

Town of Fairhaven

Fairhaven 2040

Master Plan

COVER PAGE PLACEHOLDER

DRAFT

June 2017

DRAFT

Table of Contents

Table of Contents	i
List of Tables	iii
List of Figures	iii
Executive Summary	1
Introduction.....	1
Process.....	1
Vision, Goals, and Recommendations	1
Vision Statement	1
Goals and Recommendations	1
Land Use	13
Introduction.....	13
Baseline Conditions Analyses	14
Goals and Recommendations	27
Housing.....	28
Introduction.....	28
Baseline Conditions Analyses	28
Goals and Recommendations	35
Economic Development.....	36
Introduction.....	36
Baseline Conditions Analyses	38
Goals and Recommendations	47

Public Facilities and Services	50
Introduction.....	50
Baseline Conditions Analyses	51
Goals and Recommendations	60
Open Space and Recreation.....	63
Introduction.....	63
Baseline Conditions Analyses	63
Goals and Recommendations	63
Transportation.....	67
Introduction.....	67
Baseline Conditions Analyses	67
Goals and Recommendations	77
Historic and Cultural Resources.....	79
Introduction.....	79
Baseline Conditions Analyses	80
Goals and Recommendations	87
Sustainability.....	89
Baseline Conditions Analyses	89
Goals and Recommendations	103

List of Tables

To be added.

List of Figures

To be added.

DRAFT

Executive Summary

Introduction

To be added.

Process

To be added.

Vision, Goals, and Recommendations

Vision Statement

By 2040, Fairhaven will be regionally known as a rural coastal community where its unique history and built and natural characteristics are preserved and celebrated. The Town's sense of community will be enhanced by well-balanced land uses where strategic infill development rejuvenates existing residential neighborhoods, regional and local commercial nodes, and industrial areas while valuable farm lands, open spaces, natural habitats, and coastlines are protected. The Town supports its residents of all ages, abilities and income levels with a variety of housing choices and provides quality employment opportunities, education, recreation, and other town services to those living, working, and visiting here. The Town will stand on a strong financial footing while making essential investments to improve the quality, capacity, and sustainability of its facilities and services.

Goals and Recommendations

Land Use

Goal 1: Balance growth and preservation.

Recommendations:

1. Preserve rural characteristics by protecting open spaces and supporting remaining working farms through continuous community preservation efforts, particularly partnerships with the Buzzards Bay Coalition.
2. Encourage infill commercial and residential development in existing, established areas where water and sewer services are provided.

3. Differentiate industrial zones and business zones to encourage business and commercial developments in appropriate locations within the community.

Goal 2: Encourage strategic redevelopment in the Route 6 commercial area.

Recommendations:

1. Develop a detailed Route 6 commercial area revitalization plan to guide redevelopment. The plan should incorporate analysis of appropriate types of redevelopments, scale/dimension/design of such developments, as well as potential zoning changes and infrastructure and services needed to support these redevelopments.
2. Consider creating Route 6 mixed-use overlay zoning district to stimulate mixed use commercial and residential redevelopment.

Goal 3: Promote neighborhood commercial nodes and small local businesses.

Recommendations:

3. Adopt effective zoning to remedy non-conforming historic uses for small neighborhood businesses.
4. Review and update zoning to allow more flexibilities that support small business development, such as home-based business, residential commercial mixed use, etc.

Housing

Goal 1: Keep future residential development in or near existing residential areas to maintain the village character.

Recommendations:

1. Encourage infill residential developments in existing residential neighborhoods that reflect the historic and cultural characters of various neighborhoods.
2. Explore possibilities of housing conversion of existing municipal and/or commercial buildings and housing rehabilitation of blighted properties.

Goal 2: Maintain and encourage a variety of housing that is affordable to non-elderly individuals and families of all income levels.

Recommendations:

1. Identify potential sites, possibility through municipal land assemblage or public/private partnership, for non-elderly affordable rental housing developments utilizing the Low Income Housing Tax Credit (LIHTC) program.

2. Consider adopting an inclusionary zoning bylaw to require affordable housing in any residential development that requires a special permit.
3. Provide more flexibility and incentive in the Accessory Dwelling Unit bylaw to encourage the creation of market rate or affordable rental units that support moderate to low income residents.
4. Consider allowing mixed-use residential and commercial developments in established service and employment centers as a means to expand market-rate housing stock.

Goal 3: Continue providing affordable and age-appropriate housing options for senior populations in the community.

Recommendations:

1. Pursue affordable housing programs and funding at the identified two-acre site off of Main Street adjacent to Oxford Terrace Apartments.
2. Provide more flexibility and incentive in the Accessory Dwelling Unit bylaw to encourage the creation of smaller housing units that supports downsizing seniors to age in place.
3. Explore zoning tools, such as performance zoning and density bonuses, to encourage development of age-appropriate market-rate ownership units designed to serve the needs of an elderly population, e.g. attached or detached condominium units with first floor bedroom/bathroom suits, accessible grades, attached garages, and maintenance support, etc.

Economic Development

Goal 1: Preserve the commercial viability of the working waterfront and seek balance with neighboring land uses, while simultaneously exploring opportunities to make the waterfront more accessible to the community.

Recommendations:

1. Hire a planning firm specializing in waterfronts to create a redevelopment plan for the working waterfront that would preserve key commercial zones, improve vehicular circulation, emphasis pedestrian access, and create a better tourist/public realm experience along the waterfront.
2. Evaluate streets along the working waterfront for a possible conversion to one-way to improve traffic movements and reduce conflicts.
3. Track and to the extent possible integrate with the Waterfront Redevelopment Plan being performed in 2017 on behalf of the New Bedford Harbor Development Commission.

4. Explore the needs of infrastructure upgrades to support the long-term viability of the working waterfront in light of the foreseeable sea level rise, in concert with the recommendation of the Hazard Mitigation Plan effort.

Goal 2: Maintain healthy commercial occupancies along Route 6 and in other commercial nodes and retain service related jobs wherever possible.

Recommendations:

1. Work with major commercial property owners to determine potential large-scale vacancies before they occur to initiate early strategic discussions for maintaining occupancies or redeveloping the site.
2. Work with large employers such as Acushnet and Southcoast Medical Center to identify strategies for retaining/growing employment base and meeting future space needs.
3. Consider introduction of tax credit/tax abatement programs for job creation.

Goal 3: Encourage mixed-use projects on key redevelopment parcels in support of a live, work, play environment.

Recommendations:

1. Consider a joint town/property study to engage a real estate advisory firm to create a redevelopment strategy for a key commercial property with an unhealthy level of vacancy.
2. Explore town related functions occupying spaces in vacant commercial buildings whenever appropriate.
3. Promote mixed-use development through land use, zoning, and development incentives.
4. Develop a detailed revitalization plan to guide redevelopment of commercial nodes in town. The plan should incorporate analysis of appropriate types of redevelopments, scale/dimension/design of such developments, as well as potential zoning changes and infrastructure and services needed to support these redevelopments.
5. Consider creating a Route 6 mixed-use overlay zoning district to stimulate mixed use commercial and residential redevelopment. Making provisions for mid- to high-density residential will be important.

Goal 4: Revise business regulations and enhanced programs to continue to support the incubation and growth of small businesses.

Recommendations:

1. Plan and potentially fund a small-scale, low-cost business incubator to be housed in vacant commercial space along Route 6.

2. Adopt effective permitting procedures for small neighborhood businesses.
3. Review and update zoning to allow more flexibilities that support small business development, such as home-based business, residential commercial mixed use, etc.
4. Revisit signage ordinance to allow for more flexibility for businesses.

Goal 5: Collaborate with New Bedford and other nearby towns on issues of workforce training/regional economic development to elevate the profile of South Coast.

Recommendations:

1. Consider engagement of a market/branding firm to develop a targeted campaign for the South Coast.
2. Partner with New Bedford to develop a joint economic development strategy for the Harbor.
3. Join regional effort to support the South Coast Rail extension.
4. Explore future economic development opportunities in and around the harbors as catalyzed by the upcoming replacement of the Fairhaven-New Bedford bridge.

Public Facilities and Services

Goal 1: Develop plans and funding to rebuild, expand, or replace key public facilities, and the staff needed to support the Town operations.

Recommendations:

1. Develop a Facilities Master Plan for all Town buildings that identifies near, mid, and long term improvements (and costs), so that the Town will have a comprehensive inventory of the required maintenance and capital improvements needed for its public facilities.
2. Develop a plan to implement the recommendations identified in the Facilities Master Plan.
3. Assess the need to add staff and enhance necessary staff trainings to departments to address anticipated growth and implement the recommendations included in the 2040 Master Plan so that the town can deliver its services effectively.

Goal 2: Ensure public safety officials have the facilities to handle today's needs as well as projected future needs of the community.

Recommendations:

1. Prioritize the relocation and expansion of the Police and Fire Department to address community safety needs.

2. Allocate appropriate funds in the Town's Capital Improvement Plan to support necessary upgrades and improvements to the Police and Fire Department.
3. Continue to invest in training and professional development for Fairhaven's Police and Fire Department staff.

Goal 3: Enhance senior services in Fairhaven.

Recommendations:

1. Explore feasibility of expanding the current Senior Center to meet the space needs for programs serving the Town's senior population.
2. Evaluate and enhance transportation services offered to seniors and residents with disabilities.
3. Provide additional recreation opportunities geared toward seniors through the Recreation Department.
4. Encourage collaboration among the COA, Recreation Department and Fairhaven Public Schools to promote inter-generational activities.

Goal 4: Develop plans for key infrastructure elements that need improvement.

Recommendations:

1. Continue to fund annual improvements to roadways and seek opportunities to obtain state funding for long-term transportation enhancements as identified in the Transportation chapter.
2. Prepare an updated master plan for the Water Department to forecast future needs for investments in pump stations, wells, and the delivery of water to the Town.
3. Invest in an Automatic Reader System for water meters in Town to improve the Town's ability to collect meter reading data and billing procedures.
4. Prepare a long-term plan for the use of the Sludge Digester System to ascertain the cost benefit of the continued use of this facility, considering new MS4 permitting requirements.
5. Prepare a long-term plan for the Sewage Treatment Plant to ascertain the cost benefit of the continued use of this facility, considering new MS4 permitting requirements.
6. Invest in education programs and materials that provide residents and business owners information about solid waste and recycling programs to improve the town's participation rate in these programs.

Goal 5 Continue to take advantage of opportunities for sustainable energy within the Town's facilities and services.

Recommendations:

1. Undertake an energy audit of municipal buildings and develop a plan to implement recommendations
2. Undertake a vehicle fleet assessment to ascertain opportunities to right size vehicles and increase fuel efficiency (See Sustainability goals for Green Fleets)
3. Incorporate cost-effective Green Infrastructure strategies into all municipal projects for storm water management, drainage.
4. Seek ways to increase recycling and reduce solid waste disposal.
5. Educate Town residents about storm water issues and proper management.

Goal 6 Invest in the Town's schools to provide state -of -the-art educational facilities

Recommendations:

1. Work closely with the School Department of identify capital improvements that are needed to support the schools, such as window and exterior renovations to the High School, dedicated internet service, and other improvements needed to maintain and enhance the Town's schools.

Transportation

Goal 1: Become a bicycle and pedestrian friendly community by expanding existing bicycle and pedestrian facilities.

Recommendations:

1. Develop a Town-wide Complete Streets Policy and apply for MassDOT Complete Streets grants
2. Focus new sidewalk construction in areas with missing segments and around attractions (e.g. Downtown, Schools and the Bike Path).
3. Use signage and pavement markings to define a Town-wide on-street bicycle network.
4. Work with MassDOT and the City of New Bedford to provide a safe bicycle connection to the proposed New Bedford Transportation Center.
5. Educate the community on bike rules and safety, including "Safe Routes to Schools" and other use of bike facilities.

Goal 2: Increase the use of public transit by Town residents and employees.

Recommendations:

1. Join regional efforts to support the South Coast Rail extension.
2. Educate residents on available existing and future public transit services (post schedules in public places, including public school, Town Hall and the library).

3. Work with the SRTA, neighboring communities and local businesses to enhance the existing local shuttle service.
4. Work with SRTA to add support facilities (benches, shelters, parking, etc.) at existing SRTA bus stops.
5. Work to expand door-to-door service for disabled and aging residents.

Goal 3: Improve Town-wide traffic flow and safety.

Recommendations:

1. Work with MassDOT to advance safety improvements at HSIP-eligible locations, particularly the intersection of Route 6 and Bridge Street.
2. Evaluate streets surrounding the Downtown and waterfront for possible conversion to one-way to improve traffic movements and on-street parking.
3. Improve wayfinding signage through-out the Town.
4. Work with the police department to develop a strategic traffic enforcement plan.
5. Address safety issues related to heavy truck traffics in North Fairhaven near the quarry.

Goal 4: Improve maintenance of Town-wide transportation system.

Recommendations:

1. Prepare a sidewalk inventory and construction/maintenance plan.
2. Prepare a Town-wide pavement management plan.
3. Work to upgrade existing pedestrian facilities to conform to current ADA/AAB standards.
4. Work with MassDOT to upgrade existing traffic signals along Route 6 and Route 240.
5. Upgrade existing pavement markings and signage Town-wide.

Open Space, Recreation, and Natural Resources

Goal 1: Preserve our farmland and working agricultural landscapes.

Recommendations:

1. Acquire specific critically located parcels of land to prevent development in inappropriate (e.g., coastal) areas in Fairhaven.

2. Encourage continued participation and enrollment in farmland and forestry preservation programs under MGL 61, 61A and 61B, and in the state's Agricultural Preservation Restriction (APR).
3. Preserve important agricultural soils/working agricultural landscapes in conjunction with state and local food systems security planning
4. Work with the Agricultural Commission to develop an up-to-date Plan of Work that integrates appropriate conservation and open space goals and objectives

Goal 2: Increase awareness and stewardship of our conservation, open space, and recreational assets.

Recommendations:

1. Develop a web-based map of conservation, recreation, and open space assets as part of an Open Space and Recreation web page
2. Prepare information, including directional and on-site narrative and graphic signage and brochures, highlighting conservation and recreation areas, and encouraging stewardship and appropriate use.
3. Establish a permanent Open Space Committee to work with other boards and commissions to help promote the Open Space and Recreation Plan

Goal 3: Set aside more land for conservation, open space, and water supply protection.

Recommendations:

1. Continue to work with the Mattapoisett River Valley Water Supply Protection Committee to protect the resources of the Mattapoisett River aquifer.
2. Revise and update the provisions of the Water Protection Overlay Zoning District in the Nasketucket River Watershed.
3. Encourage responsible and continuous land use management and planning within all water and marine related resource areas.

Goal 4: Provide quality life-long recreational opportunities for all citizens regardless of age or ability.

Recommendations:

1. Continue to develop recreational and athletic facilities, including multi-purpose fields, pathways, and play areas, particularly in underserved parts of town.
2. Meet ADA required accessibility standards for access to all town-owned conservation, recreation, and athletic facilities, per the ADA Transition Plan.
3. Improve access and facilities at the Town Beach on West Island.
4. Continue to work to develop bicycle connections from the existing Phoenix path to other parts of town and to existing regional pathways.

5. Work with the Wellness Committee to plan and develop the recommended Fitness Trail.

Historic and Cultural Resources

Goal 1: Enact a Demolition Review Bylaw.

Recommendations:

1. Two introductory public meetings over the next year, cosponsored by the FHC and the Planning Board, to introduce the topic and initiate community discussions.
2. Draft bylaw components based on input from the public meetings.
3. Finalize bylaw based on public input and bring to the Town Meeting. Revisit bylaw components based on objections as necessary.
4. Produce reference booklet that provides relevant information regarding the bylaw for property owners, realtors, and community members.
5. Institute communications program to inform and assist property owners subject to bylaw, and ensure that the demolition review program is maintained in a responsible way.

