 2009

| Geographic Unit | Median Value 2000 | Median Value 2009 | Percent Change |
|-----------------|-------------------|-------------------|----------------|
| Middlebury | \$198,600 | \$392,400 | 97.6% |
| Naugatuck | \$133,000 | \$224,100 | 68.5% |
| Oxford | \$207,800 | \$405,900 | 95.3% |
| Southbury | \$209,100 | \$339,100 | 62.2% |
| Waterbury | \$101,300 | \$163,000 | 60.9% |
| Watertown | \$148,300 | \$281,300 | 89.7% |
| Woodbury | \$235,000 | \$390,800 | 66.3% |
| State of CT | \$166,900 | \$295,800 | 77.2% |

Source; Council of Governments Central Naugatuck Valley; "A Profile of the CNVR: 2011" as analyzed by the Turner Miller Group New England.

Since owner-occupied housing is dominant in Middlebury, the value is an important indicator of housing affordability. The data indicates a significant increase in owner-occupied housing values between 2000 and 2009. The increase in Middlebury exceeded that of surrounding communities. This may be attributed to the numerous construction of large single-family housing during certain points in that decade. The median cost of owner-occupied housing in Middlebury is one of the highest of area towns, exceeded only by Oxford, and significantly above the State median. In addition, the increase in median value in Middlebury during the 2000 to 2009 period exceeds that of all neighboring communities.

However, since 2009, housing values in Middlebury, surrounding towns and throughout the State of Connecticut have declined significantly, in many instances 20% to 40%. This decline, along with the low level of interest rates for mortgages, has resulted in a greater degree of affordability of housing in the State, for residents fortunate enough to have steady employment. With the recent decline in housing values and the historically low interest rates, the problems of affordability within Connecticut are more a function of slow economic growth, rather than a shortage of housing opportunities.

A narrow definition of affordability is included within Section 8-30g of the Connecticut State Statutes. This chapter, often referred to as the Affordable Housing Appeals Act, includes a provision that municipalities are not subject to the requirements of this act if a minimum of 10 percent of their housing stock is (1) assisted housing, or (2) currently financed by Connecticut Housing Finance Authority mortgages, or (3) subject to binding recorded deeds containing covenants or restrictions which require that such dwelling units be sold or rented at, or below, prices which will preserve the units as housing for which persons and families pay thirty per cent or less of income, where such income is less than or equal to eighty per cent of the median income, or (4) mobile manufactured homes located in mobile manufactured home parks or legally-approved accessory apartments, which homes or apartments are subject to binding recorded deeds containing covenants or restrictions which require that such dwelling units be sold or rented at, or below, prices which will preserve the units as housing for which, for a period of not less than ten years, persons and families pay thirty per cent or less of income, where such income is less than or equal to eighty per cent of the median income.

Based upon this definition, the Connecticut Department of Economic and Community Development (DECD) reports the Town of Middlebury has a total of 96 affordable housing units. The total amount of affordable housing is compared with the Town's total housing stock in 2000 (as shown below) because that number is the bench mark used by the DECD to determine whether a community is exempt from the Affordable Housing Appeals Procedure as determined by C.G.S. Section 8-30g.

TABLE 5-6 AFFORDABLE HOUSING UNITS (2011)

| | |
|--|--------------|
| Total Number of Assisted Units | 95 |
| • Governmentally Assisted Units | 79 |
| • CHFA Mortgages | 8 |
| • Deed Restricted | 8 |
| Percentage of Town's 2000 Housing stock | 3.28% |

Source: Connecticut Department of Economic and Community Development

The 3.28% as shown above is clearly well below the 10% threshold required for exemption from the Affordable Housing Appeals law. Municipalities below this benchmark are much more limited in their ability to deny an affordable housing development proposal, which meets the requirements of Section 8-30g CGS. However, it would be virtually impossible for Middlebury to ever reach that 10% threshold.

However, the definition embodied within the Connecticut State Statutes does not convey an accurate picture of housing affordability. It does not include overall market factors, such as the actual price and availability of housing. It does not provide any credit or allowance for those communities which have attempted to provide alternatives to detached single-family housing within the recent past. In particular, Middlebury has approved several residential developments which included higher density housing. Unfortunately, recent economic conditions have adversely impacted the development of these projects. However, the approvals are still in place which will result in a diversification of the Town's housing inventory. The challenge is to work with the owners of these properties to facilitate their development in a way compatible with the Town's character.

Potential Residential Development

The Council of Governments of the Central Naugatuck Valley performed an analysis to determine the total amount of residential development which could occur within the Town of Middlebury, taking into consideration the current zoning and other land use regulations, as well as overall environmental considerations. This analysis has been sent to the members of the Commission, and is available for public view. We are using this invaluable analysis as part of the Plan.

The analysis indicated that there could be a total of 2,078 additional dwelling units constructed within the Town of Middlebury, resulting in an additional 5,652 residents, for a total of 13,772. This is a theoretical maximum build-out, if all land was developed in

accordance with current regulations, and is very unlikely to occur within the foreseeable future. However, it does indicate that Middlebury has sufficient land zoned for residential use to accommodate any foreseeable growth.

Perhaps most relevant, the analysis shows an additional potential development of 264 units within Ridgewood and Benson Woods. These are both "cluster development" projects. The Ridgewood development recently approached the Planning and Zoning Commission with a request to revise its application to eliminate the planned golf course, in response to slow market demand and a lack of financing to support the original planned amenities. The slow development activity within these projects could be considered a lack of demand for attached or clustered housing within Middlebury, with the conclusion that no additional housing of this nature should be permitted until the market absorbs most of the previously approved housing.

6. Sanitary Sewer Service

The provision of water and sewer service has always been a major factor and determinant in the extent and intensity of development within a community. Over the past several years, the importance of the extent of the "sewer service area and sewer avoidance area" has increased because of the State Plan of Conservation and Development.

Current legislation requires that all state expenditures over \$200,000 be consistent with the State Plan of Conservation and Development. The Office of Policy Management (OPM) is charged with the formulation of the State Plan. They have developed a draft plan for submission to the Legislature in January of 2013. Within the past several years, the State Department of Environmental Protection has interpreted the Plan in a way that any sewer service which is not within areas designated as Regional Center, Neighborhood Conservation and Growth Area (See Attached map of the 2005 State Plan of Conservation and Development) is inconsistent with the State Plan, and would make the Town ineligible for any grants or state expenditures which support development within the Town. Any intensive development outside of these areas threatens state funding for a range of infrastructure improvements, which may include transportation, sewage treatment plan upgrades, and open space preservation funds. This could result in the withholding of State Grants if the development plan of Middlebury is not consistent with the State Plan of Conservation and Development. Therefore, the sewer service area should be consistent with the overall land use plan included within the Plan of Conservation and Development policies and map.

The Middlebury Water Pollution Control Authority recently formulated a new plan map for the proposed sewer service within the Town which considered future land use development plans. One of the purposes of the Plan is to ensure that land use plans and policies are consistent with the plans and regulations of the Water Pollution Control Authority.

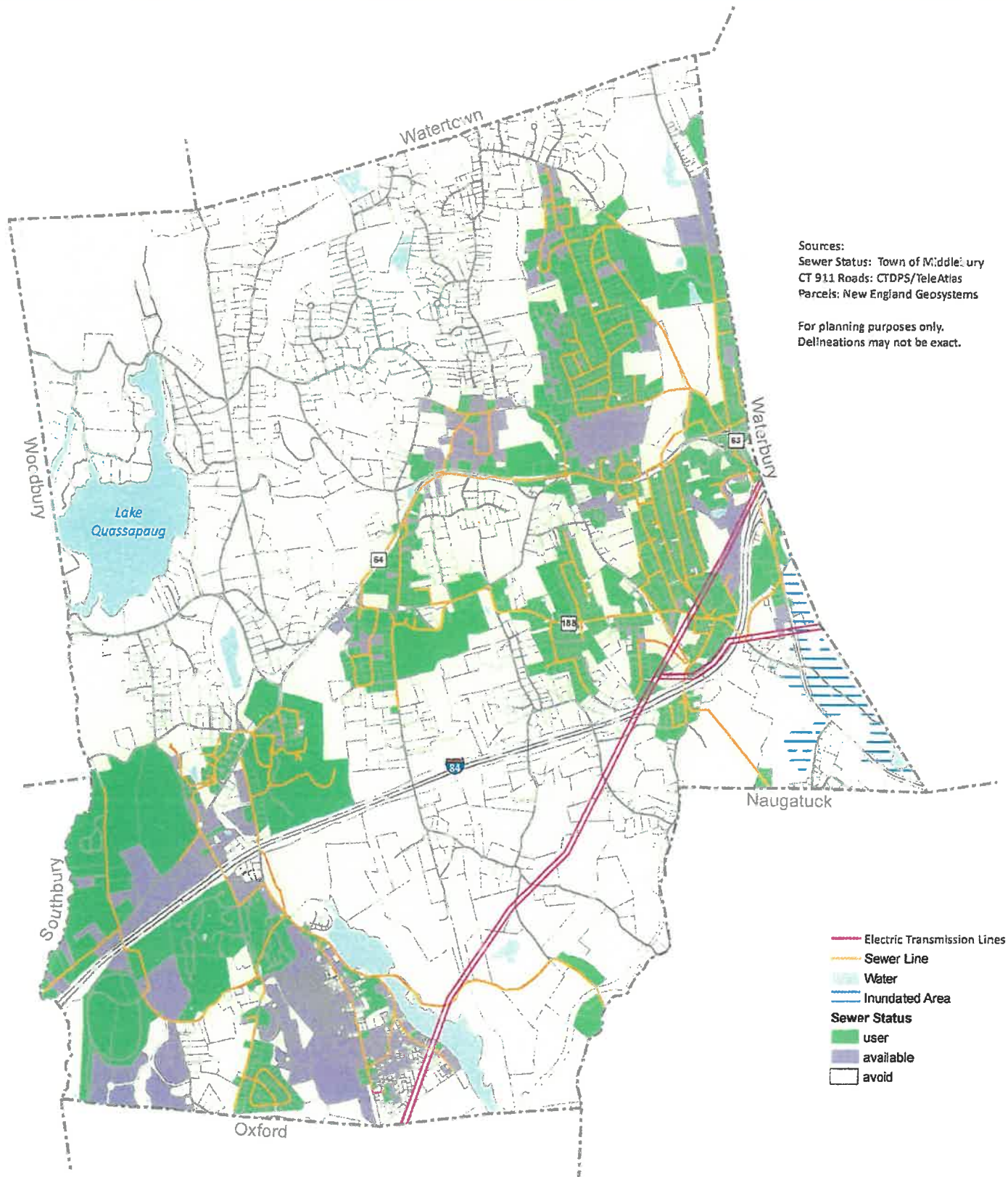
The Middlebury system is a collection system which discharges into the Naugatuck sewer system, utilizing the Naugatuck treatment plant. Through contract, the Middlebury WPCA has rights to utilize 1.8 million gallons per day (MGD). The average daily usage is 700,000 gallons per day, 0.7 MGD. This would indicate that no additional capacity is needed to support existing and planned usage within the Town. Additional capacity is not available without the agreement of the Naugatuck WPCA. It is unknown as to whether there is excess available capacity within the Naugatuck system, or what improvements would be needed to increase capacity. Therefore, the increase in capacity does not appear to be a viable option at this point.

The WPCA adopted a map as the official plan of the service area, which is included within the appendix of this Plan. The WPCA plan map shows two categories of service area; user areas which are already served, and those properties which are available for sewer service. All of the available properties fit within the following categories:

- Properties which are zoned for commercial or industrial development.
- Properties which have been approved for residential developments which require zoning approval for densities which cannot be accommodated by on-site wastewater disposal systems.
- Individual properties within areas already served by the WPCA, which may require this service due to existing uses needing an alternative waste-water disposal system.

The current WPCA plan proposes to accommodate additional growth within the existing served areas and undeveloped areas currently not served by sanitary sewer as designated on the existing plan. No expansion of the service area is planned beyond that shown on the existing plan.

Middlebury Parcels with Sewer Status



0 0.5 1 2 Miles



NAUGATUCK VALLEY
COUNCIL of GOVERNMENTS

7. Other Infrastructure

The other infrastructure considerations, including roads, stormwater drainage and water supply were adequately addressed in the 2001 Plan of Conservation and Development, as shown in the Appendix, and remain unchanged.

8. Municipal Fiscal Environment

We have compared various fiscal indicators of the Town of Middlebury with State averages to try to understand the relationship between the Town's economy and its ability to raise revenue to pay for services. This is not intended as a full fiscal analysis, but rather as a tool to assist the Town in its economic development planning.

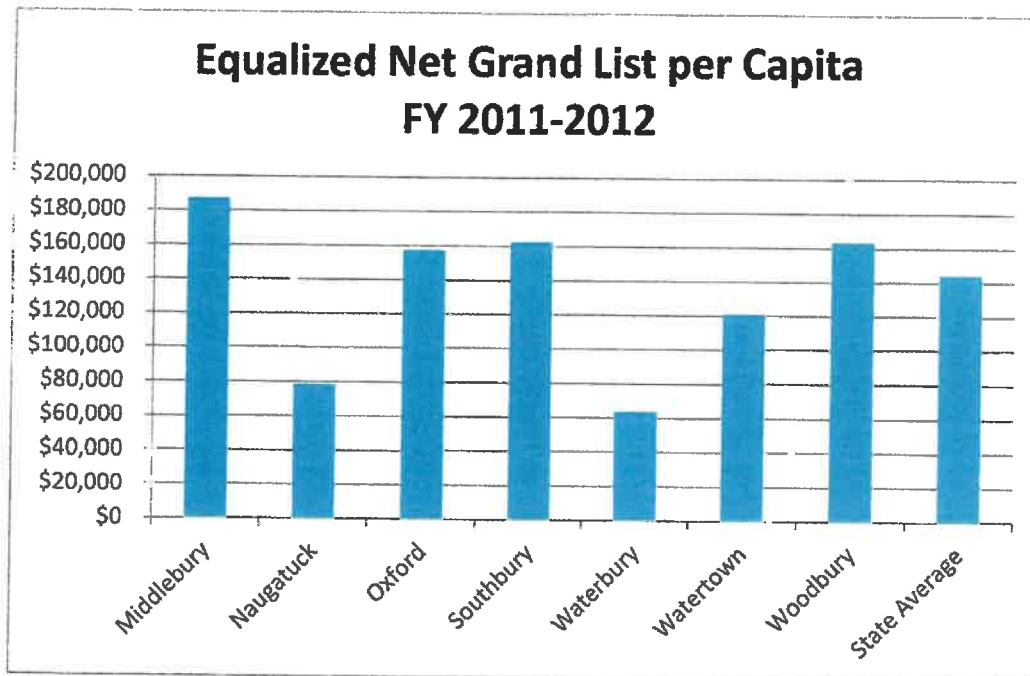
The Equalized Net Grand List (ENGL) is the estimate of the market value of all taxable property in a municipality. Municipalities revalue their Grand Lists based on schedules established by the Connecticut General Assembly (CGS 12-62). Thus, there can be a marked difference between the market value of all property and the assessed value. The State Office of Policy Management calculates the ENGL from sales and assessment ratio information and grand list reports filed by the municipality.

Equalized Net Grand List Per Capita is a measure of the total market value of real and personal property (taxable property) within a jurisdiction divided by the jurisdiction's population. It is useful as both a measure of wealth and of the tax base.

TABLE 8-1 EQUALIZED NET GRAND LIST PER CAPITA, FY 2011-2012

| | |
|----------------------|------------------|
| Middlebury | \$187,430 |
| Naugatuck | \$78,686 |
| Oxford | \$157,599 |
| Southbury | \$162,658 |
| Waterbury | \$64,040 |
| Watertown | \$121,192 |
| Woodbury | \$163,761 |
| State Average | \$144,605 |

Source: Office of Policy Management

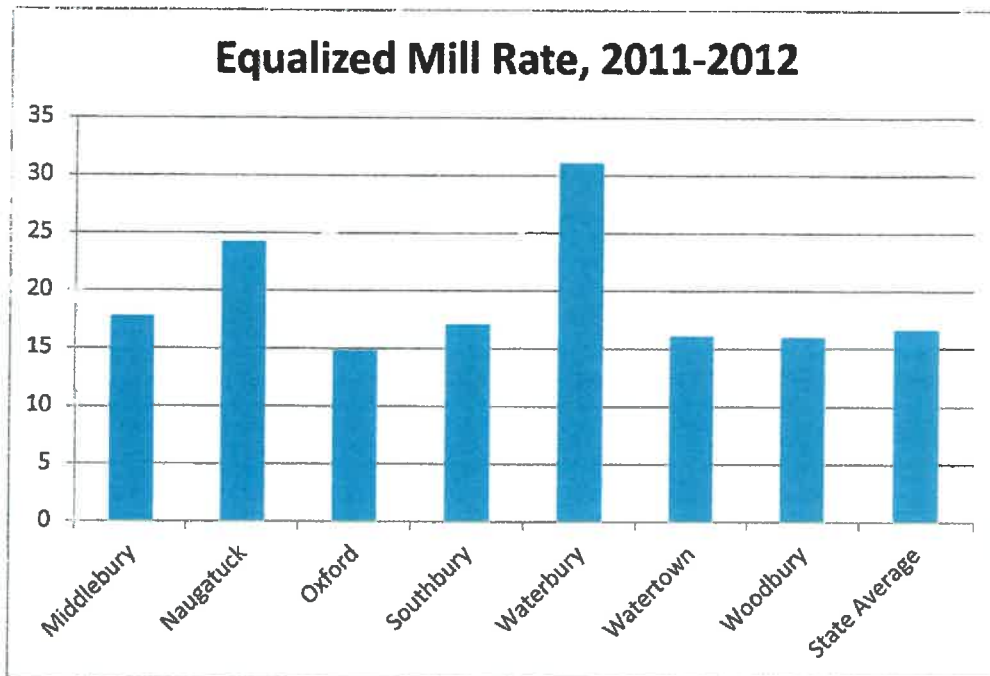


Middlebury has the highest Equalized Grand List per Capital of all area communities, and significantly higher than the State average. This indicates that the Town has a greater capability to support the provision of municipal services.

TABLE 8-2 EQUALIZED MILL RATE, 2011-2012

| | |
|----------------------|--------------|
| Middlebury | 17.85 |
| Naugatuck | 24.31 |
| Oxford | 14.83 |
| Southbury | 17.13 |
| Waterbury | 31.15 |
| Watertown | 16.14 |
| Woodbury | 16.06 |
| State Average | 16.72 |

Source: Office of Policy Management



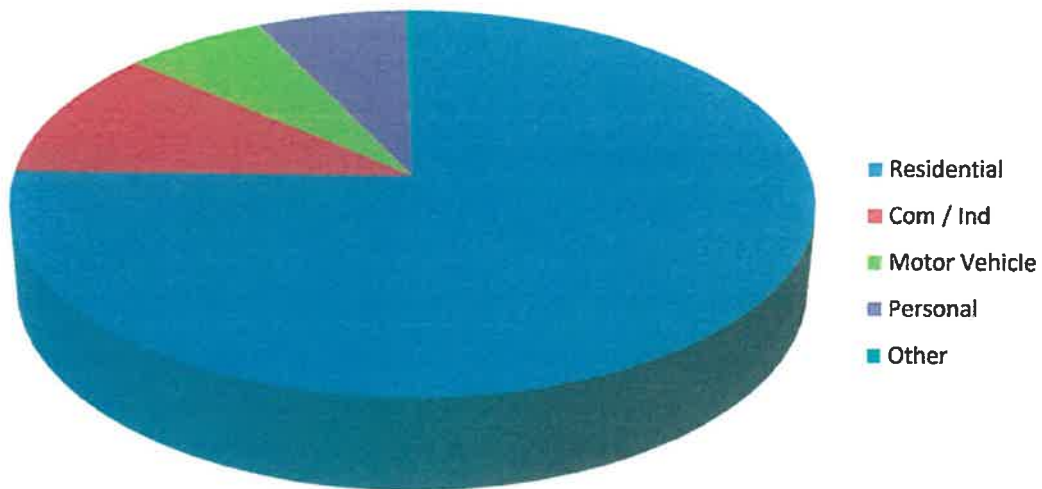
The Equalized Mill Rate, or the Effective Tax Rate, is calculated by dividing the adjusted tax levy, as presented in the municipality's Tax Collector's Report, by the Equalized Net Grand List. It is a method of comparison between the mill rates of different communities which compensates for the different dates of re-evaluation. The equalized mill rate in Middlebury is slightly higher than the State average, lower than the neighboring urban communities of Naugatuck and Waterbury, and similar to the other neighboring communities.

TABLE 8-3 PERCENT OF GRAND LIST BY CATEGORY

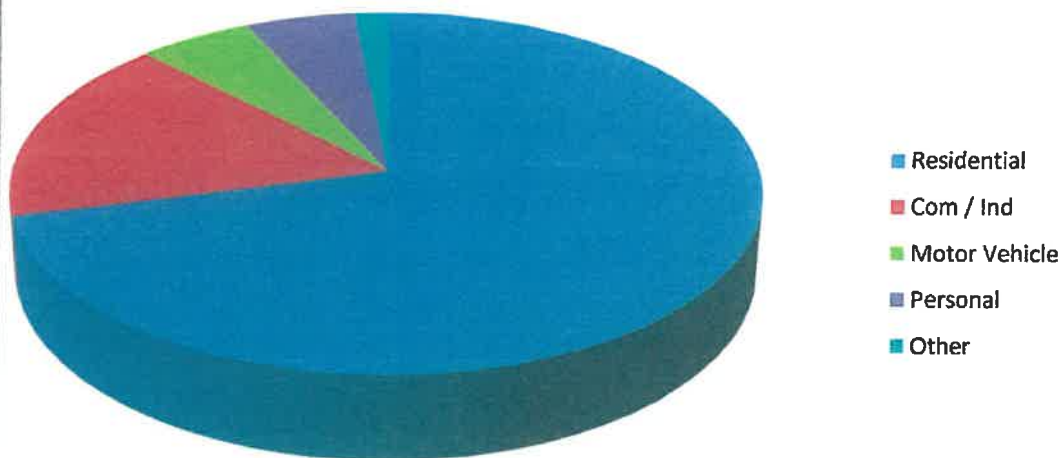
| | Middlebury | State |
|---------------|-------------------|--------------|
| Residential | 78.1 | 70.8 |
| Com / Ind | 11.3 | 16.6 |
| Motor Vehicle | 6.8 | 5.5 |
| Personal | 7.2 | 5.3 |
| Other | 0.4 | 1.7 |

Source: Office of Policy Management

Percent of Middlebury Grand List by Category



Percent of Grand List by Category Statewide



Tax Considerations

The current tax structure of Connecticut, as of now, places a heavy reliance on property taxes for municipal funding. As the development patterns of Middlebury contain a relatively low amount of commercial and industrial uses, the Town has been at a disadvantage in its ability to raise revenue.

The Town faces a significant challenge in enhancing its Grand List, as there is a limited amount of land available for commercial and industrial development. The current tax structure of the State places small towns like Middlebury at a disadvantage, as it creates potential distortions in land use policy, in that towns may encourage otherwise inappropriate development with the primary purpose of increasing the Grand List.

9. Economic Development

The Economic Development component of this plan, is largely based upon the fundamentals of the 2000 Plan. However, as we have gone through the process, the need to update this section became apparent, particularly based upon the revised goals and objectives.

Regional Economy

Middlebury is a relatively small community, and the local economy is highly influenced by the regional economy. The former Council of Governments of the Central Naugatuck Valley 2013 Economic Profile indicated the following overview of the regional economy:

- The Central Naugatuck Valley Region (CNVR) had a total employment of 98,453 in 2011, a loss of 5,100 jobs (-4.9%) from 2002. Comparatively, there were 130,968 employed persons living in the region, a net export of over 32,500 workers. Half of all CNVR residents now work outside the region and over 40 percent of all CNVR workers live outside the region.
- Recovery from the 2007-2009 economic recession has been slow, particularly for goods-producing sectors. Regional employment peaked at 104,492 in 2007 and declined to a low of 96,423 in 2010. Employment has grown slowly since 2010 but only education and health services has exceeded pre-recession employment levels.
- Service-producing sectors now make up nearly 80 percent of the region's total employment. The service sector contains a mix of low paying jobs (accommodation and food services, retail trade) and high paying jobs (finance and insurance, management of companies and enterprises).
- The region has high concentrations of manufacturing, retail trade, wholesale trade, and health care and social assistance employment compared to other parts of the state.
- The region has very low concentrations of employment in the finance and insurance, arts, entertainment and recreation, management of companies and enterprises, and information sectors compared to other parts of the state.
- The wholesale trade sector was identified as the strongest major sector of the CNVR economy. It saw employment growth from 2002-2011, has a high job concentration relative to the state and nation, and has seen positive regional trends. Much of the wholesale trade employment in the region is found in Cheshire Industrial Park near the I-84 and I-691 interchange.

- After decades of decline, manufacturing employment is projected to stay relatively stable from 2010 to 2020. Manufacturing subsectors such as plastics and rubber product manufacturing and chemical manufacturing are project to add jobs statewide.¹

Additional background information concerning the regional economy can be found within the report; "2013 Economic Profiles of the Central Naugatuck Valley."

Local Economy

The most recent data from the State of Connecticut Department of Labor, for August, 2015 indicates that the unemployment rate in Middlebury is lower than that of the Waterbury

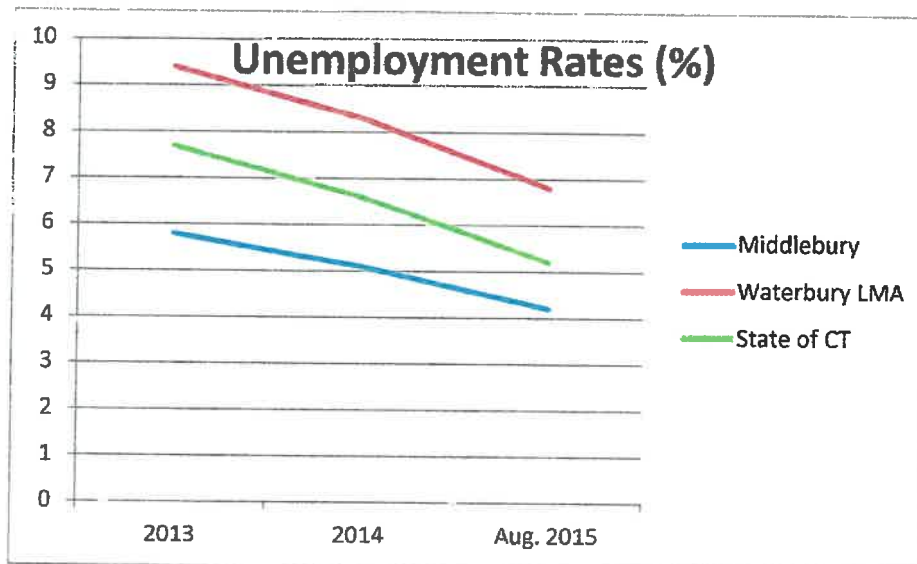
TABLE 9-1 UNEMPLOYMENT RATES FOR MIDDLEBURY, WATERBURY LABOR MARKET AREA AND STATE OF CONNECTICUT

| | 2013 | 2014 | August 2015 |
|---------------|-------------|-------------|--------------------|
| Middlebury | 5.8% | 5.1% | 4.2% |
| Waterbury LMA | 9.4% | 8.3% | 6.8% |
| State of CT | 7.7% | 6.6% | 5.2% |

Source: Connecticut Department of Labor²

¹ 2013Economic Profile of the Central Naugatuck Valley

² Waterbury Labor Market Area (LMA) consists of Beacon Falls, Bethlehem, Middlebury, Naugatuck, Prospect, Waterbury, Watertown, Wolcott and Woodbury.