Goal 2: Expand Understanding of Historic Resources in the Town.

Recommendations:

1. Complete historic resource inventories of two neighborhood subdivisions or landscapes (farmsteads, culturally-significant open space, etc.) over the next five years.
2. Expand use of 20th century history in heritage programming.
3. Utilize historic development to guide planning and zoning efforts for mixed-use development.
4. Consider establishment of neighborhood conservation districts or local historic districts.

Goal 3: Establish local historic district(s).

Recommendations:

1. Create local historic district study committee, under the provisions of M.G.L. Chapter 40C, General Laws.
2. Utilize historic resource inventory form (see Goal 2) to determine the historic significance of the local historic district and approximate boundaries. Potential local historic district areas include the town center, and the Poverty Point neighborhood.
3. Initiate public opinion surveys and to gauge public interest. Use newspaper articles, newsletters, local access TV stations, and other forums to share potential benefits and property owners' concerns, and address any misunderstandings.

4. Produce preliminary study report including proposed local historic district methodology, significance, boundary justification, recommendations for bylaw, map, property index, historic resources inventory form(s), and photographs. Submit preliminary study report to MHC for review.
5. Hold public hearing on proposed district.
6. Produce final report based on comments received and bring to town meeting. When passed, notify Attorney General, record map at Registry of Deeds, and notify MHC.

Goal 4: Link Historic Preservation with Economic Development.

Recommendations:

1. Prepare/sponsor National Register nominations for threatened buildings and areas.
2. Advertise National Register status to realtors and developers, encouraging the use of tax credits and highlighting successful historic tax credit rehabilitation at Oxford School.

Sustainability

Goal 1: Establish systems for assessing, tracking, and reporting on the Town's sustainability performance.

Recommendations:

1. Conduct an energy baseline assessment for municipal operations and community-wide.
2. Complete a local government operations greenhouse gas (GHG) inventory.
3. Complete a community scale GHG inventory.
4. Develop, procure, or utilize a data management system that tracks, at a minimum, municipal operations energy and water consumption, costs, and associated GHG emissions.

Goal 2: Lead by example through continuous improvement of the energy efficiency of government operations and promotion of community energy efficiency programs.

Recommendations:

1. Conduct energy audits at Town facilities and develop a plan for implementation of Energy Conservation Measures.
2. Develop a Green Fleet plan and vehicle replacement schedule.

3. Provide information to the community about free and discounted energy audits, appliance rebates, and other energy improvement programs available to residents and businesses.

Goal 3: Enhance Fairhaven's resiliency to the likely impacts of a changing climate.

Recommendations:

1. Invest in infrastructure improvements that will protect the Town from the impacts of sea level rise, storm surge, and other flooding events, as well as extreme heat.
2. Update the Town's stormwater regulations to emphasize low-impact development, green infrastructure, and incorporation of future precipitation/flooding projections.
3. Incorporate future climate conditions into emergency response and evacuation plans.
4. Establish neighborhood networks of residents and businesses that are educated on sustainability and climate change resiliency and able to communicate effectively, especially to vulnerable citizens, during periods of emergency.

Goal 4: Position Fairhaven to leverage state, regional, and national resources for sustainability and resiliency.

Recommendations:

1. Evaluate current Green Community designation requirements and establish a clear plan for the Town to pursue designation and associated funding.
2. Adopt the STAR Community Rating System as a framework for making Fairhaven a more sustainable and resilient community.

Goal 5: Adopt land use, zoning, and building code policies that support healthy, sustainable development

Recommendations:

1. Promote mixed-use development through land use, zoning, and development incentives.
2. Adopt green building standards or incentives for development over an established size threshold.
3. Adopt a Complete Streets Policy.
4. Require that affordable housing be built to sustainable standards (such as LEED or Enterprise Green Communities) to ensure that such housing stock is healthy and affordable.

Land Use

1

Introduction

Land use refers to the arrangement of residential, commercial, industrial, institutional, agricultural and other human activities on the land, as well as the natural landscape of rivers and streams, wetlands and beaches, and forests and grasslands that sustain the ecological balance. The patterns of land uses in a community are the results of centuries of human social and economic activities in synergy with the continuous workings of the natural ecosystem.

Land use forms the basis for master planning and to a large extent determines a community's need to provide public facilities and infrastructure, transportation networks services, mix of housing available to residents, and protection of environmental and historic resources. The Land Use element of the Master Plan encompasses all other elements as it provides guidance on how land resources in the community should be strategically used in order to facilitate decision-making and address related issues.

Fairhaven is a New England coastal suburban community that's long been appreciated by its residents for rich histories, diverse natural resources, well-sustained local economies, and modest housing stocks. As Fairhaven plans for its future, the Town has the ability to control land use and development patterns through a variety of mechanisms, including zoning and subdivision regulations and incentives, provision of public utilities and infrastructure, as well as acquisition and other open space conservation approaches. Build upon the past and present, Fairhaven aspires to take advantage of new development and preservation opportunities to revitalize the historic town center and key commercial corridors, balance commercial, industrial, and residential growth, and enhance open space protection and public accessibility.

The Land Use element of the Master Plan offers an opportunity to refresh understandings on the Town's historical land use patterns and changes, identify key issues and challenges as related to how land resources should be best utilized or preserved towards achieving the

overall vision of the community, and develop goals and policy recommendations to address these issues.

Baseline Conditions Analyses

Historical Land Use

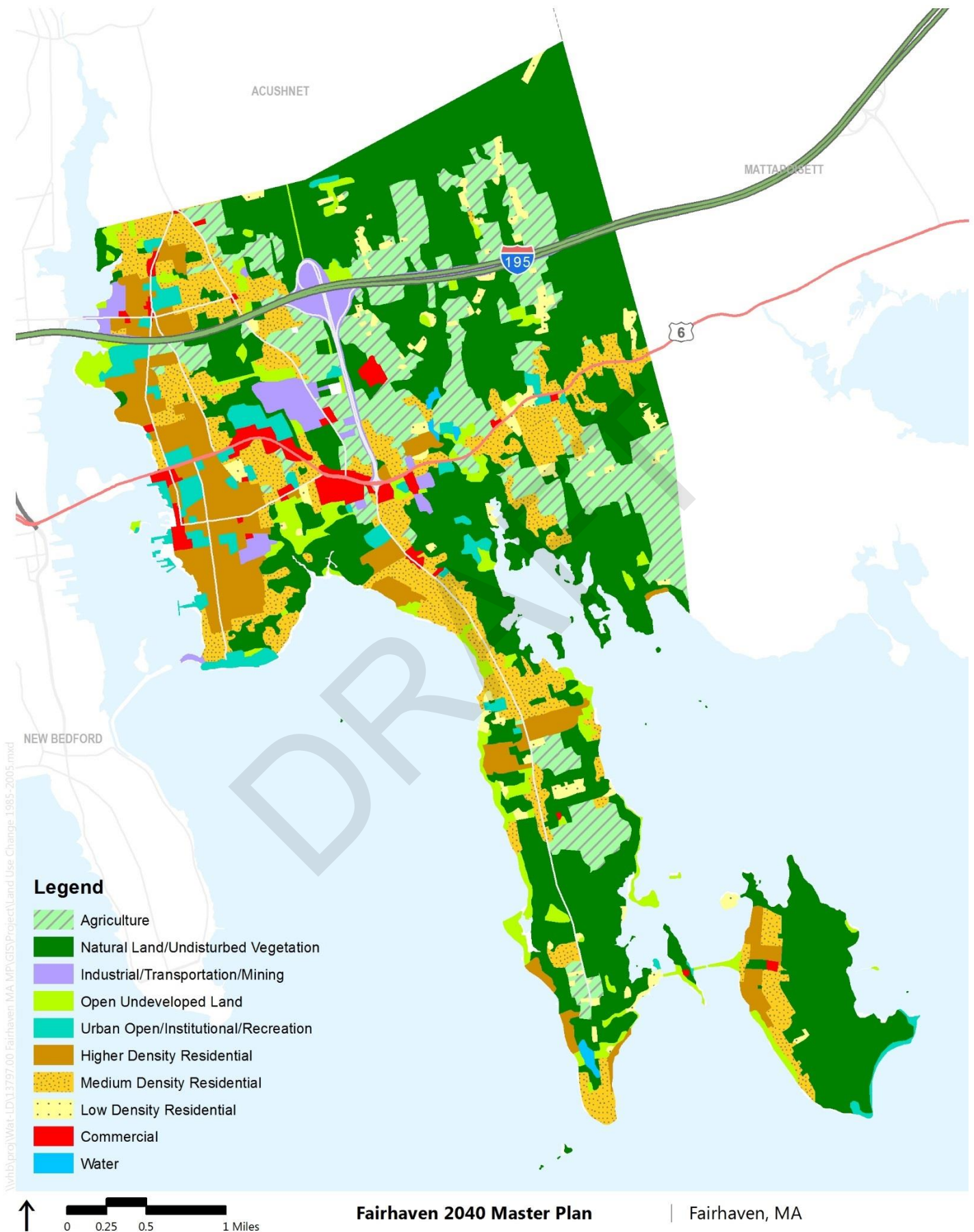
Fairhaven is located on Buzzards Bay in the extreme southeastern corner of Bristol County. The Town of Acushnet is to the north, Mattapoisett to the east, and the City of New Bedford, New Bedford Harbor and Acushnet River to the west border Fairhaven. Its coastal location and more than 29 miles of coastline are important determining factors in the Town's history, character, and the magnitude and distribution of its land uses. Closely linked to the nineteenth century whaling and fishing industries of New Bedford, Fairhaven's working waterfront today is an on-going reminder of days of shipbuilding, whaling, and fishing¹. The historic and picturesque 19th century Town center is clustered around the waterfront on the Acushnet River.

Most of Fairhaven's residential development is located within one mile of New Bedford Harbor in the western part of Town, and extends to the east along Route 6, to the south along Sconticut Neck Road on the northern portion of Sconticut Neck, and on the western one-third of West Island. The Town's commercial and industrial development is primarily located along U.S. Route 6, east of its intersection with State Route 240, or in Fairhaven Center along the waterfront. The rest of Fairhaven is dominated by an "open" landscape of forests, farm and open lands, and wetlands or salt marshes.

The Massachusetts Office of Geographic Information (MassGIS) has compiled digital statewide land use data developed from aerial photographs of 1985, 1999 and 2005. Comparing these datasets help understand pattern and change of the land use, or land cover, of Fairhaven over the intervening years (see Table 1-1). In 1985, about two thirds of Fairhaven were undeveloped land consisting of agricultural land, natural vegetated areas, and other open lands. The one third that was developed consisted mainly of residential land (25.6 percent), with commercial land accounting for 2.1 percent, industrial and transportation land 4.4 percent, and institutional/recreation land 3.4 percent.

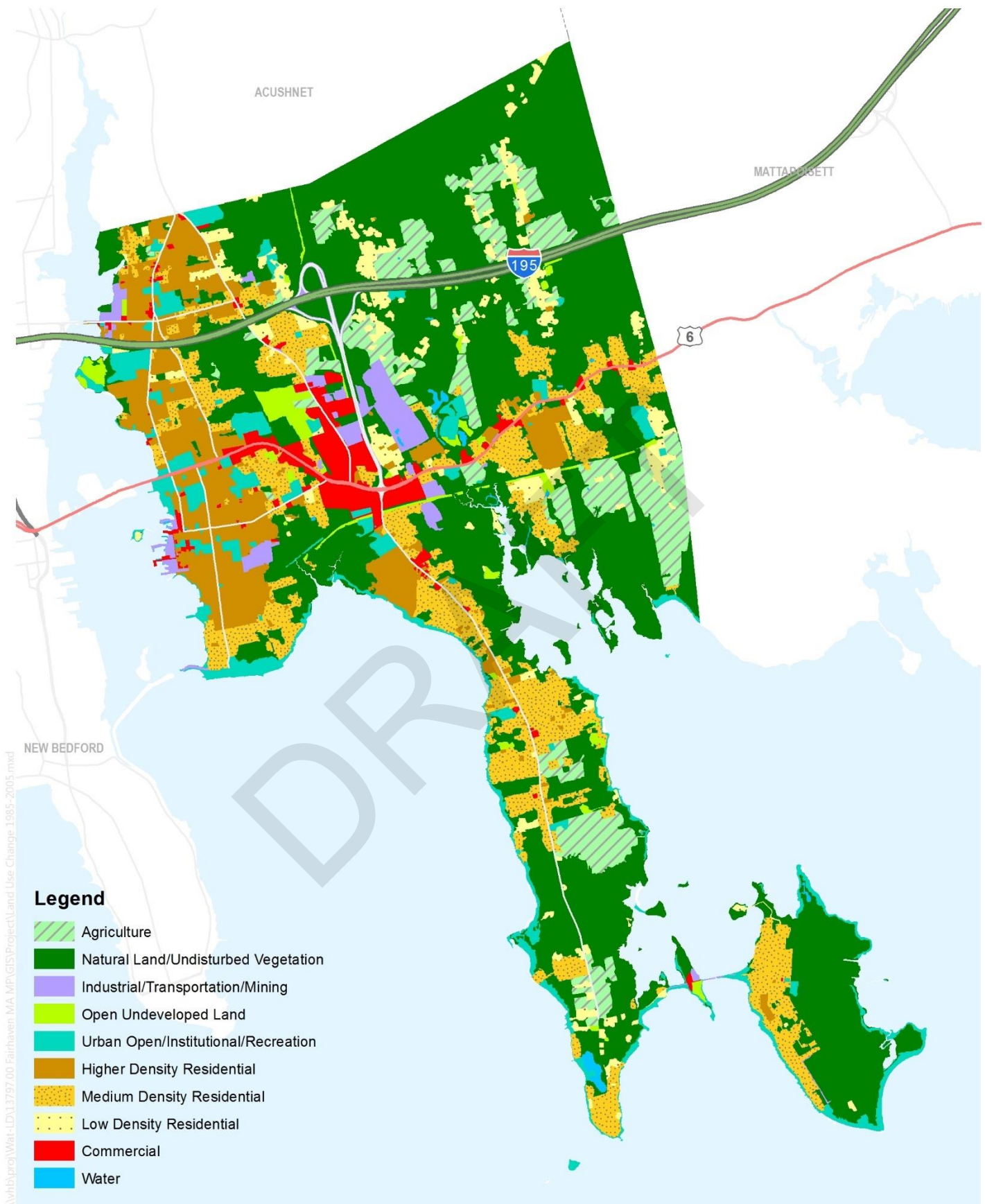
Growth between 1985 and 2005 was relatively slow but steady with an overall 6.2 percent change from undeveloped land to developed land in Fairhaven (see Table 1-2). The most significant change occurred in agricultural land and open undeveloped land which decreased by nearly 7 percent and 3.1 percent respectively of the total town area. Commercial land grew by 1.1 percent with the majority of the growth occurred along Alden Road expanding from the established Route 6 commercial corridor. Residential land increased by 3.1 percent where new developments were mainly distributed along major roads in existing residential neighborhoods, particularly in the northwestern and along Route 6 in the eastern portion of the Town (see Figure 1-1, 1-2, and 1-3).