The above data shows the pattern of the slow recovery out of the Great Recession of 2008, with declining unemployment rates within Middlebury, the region and State. Although the Waterbury region, (LMA) has had unemployment rates consistently higher than that of the State, the unemployment rate of Middlebury residents has been consistently lower than that of the State and region. This is likely attributable to the high level of educational achievement of Middlebury residents.

The most recent labor information from August 2015 shows that the State and town are approaching full employment, but the regional labor market lags behind.

TABLE 9-2 BUSINESS PROFILE (2013)

| Sector | Units | Employment |
|---------------------------------------|-------|------------|
| Construction | 20 | 22 |
| Manufacturing | 10 | 118 |
| Retail Trade | 26 | 230 |
| Management of Companies & Enterprises | 3 | 455 |
| Health Care & Social Assistance | 41 | 987 |
| Total Government | 14 | 452 |
| Local/Municipal Government | 12 | 439 |
| TOTAL | 282 | 3,940 |

CERC Town Profile 2014

TABLE 9-3 MAJOR EMPLOYERS (2014) ³

- Chemura Corporation
- Timex Group USA
- Quassy Amusement Park
- Winchester Electronics Corp.
- Berlin Packaging

The local economy of Middlebury is relatively balanced amongst sectors and businesses of different size. However, its economy is strongly linked with the regional economy of the Greater Waterbury area, as well as areas to the west.

Economic Issues

1. Although the local economy of Middlebury is relatively healthy, at the time, the Town still faces future challenges. The regional economy has been weak for many years, with the region failing to grow its economy. In addition, there is concern about the overall economic climate of the State.
2. Middlebury does have some important economic assets; location along one of the major transportation corridors within the Northeast, an educated workforce, excellent quality of life, and proximity to major urban centers.
3. The southwest section of Town is zoned for industrial and related uses. This area is within the Waterbury –Oxford Airport Incentive Zone. The Town needs to take advantage of the locational advantages and tax incentives of this area, to encourage contemporary economic growth.
4. The development of the five commercial districts of the Town needs to be encouraged with guidance towards to the most appropriate type and design for development within each of those five areas. It should be recognized, that each of the This will require amendments to the zoning regulations.

³ Source: CERC Town Profile 2014

10. Overall Land Use

The land use plan is an integral component of the Plan of Conservation and Development. This includes two components, the overall plan and the plan for the center area. As part of this analysis, we utilized the land use map and data prepared by the Council of Governments of the Central Naugatuck Valley.

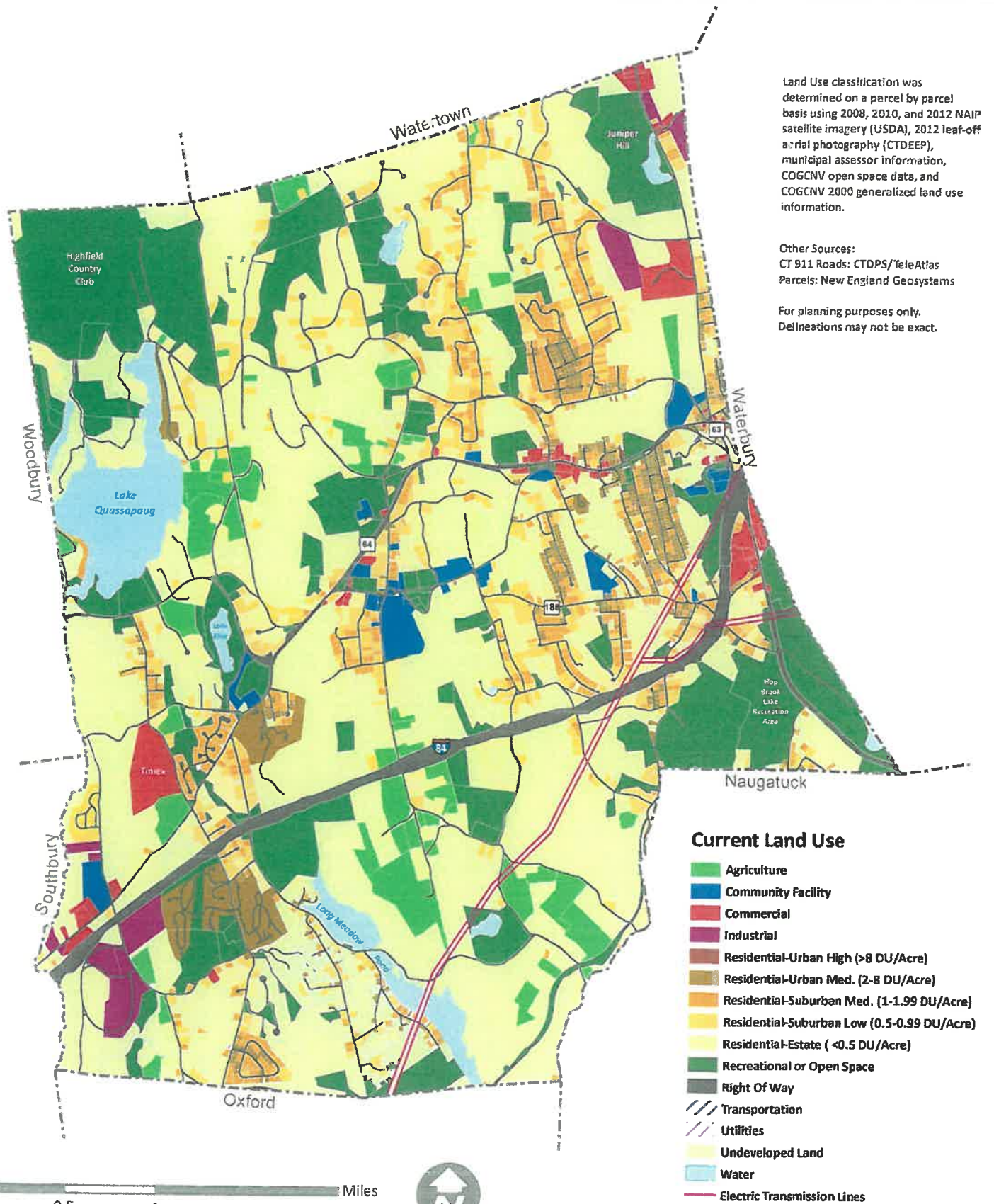
The overall land use situation has not changed significantly since the 2001 update. The development which has occurred has not changed the overall land use pattern of the Town. It has been a continuation of existing patterns. Middlebury Station, on Route 64 within Middlebury Center, was the most significant commercial development in the Town. Several small new subdivisions were approved. The most significant changes in the residential component were the approval of several Planned Residential Developments.

Any analysis of land use, either for an entire community or a single parcel of property, requires an understanding of the fundamental land use factors within the community.

The overall land use of Middlebury is based upon the following factors:

1. The overall land use pattern of the Town has not changed significantly over the past several decades.
2. Development activity has declined significantly over the past decade. There has been little commercial or industrial development.
3. Residential development activity has declined as well. This has resulted in stalled development in many approved projects, leaving the Town with a significant inventory of undeveloped residential projects.
4. Middlebury is along the I-84 corridor, which is likely to see a significant share of residential and economic growth within the foreseeable future. The Town can take advantage of this projected economic growth within two areas:
 - a. Exit 17 is a bifurcated interchange with Interstate 84 with the east section serving Route 64 and the west section along Route 63, Straits Turnpike. This provides direct access to the Straits Turnpike South Commercial area, which includes the area around Post University. It offers economic development opportunities.
 - b. The Gateway Design District was recently enacted as a separate zoning district to permit a broader range of uses to the area along Route 188 near the Route 188 interchange of Interstate 84. The revised regulations offer the opportunity for the economic growth of this area in a way that takes advantage of the regional access, services the commercial needs of the surrounding area, and enhances the economic base of the Town of Middlebury.

Middlebury Land Use 2012



5. The areas served by sewers are limited and no expansion is planned.
6. Commercial and industrial development in Middlebury has been slow over the past several years, due to difficult national economic conditions. Economic growth over the next several years is expected to be modest.
7. The 2000 Plan of Conservation indicated that approximately 60% of the land within the Town is vacant. Although a revised land use analysis was not included within this update, it is anticipated that the percentage of vacant land has declined slightly. Most of the land within the Town is still vacant, but much of it is within the southeastern section of the Town.
8. Lake Quassepaug is an important natural and recreational feature of the Town. Its recreational nature has been an economic asset to the Town for the past century.

Although the land use patterns of the Town have not changed dramatically since 2000, social and economic conditions have changed significantly. Therefore, this plan specifically addresses several key areas of the community, as to land use recommendations, but it also includes several general and miscellaneous land use and zoning recommendations:

General / Miscellaneous Land Use and Zoning Regulations

1. The zoning along Tucker Hill Road should be maintained, as recently adopted to accommodate the installation of the water line connection.
2. The Commission should also investigate changes to the CA-40 zone. There should be design and architectural standards for commercial development within the Town. These standards should include enhanced landscaping design, general architectural guidelines, and inclusion of certain design features.

The Commission may also decide to restructure the Commercial zoning. For example, the zones may be adjusted for each individual area indicated within this plan, to reflect the unique characteristics of this area, much in the way that the Gateway District was created to accommodate the unique characteristics and opportunities of that area. This restructuring may include changes in area and bulk requirements, as well as permitted uses. The Commission may also want to consider placing certain uses and new development to be permitted by Special Exception.

3. Sections 23 and 24 of the zoning regulations should be re-evaluated. Both are intended to permit the development of age-restricted housing, but they do it in different ways. Section 23 established the Planned Residential Development for Elderly Persons. Approval would be by Special Exception. The locational requirements are very specific, located south of Nutmeg Road and east of Regan

Road. Depending upon how this is interpreted, it constitutes only one site, which has been developed.

It is generally not good zoning policy to be that specific in the location of specific uses, although it is used. There also appear to be some requirements within this regulation of questionable value and legality. For example, it requires that the permit is attached to one developer. Zoning runs with the land, not the owners.

Section 24 regulates a separate zone, the Senior Resident District. The areas which can be rezoned to SR are also rather limited, essentially accommodating two groupings of parcels. Neither of these areas has been developed. The regulations appear to be cumbersome, and after this amount of time, the Commission may want to examine as to whether the uses resulting from these regulations is still consistent with Town policy. As there is a limited market for age-restricted developments, the Commission may also wish to institute changes that would limit or eliminate this type of use.

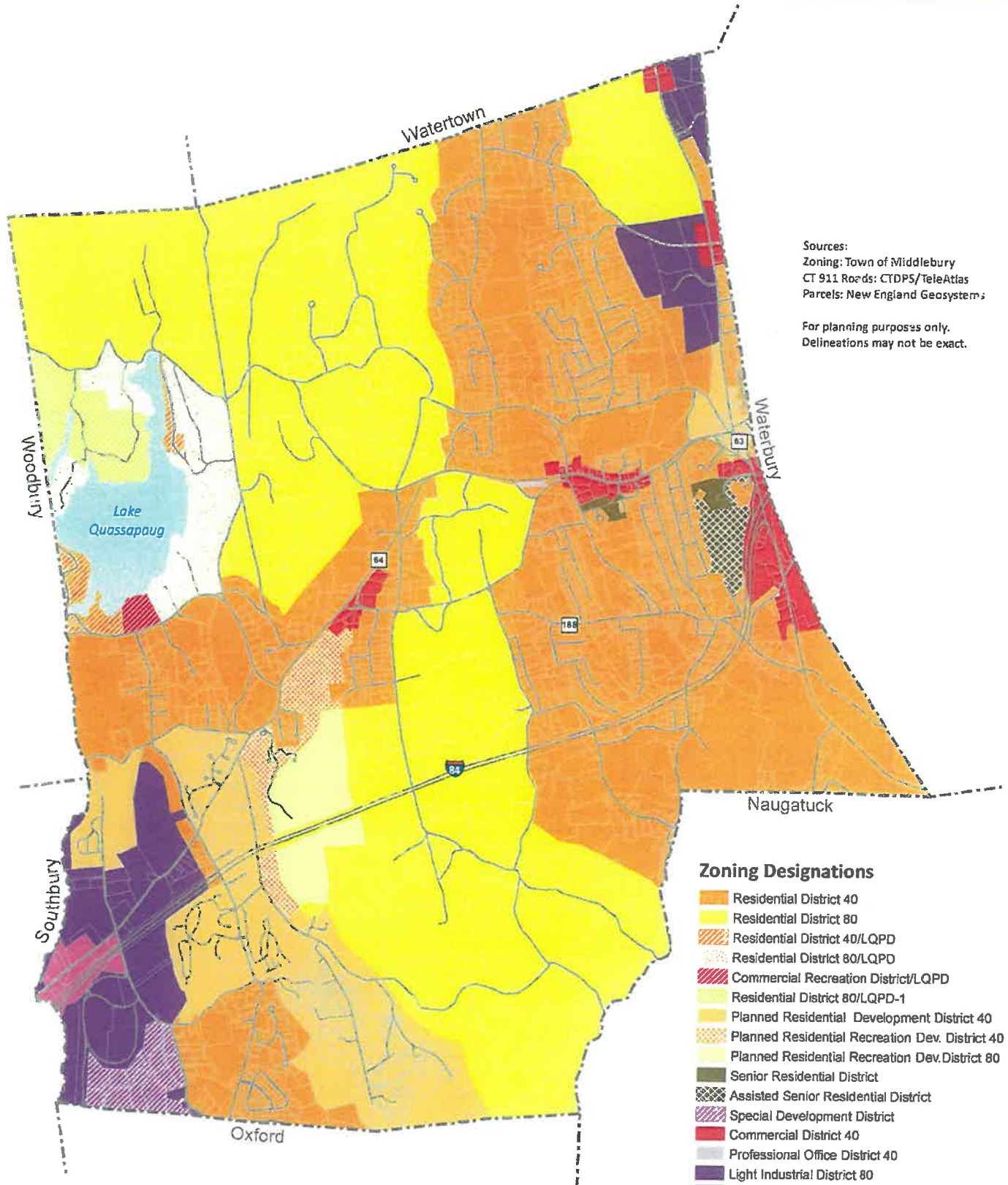
4. The sign regulations are somewhat inconsistent as to the way that they are applied, and could be clarified. Several issues with the sign regulations have arisen in recent years which should be addressed.
5. The Long Meadow area consist of an area of "tea lots" located east of Long Meadow Pond, in the southern section of the Town. A residential development was approved for this area, but due to the recent economic conditions, was not built. This gives the Town an opportunity to re-evaluate development within this area.

A significant amount of preparation has occurred for this development. Many town-owned lots were consolidated and sold to the developer. In addition Lake Shore Drive was improved to accommodate this development.

The overall concept of a mixture of housing types seems to remain appropriate. However, the Commission may wish to evaluate the approved site plan, and make certain changes; such as an evaluation of overall density, the potential to include affordable housing units in this development to help the Town meet its 8-30g obligations, and any other design or community features which would enhance the residential environment.

6. The Triangle Boulevard area is adjacent to the north end of the runway of the Oxford Airport, and as such is subject to noise and potential safety concerns. Plans for the Airport call for the demolition of most of the homes there, and the Federal Aviation Administration has begun demolition and relocation. The homes not scheduled for demolition may not remain a viable neighborhood, and those property owners should be offered the opportunity to sell as well. The resultant land would be appropriate for small industrial uses, similar to the nearby uses within Oxford.

Middlebury Zoning



Sources:
 Zoning: Town of Middlebury
 CT 911 Roads: CTDPS/TeleAtlas
 Parcels: New England Geosystems

For planning purposes only.
 Delineations may not be exact.

Zoning Designations

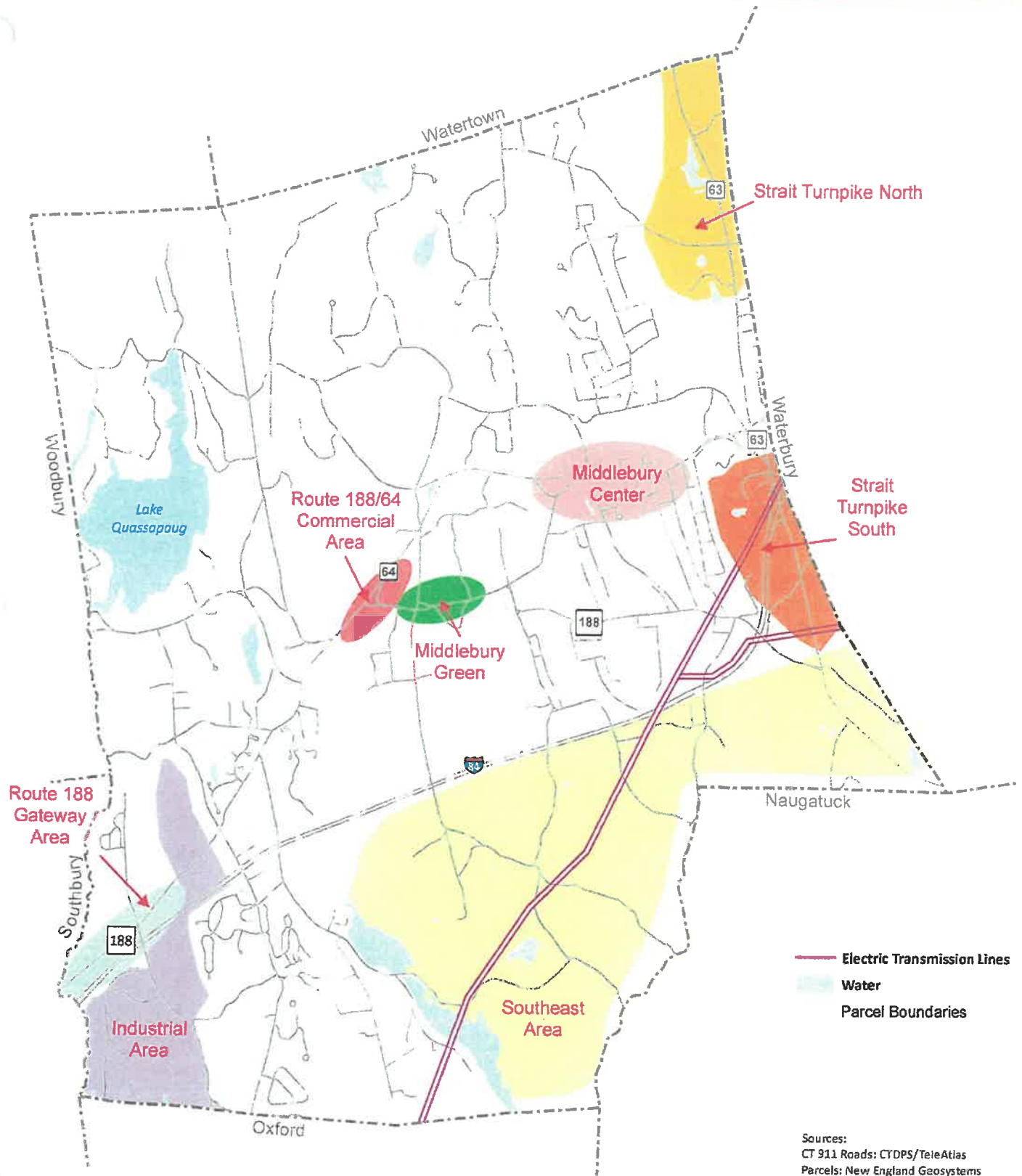
- Residential District 40
- Residential District 80
- Residential District 40/LQPD
- Residential District 80/LQPD
- Commercial Recreation District/LQPD
- Residential District 80/LQPD-1
- Planned Residential Development District 40
- Planned Residential Recreation Dev. District 40
- Planned Residential Recreation Dev. District 80
- Senior Residential District
- Assisted Senior Residential District
- Special Development District
- Commercial District 40
- Professional Office District 80
- Light Industrial District 200
- Gateway Industrial Design District
- Water

0 0.5 1 2 Miles



NAUGATUCK VALLEY
 COUNCIL of GOVERNMENTS

Middlebury Special Land Use Planning Areas



0 0.5 1 2 Miles



Sources:
CT 911 Roads: CTGPS/TeleAtlas
Parcels: New England Geosystems

For planning purposes only.
Delineations may not be exact.



NAUGATUCK VALLEY
COUNCIL of GOVERNMENTS

Straits Turnpike North Commercial Area

Land Use Pattern

The Straits Turnpike North Commercial Area is located on the north end of the Middlebury section of Straits Turnpike near and adjacent to the Watertown town line. It actually consists of two sections. The section adjacent to the Watertown town line consists primarily of automobile dealerships, as part of the "auto strip" within the Town of Watertown. This area is a somewhat typical "auto row" in that the automobile dealers there consist largely of paved areas used for the storage of new and used automobiles, with buildings covering a small percentage of the lot.

The other sub-area, located to the south is very different in character. It consists primarily of office buildings, with some small retail uses. Middlebury Edge is an anchor within this area, and represents a good example of retail uses integrated within an office environment. The old Timex office building is being transformed into a multi-tenanted facility.

Land Use Influences

1. The area is hemmed in by wetlands, slopes and adjacent residential neighborhoods, with little or no room for any significant expansion.
2. The office area is fully developed.
3. The sub-area near the Watertown town line has highway commercial characteristics.
4. This area is the northern gateway into Middlebury.
5. The office buildings of the old Timex building as well as Middlebury Edge office development represent a major concentration of employment activities within the Town.

Existing Zoning

1. The northernmost properties are zoned CA-40.
2. Properties further south, on the east side of Straits Turnpike are zoned LI-80.
3. The southern sub-section includes CA-40 zoning along the Straits Turnpike and large areas of LI-80 zoning.

Recommendations

1. The aesthetics within the subarea near the Watertown town line should be improved. There should be additional landscaping along the road.
2. The Commission should consider revising the sign regulations to reflect the character of this area as a highway commercial area.

Straits Turnpike South Commercial Area

Land Use Pattern

This area along Straits Turnpike is located along Straits Turnpike in the vicinity of the Interstate 84 interchange. The area contains small retail uses, and a large concentration of multi-story office structures. The area stretches along Straits Turnpike from an area south of the intersection of Country Club Road, north past the intersection of I-84 to the intersection of Route 64, Middlebury Road.

Land Use Influences

1. Most of the commercial property is used as contemporary multi-tenanted office buildings.
2. The Interstate 84 interchange at this point is oriented to travel to and from the west. The eastern oriented access is within one-quarter mile.
3. Post University is located immediately adjacent to this area, within the City of Waterbury. The University has been expanding its offers, including the offering of on-line services. Apparently, this has resulted in the university needing more office space. Consequently, they have leased large amounts of office space within this area.
4. This area is largely impacted by Post University. Much of the office space in this area is leased by Post University, and the commercial uses serve both the staff and students of Post University.

Existing Zoning

The entire area is zoned CA-40.

Recommendations

1. The CA-40 zoning is generally adequate for the area.
2. The Town should work with Post University to see if any additional space needs of the University can be accommodated within this area. This area can also serve as the retail services of the University.
3. These areas can benefit from additional retail uses to support the growing office sector.
4. This area could benefit from additional connectivity between properties, both vehicular and pedestrian.

Route 188 Gateway District

Land Use Pattern

Much of this area is undeveloped or still within residential uses. Current uses of the property include the former Museum of Trucking, two office buildings, a racquet club, several single-family homes and vacant land. The Long Meadow Elementary school borders the subject properties to the north and east. The Eight Mile River borders the property to the west, forming the Southbury town line. Pomperaug High Schools is immediately across the river, in Southbury. The right-of-way for Interstate 84 borders the property on the south and the Crown Plaza Hotel, is just to the southwest of this area. A gasoline service station was approved for this area, but has not been constructed.

Land Use Influences

1. This area is a short distance from the Interstate 84 interchange.

2. This area was granted a zone map change in 2010. The change permitted a broader range of uses than the CA-40 zone, and also contained more stringent design standards.

Existing Zoning

The entire area is zoned Gateway Design Industrial District, which was adopted in 2010.

Recommendations

The land use and zoning within this area was recently analyzed and revised, and should be retained.

Industrial Area

Land Use Pattern

This area encompasses the southwest corner of the Town. It generally consists of the area bound by the Southbury and Oxford town lines, Interstate 84 and Benson Road on the south. Some office and industrial development has occurred within this area, but large areas remain vacant.

Land Use Influences

1. This area is adjacent to and related to the adjacent industrial areas within Oxford and Southbury. The southern area adjacent to Benson Road is a part of the Pilot's Mall property, most of which is in Oxford.
2. This area is close to the Oxford Airport. In 2013, the Governor created the Waterbury-Oxford Airport Enterprise Zone. The area includes land within a two mile radius of the Airport, and therefore includes areas within the towns of Middlebury, Southbury and Oxford.

This zone establishes tax incentives for manufacturers and certain related businesses that build or substantially renovate facilities in the area and create new jobs. Enterprise Zone-level benefits will be available to businesses that manufacture, process or assemble raw materials or parts; perform manufacturing-related research and development; or significantly service, overhaul or rebuild industrial machinery and equipment. Warehousing and motor freight businesses can qualify for tax

incentives if they can demonstrate their business is dependent on goods shipped by air, while service companies – including information technology companies – can also qualify for credits if they can demonstrate their business is related to the airport.

There are two business incentives associated with the Enterprise Zone. Subject to certain conditions, there is a five year, 80 % abatement of local property taxes on real and personal property, and a ten-year, 25-50% credit on a portion of the state's corporate business tax.

3. The Timex Campus is a major corporate presence within this area and the State.
4. There has been little development within the industrial area over the past decade. This is due to the overall economic conditions since 2007, the surplus of industrial land within the three towns in this area, and the private development plans of a major property owner within this area.
5. This area has reasonably good access to Exit 16 off Interstate 84. It is on one of the major transportation routes of the Northeast, within a 90 minute drive of the New York metropolitan area.
6. A similar type of economic development cooperation should be employed to promote the improvement of the Exit 16 Interchange of I-84, and the improvement of I-84 between Waterbury and the New York state line.

Existing Zoning

The zoning in this area is Light Industrial 200 and Special Development District 1 for the Riverbend Technology Park.