¹ Fairhaven Open Space and Recreation Plan, 2009



Source: Town of Fairhaven, MassGIS

Land Use 1985



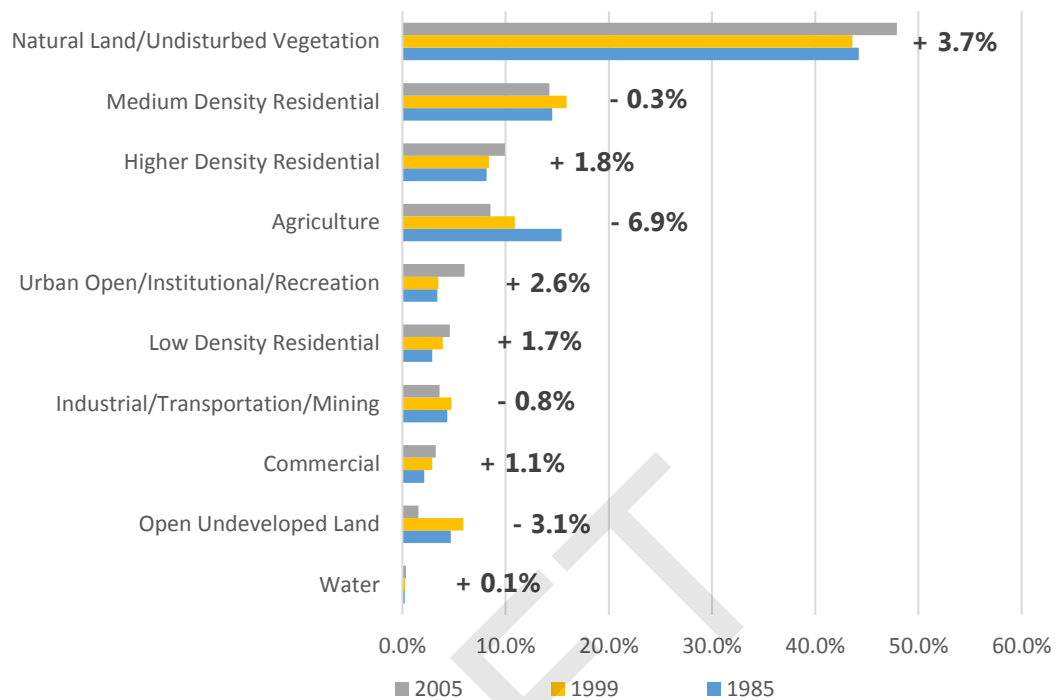
Fairhaven 2040 Master Plan

Fairhaven, MA

Source: Town of Fairhaven, MassGIS

Land Use 2005

Figure 1-3 Land Use Change in Fairhaven, 1985, 1999 and 2005



Source: MassGIS

The statistics also show a 2.6 percent increase in natural vegetated areas, which is likely due to succession of inactive agricultural and open undeveloped land and more detailed delineation of inland wetlands. Overall speaking, the bulk of the new developed areas between 1985 and 2005 were clustered close to traditional centers and along major routes, where the historic rural character and landscape pattern of Fairhaven largely remained.

Table 1-1 Land Use Change in Fairhaven, 1985, 1999 and 2005

	1985	1985 Percent of Total	1999	1999 Percent of Total	2005	2005 Percent of Total	1985- 2005 Change
Agriculture	1,225.2	15.4%	865.4	10.9%	674.1	8.5%	-45.0%
Open Undeveloped Land	372.2	4.7%	468.1	5.9%	122.7	1.6%	-67.0%
Commercial	167.3	2.1%	230.8	2.9%	255.7	3.2%	52.8%
Industrial/Transportation/Mining	346.2	4.4%	377.8	4.8%	284.0	3.6%	-18.0%
Higher Density Residential	648.9	8.2%	665.1	8.4%	785.5	9.9%	21.1%
Medium Density Residential	1,152.4	14.5%	1,264.5	15.9%	1,126.0	14.2%	-2.3%
Low Density Residential	230.0	2.9%	310.7	3.9%	364.6	4.6%	58.5%
Urban Open/Institutional/Recreation	269.1	3.4%	275.7	3.5%	475.5	6.0%	76.7%
Natural Land/Undisturbed Vegetation	3,510.9	44.2%	3,462.5	43.6%	3,786.1	47.9%	7.8%
Water	17.9	0.2%	19.4	0.2%	28.3	0.4%	58.2%

Source: MassGIS

Table 1-2 Developed and Undeveloped Land in Fairhaven, 1985, 1999 and 2005

	1985	1985 Percent of Total	1999	1999 Percent of Total	2005	2005 Percent of Total
Developed Land	2,813.8	35.4%	3,124.6	39.4%	3,291.3	41.6%
Undeveloped Land	5,126.2	64.6%	4,815.5	60.6%	4,611.2	58.4%

Source: MassGIS

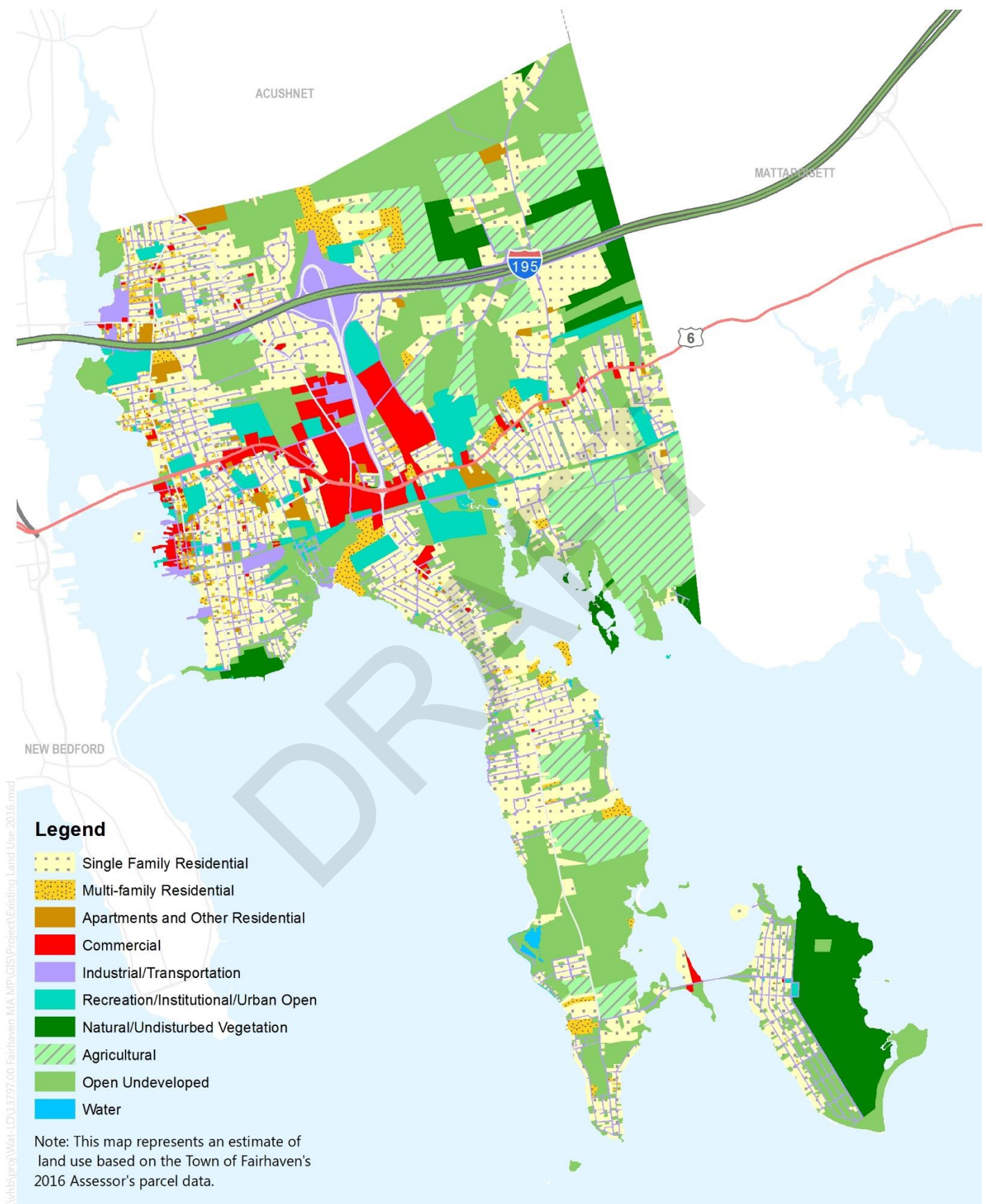
Existing Land Use Pattern

To help understand the existing land use patterns of Fairhaven, the Town's latest 2016 Assessors' database was spatially correlated with the 2016 parcel maps². The consolidated parcel data layer was then interpreted to reveal approximate land use patterns by grouping individual parcels' Property Type Classification Codes³ into land use categories. The resulting map is shown as Figure 1-4. As displayed in the Existing Land Use Pattern map, Fairhaven is predominately a rural residential community with large tracks of open space and agricultural areas. Single family residential use takes up a third of total land area throughout all neighborhoods of the town. Route 6 and Main Street respectively act as the east-west and north-south spines of the Town that connects numerous smaller scale neighborhood commercial cores and higher residential areas with the town's primary commercial and industrial clusters located at Main Street/Waterfront and the Route 6/Route 240/Alden Road area.

It is clear from the land use pattern map that these two commercial clusters have distinctive characters. The Main Street/Waterfront commercial/industrial district is more marine oriented and locally focused with various boutique restaurants and mom and pop shops. Because of the smaller scale, the commercial fabric of the waterfront district has been almost seamlessly woven back into the historic residential neighborhoods and the Town Center, which together honors the Town's rich history and unique characters. The Route 6/Route 240/Alden Road a commercial district, on the other hand, represents the typical auto-oriented, strip-mall type of commercial developments that heavily rely on quick access to local and regional arterial roads. These are mostly seen as large scale big-box commercial developments with massive parking areas fronting the major access roads. The historical land use maps show the trend of expansion of these large scale commercial and business developments from Route 6 up north along Alden Road and Route 240 between 1985 and 2005. While it once represents growth and prosperity of the community, the Route 6 commercial district is faced with increasing challenges in recent years with high turnover and vacancies. Significant opportunities lie within the strategic revitalization of this established commercial and business core.

² Due to lack of latest land use data from MassGIS, interpreting the Town's assessors' database represents an alternative approach to gain insights in the Town's land use pattern.

³ Property Type Classification Code, shown as "LUCODE" in assessors' records, is a three-digit code used by the Board of Assessors in determining the proper classification of properties according to their uses. Since the consolidated assessors' data layer is parcel based, this approach is only appropriate in understanding the land use patterns of a community, rather than interpreting the actual land use or land cover units that can vary within individual parcels or across multiple parcels.



Fairhaven 2040 Master Plan

Fairhaven, MA

Long Term Development Patterns

Zoning

A community's long term development patterns are to a large extent determined by its zoning ordinances, subdivision regulations, and other local development policies and priorities. Fairhaven's current zoning bylaw was first adopted in 1966 and has since went through numerous amendments. In general, the Town's zoning code defines the following zoning districts and uses:

Rural Residence Districts (RR)

With nearly half of the Town zoned for RR, the Rural Residence Districts are the predominate factor that defines the rural character of the Town, particularly in East Fairhaven, Sconticut Neck and West Island. The RR Districts primarily allow single family residential uses. Commercial and industrial uses are generally not allowed, while agricultural, institutional, and recreational uses are permitted on a limited base. A minimum lot area of 30,000 square feet is required for the RR districts.

Single Residence Districts (RA)

The Single Residence Districts, which account for over 30 percent of the Town, cover most of the western half of the Town and the Route 6 corridor in East Fairhaven. The RA Districts allow for the same types of uses as the RR Districts, but a minimum lot area of 15,000 square feet is required for the RR districts. An additional 50 percent increase in lot size is required for permitted semidetached and two family dwellings in the RA Districts.

General Residence Districts (RB) and Apartment/Multifamily Districts (RC)

The RB and RC Districts only account for less than 1 percent of the Town's total area. These districts are mostly located in established residential neighborhoods along Main Street in the western and northern parts of the Town, and near the Route 6 corridor. The RB and RC Districts offer more flexibility in the types of permitted residential developments, such as two families and multifamilies, while have similar restrictions on other uses as the RR and RA Districts. Residential density allowed in the RC zone is relatively low at 6-7 units per acre.

Park Districts (P)

The Park Districts are intended to promote recreation and preservation related activities. Certain agricultural and institutional uses, such as farms, public schools, cemetery, etc. are also allowed, while most commercial, industrial, and residential uses are not permitted in the Park Districts.

Business Districts (B)

Business Districts account for nearly 4 percent of the Town and are generally clustered near Route 6/Route 20/Alden Road area and along Route 6 in East Fairhaven and on northern Sconticut Neck Road. Majority of the commercial uses, except sexually oriented businesses, are permitted by right in the Business Districts. Agricultural, institutional, and recreational uses are also generally allowed, while industrial and residential uses are not. The minimum lot size in Business Districts is 15,000 square feet. According to feedbacks from the business communities and town residents, the current provisions of the Business District don't necessarily account for or encourage smaller neighborhood commercial cores where the local mom and pop shops can thrive.

Industrial Districts (I)

There are three major clusters of Industrial Districts, one located to the south of the I-195 ramps, and another two on the waterfront just north of I-195 and south of Route 6 respectively. Together, these Industrial Districts account for 3.6 percent of Fairhaven. Except residential uses, the Industrial Districts allow a wide variety of uses, including all types of industrial uses and agricultural uses, and most of commercial and institutional uses. One of the concerns voiced during the public outreach process was that the Industrial District zoning provisions, which essentially allow most general businesses in the industrial zones, are too broad to be meaningful or effective.

Agricultural Districts(AG)

Agricultural Districts are primarily in East Fairhaven and take up nearly 8 percent of the Town. All agricultural related uses are permitted by right in Agricultural Districts, while single families as well as certain institutional and recreational uses are also allowed. Commercial and industrial uses are generally not permitted.

Mixed Use District (MU)

The Town's Mixed Use Districts mainly covers the waterfront area along Middle Street. The MU Districts allow a variety of agricultural, residential, commercial, and institutional uses. Mixed use buildings containing any combination of uses that are allowed by right or by special permit are allowed in the MU Districts. The MU Districts help preserve existing buildings within the districts by allowing lower-than-required parking standards if existing buildings are reused without adding square footages.

Wetland Resource Protection District (WRP)

The purpose of the Wetland Resource Protection District is to promote development that is compatible with the sensitive environmental features of the designated Wetland Resource Protection Areas on the Priest Cove. It generally allows similar types of uses as the Agricultural Districts, but offers slightly more flexibility in residential and recreational uses. Many of the uses allowed in the MU Districts are allowed by special permits in the WRP District. In addition, the WRP District basically includes the Atlas Tack site which was an EPA superfund site that has been cleaned up to the industrial level.

Floodplain Districts (FP)

The Floodplain District is an overlay district that include all special flood hazard areas as designated on the Flood Insurance Rate Map (FIRM) issued by the Federal Emergency Management Agency (FEMA). All development within the overlay district much be in compliance with certain state general laws and regulations on building structures, wetland restrictions, and sewage requirements.