Recommendations

1. The area within a two mile radius of Oxford Airport has been designated as an Incentive Zone by the State of Connecticut. The purpose of this bill was to provide economic incentives to encourage economic development to utilize this State owned asset. The industrial areas of Middlebury are included.

The Town of Middlebury should work with the towns of Oxford and Southbury to obtain an enterprise zone designation, or other state incentives, to encourage the economic growth of this area. This cooperation may extend to a coordinated marketing program.

2. The improvement of the Exit 16 interchange is important to support economic growth within this area.

Southeast Area

Land Use Pattern

The southeastern area of Town has not experienced the development which has occurred in the rest of the Town. Consequently, this area, defined as the area east of Long Meadow Pond, south of Interstate 84, north of the Oxford Town line, and west of the Naugatuck town line.

Land Use Influences

1. A significant section of this area is protected by ownership by the Land Trust or the Federal, state, and town ownership along with conservation easements. Within the Naugatuck State Forest and the Hopmeadow Recreational area.
1. This area is adjacent to large undeveloped areas of Naugatuck.
2. This area includes environmental constraints to development, such as slopes and wetlands, which make this area less appropriate for intensive development.
3. This area is not served by public water or sewer service.
4. Much of the vacant unprotected land is within two adjacent parcels.

Existing Zoning

R-40 and R-80

Recommendations

1. This area is still relatively undeveloped, and preservation of this status is important and should be preserved.
2. The existing R-40 and R-80 zoning for this area is inadequate to preserve the rural character of the area. Therefore, zoning changes, as well as open space acquisitions should be pursued within the area. The zoning regulations should require a maximum density equivalent to the R-120 zone, potentially as revised to permit more open space development at this density.

Route 64 – Route 188 Commercial Area

Land Use Pattern

This area consists of an area along Route 64, centered upon the intersection of Route 188. It includes an area along West Street, Route 188, adjacent to the Middlebury Green area.

The area includes a small plaza along Route 64 and small commercial uses along West Street, Route 188. There was a redevelopment of an underutilized industrial building which introduced a major commercial use to this area.

Land Use Influences

1. This area is adjacent the historic Middlebury Green area. The preservation of its historic character is very important to the future of the Town. This includes the Green, the prominent Westover buildings, the churches, residences and the Town Hall.
2. There is a potential for a major redevelopment project along West Street.
3. The commercial properties within this area are relatively small, and any development may have an impact upon surrounding residential development.
4. The recent redevelopment for the Middlebury Consignment project created a destination commercial center.

Existing Zoning

C-40

Recommendations

1. All development within these areas should not have a negative impact upon the historic area of the Middlebury Green, or the adjacent areas.
2. Commercial development within this area should take advantage and enhance its historic character, similar to Middlebury Consignment.
3. Much of the additional commercial development should be small scale in character, and have a pedestrian orientation, and include a pedestrian connection between the Greenway and Middlebury Green.

Middlebury Green

Land Use Pattern

This is the historic center of Town, an iconic New England townscape. Churches, historic residences and the Westover School are all clustered around the Green. The historic Town Hall is at the edge of the Green. Other Town facilities, such as the Shepardson Community Center and Middlebury Public Library are a short distance away.

Land Use Influences

1. The historic nature of this area has not changed significantly over the past several decades.
2. The Town Green is owned by the Congregational Church.
3. This area is adjacent to the Route 188 – Route 64 Commercial area.

Existing Zoning

R-40 and R-80

Recommendations

1. The Town should ensure that the Green, and the historic areas around it, including the Westover School, Town Hall and the residential properties be preserved to maintain the historic character of this important area of Middlebury.. This should include designation as a Historic District.
2. Any growth or expansion of the Route 188 - Route 64 commercial district should not detract from the character of this area.

11. Middlebury Village

Existing Land Use

The Middlebury Village area, also known as Four Corners, is the commercial center of the Town. For the purpose of the initial study, we defined a study area centered around the intersection of Middlebury Road, Glenwood Avenue and Regan Road. The initial study area included surrounding residential areas, in order to assess the full impact of any land use decisions within the core area. However, the concept has always been to confine commercial development along Route 64.

TABLE 10-1 LAND USE IN MIDDLEBURY CENTER

| LAND USE | LOTS | ACRES | PERCENT |
|----------------|------|--------|---------|
| SF Residential | 95 | 88 | 47.54 |
| MF Residential | 1 | 5.01 | 2.71 |
| Office | 5 | 3.15 | 1.7 |
| Retail/Office | 5 | 17.09 | 9.23 |
| Retail/Bank | 8 | 5.97 | 3.23 |
| Auto | 4 | 1.43 | 0.77 |
| Public | 1 | 5.33 | 2.88 |
| Park | 2 | 18.31 | 9.89 |
| Agriculture | 2 | 4.19 | 2.26 |
| Vacant | 12 | 36.63 | 19.79 |
| TOTAL | 135 | 185.11 | 100.0 |

The core of the Village area are the commercial properties along Route 64. This core of the properties fronting on Route 64 is the emphasis of our plan. Most of them are small free standing commercial buildings, but there are three dominate properties on Middlebury Road with mixtures of retail and office uses; Village Square, Middlebury Center and Middlebury Station. The commercial properties are bordered by established residential neighborhoods to the north and south. The area also contains vacant and underutilized properties which are available for development.

The Village area also includes an important municipal facility, the Middlebury Fire Station. The Greenway runs along the south side of Route 64 through the entire Village area and to the west. It is an important pedestrian / recreational amenity of the area and the entire community.

Infrastructure

The area has access to public water and sewer. Most of the area is within the area tentatively designated as within the Water Pollution Control Service Area for sewer service. However, the designated sewer capacity of the area is limited.

The transportation infrastructure is centered on Middlebury Road, State Route 64, which is the major traffic corridor through the area. This road is a two lane highway, and serves as the primary access between Middlebury and Exit 17 off Interstate 84 towards the east. In this capacity, it also carries traffic between communities north and west of Middlebury, such as Woodbury and Interstate 84 going east into Waterbury, Southington, and the greater Hartford area. This commutation pattern would indicate easterly travel in the morning and westerly travel during afternoon commutation hours. However, this highway also carries traffic from Middlebury to westward destinations, via Route 188 at Exit 16 off Interstate 84.

According to the most recent traffic count data available from the Connecticut Department of Transportation, the average daily traffic volume (ADT), along Route 64 is 15,600 vehicles per day between the intersection of Glenwood Ave. – Regan Road and Straits Turnpike. The traffic volumes decline to the east of this intersection with an ADT of 10,200 vehicles per day. This would indicate a moderate level of volume, reaching high levels during peak periods.

However, recent field observations indicate that overall volume may not be the most important issue or problem on Route 64. The issues of congestion seem to result from high speed travel, lack of traffic control, lack of access control, and the shortage of pedestrian facilities.

There are several streets intersecting Route 64 within the study area. Glenwood Avenue is at the only signal controlled intersection. It rises up northward from Route 64, providing access to residential areas in northern Middlebury. Regan Road intersects Route 64 directly opposite of Glenwood Avenue, and is a principal access to a medium density neighborhood immediately south of Middlebury Center. Tucker Hill Road intersects Regan Road, just south of the traffic signal at Route 64. It is a residential collector road, but offers a "short cut" between Routes 64 and 188.

The other roads intersecting Route 64 within the study area are dead end roads. Middlebury Terrace, Clearview Knolls, Park Drive and Stevens Road are not through roads, and only provide access to small residential areas near Route 64.

Environmental Considerations

As with most community centers within New England, this area includes several watercourses. Hop Brook is the most prominent watercourse, flowing southward across Middlebury Road, bisecting the area. Hop Brook flows into Hop Brook Lake in Naugatuck, which drains into the Naugatuck River.

This area also includes several streams which are tributaries to Hop Brook. Goat Brook drains Fenn Pond into Hop Brook, flowing parallel and south of Route 64. Swamp Brook essentially defines the eastern boundaries of the study area. All of these watercourses include wetlands and floodplain areas which establish limitations to development, as well as create open space resources which can be used to enhance the overall development environment of the area.

Another important environmental consideration is the topography. The area includes a hill rising up above the north side of Middlebury Road. This is reflected in the roads extending north from Middlebury Road. Middlebury Terrace and Clearview Knolls both have relatively steep grades as they extend north from Route 64.

Land Use Factors

In planning for land use planning for a property, neighborhood or community, it is important to consider the underlying factors which are important determinants which impact the potential use of the area. As part of our analysis, we have determined that the following factors are important in the determination of the future land use and development patterns of the Middlebury Village study area:

1. This area is located at the center of the Town of Middlebury, which creates an opportunity to provide commercial services to residents within Middlebury.
2. Unlike many other New England communities, the traditional Town green is not located within this center of the



Town. The Middlebury Green area is approximately one mile from the center of this area, and is well established with its historic basis of residential, institutional and public uses. However, there is a small public area at the southeast corner of Route 64 and Middlebury Road, which is part of the linear park.

3. The surrounding population of Middlebury has increased significantly over the past decade with enough disposable income to support a greater degree of commercial services.
4. Although there are potential opportunities for additional retail development, the physical and neighborhood characteristics of the area would dictate that future retail development be community scaled, and not include large regionally oriented retailers.
5. Much of the commercial uses in Middlebury Village are office uses. The lack of retail limits the vitality of the area.
6. There is a significant amount of underutilized property which may be available for commercial development to enhance the



character of Middlebury Village. This includes properties fronting on Route 64.



7. There are three dominate properties on Middlebury Road with mixtures of retail and office uses; Village Square, Middlebury Center and Middlebury Station. These three mixed- use properties are the physical basis for business development within Middlebury Village.



8. Additional development within Middlebury Village may require additional sewer capacity. The plans and analysis of the WPCA need to be evaluated as to the overall capacity to support additional economic growth with the Middlebury Village area.
9. The linear park, which includes a sidewalk along the south side of Route 64, is an important asset to the area, which attracts people and offers primary pedestrian access within the area.





10. However, even with the linear park, the pedestrian environment within the Middlebury Center area is not pedestrian friendly. The only pedestrian access is along the south side of the road; there are no accommodations for pedestrian circulation along the north side of Route 64.



11. The parcels within the study area are generally small; many one acre in size or less. This limits redevelopment potential.
12. The zoning regulations include requirements for setbacks, which further limits potential for development or redevelopment of many of these parcels. The required front yard setback of 75 feet for properties fronting on Route 64 does not serve any compelling purpose.
13. The zoning regulations require one parking space for each 200 square feet of ground floor retail or office space, and one space for each 300 square feet of upper floor area. These requirements are intended to accommodate maximum possible demand, and require that land be devoted to parking, even if needed infrequently. Perhaps most importantly, it reduces the potential utilization of the property, limiting economic development potential and the greater assessment of the property improvements. There may be other ways to ensure accommodation of parking within this area.
14. No development with a mixture of residential and commercial uses is permitted within this area. This type



of development may be advantageous under certain circumstances.

15. Although the watercourses are limitations for development, they contribute to the environment of the area, and can be further utilized as an open space resource.



16. The area has little design consistency of building along Middlebury Road. Unlike other central business areas, this area lacks a traditional or historic architectural or design theme. Therefore, there could be theme which is of a contemporary nature, but reflects the overall character of the community.

17. The study area includes and is surrounded by sound residential areas; so that any commercial development or redevelopment must be have minimal impact upon these areas.



Concept of Middlebury Village

There are many different types of city and town centers. Even within the local area, there are many different "models," from tradition downtowns of the "mill towns, (Seymour, Naugatuck, Watertown, Torrington) to communities with strips of commercial development along the main road, (Oxford, Monroe, Prospect.)

In the determination of what the Middlebury Village area should be in the future, it is not especially helpful to look for models to which we can aspire. Every community is different, and it would be unwise to try to fashion a future for Middlebury Center based upon some model which may not be workable for Middlebury Center.

Therefore, any plan for Middlebury Village should conform to the specific factors of Middlebury and the needs of the residents. The overall goal for Middlebury Village is:

Middlebury Village should use market forces to develop into a modern functional town center to meet the needs of the residents for the twenty-first century. This includes improvements to make the area more comfortable for residents and conducive for business development.

Development of the area should be consistent with the following Overall Concepts:

- The area of Middlebury Village should be used with maximum efficiency in accordance with the overall rural character of the community.
- The retail component should be of a scale to serve the residents of Middlebury.
- The area along Middlebury Road, centered on the intersection of Glenwood Ave and Regan Road, is planned to become the commercial core of the Town.
- New development along the core corridor should include high architectural and site design standards. However, the design requirements should not seek to artificially create any hypothetical downtown areas.
- The central corridor is planned to retain a primary automobile orientation, as most Town residents and other customers will still need to drive to the area. However, the pedestrian system of the area needs to be improved within the area to increase comfort and convenience.
- The two parks, Bristol Park and Ledgewood Park, will essentially frame the entrances to the corridors.

- The area should include a range of commercial services which are used by local residents on a regular basis, encompassing small retail and service uses.

Land Use Recommendations

1. The C-40 zoning along Middlebury Road will be revised to include the following:

- a. There should be minimal front yard setbacks. Side and rear yard setbacks can be reduced where the site abuts a commercially zoned property.
- b. The Town should consider the use of Village District regulations for this area. Village Districts are specially enabled by State Statute to provide a higher level of review for specially designated areas of the Town. It offers the opportunity for a higher level of architectural and site control. The jurisdiction would also apply to public rights-of-way, including the State Highway.