Nasketucket Overlay District (NRB)

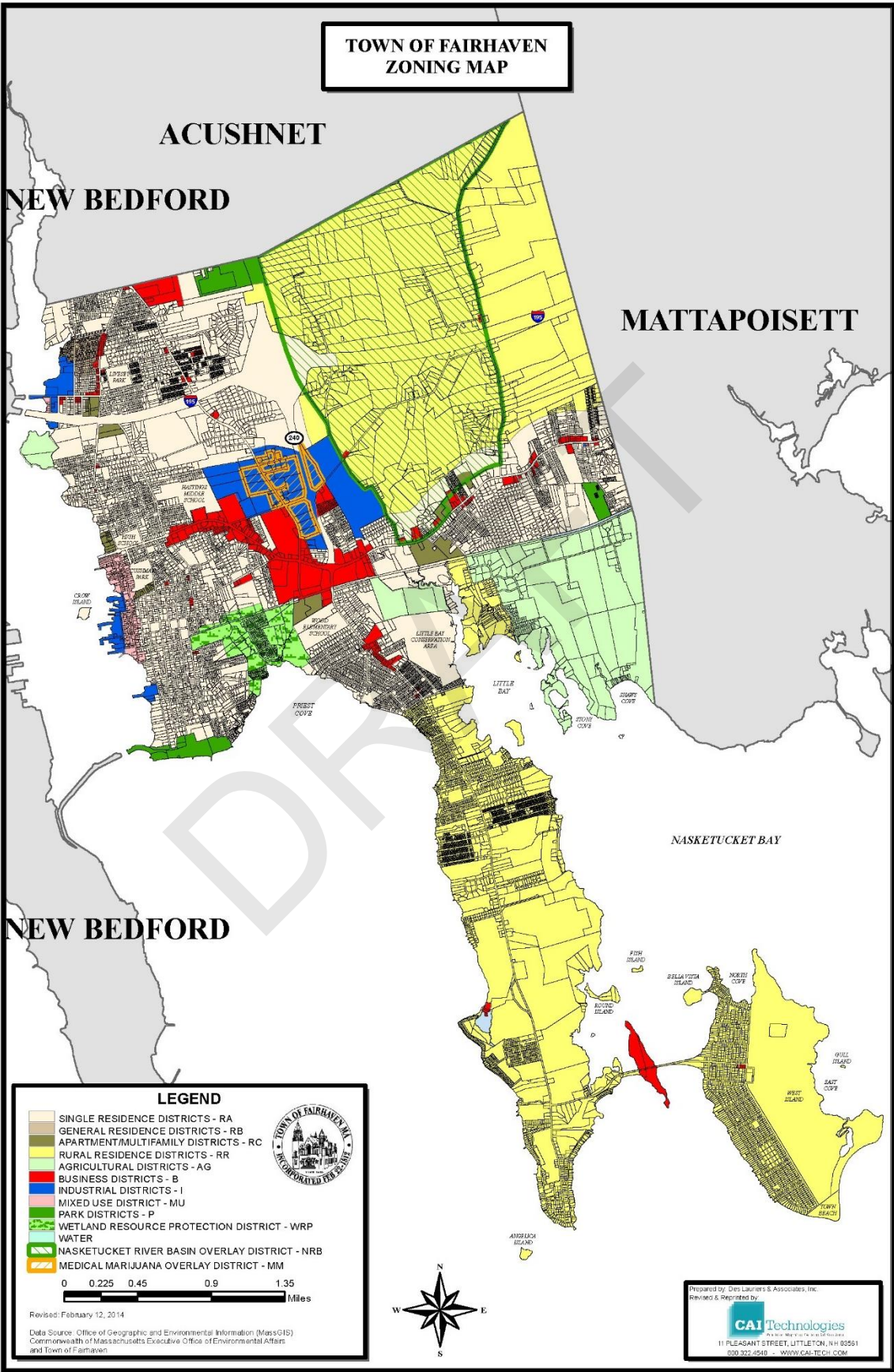
The Nasketucket River Basin District is another overlay district aiming to preserve, protect and maintain the quantity and quality of the surface water and groundwater of a large portion of East Fairhaven that contribute to the existing and potential sources of water supply to the Town. A number of facilities or activities are restricted within this overlay districts, including fuel storage, commercial laundries, commercial parking, and fertilizer and pesticide applications, etc.

Medical Marijuana Overlay District

This is an overlay district on the existing Industrial District along Alden Road and Route 240. It allows Medical Marijuana Facilities that comply with Department of Public Health Regulations by Special Permit. A special permit for a Medical Marijuana Facility will be limited to uses such as cultivation, processing and packaging of Marijuana for Medical Use, and retail sale or distribution of Marijuana for Medical Use to Qualifying Patients.

DRAFT

Figure 1-5 Town of Fairhaven Zoning Map



Priority Development and Protection Areas

In 2008, three Regional Planning Agencies, SRPEDD, MAPC, and OCPC, worked alongside local residents, business owners, officials, and organizations to designate areas that were most important for development or preservation in all thirty-one communities in the South Coast Rail Corridor. These areas were designated as Priority Development Areas (PDAs), Priority Protection Areas (PPAs), and Combined Priority Development and Priority Protection Areas (Combined Areas). The Regional Planning Agencies revisited these communities in 2013 to review and update the 2008 designations in order to reflect the most current municipal priorities⁴.

Priority Development Areas (PDAs) are areas that are appropriate for increased development or redevelopment due to several factors including good transportation access, available infrastructure (primarily water and sewer), an absence of environmental constraints, and local support. PDAs can range in size from a single parcel to many acres. Potential development ranges from small scale infill to large commercial, industrial, residential, or mixed use projects. Town and village centers, Chapter 40R Districts, industrial parks, and proposed commuter rail station sites are typical examples of PDAs.

Priority Protection Areas (PPAs) are areas that are important to protect due to the presence of significant natural or cultural resources, including endangered species habitats, areas critical to water supply, historic resources, scenic vistas, and farms. Like PDAs, the PPAs can vary greatly in size. Sites may be candidates for protection through acquisition or conservation restrictions.

In Combined Priority Development and Priority Protection Areas (Combined Areas), communities welcome development; however, the development is expected to be sensitive to its site and the surrounding area. This may include development that complements the older structures within a historic district or low impact development that protects nearby water resources or biodiversity.

The 2013 updated Community Priority Areas map shows ten PDAs, four PPAs, and one Combined Area in Fairhaven (see Figure 1-6). Four of the larger PDAs are centered around the intersections of Route 6, Route 240, and Alden Road which aim to primarily promote business and commercial expansions associated with existing commercial areas. Four other PDAs are on the waterfront areas north of I-195 and south of Route 6. These PDAs mainly focus on promoting waterfront industrial vitality and mixed use development.

⁴ South Coast Rail Corridor Plan Five-Year Update of Community Priority Areas Fairhaven

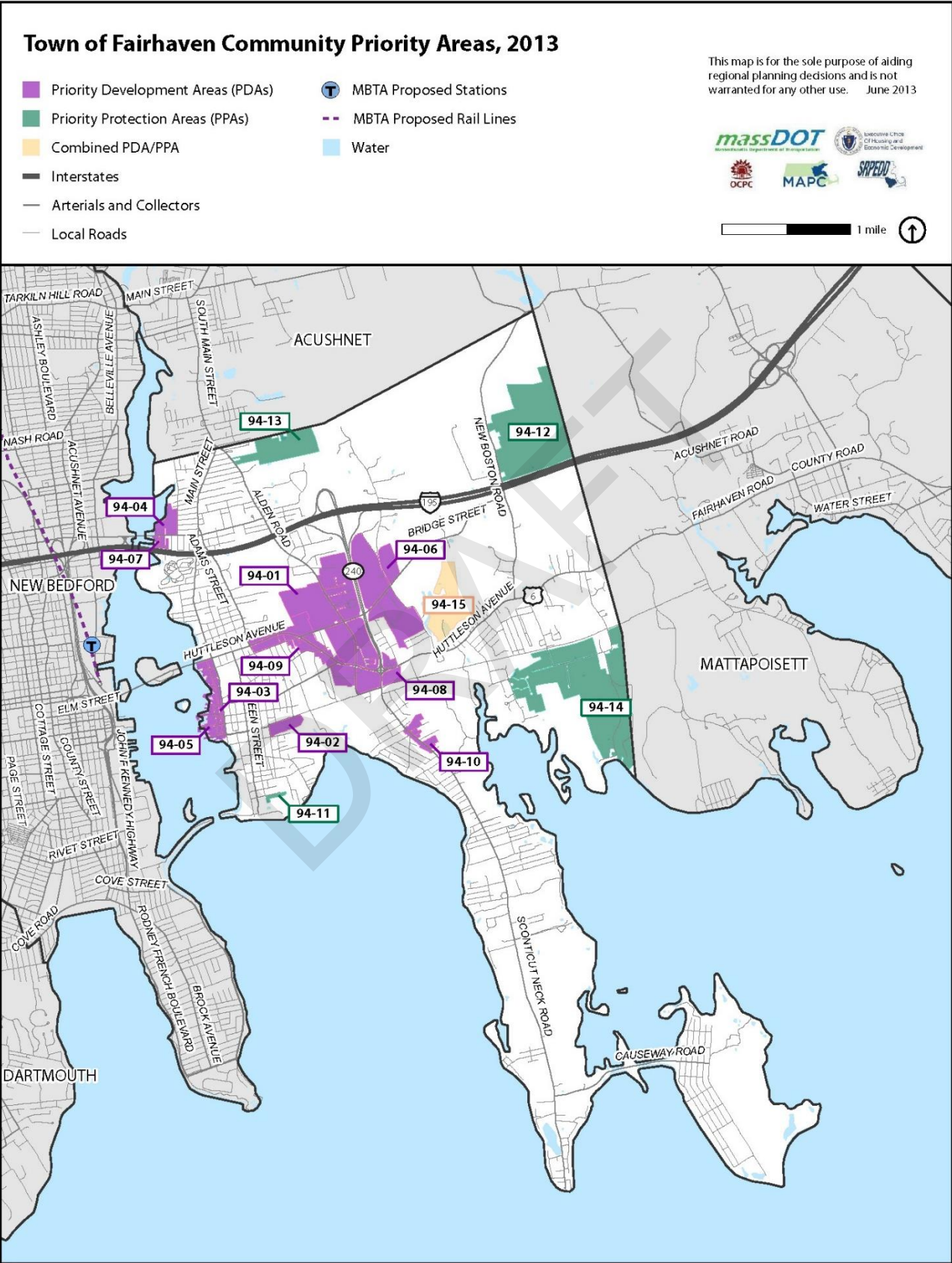
Table 1-3 Town of Fairhaven Community Priority Areas, 2013

ID	Name	Type	Acres	Purpose
94-01	Alden Road Redevelopment Site	Development	124.93	Redevelopment opportunities associated with existing businesses, the landfill, and underutilized sites
94-02	Atlas Tack Redevelopment Site	Development	13.70	To develop a former industrial site
94-03	Central Waterfront Mixed-use Area	Development	20.78	To maintain and encourage mixed-use areas associated with waterfront industry
94-04	Howland Road Industrial Area	Development	20.56	Industrial and commercial redevelopment
94-05	Marine Industrial District and Working Waterfront	Development	18.92	To maintain and encourage waterfront industry
94-06	Mill Bridge Office Park	Development	137.03	Office park, medical, and research and development expansion and infill opportunities
94-07	North Waterfront Mixed-use Area	Development	1.62	To encourage a mixed-use node adjacent to job opportunities
94-08	Route 6 and Route 240 Business Area	Development	110.15	Commercial development associated with this major intersection
94-09	Route 6 Corridor	Development	56.14	To maintain the corridor as a business and commercial area
94-10	Sciticut Neck Limited Commercial	Development	15.14	Limited, neighborhood-scale commercial opportunities to serve the surrounding area
94-11	Doan Street Protection Area	Protection	3.18	To maintain passive recreation and education opportunities
94-12	New Boston Road Farmland	Protection	215.93	To protect active agriculture and farmland
94-13	North Fairhaven Conservation Area	Protection	61.59	To preserve open space
94-14	Shaw Road Farms	Protection	288.84	Protection of active agriculture and farmland, preservation of marine resources, floodplain buffers, and open space connectivity
94-15	Mariners' Fields	Combined	71.32	To maintain the current active recreation use and to encourage development associated with active recreation

Source: South Coast Rail Corridor Plan Five-Year Update of Community Priority Areas Fairhaven

Note: Please see Figure 1-6 for location of each Priority Area by their ID numbers.

Figure 1-6 Town of Fairhaven Community Priority Areas, 2013



Goals and Recommendations

Goal 1: Balance growth and preservation.

Recommendations:

5. Preserve rural characteristics by protecting open spaces and supporting remaining working farms through continuous community preservation efforts, particularly partnerships with the Buzzards Bay Coalition.
6. Encourage infill commercial and residential development in existing, established areas where water and sewer services are provided.
7. Differentiate industrial zones and business zones to encourage business and commercial developments in appropriate locations within the community.

Goal 2: Encourage strategic redevelopment in the Route 6 commercial area.

Recommendations:

8. Develop a detailed Route 6 commercial area revitalization plan to guide redevelopment. The plan should incorporate analysis of appropriate types of redevelopments, scale/dimension/design of such developments, as well as potential zoning changes and infrastructure and services needed to support these redevelopments.
9. Consider creating Route 6 mixed-use overlay zoning district to stimulate mixed use commercial and residential redevelopment.

Goal 3: Promote neighborhood commercial nodes and small local businesses.

Recommendations:

10. Adopt effective zoning to remedy non-conforming historic uses for small neighborhood businesses.
11. Review and update zoning to allow more flexibilities that support small business development, such as home-based business, residential commercial mixed use, etc.

Housing

2

Introduction

Housing has evolved into a major issue in southeastern Massachusetts from about the mid 1990's when housing demand and high prices started being driven up by low mortgage rates and low availability. The national, state and regional housing crisis over the last decade which resulted in dramatic drops in home values, evaporated bank lending, and rise in home foreclosures, has created yet more challenges to many rural communities. The current regional housing market has tended to favor the construction of large, expensive single-family dwellings. This trend has been attributed, in part, to transit improvements (commuter rail), the expansion of high technology business in the region, limited land availability and cost, and the migration of more affluent families from the inner suburbs (Boston metro) to semi suburbs and more rural communities.

This section of the Master Plan examines three important aspects of Fairhaven's housing, including the housing stock in terms of age, condition, cost and availability, the population inhabiting the housing with considerations of the demographic trends as well as the specific needs of different population group, and housing affordability.

Baseline Conditions Analyses

Housing Stock

Fairhaven has been a stable rural community where single family homes predominate. According to the latest American Community Survey Five-year Estimate, Fairhaven's housing stock in 2015 consists of about 7,447 housing units, among which, 5,473 or 74 percent are detached single-family units, 228 or 3 percent are attached single family units. The second most common type of housing structures are two to four units and account for 14 percent of all units. Less than 10 percent of the Town's housing units are in five or more unit

structures (see Table 2-1). Compared to year 2000, the Town's housing stock increased by 181 units or 2.5 percent in 2015, representing relatively slow or modest housing growth.

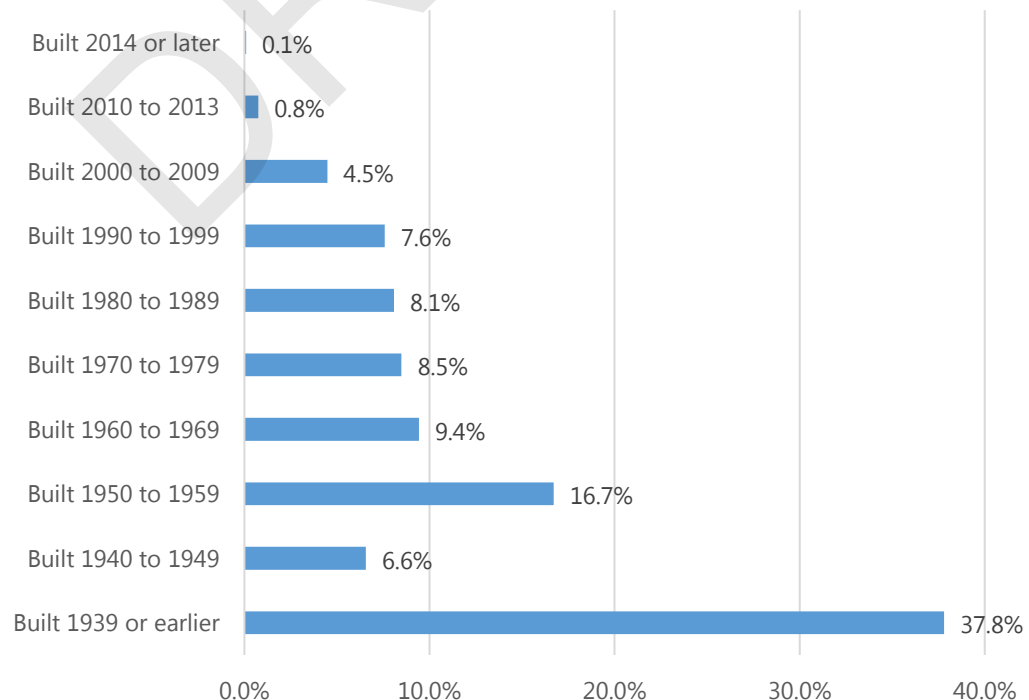
Table 2-1 Types of Housing Units, 2000 and 2015

Type of housing units	2015		2000	
Single Family (detached)	5,473	73.5%	5,307	73.0%
Single Family (attached)	228	3.1%	167	2.3%
Two-family units	630	8.5%	688	9.5%
Three or four units	391	5.3%	416	5.7%
Five to nine units	225	3.0%	184	2.5%
Ten or more units	500	6.7%	504	6.9%
Total	7,447		7,266	

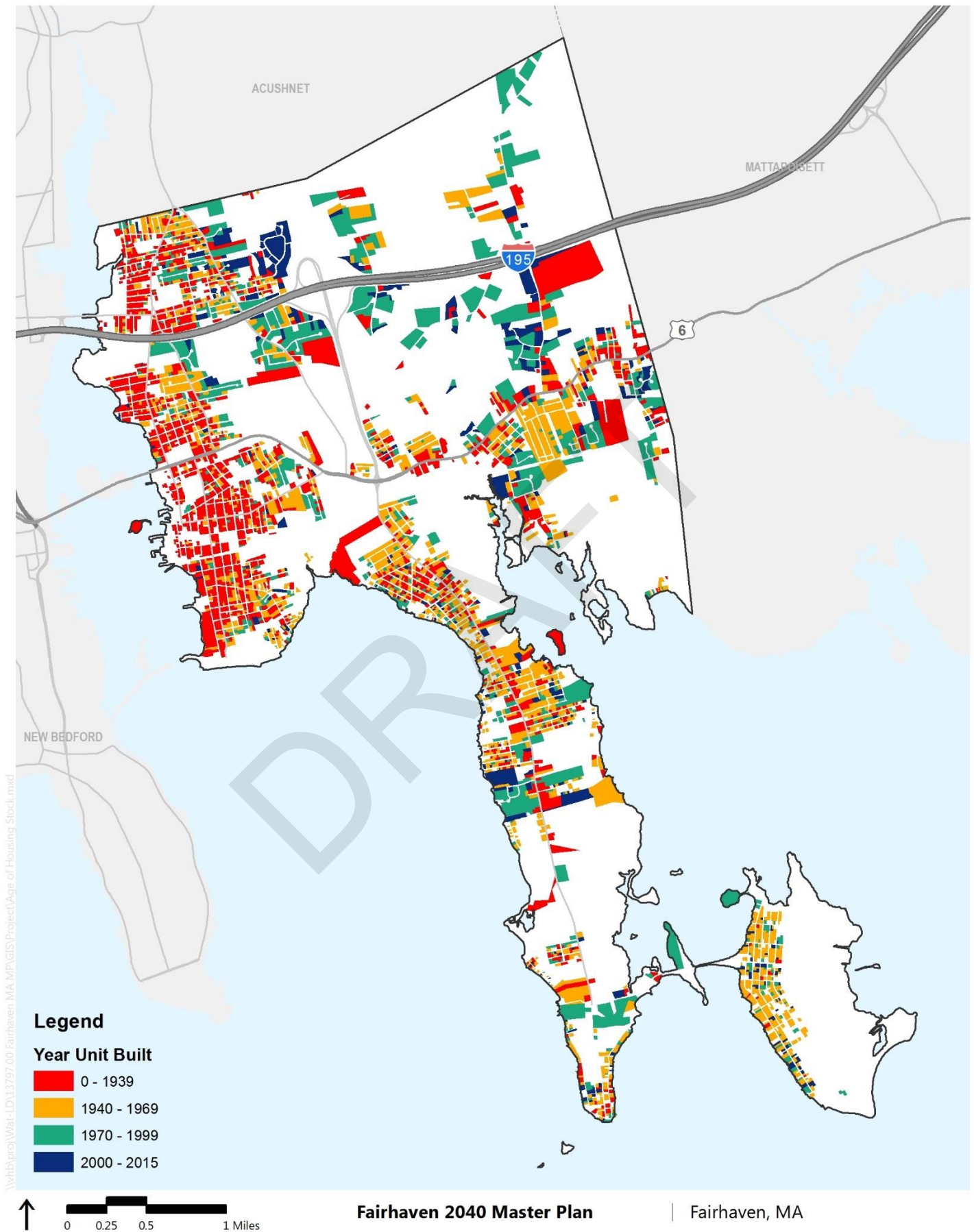
Source: US Census, 2015 American Community Survey 5-year Estimates

The age of the housing stock in Fairhaven is shown in Figure 2-1. Nearly 40 percent of the Town's homes were constructed before 1940. There appeared to be a local housing boom in Fairhaven post-World War II between 1950 and 1959, during which nearly 17 percent of the Town's homes were built. Growth since the 1950s housing boom has been modest but steady. More recently since 2000, the Town's housing market has shown signs of slowing down. Between 2000 and 2009, there were 334, or 4.5 percent of total, housing units created in the Town, with another 63 units built after year 2010, which account for less than 1 percent of Fairhaven's total housing stock.

Figure 2-1 Age of Housing Stock, 2015



Source: 2015 American Community Survey 5-year Estimates

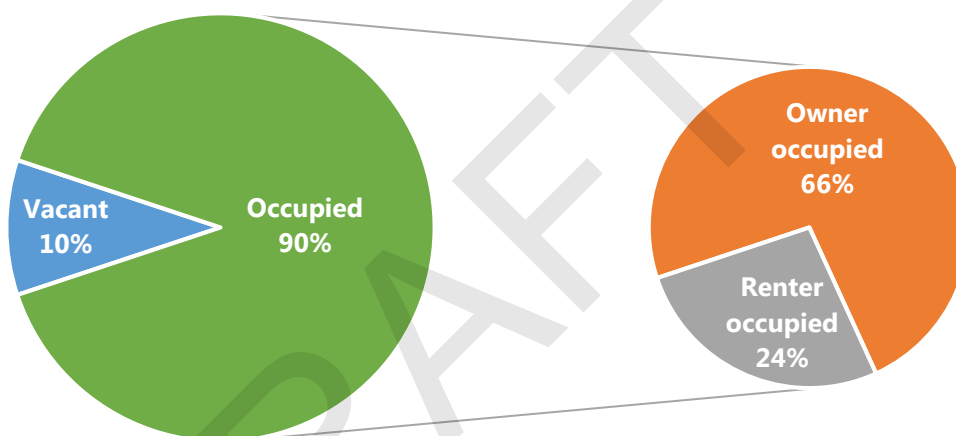


Source: Town of Fairhaven, MassGIS

Age of Housing Stock

Figure 2-2 demonstrates the distribution pattern of Fairhaven's homes by their age using the Town's latest 2016 Assessors data base. It clearly shows that the majority of the Town's older homes built prior to 1940 are located along Main Street and in the historic Fairhaven Center area near the New Bedford Harbor. Older homes also spread on the Sconticut Neck along the main roads. Between 1940 and 1970 during the post-World War II housing boom, housing constructions continued to expand from these historic residential centers, while new housing clusters appeared in East Fairhaven off of Route 6 and on the West Island. Housing developments between 1970 and 1999 spread further away from the established residential neighborhoods into the more agricultural part of East Fairhaven and to south on the Neck. More recent housing construction since 2000 is characterized by infill development throughout various parts of the Town where infrastructures were available.

Figure 2-3 Housing Units and Tenure, 2015



Source: 2015 American Community Survey 5-year Estimates

In terms of housing occupancy, Fairhaven has gradually transitioned into a year-round community with 90 percent of all housing units occupied for year-round living. Among the occupied households, 66 percent are owner occupied and 24 percent are renter occupied (see Figure 2-3). The average household size in Fairhaven has decreased slightly from 2.38 persons per household in 2000 to 2.33 persons per household in 2010, indicating that Fairhaven is largely a family-oriented community where household structures stayed relatively stable over the years.

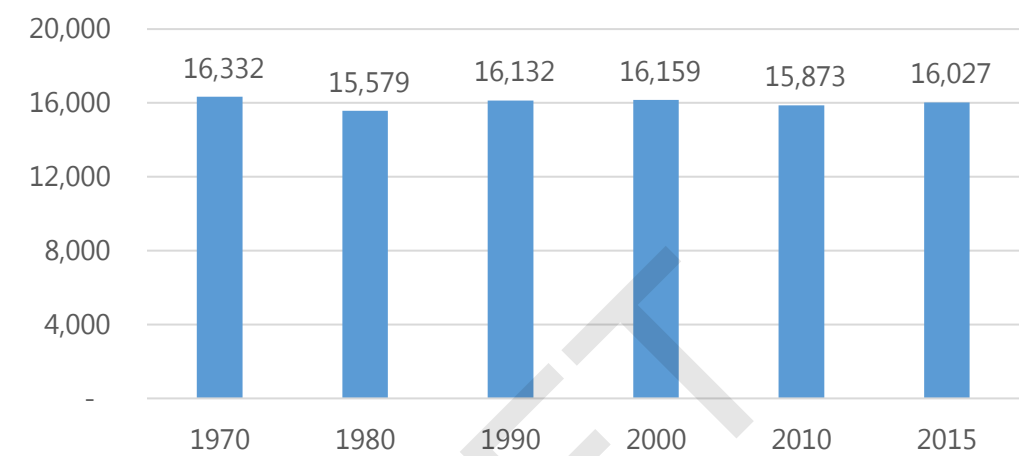
Population Characteristics

According to the U.S. Census decimal population counts, Fairhaven has experienced very minimal population change since 1970. The total year-round population of Fairhaven has stayed around 16,000 between 1970 to 2015 (see Figure 2-4). This is another evidence that Fairhaven is a close-knit community where generations choose to stay and raise their families in the town.

Despite the fact that the overall population hasn't changed much, the age structure of the Town's residents has shifted significantly. As shown in Figure 2-5, the senior population between the age of 55 and 64 increased by nearly 1,000 from 2000 to 2015, while the

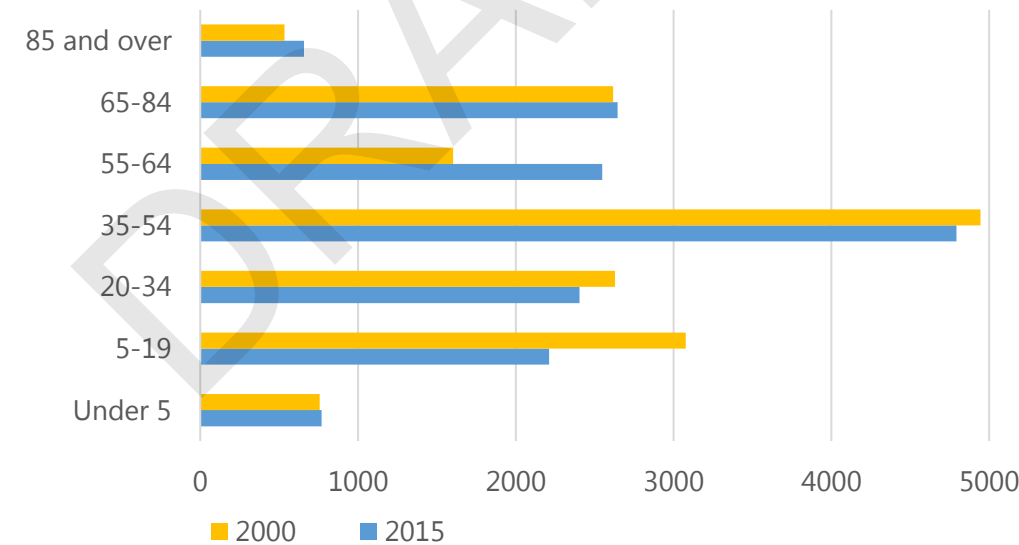
younger population between the age of 5 and 19 decreased by nearly 900 during the same time. Seniors over 65 years of age also increased slightly from 2000 to 2015. This phenomenon echoes with the aging demographic trends across the nation as the post-World War II baby boomer generation began to enter the 55 to 70 years age cohort.

Figure 2-4 Population Change, 1970-2015



Source: US Census, 2015 American Community Survey 5-year Estimates

Figure 2-5 Population Change by Age Group, 2000 and 2015



Source: US Census, 2015 American Community Survey 5-year Estimates

The trend of an aging population, which is most likely to continue over the next few decades, poses a significant challenge to many New England communities like Fairhaven who strives to provide housing options that would support aging-in-place for their seniors. The Town of Fairhaven has been progressive in providing senior housings in the community. Most recently in 2016, the Town has approved the conversion of the historic Oxford School into age restricted (62+) affordable senior apartments. However, there are still concerns expressed through the public outreach process over long waiting lists for senior housings in town. In addition, many residents suggested that more support should be provided to seniors who wish to age independently in their own homes. One of the effective tools for

creating affordable and integrated senior housings within a community is Accessory Dwelling Unit bylaws, which typically offers more zoning flexibilities to support the creation of a second smaller dwelling on the same lot of the primary dwelling so that the additional unit can be integrated into existing single family neighborhoods with little or no negative impact on the character of the neighborhood. Fairhaven has adopted an Accessory Dwelling Units bylaw in 1998. However, the provisions, such as minimum lot size, minimum unit size, and possible configurations of the accessory dwelling unit in relationship to the primary unit, appear to be too restrictive to offer tangible flexibilities and incentives since few properties and buildings in the existing single family residential neighborhoods can actually meet these requirements.

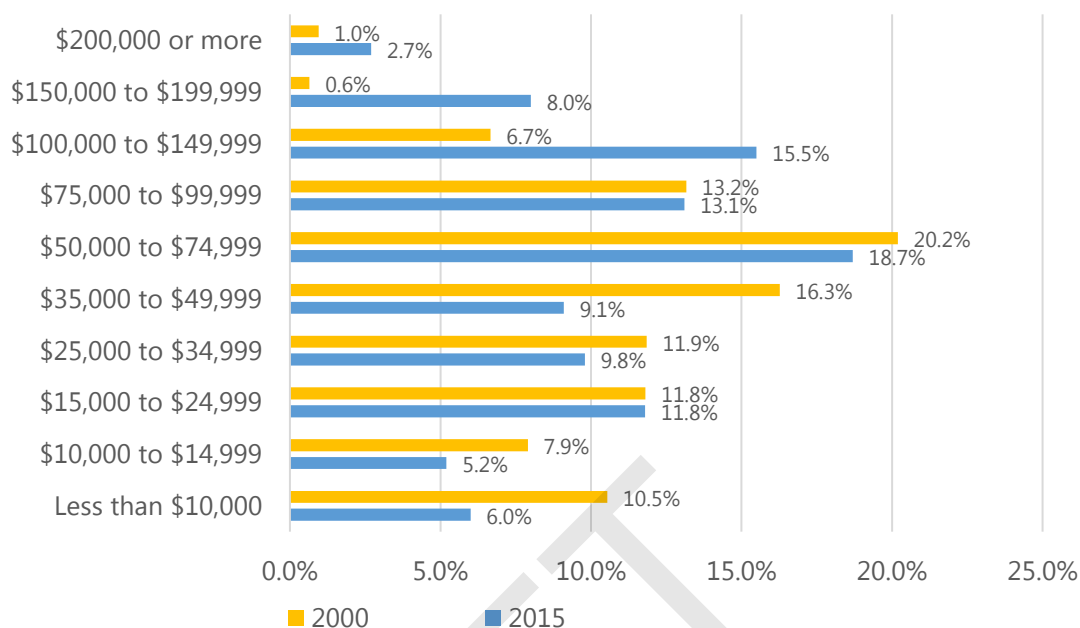
Housing Affordability

There are two ways of understanding housing affordability within Fairhaven. It could refer to federal and state definition of affordable housing (for purposes of housing subsidies) for individuals and households earning up to 80 percent of the area median income (AMI). Massachusetts Department of Housing and Community Development (DHCD) maintains a subsidized housing inventory (SHI) that tracks each community's affordable housing stock, including deed restricted and subsidized units. Under General Law Chapter 40B, in any community where less than 10 percent of total housing units are included in the SHI, a developer can build more densely than the zoning bylaw would permit, if at least 20 percent (or 20 percent in certain cases) of the new units are affordable to individuals or households earning less than 80 percent of AMI.