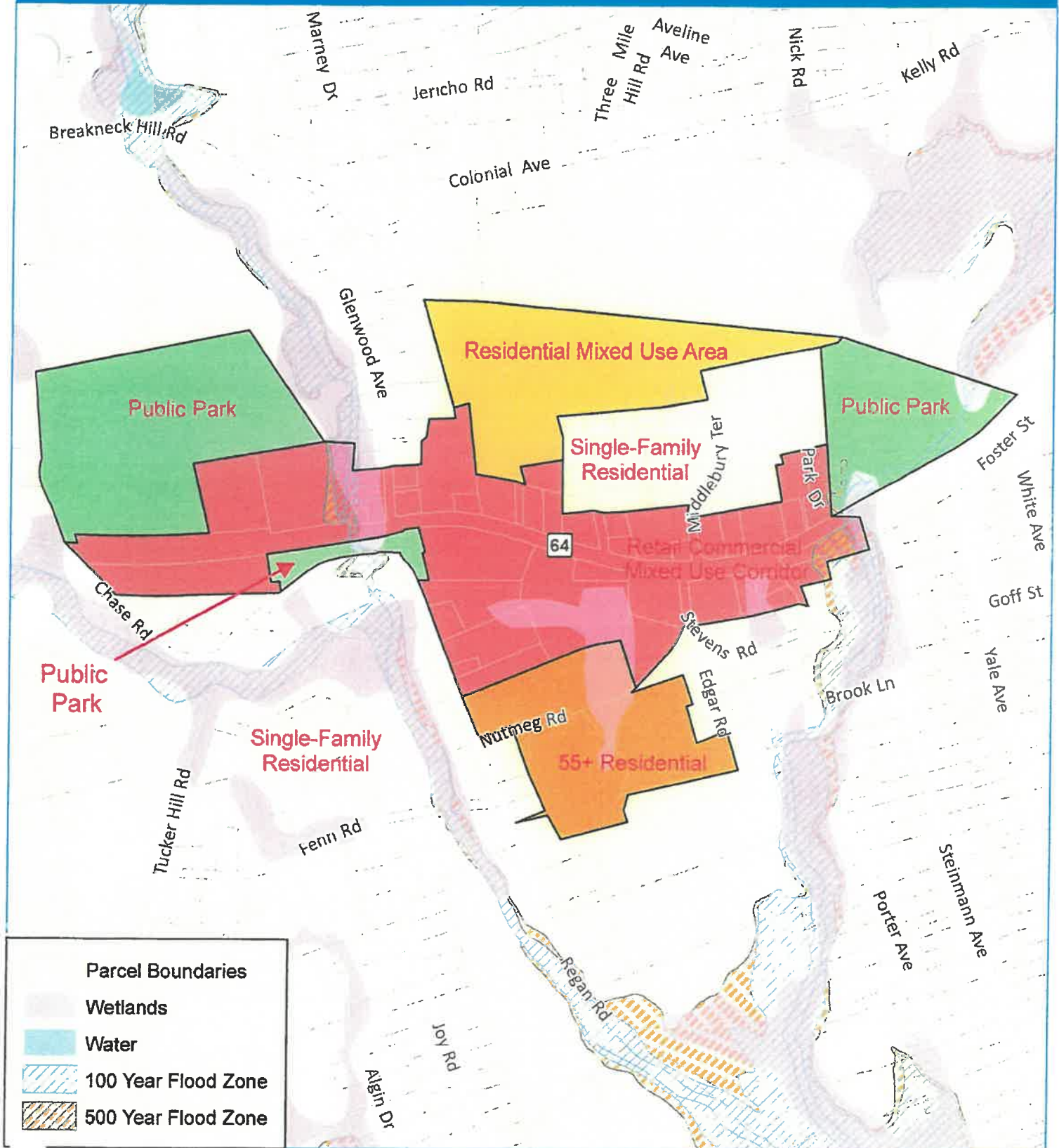
Certain areas of the study area would be eligible for the creation of a Village District. The statute states that the village districts must be located within areas of distinctive character, landscape or historic value that are specifically identified in the Plan of Conservation and Development of the municipality.

The adoption of Village District regulations would enable the regulations of the design and placement of buildings, maintenance of public views, design, paving materials and placement of public roadways, and other elements that the Planning and Zoning Commission deems appropriate to maintain and protect the character of the Village District.

2. The zoning regulations should require the installation of sidewalks along the sections of Middlebury Road which currently lack sidewalks.
3. Parking is a necessary component, but the provision of excessive parking does not benefit the community or the property owner. Therefore, the parking regulations for properties should include the following provisions:
 - a. The minimum parking standards should be liberalized for larger developments.
 - b. The regulations should encourage the use of joint parking between properties, and take advantage of differing peak periods of usage.
 - c. Parking should be placed to the rear of the commercial buildings along Route 64 where feasible.

4. Multi-family residential uses should be permitted by special exception as a component of mixed-use developments. The units should be limited in size to a maximum of two-bedrooms. In some situations they should be situated on the upper floors of buildings with commercial uses on the first floor. For larger parcels, free-standing buildings may be permitted provided that they be supportive and not interfere with commercial uses.
5. The undeveloped property within the initial study area, on Regan Road, was approved for age-restricted housing (55+). The 55 and older recommendation should be retained, as it remains a viable location for this type of development.
6. More intensive development should be considered for larger development parcels. These parcels may be currently under single ownership or may be combined. Mixed use development should be permitted as part of a comprehensively planned development, perhaps through the use of an overlay zone. These developments should promote all the goals and strategies of this plan, including a functional pedestrian circulation system, enhancing the streetscape, without adverse impacts upon the surrounding residential neighborhoods.
7. The southern section of the large property fronting on Kelly Road within the study area is the largest undeveloped property in the vicinity. It should be developed in accordance with a comprehensive plan, which includes a mixture of uses. Most of the property should be residentially developed, with a certain commercial component oriented toward Route 64.
8. Office uses should continue to be an important component of this area, but retail uses should be encouraged to be incorporated into any new significant developments.
9. The existing residential neighborhoods adjacent to the Village area should be protected from intrusions which would have an adverse impact. These areas include Clearview Knolls, Middlebury Terrace and Stevens Road. In addition, the properties along the upper part of Glenwood Road and along Fenn Road should remain as single family residential uses.
10. The corridor along Goat Brook and Hop Brook should remain in the natural state, except some areas may be appropriate to use as small "pocket parks" and the greenway system.
11. Properties along Route 64, west of Ledgewood Park, should be zoned to permit small office uses, which are compatible with adjacent residential uses.

Middlebury Center Land Use Plan



Sources:
 CT 911 Roads: CTDPS/TeleAtlas
 Parcels: New England Geosystem.

For planning purposes only.
 Delineations may not be exact.



NAUGATUCK VALLEY
 COUNCIL of GOVERNMENTS

Transportation and Circulation Recommendations

1. There needs to be a comprehensive pedestrian circulation system within this area which includes the following:
 - a. Utilizing the Greenway as the major "artery" of the system.
 - b. Install a walkway along the north side of Route 64 which extends from Tyler Crossing to Bristol Park.
 - c. Require that all new properties have direct pedestrian connections to the public system.
 - d. Encourage pedestrian connections between adjacent properties and uses where appropriate.
 - e. Install sidewalks along side roads where appropriate.
2. A comprehensive streetscape for this area along Route 64 should be designed and implemented. The design should include the components of the pedestrian circulations system, addressing issues such as pavement design and location. It should also include issues such as street furniture, landscaping, parks and green spaces, and gateway features at both sides of this area.
3. The State should be encouraged to install traffic calming features along Route 64 in this vicinity. These features could include bump-outs, changes in pavement, and streetscape factors.

Other Recommendations

1. Sewer capacity for this area is limited. The Water Pollution Control Authority should consider planning to accommodate the increase in density envisioned within this plan.
2. Initiate the formulation of a streetscape design for the Middlebury Village corridor. There may be state or federal programs which may provide funding for design and construction of streetscape improvements, such as the State Small Cities Program.

Implementation

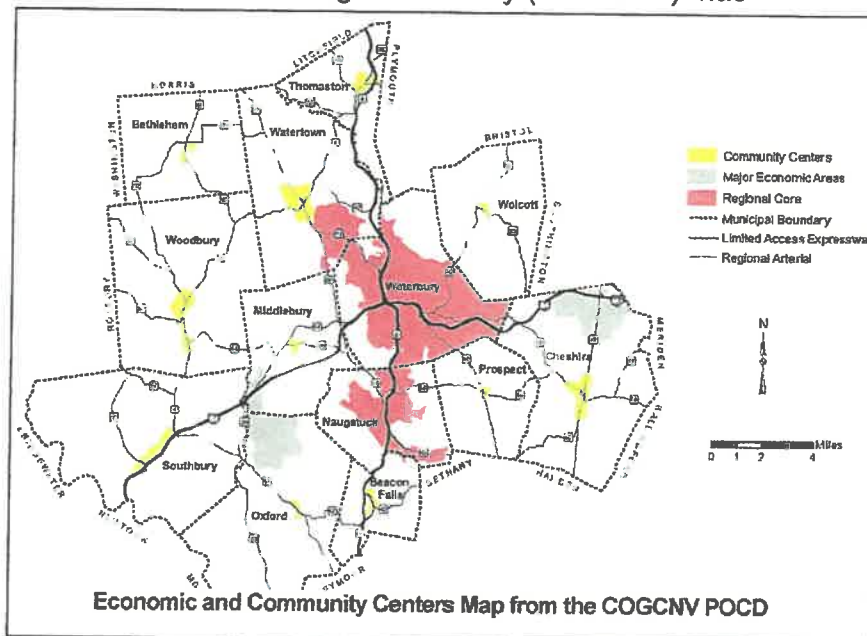
The implementation methods include the objectives listed above, as well as the specific implementation strategies included within the Middlebury Village area.

- a. Revise the C-40 zoning regulations to reflect the findings of the Middlebury Village area, as well as the other distinctive commercial areas of the Town.
- b. Review the sign regulations to ensure that they reflect the goals of the Town.
- c. Continue the use of the designation of conservation easements within areas designated as open space through the 2001 Plan of Conservation and Development, and the 2014 Plan as updated.
- d. Pursue all transportation improvements called for within the 2001 Plan of Conservation and Development.
- e. Revise the parking regulations section of the zoning regulations.
- f. Update landscape regulations to improve clarity.
- g. Limit intensive development to those areas designated as sewer service areas.
- h. Continue to implement the open space component of the 2001 POCD.
- i. Adopt recommendations to implement the Middlebury Village regulations.
- j. Begin the implementation of the Middlebury Village Plan by creating a streetscape design plan which could be used for a State Grant, such as the STEAP grant for construction of walkways and landscaping.

12. Conformance with State and Regional Plans

Conformance with Regional Plan of Council of Governments of the Central Naugatuck Valley

The Council of Governments of the Central Naugatuck Valley (COGCNV) has completed a number of regional plans including a *Long Range Transportation Plan*, *Regional Greenway Routing Study*, *Regional Bus Route Study* and most notably a *Regional Plan of Conservation and Development in 2008*. The plan was intended as a comprehensive approach to regional development. The COGCNV consists of the chief elected



officials of the member towns. The Regional Planning Commission, comprised of two locally appointed representatives from each municipality, is COGCNV's regional planning group. COGCNV serves as the state-defined regional planning organization (RPO), as well as the federally-defined metropolitan planning organization (MPO) for transportation planning in the region. Some of the more important major recommendations of the COGCNV *Plan of Conservation & Development Plan* were:

- *Guide the location of growth in the region towards the regional center and areas with infrastructure.*
- *Encourage periodic review of local land use regulations.*
- *Encourage Preservation of Cultural Resources.*
- *Encourage settlement patterns that reduce the rate of land consumption in the region.*

The draft Middlebury plan intends to be a method of implementation of these recommendations.

The regional plan also includes a Future Land Use Map. The Middlebury land use plan is consistent with the regional map.

Conformance with Draft State Plan of Conservation and Development

The Office of Policy Management has been working to update the State Plan of Conservation and Development. They have been going through a specific cross-acceptance process, in which staff has been meeting with representatives of the municipalities of the State, as well as staff of the regional planning organizations. The most recent draft is the "Revised Draft 2013-2018," which we are using as the basis to evaluate the consistency of the draft Middlebury Plan of Conservation and Development.

The Draft 2013-2018 State Plan of Conservation and Development is based upon the following Growth Management Principles:

- Growth Management Principle #1 Redevelop and Revitalize Regional Centers and Areas with Existing or Currently Planned Physical Infrastructure.
- Growth Management Principle #2 Expand Housing Opportunities and Design Choices to Accommodate a Variety of Household Types and Needs.
- Growth Management Principle #3 Concentrate Development around Transportation Nodes and Major Transportation Corridors to Support the Viability of Transportation Options.
- Growth Management Principle # 4 Conserve and Preserve the Natural Environment, Cultural and Historical Resources and Traditional Rural Lands.
- Growth Management Principle # 5 Protect and Ensure the Integrity of Environmental Assets Critical to Public Health and Safety.
- Growth Management Principle # 6 Promote Integrated Planning Across all Levels of Government to Address Issues on a State, Regional and Local Basis.