Statewide, 5 percent of housing units are on the SHI, and 12 percent of all Massachusetts communities meet their 10 percent requirement under Chapter 40B. According to the latest SHI as of December 2014, Fairhaven has a total of 473 subsidized housing units serving very low income residents, which account for 6.8 percent of the 2010 U.S. Census Year Round Housing Units of 7,003. These SHI units include elderly and disabled rental units, family rental units, and special needs housing units, managed and operated by the Fairhaven Housing Authority (FHA) or privately.

Housing affordability could also refer to the consideration of whether housing in Fairhaven is affordable for middle income households who don't otherwise qualify for state or federal housing programs and subsidies but are faced with increasing housing prices. In general, the financial situations of Fairhaven's households are improving over the years. From 2000 to 2015, household incomes of Fairhaven's residents have been on the rise with households earning more than \$100,000 increased by nearly 18 percent while households with lower than lower than \$15,000 annual income decreased by 7.1 percent (see Figure 2-6).

Figure 2-6 Household Income, 2000 and 2015



Source: US Census, 2015 American Community Survey 5-year Estimates

Median household income in Fairhaven has increased from \$41,696 in 2000 to \$61,274 in 2015, an increase of around 47 percent. In comparison, the median gross monthly rent increased by 50 percent from \$576 in 2000 to \$864 in 2015, the median monthly owner cost with a mortgage increased by 44 percent from \$1,139 in 2000 to \$1,644 in 2015, and owner cost without mortgage by 61 percent from \$350 to \$563. According to the latest statistics from the American Community Survey 5-year Estimates, nearly 43 percent of all Fairhaven's renters spend more than a third of their monthly income on housing and are therefore considered cost-burdened, while over 39 percent of all Fairhaven's households with a mortgage as well as another 26 percent of households without mortgage are also cost-burdened.

General housing affordability, particularly the availability of more affordable housing types, has been identified as the key housing issue in Fairhaven throughout the stakeholder and public outreach of the Master Plan process. There is a strong desire to keep, attract and bring more young families into Fairhaven as the Town's population is on the aging trend. The limited stock of condo units and market rate rental units in Fairhaven, which contributes to rising starter home prices and rental price, is becoming a challenge for younger generations with moderate incomes to stay in the community. In addition, being a coastal community, Fairhaven's overall housing stock is largely considered modest by many of its residents, who also expressed desires of keeping such affordability long-termly.

Goals and Recommendations

Goal 1: Keep future residential development in or near existing residential areas to maintain the village character.

Recommendations:

3. Encourage infill residential developments in existing residential neighborhoods that reflect the historic and cultural characters of various neighborhoods.
4. Explore possibilities of housing conversion of existing municipal and/or commercial buildings and housing rehabilitation of blighted properties.

Goal 2: Maintain and encourage a variety of housing that is affordable to non-elderly individuals and families of all income levels.

Recommendations:

5. Identify potential sites, possibility through municipal land assemblage or public/private partnership, for non-elderly affordable rental housing developments utilizing the Low Income Housing Tax Credit (LIHTC) program.
6. Consider adopting an inclusionary zoning bylaw to require affordable housing in any residential development that requires a special permit.
7. Provide more flexibility and incentive in the Accessory Dwelling Unit bylaw to encourage the creation of market rate or affordable rental units that support moderate to low income residents.
8. Consider allowing mixed-use residential and commercial developments in established service and employment centers as a means to expand market-rate housing stock.

Goal 3: Continue providing affordable and age-appropriate housing options for senior populations in the community.

Recommendations:

4. Pursue affordable housing programs and funding at the identified two-acre site off of Main Street adjacent to Oxford Terrace Apartments.
5. Provide more flexibility and incentive in the Accessory Dwelling Unit bylaw to encourage the creation of smaller housing units that supports downsizing seniors to age in place.
6. Explore zoning tools, such as performance zoning and density bonuses, to encourage development of age-appropriate market-rate ownership units designed to serve the needs of an elderly population, e.g. attached or detached condominium units with first floor bedroom/bathroom suits, accessible grades, attached garages, and maintenance support, etc.

Economic Development

3

Introduction

Fairhaven is located on the South Coast of Massachusetts where the Acushnet River meets Buzzards Bay. The town shares a harbor and a common cultural heritage with the city of New Bedford, a place well known for its whaling and fishing history. Because of the physical proximity Fairhaven's history, economy, and culture are intertwined with those of its larger neighbor.

It is well documented that New Bedford was the center of a whaling industry that was a key economic driver for many New England coastal communities for over two hundred years. Fairhaven was also a whaling port; in fact, in the year 1838, Fairhaven was the second-largest whaling port in the United States. Over time as New Bedford evolved into the predominant hub for whaling activities, Fairhaven's economy evolved into one that supplemented the New Bedford economy rather than competing directly with it. Fairhaven became a town of shipwrights, ship chandlers, ropemakers, coopers, and sailmakers. It also became a popular location for ship-owners and ship-captains to build their homes and raise their children.

(Source: World Heritage Encyclopedia) That heritage is still very much alive and present as Fairhaven continues to provide ship repair and outfitting services for New Bedford's large fishing fleet.

Fishing related industries represent a small percentage (1.5%) of Fairhaven jobs but the importance of these jobs to the identity of the town, in addition to the healthy wages they typically provide, speaks to the high priority of preserving them. Additionally, there may be potential to grow Fairhaven's share of fishing related industries as the port continues to lead the nation in landings per year and generate an enormous economic impact for the region.

As noted in the 1996 Master Plan: *"The effort to save and rebuild the working waterfront on New Bedford Harbor is important objective in planning for Fairhaven's economic future. Working waterfronts are very hard to permit and build in today's economic and regulatory*

conditions. It is important to preserve and protect those that currently exist. "This is as true in 2017 as it was in 1996.

The Master Plan for Fairhaven completed in 1996 outlined several key goals relating to the working water front and marine related economic activity. They are as follows:

- ▶ Preserve the working waterfront.
- ▶ Provide for new modern industrial and office space as required by marine sciences industries.
- ▶ Provide shoreline protection for aquaculture.
- ▶ Historic preservation where appropriate to encourage tourism.

It is interesting to note that these goals remain relevant today and while some progress as certainly been made toward achieving them, there are some components, such as the creation of a historic district to protect cultural and architecture heritage, which are yet to be completed. Perhaps what is even more interesting is the degree to which the goals, progress and challenges have broadened to include a wider array of employment sectors.

Of key importance is the Route 6/Route 240/ Alden Road area, the largest employment center in Fairhaven, and where the majority of health care and service related jobs are located. These two industry segments make up approximately 40% of all employment in Fairhaven so ensuring that these critical commercial corridors remain healthy is a top priority for the Town. One notable trend during the 1990's and 2000's was the growth of service related employment. By 2010 retail jobs had grown to nearly 20% of all employment with Fairhaven. Between 2010 and 2015, however, as the retail sector contracted and stores closed or moved to other towns, the sector shrunk to 13.5% of total employment. As a result, the ability to retain the remaining retail jobs in Fairhaven as well as re-tenant or repurpose vacant shopping centers along Route 6 is a key goal emerging from the Comprehensive Plan.

In the positive column, in the years since 1996 the AT&T property (identified in the 1996 Master Plan as a critical redevelopment opportunity) has been successfully re-tenanted and now represents, along with the Southcoast Urgent Care Center, a burgeoning health care driven job cluster along Route 240. Health care related jobs grew by 80% between 2010 and 2015 and now represent the largest employment sector and strongest job growth engine in Fairhaven. Building on this success continues to be important over the next 5 to 10 years and beyond.

Finally, it is important to note that nearly 90% of businesses in Fairhaven can be considered "small business" with fewer than 20 employees, with many having only one employee. Nurturing existing businesses and incubating new ones is a critical task for the leadership in Fairhaven, as organically growing the amount of employment, is one of the most sustainable ways for the Town to foster a healthy local economy. Subsequent sections of this report focus on potential local approaches and tools that can be implemented in support of small businesses. Contemplated changes in tax and health care policy at the

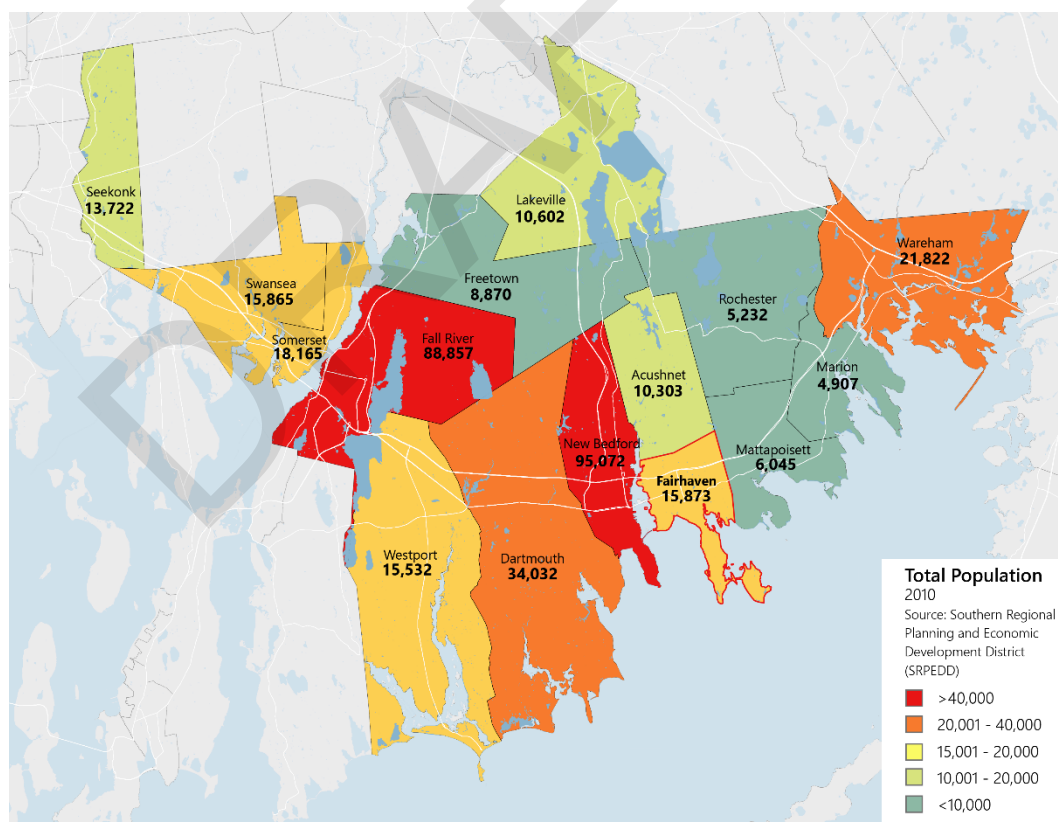
national level could offer additional boosts to Fairhaven small businesses depending on how and when they are implemented.

Baseline Conditions Analyses

Regional Context

Fairhaven is located in the South Coast region of Massachusetts, an area rich in historic resources and with a strong maritime heritage. The region consists of eleven municipalities in the southern sections of Plymouth and Bristol counties. There are approximately 391,000 residents in the region with almost half of the population living in New Bedford and Fall River. With a population of 15,873, Fairhaven is one of the region's smaller communities. The 2010 US Census indicates that the Town had 7,475 housing units, 472 of which were identified as units for seasonal, recreational or occasional use. Those seasonal units represent about 6% of Fairhaven's housing stock.

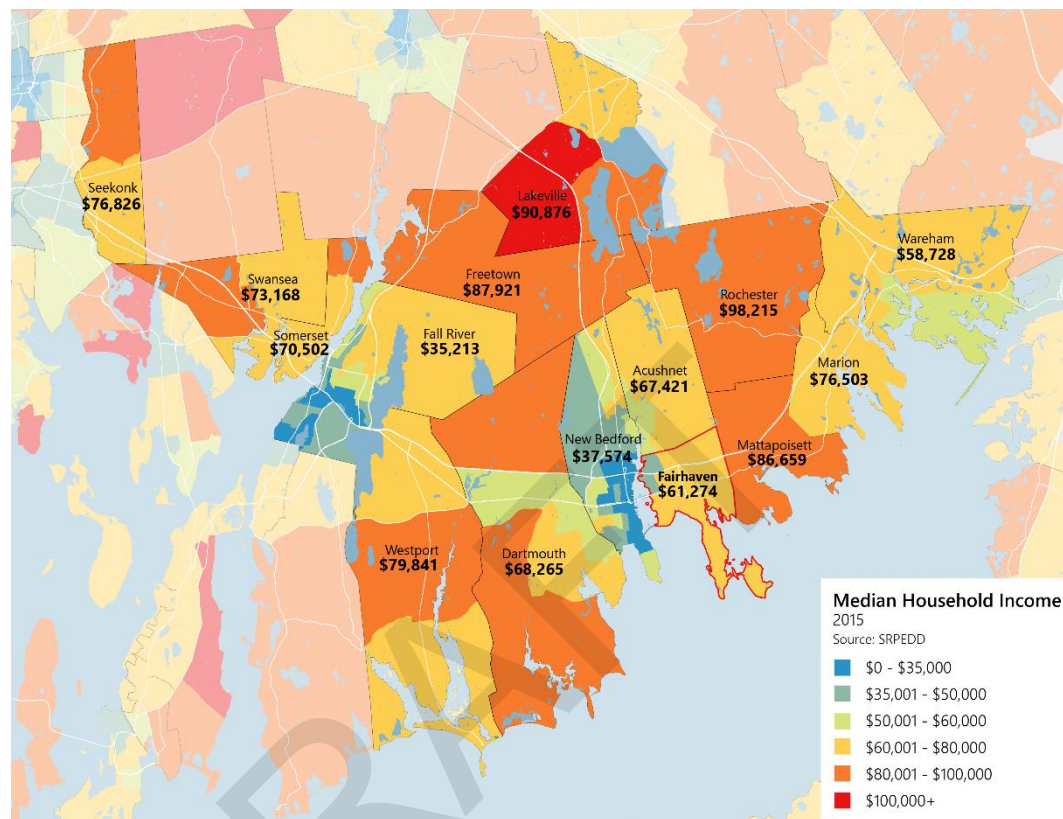
Figure 3-1: Total Population, SouthCoast Region (2010)



Although the region's towns and cities share a common cultural heritage, they vary in demographic and socioeconomic profile. New Bedford and Fall River, both of which are Gateway Cities, are the economic centers of the region, but have faced significant social and economic challenges, such as high unemployment rates and disinvestment. New Bedford and Fall River have the lowest median household incomes (~\$36,000), median household

values (~\$200,00), and educational attainment rates (Less than 20% of residents have a bachelor's degree or higher) in the region.

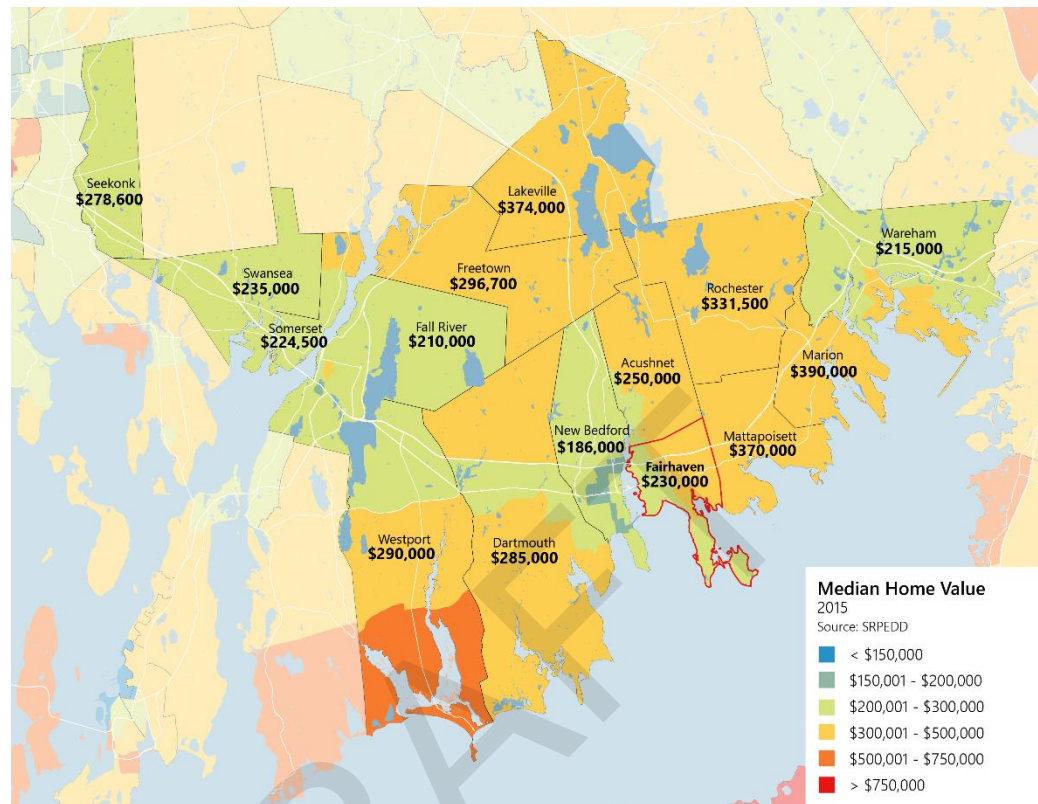
Figure 3-2: Median Family Income, SouthCoast Region (2015)



In contrast, municipalities such as Rochester, Marion, Lakeville and Mattapoisett are more affluent with residents of higher median household incomes of (\$80,000+), home values (\$330,000+) and significantly higher educational attainment rates.

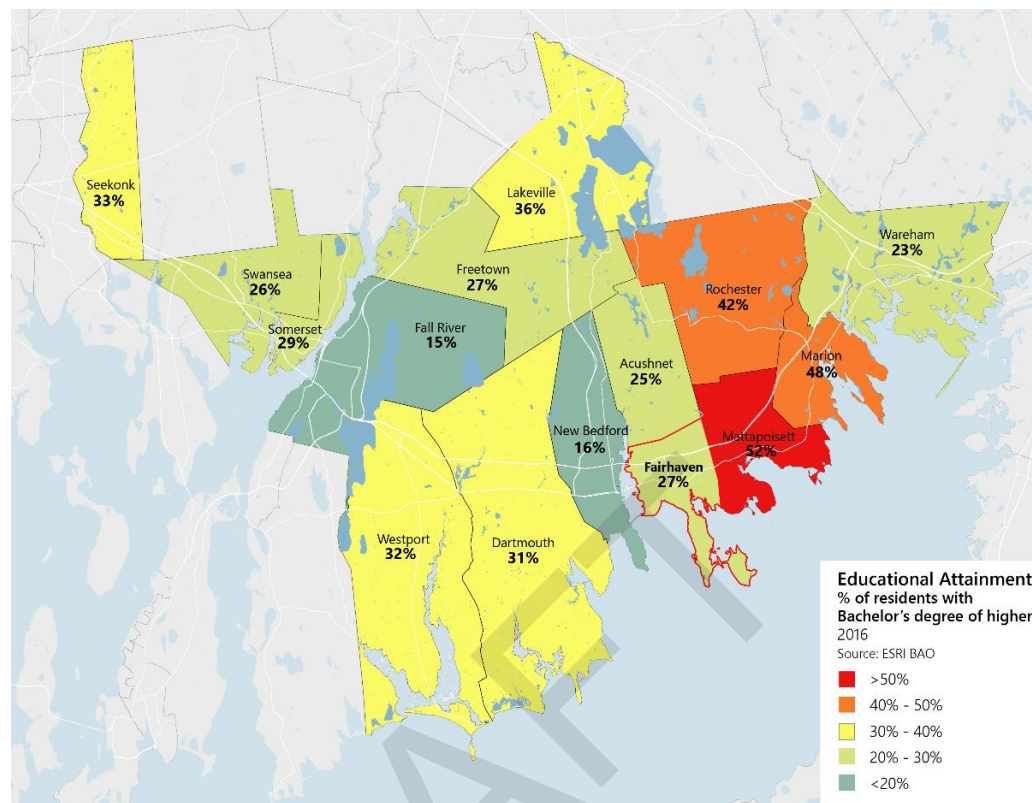
These communities also have an older population, reflecting the seasonal and 2nd home population that frequents the South Coast during the summer months.

Figure 3-5: Median Home Sales, SouthCoast Region (2015)



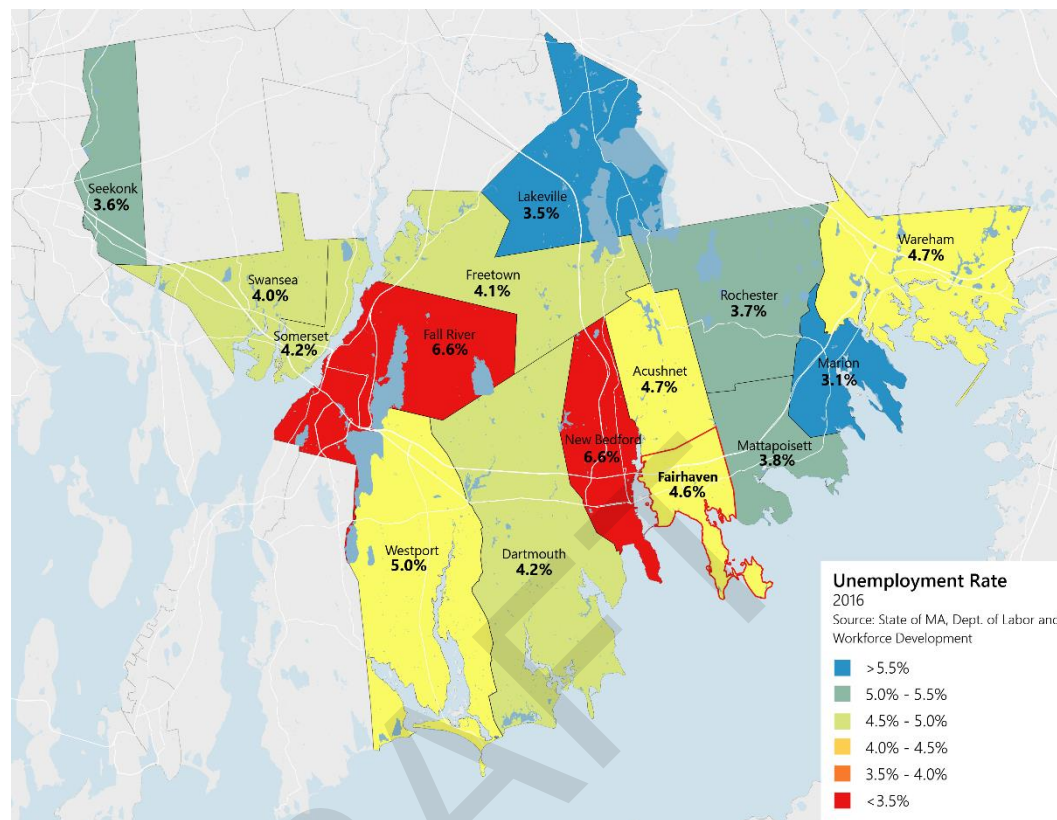
Fairhaven ranks towards the middle on socioeconomic metrics relative to the region. The Town has a slightly older population with lower income and home values. Fairhaven is a more affordable community, but equally desirable in terms of available cultural and natural amenities. Fairhaven has a unique profile with multiple economic centers: historic main street, commercial corridor, manufacturing plants, working waterfront, and agricultural lands.

Figure 3-4: % of Residents with a Bachelor's degree or Higher, SouthCoast Region (2016)



The region is recovering from the recent economic crisis and the unemployment rates have improved, though they are still higher than the state average. Fairhaven's unemployment rate in 2016 was 4.6%, placing it close to the average in comparison to other municipalities in the region.

Figure 3-6: Unemployment Rates, South Coast Region (2016)



The population in Fairhaven has remained generally static and forecasts indicate that the Town will not experience significant growth in the next five years. However, the population is aging, as is the rest of the region, and the median age will increase to 48.2 in 2021 from 47.1. To accommodate an older population, the Town will need to incorporate a greater variety of housing options to meet the greater demand for smaller housing, rental housing and supportive housing. Forecasts also show that the Town will become wealthier, as median household incomes and median home values are expected to grow at more than 1.5% annually.

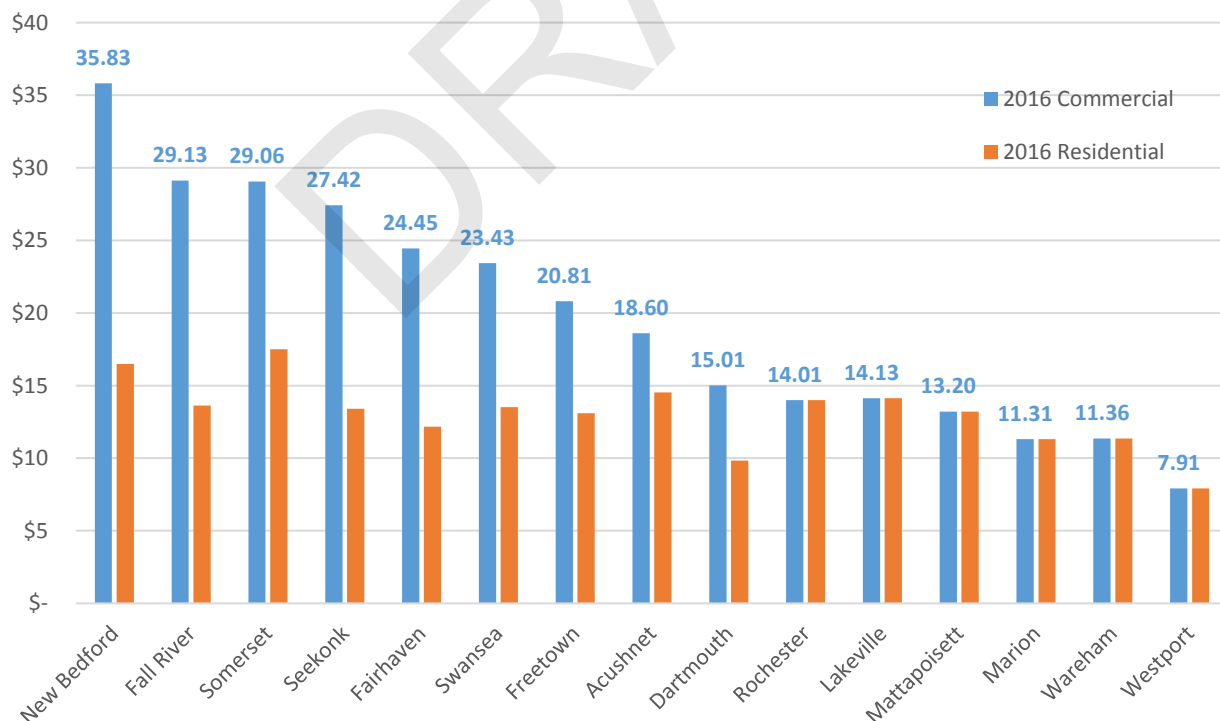
Table 3-1: Demographic Forecasts, Town of Fairhaven

	2010 SRPEDD	2015 SRPEDD	2021 ESRI	2010-2021 Annual % Change	2015-2021 Annual % Change
Population	15,873	....	15,932	+0.04%	....
Median Age	....	46.6	48.2	....	+0.69%
Median Household Income	....	\$61,174	\$65,597	....	+1.45%
Median Home Value	....	\$230,000	\$306,121	....	+6.62%

Source: SRPEDD, ERSI BAO

As of 2016 in Fairhaven, the commercial tax rate is \$24.27 and residential tax rate is \$12.04. The commercial tax rate is slightly above the regional average. Notably, the rate in Wareham and Dartmouth are lower at \$11.25 and \$15.46, as those towns experience significant growth in commercial tenants. That being said, Wareham does not have a split tax rate (placing a higher relative burden on homeowners) and both Wareham and Dartmouth have additional fees for services such as the fire department and trash pickup which means that the gap is narrower than appears from the Millage rate alone. Key for Fairhaven will be to foster vibrant mixed-use environment along Route 6 that will both attract and retain commercial users.

Figure 3-7: Commercial and Residential Millage Rates, SouthCoast Region (2016)



Source: State of Massachusetts

Local Business in Fairhaven

As of 2016, there are 680 businesses and 8,839 employees working in Fairhaven. According to the 2014 American Community Survey (ACS) 5-year estimates, approximately 16% of those employed in Fairhaven also live in the Town. Employees from out of Town predominantly live in New Bedford (25%) and Fall River (6%). Conversely, most of the employed residents in Fairhaven work out of town (85%) - 22% of those employees work in New Bedford, 6% in Fall River, 4% in Boston and 1% in Providence, RI.

The number of jobs in Fairhaven increased by 30% from 2010 to 2015. Most of that growth can be attributed to the 978 jobs added over that period in the health care industry. The health care industry is the largest business sector. The Town is home the Southcoast Center for Primary Care and Specialty Care, Centers for Cancer Care and Urgent Care Center. Though providing the region with wide range of services, some of the health care facilities specialize in long term care and services for the elderly, such as the Alden Court Nursing Care and Community Nurse & Hospice Care centers.

Retail trade is the next largest business sector, but it has suffered a loss in the number of jobs and establishments over the past few years. The commercial activity is concentrated along the Route 6 Corridor, which has a more conventional auto-oriented commercial development pattern with shopping plaza and 'big box' retailers, such as Stop & Shop and Walmart. The job loss can be attributed to the recent turnovers along the corridor, which has created notable vacancies, such as the former Sears and Shaw's site. Additionally, Kmart has recently closed its doors at the Fairhaven location in the spring of 2017.