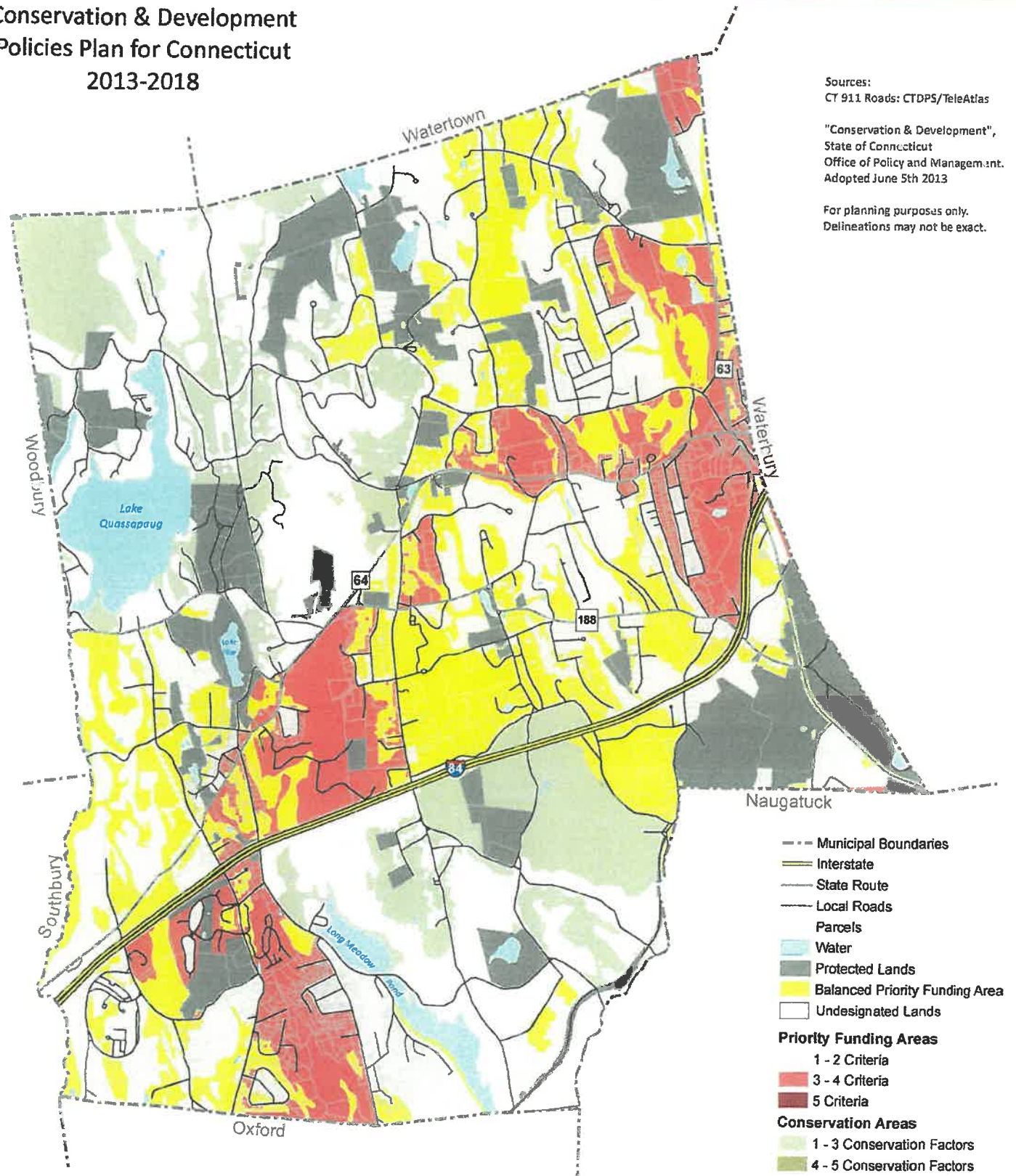
The proposed use of the Locational Guide Map (LGM) of State Plan has changed in guiding State Investment; as follows:

"The new role of the LGM is intended to serve three purposes (1) It reinforces the text of the State C & D Plan as the primary determinant of a policy action; (2) it ensures that any reference to LGM is a secondary consideration only after a proposed growth related project has been deemed to be consistent with the policies of the State POCD and (3) it allows state agencies to operate with sufficient discrepancy and transparency, as afforded them in accordance with CGS 16a 35d(c)."

Locational Guide Map - Middlebury

Conservation & Development
Policies Plan for Connecticut
2013-2018

Sources:
CT 911 Roads: CTDPS/TeleAtlas
"Conservation & Development",
State of Connecticut
Office of Policy and Management.
Adopted June 5th 2013
For planning purposes only.
Delineations may not be exact.



0 0.5 1 2 Miles



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There are some discrepancies between the Town Plan and the draft State Plan, as indicated in a letter sent to the Office of Policy Management. This letter pointed out that the Priority Funding Areas designated by the State included areas not designated with the Sewer Service areas.

Appendix – Excerpts From 2000 POCD – Transportation

The update of this plan was intended to be strategic, in that the only sections of the Plan which were considered outdated were revised. Originally the Open Space, Economic Development and Transportation sections were not part of the revision. However, as we worked through the process, the Commission determined that the background Open Space and Economic Development sections needed to be updated. As a result members of the Conservation Commission drafted an update to the Open Space section, and an updated Economic Development component was drafted in response to concerns about the dated information within the 2000 plan.

We also found some outdated comments and references within the Transportation component. However, since no significant changes to the Transportation recommendations or components are contemplated, we are including the 2000 Transportation section,, with the following updates included within the Plan.

1. DOT Traffic Volumes Map – The street names did not show up on the traffic volume map on the traffic volume map from the 2000 Plan. Therefore, we are including the most current State DOT Traffic Volume map herein, which contains updated information ,
2. Section 6.4 Rural Road Standards – It was determined that a definition of Rural Road Standards was required. Planning standards in 2000 included specific definitions and standards for different classification of roads. The most recent planning documents; The Central Naugatuck Valley Council of Governments Long Range Regional Plan, 2015-2014 does not include any specific standards, as its emphasis is to identify specific transportation issues and offer recommendations for improvements. Generally rural roads used to refer to roads 18' to 24' in width, with no curbs and sidewalks, utilizing above ground drainage where feasible.
3. Section 6.5 Sidewalks address the need for sidewalks in the CA-40 and PO-40 zoning districts. As the Gateway Industrial District had not been created in 2000, the need for this area along Route 188 had not been addressed. However, the adopted zoning regulations for this zone requires the installation of sidewalks within this area. Sidewalks will also be needed within all commercial districts, even if changed from CA-40 district.
4. Section 6.7 Capital Improvements address the potential needs of I-84 through Middlebury. At that time, no study of the highway had been done. Since then the "I-84 West of Waterbury Needs and Deficiencies Study, 2001" was completed. The study recommended an additional travel lane in each direction between Interchanges 13 and 18, as well as numerous phased changes to each of the interchanges. This project has been included within the Governor's recent long range transportation improvement plan.

5. 6.11 route 63/64 Intersection There was a typo in the first line as it should have read 63/64 Intersection.



6.0 TRANSPORTATION

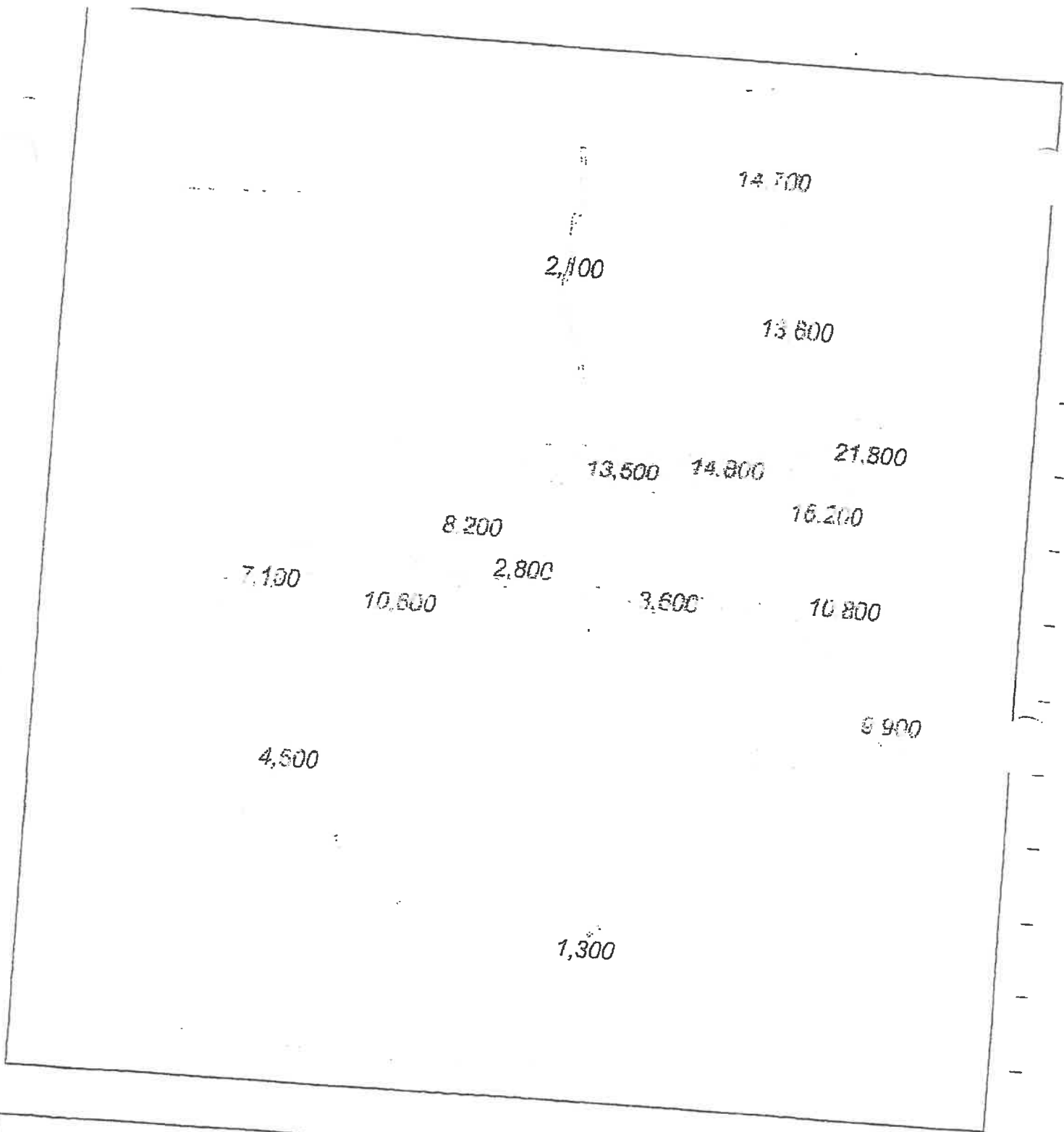
Middlebury's transportation network has been built over the past three centuries. Footpaths evolved into colonial roads establishing the basic roadway pattern. Later, additions included residential streets and the interstate highway. Today, a complex system of roads and highways serve the transportation needs of residents. This chapter of the Plan of Development examines the Transportation network, its functioning, and makes recommendations regarding changes to the system so that it operates smoothly.



6.1 Vehicle and Traffic Volume Statistics

The 1990 Plan reported 4,546 passenger vehicles. The 1998 Grand List reported 5,044 passenger vehicles, representing an 11 percent growth rate since 1990. Based on the 1998 population estimate, there are 1.2 persons per passenger vehicle in Middlebury, a decrease from 1.4 persons per passenger vehicle in 1990. This is a reflection of the continued trend toward smaller households with fewer children and more two-earner households.

Volume on town roads can be contrasted against data presented in the 1990 Plan of Development. The Traffic Volume map (Figure 6.1) graphically depicts average daily traffic volume counts during 1996. The State DOT determines average daily traffic volumes for road maintenance purposes. The values do not suggest peak usage problem sections. The road with the highest average daily traffic in Middlebury is State Highway 64 with nearly 22,000 vehicles per day. This section of Highway 64 provides a connection to I-84 and Highway 63.



Plan of Conservation and Development
Town of Middlebury, Connecticut



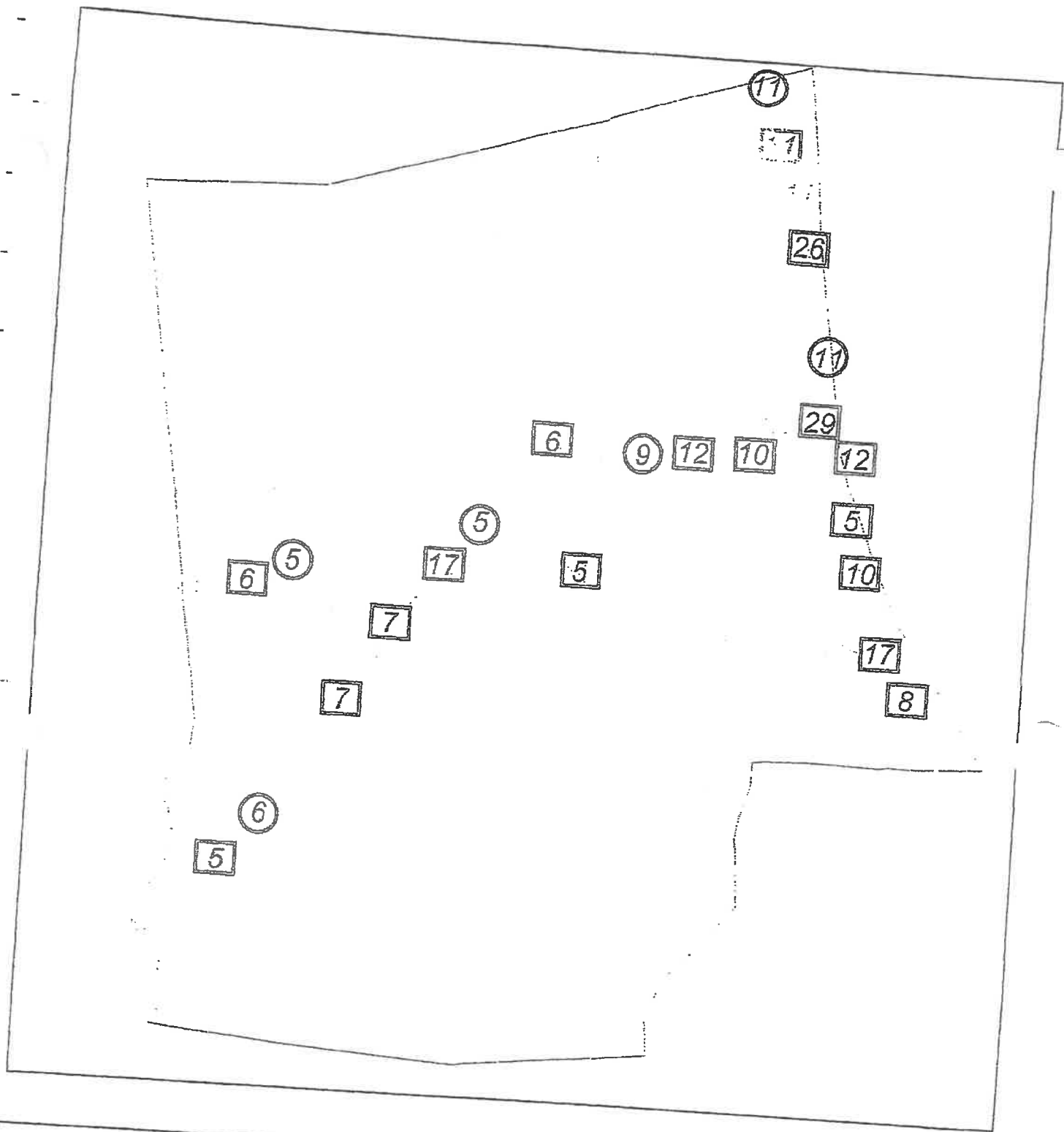
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BFJ Buckhurst Fish & Jacquemart, Inc.

Figure 6.1
Traffic Volumes

- 20,000 Average Number of Vehicles per Day
- 10,000 Average Number of Vehicles per Day
- 5,000 Average Number of Vehicles per Day

Source: CT DOT, 1996



Plan of Conservation and Development
Town of Middlebury, Connecticut

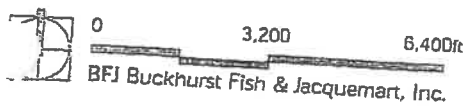


Figure 6.2
Accident Locations

5 Accidents at Intersections

5 Accidents Along Roadway Sections

Source: CT DOT, 1996



In 1985, 19,000 cars a day were using this section of Highway 64. Prior to that time, 12,500 vehicles per day were counted in the section east of Route 63. In general, volumes along Route 64 have increased significantly.

6.2 Accident Statistics

The Connecticut DOT keeps statistics on accidents that have occurred on state highways and on some Town roads. Examining the accident history for the Town from 1995 to 1997 reveals that most accidents occurred in high traffic volume areas and at or near major intersections (Table 6.2).

Table 6.1
High Frequency Accident Locations
Town of Middlebury, 1995-1997

| Route | Location | Number of Accidents |
|-----------|---|---------------------|
| Route 63 | At Park Road | |
| | Route 188 (Whittemore and Private Road) | 26 |
| Route 64 | At Route 64 | 17 |
| | Between Glenwood and Clearview Knoll | 29 |
| | At Steinmann Avenue | 12 |
| Route 188 | At Route 64 | 10 |
| | | 17 |

Source: Connecticut Department of Transportation.

6.3 Road Network and Functional Classification

The road network in Middlebury is composed of a hierarchy of roads, each serving a different function. The classification types include limited access highways, arterial and collector roadways and local and rural residential streets. The Circulation Plan map at the end of the chapter displays these functions for Middlebury roads.

I-84 is a limited access highway with an interchange in Southbury just over the western Town border on Route 188 and an interchange near the Town's eastern border on Route 63 which is partially in Middlebury.

Arterial roadways provide access to points within the community and connect it with surrounding towns. Within Middlebury, State Highways 63 and 64 serve as arterials.

State Highway 188 has characteristics of both an arterial roadway and a collector street. It is an arterial road west of Route 64. To the east of Route 64, low traffic volumes and two severe turns make it a collector street.

Collector streets "collect" traffic from neighborhoods and bring it to the arterial network. In Middlebury a number of streets, many established in colonial times, now serve as collectors. Most subdivision streets which have been created in the 20th Century are not through streets and only provide access to the residential developments. Because the town roads were developed in conjunction with fronting residences, many roadways serve conflicting functions of both residential access and arterial and collector functions. The

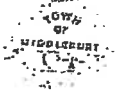


6.5 Sidewalks

Current regulations allow the Planning and Zoning Commission to require sidewalks in certain areas. They should be required in all new commercial developments within the CA-40 and PO-40 zones. In addition, the Town should consider developing a sidewalk construction program for the existing commercial areas in Town, particularly the Four Corners area. This is the highest priority area for new sidewalk construction. Second in priority is the area along Route 63 south of I-84 to Country Club Drive.

Standards for construction of sidewalks in residential areas should be based on the number of houses to be served and the density of those houses. A cul-de-sac in the R-80 district with only 10 homes along it does not have the levels of traffic needed to warrant sidewalks along the wide frontages of each lot. Within the denser R-40 zones in areas developed with curbs and gutters, sidewalks are generally needed.

In addition, in some rural areas, a sidewalk may be needed to connect the subdivision to a commercial area or to a major roadway. Such off-site sidewalks could be required in lieu of construction of the sidewalk in the low-density subdivision itself. Sidewalks should also be required near schools. Eventually, most major arterial and collector roadways in the denser areas of the community (R-40) should have sidewalks as well. In instances where the Town wishes to preserve the rural character of the roadways, an asphalt sidewalk may be appropriate. In other areas, concrete should be used because of its durability. In residential areas, sidewalks should be at least 4 feet in width, while in commercial zones the standard should be at least 5 feet.



6.6 Improvement to Existing Roads

Most future roadway construction in town will consist of residential streets since the basic pattern of collector and arterial roadways has been set. Most of the existing designated collector roads in Town do not meet the standards developed for new collector streets. Many are narrow, colonial roads serving functions never envisioned for them. Although some improvements should be made for safety reasons, such as widening the causeway on Breckneck Hill over Abbott's Pond, any general upgrading of these streets might harm their historic character which contributes to the image of the Town of Middlebury. Thus the Town may be faced with difficult decisions regarding whether to expand these roadways to accommodate more traffic.

At present, the traffic levels on these roadways do not necessitate their expansion. Traffic counts should be taken regularly to determine whether improvements to any collector streets are required. In general, average daily traffic levels above 1,500 vehicles per day indicate that street design should be reviewed. Potential improvements include widening of the through traffic lanes to 10-12 feet in each direction, eliminating dangerous horizontal and vertical curves, marking or eliminating hazards such as trees near the pavement areas, and improving drainage.

6.7 Capital Improvements

The Town of Middlebury has an ongoing program of maintenance for Town roads. Tucker Hill Road and Regan Road are examples of the roads that have been widened or otherwise upgraded in recent years. Additional roads scheduled for maintenance include Glenwood Avenue and Breakneck Hill Road. Glenwood Avenue requires widening for a safer four-way intersection. Breakneck Hill would benefit from a widening at the Abbotts Pond bridge crossing.

The State DOT's 1997 Master Plan did not assign any major transportation projects to the Middlebury area for the 1998 to 2007 time period. The DOT, however, is in the process of determining the needs of I-84 and is expected to complete a detailed assessment in mid-2001. At the very least, it is expected that I-84 capacity will be expanded to three lanes in both directions from Southbury to Waterbury, as is currently being constructed along the Waterbury to Southington segment. A similar improvement is anticipated along the Danbury to Southbury segment.

6.8 Oxford-Waterbury Airport

The Oxford-Waterbury Airport is located in Oxford, abutting the southern boundary of Middlebury. The facility houses private planes, including corporate aircraft, and provides bulk transport services. The airport runway was expanded to allow for a wider variety of aircraft, but has not sustained the continued services of commercial passenger operator.

Middlebury's efforts should also be devoted to working with the airport to develop operational regulations to minimize the impact of severe airport noise on its residents. For example, high-density developments should not be located directly under airport traffic patterns, for safety reasons.



6.9 Bike Routes

The State DOT produces a bicycle map that highlights routes for recreational cycling. There are two recommended routes within the Town: a north-south route along Guntown Road/South Street/Artillery Road/Middlebury Road and an east-west route to the Town Green along Routes 188 and 63. These routes exist on paper only with no road striping or signage to guide cyclists.

6.10 Recommended Thoroughfare Improvements and Circulation Plan

This Plan, unlike previous plans, does not recommend any new road or extensions. A number of road widening projects are recommended to improve flow and safety (see Figure 2.3). These include Breakneck Hill Road and Glenwood Avenue. Roads that should be upgraded for collector use from their local road status include North Benson Road, Glenwood Avenue and Three Mile Hill Road.

6.11 Route 63/64 Intersection

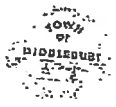
The State had reconstructed the Route 63/69 intersection and a relocation of Kelly Road. The intersection improvements will provide additional turning lanes, particularly on westbound 64.

Even with the improvements, the roadway still does not operate at an acceptable level of service. In 1990, the Central Naugatuck Council of Governments projects volumes on Route 64 east of Route 63 to rise from 19,000 vehicles per day to 24,500 vpd. The 1996 State DOT data revealed volumes are approaching 22,000 vehicles per day. The COG noted that a Route 64 bypass of Route 63 is still a regional priority for improvement. Such a bypass would run south of the current Route 64 between Rose Court and Woodside Avenue. Route 64 would overpass Route 63 with ramps provided at the intersection. Such an option should not be precluded, but because of possible adverse impacts on adjacent residential areas is not the preferred alternative at the present time.

A better alternative for easing congestion at the Route 63/64 intersection is to provide an additional off ramp from westbound I-84 leading directly to Route 63 and to provide an eastbound entrance to the freeway from Route 63. Southbound Route 63 traffic coming from I-84 could avoid the congested 63/64 intersection as could traffic traveling north on Route 63 and headed to eastbound I-84. This alternative was suggested in the 1973 Plan of Development. Construction of the planned commuter lot at the southeast corner of I-84 and Route 63 could block or complicate this alternative.

The widening of Route 64 past the rock cut at the Waterbury city line to provide additional capacity was also suggested by the 1973 Plan. This may provide interim relief beyond currently scheduled improvements and before funds can be allocated for the new ramp or the bypass alternative.

The Town of Middlebury should pursue the construction of ramps to and from I-84 with the State. Additional improvements to the Route 63/64 intersection such as a bypass road should be kept in the regional transportation improvements plan.



6.12 I-84 Interchange

The previous plans had recommended new I-84 interchange where Long Meadow Road intersects with the interstate highway. Primarily a new access point would serve the industrially zoned IBM lands and to serve as a by-pass for Woodbury traffic. Since there is less likelihood today of IBM developing their land for industrial purposes, the need for an interchange is not warranted. This plan does not provide for any new interchange recommendations.

6.13 Scenic Roads

Section 7-149a of the Connecticut General Statutes allows for the Town to designate roads, or portions thereof, as scenic. The designation affords the residents that the aesthetic and historic value of a roadway is protected from alteration by Town officials. Such alteration would include widening of the road pavement, straightening of curves, increasing speed limits and lessening steep grades. Routine maintenance of the road would continue and would allow for tree trimming and removal, utility maintenance, treatment and repair of surfaces and emergency repair. The designation only affects public land and has no bearing or impact on the rights of private landowners.

To facilitate a scenic road designation, the Town may adopt a scenic road ordinance that satisfies the requirements: 1) that the majority of owners abutting the road agree with the designation and, 2) that the road be free of intensive commercial development and meet at least one of the following criteria;

- it is unpaved
- it is bordered by mature trees or stone walls
- the traveled portion is no more than 20 feet in width
- it offers scenic views
- it blends naturally into the surrounding terrain
- it parallels or crosses brooks, streams, lakes or ponds.

As discussed in the open space chapter, White Deer Rock Road was previously cited as having valuable local cultural and aesthetic value and should be designated as a scenic road. Other roads have been brought to the Planning and Zoning Commission's attention for designation.

In addition, the Town may wish to ask the State to designate portions of highways. Public Act 87-280 authorizes the Connecticut Commissioner of Transportation to designate state highways or portions of state highways as scenic roads in consultation with the Commissioners of the Departments of Environmental Protection and Economic and Community Development. A scenic road is defined as any state highway that: 1) passes through agricultural land or abuts land on which a historic building or structure listed on the National Register of Historic Places or the State Register of Historic Places is located, or 2) affords vistas of marshes, shorelines, forests with mature trees or notable geologic or other natural features that set the highway apart from other state highways as being distinct.

The highway shall have a minimum length of one mile and shall abut development that is compatible with its surroundings. Roads that are designated as scenic have special



improvement and maintenance standards aimed at preserving the character of the road. These standards address issues such as widening, pavement, removal of mature trees, etc. The scenic road designation also makes a designated roadway eligible for an additional pool of federal funding through the National Scenic Byways Program.

6.14 Roadway Hierarchy

The recommended circulation plan established a functional classification scheme or hierarchy for Town roads. As traffic levels increase, the proposed collector roads should be evaluated for safety and intersection improvements. Selected widening projects may become necessary as well. Any such program should be sensitive to the rural character of many of these roadways. The following roads should be added as collector streets.

- Glenwood Avenue
- Three Mile Hill Road
- Country Club Road
- Benson Road