Table 3-2: Fairhaven Employment by Sectors, 2010 compared to 2015

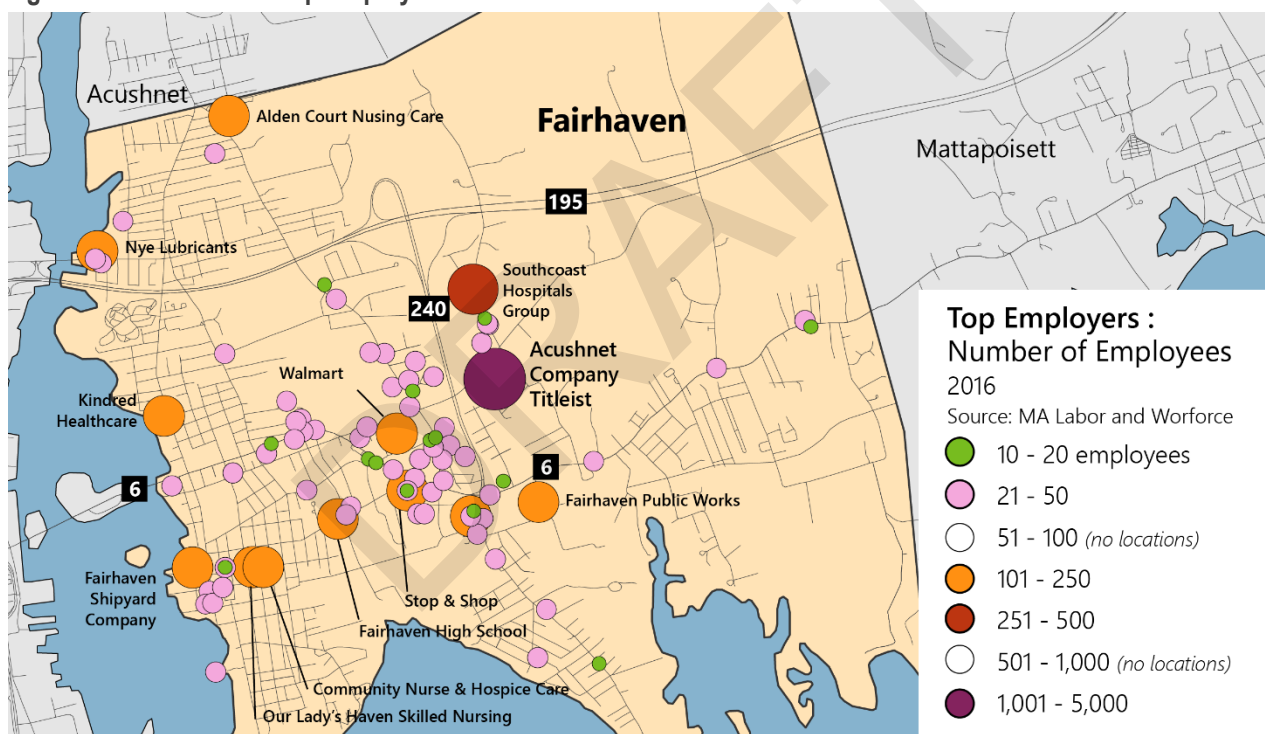
NAICS Code Industry	2010	2015	% Change	2010	2015	% Change
62- Health Care and Social Assistance	1,211	2,189	81%	39	116	197%
44-45 - Retail Trade	1,182	1,067	-10%	76	66	-13%
72 - Accommodation and Food Services	817	976	19%	56	57	2%
31-33 - Manufacturing	848	894	5%	15	9	-40%
23 - Construction	258	319	24%	63	52	-17%
56 - Administrative and Waste Services	97	303	212%	21	16	-24%
81 - Other Services, Ex. Public Admin	293	228	-22%	108	41	-62%
52 - Finance and Insurance	182	196	8%	19	24	26%
71 - Arts, Entertainment, and Recreation	125	127	2%	7	8	14%
Other	1,111	1,632	47%	113	121	7%
Total, All Industries	6,124	7,931	30%	517	510	-1%

Source: State of Massachusetts Labor and Workforce Development Data & Statistics

Fairhaven's top employer is the Acushnet Company, the golf equipment and clothing manufacturing company that includes well-known brands such as Titleist and Footjoy. The company's headquarters and distribution center are in Fairhaven. The company plays an important role in the regional economy and employs approximately 1,800 people in all its facilities. The company has manufacturing plants and a R&D center in New Bedford and North Dartmouth. Nye Lubricants and Brahmin Leather Works are other manufacturing centers in Fairhaven that provide important employment opportunities.

The Southcoast Hospital Group, part of the Southcoast Health System, is another important employer in Fairhaven. The Southcoast Health System is a community based health delivery system with over 300 primary care physicians and with a workforce of approximately 1,900 employees throughout Southeastern Massachusetts and Rhode Island. In Fairhaven, the Southcoast Health System provides a variety of primary care and specialty care services, notably in the Southcoast Center for Primary & Specialty Care and Urgent Care Center. The facilities are located on Mill Road, close to the Acushnet Company headquarters.

Figure 3-8: Fairhaven's Top Employers



Fairhaven has an important working waterfront along the Acushnet River. The industry is tied to New Bedford's fishing industry and supports it by providing ship repair and outfitting services. Part of the waterfront belongs to the New Bedford-Fairhaven Designated Port Area (DPA), which is a state-designated area of concentrated industrial activities. Projects proposed in the DPA must be maritime industrial uses or supporting uses. The Fairhaven Shipyard Company is the largest business in the industry and employs more than 100 people. The Northeast Maritime Institute, located in the Town Center, is a private college that offers training and education for careers in the maritime industry. Although the maritime businesses in Fairhaven represent a smaller industry cluster, it is an important

aspect of the Town's legacy and identity and it offers wages much higher than retail or service jobs.

Although home to some larger establishments, approximately 89% of the businesses in Fairhaven have fewer than 20 employees. They are several clusters of small businesses in Fairhaven, notably along the Route 6 corridor, along the working waterfront near the Town Center, and at the gateways to Fairhaven from New Bedford across the Acushnet River. These small businesses could benefit from being in mixed use environments and being better integrated with surrounding residential communities, but there has not been any significant mixed-use development in Fairhaven.

Institutions supporting Local and Regional Economic Development

New Bedford Area Chamber of Commerce

The New Bedford Area Chamber of Commerce, established in 1885, serves ten communities in the SouthCoast region: New Bedford, Acushnet, Dartmouth, Fairhaven, Freetown, Mattapoisett, Marion, Rochester, Wareham and Westport. The organization currently has approximately 1,000 business members and subscribers. The Chamber of Commerce supports its members by organizing networking events, educational programs and trade shows and by promoting policy initiatives at the local and state levels.

Northeast Maritime Institute

The Northeast Maritime Institute is a private co-educational college that provides degree programs and training for students interested in pursuing a career in the maritime industry. The courses and training offered are certified by the International Convention on Standards of Training & Certification of Watchkeepers and Seafarers (STCW) and United States Coast Guard. The Institute recently began offering a two-year associates degree in Applied Science in Nautical Science and plans to provide other degrees paired with appropriate Merchant Marine licenses in the near future. Founded in 1981, the Institute has three facilities located in Fairhaven and approximately 500 students.

SouthCoast Young Professionals Network

The SouthCoast Young Professionals Network is an affiliate of the New Bedford Area Chamber of Commerce comprised of young professionals between the ages of 21-39. The mission of the group is to work with local and regional leaders, Chamber members and other young professionals to attract and retain young talent in the region. Programs include a mix of social events and professional and business development events.

Fairhaven Business Association

The Fairhaven Business Association is a nonprofit organization established in 2011 by group of local businesses. The group's objective is to encourage local economic development through collaborative efforts and by providing a forum for discussion and information.

South Eastern Economic Development Corporation

The South Eastern Economic Development Corporation (SEED) is a regional non-profit organization that was established in 1982 and based in Taunton, MA. The organization focuses on job creation by financing all types of small businesses in Massachusetts and Rhode Island. It provides businesses with loans ranging from \$1,000 to \$5.5 million. SEED also runs a business assistance program, which includes individual technical assistance, monthly educational events and a small business library. The group has over 200 members that represent community and business organizations, economic development agencies, local officials, lending institutions and small businesses.

Goals and Recommendations

Goal 1: Preserve the commercial viability of the working waterfront and seek balance with neighboring land uses, while simultaneously exploring opportunities to make the waterfront more accessible to the community.

Recommendations:

5. Hire a planning firm specializing in waterfronts to create a redevelopment plan for the working waterfront that would preserve key commercial zones, improve vehicular circulation, emphasis pedestrian access, and create a better tourist/public realm experience along the waterfront.
6. Evaluate streets along the working waterfront for a possible conversion to one-way to improve traffic movements and reduce conflicts.
7. Track and to the extent possible integrate with the Waterfront Redevelopment Plan being performed in 2017 on behalf of the New Bedford Harbor Development Commission.
8. Explore the needs of infrastructure upgrades to support the long-term viability of the working waterfront in light of the foreseeable sea level rise, in concert with the recommendation of the Hazard Mitigation Plan effort.

Goal 2: Maintain healthy commercial occupancies along Route 6 and in other commercial nodes and retain service related jobs wherever possible.

Recommendations:

4. Work with major commercial property owners to determine potential large-scale vacancies before they occur to initiate early strategic discussions for maintaining occupancies or redeveloping the site.
5. Work with large employers such as Acushnet and Southcoast Medical Center to identify strategies for retaining/growing employment base and meeting future space needs.
6. Consider introduction of tax credit/tax abatement programs for job creation.

Goal 3: Encourage mixed-use projects on key redevelopment parcels in support of a live, work, play environment.

Recommendations:

6. Consider a joint town/property study to engage a real estate advisory firm to create a redevelopment strategy for a key commercial property with an unhealthy level of vacancy.
7. Explore town related functions occupying spaces in vacant commercial buildings whenever appropriate.
8. Promote mixed-use development through land use, zoning, and development incentives.
9. Develop a detailed revitalization plan to guide redevelopment of commercial nodes in town. The plan should incorporate analysis of appropriate types of redevelopments, scale/dimension/design of such developments, as well as potential zoning changes and infrastructure and services needed to support these redevelopments.
10. Consider creating a Route 6 mixed-use overlay zoning district to stimulate mixed use commercial and residential redevelopment. Making provisions for mid- to high-density residential will be important.

Goal 4: Revise business regulations and enhanced programs to continue to support the incubation and growth of small businesses.

Recommendations:

5. Plan and potentially fund a small-scale, low-cost business incubator to be housed in vacant commercial space along Route 6.
6. Adopt effective permitting procedures for small neighborhood businesses.
7. Review and update zoning to allow more flexibilities that support small business development, such as home-based business, residential commercial mixed use, etc.
8. Revisit signage ordinance to allow for more flexibility for businesses.

Goal 5: Collaborate with New Bedford and other nearby towns on issues of workforce training/regional economic development to elevate the profile of South Coast.

Recommendations:

5. Consider engagement of a market/branding firm to develop a targeted campaign for the South Coast.
6. Partner with New Bedford to develop a joint economic development strategy for the Harbor.
7. Join regional effort to support the South Coast Rail extension.

8. Explore future economic development opportunities in and around the harbors as catalyzed by the upcoming replacement of the Fairhaven-New Bedford bridge.

DRAFT

Public Facilities and Services

4

Introduction

The public services and facilities element of a comprehensive plan should serve as a guide for decision-making about the public buildings, infrastructure, utilities and services provided by a local government. The adequacy of municipal facilities – which affects the ability of municipal employees to serve the community – is largely determined by four factors:

- ▶ The form, size and organization of the local government;
- ▶ Projected population and economic growth;
- ▶ The community's land use pattern; and
- ▶ The expectations of residents and businesses for the types and levels of services, and the ability of the Town to meet those expectations.

A Town's ability to provide adequate services to the community requires both short- and long-term planning. Effective capital planning and asset management policies are often challenged by limited revenue for government operations, which can put long-term investment at risk. Prioritizing and setting goals for short- and long-term investment needs can help a Town ensure that it meets the community's expectations for municipal services, which Fairhaven has largely been able to do. Yet some of Fairhaven's facilities are inadequate to meet current and future needs in order to accommodate the personnel, equipment, technology and records storage that government organizations need to run efficiently.

Fairhaven receives limited funding from non-local sources and relies almost entirely on its residents and businesses for financial support. One of the key issues facing the Town is how to prioritize and pay for its many capital needs. Given the growing demands on public services and facilities, the Town is challenged in how it can meet and balance those needs. New growth and development opportunities, such as those discussed in the Economic

Development chapters of this Plan, can provide the major source of funds to help to increase the Town's tax base and support improvements.

This chapter includes an analysis of the adequacy of the following public services and facilities in Fairhaven. The services and facilities listed below are among those that were identified by Town officials and residents through interviews and public meeting.

Baseline Conditions Analyses

The municipal services that Fairhaven provides are fairly typical of Massachusetts towns. Many local government services qualify as "essential" regardless of whether the state mandates them.

Table 4-1 Fairhaven's Public Services

Department	Location	Department	Location
Accountant	Town Hall, 40 Center St	Public Library	45 Center Street
Animal Officer	200 Bridge Street	Public Works Department	5 Arsene Street
Assessors	Town Hall, 40 Center St	Recreation Department	227 Huttleston Avenue
Board of Health	Town Hall, 40 Center St	Schools	128 Washington Street
Board of Selectmen	Town Hall, 40 Center St	Sewer/Wastewater Division, BPW	5 Arsene Street
Building	Town Hall, 40 Center St	State Reservation: Fort Phoenix	
Council on Aging	229 Huttleston Avenue	Tax Collector	Town Hall, 40 Center St
Emergency Management		Town Administrator	
Fire Department	146 Washington Street	Town Clerk	Town Hall, 40 Center St
Government Access Channel	Town Hall, 40 Center St	Town Moderator	
Harbormaster & Shellfish Department	Town Hall, 40 Center St	Treasurer	Town Hall, 40 Center St
Highway Division, BPW	5 Arsene Street	Tree Department	Town Hall, 40 Center St
Housing Authority	275 Main Street	Veterans' Services	Town Hall, 40 Center St
Parks and Grounds Division, BPW	5 Arsene Street	Visitor's Center	141 Main Street
Planning and Economic Development	Town Hall, 40 Center St	Water Division, BPW	5 Arsene Street
Police Department	1 Bryant Lane		

Source: Town of Fairhaven official website

Police Department

The Fairhaven Police Department has 38 full time staff, including 1 Chief, 7 Sergeants, 24 Patrolmen, 5 Dispatchers, and 1 Executive Assistant, and 3 part-time staff including 2 Patrolmen and 1 Custodian. The Police Department currently includes the following units:

- ▶ Patrol
- ▶ Detective
- ▶ Domestic Violence
- ▶ Communications
- ▶ Dive
- ▶ Motorcycle patrol
- ▶ Marine patrol
- ▶ Honor Guard
- ▶ School Resource Officers

The Police Department building is over than 50 years old with an addition that is reaching 25 years old. The roofs for the older building was redone less than 2 years ago. The building has windows that need replacing, the HVAC system is of poor design and several aspects of the building will pose a challenge to meet accreditation standards.

The Police Department manages 21 response vehicles, including marked units, under cover vehicles, one motorcycle and one pickup truck. In addition, the department controls a boat with trailer, a utility trailer, and a radar trailer. There is also a backup diesel powered generator which is maintained by the Fire Department. In the Town's latest capital needs plan, the Police Department requested \$80,000 for a pair of new police cruisers and sought \$250,000 for a major upgrade to the department's radio communication system.

Overall, the Police Department is able to meet the current need for services. Over the last year, the Police Department responded to 19,308 calls for service that involved all aspects of police services. As part of the community enhancement effort, the Department is currently in the process of training and equipping officers with narcan, which is a medicine used to reverse the effects of an opiate based overdose. To measure and assess department performances, the Police Department reviews employee production statistics and motor vehicle crash statistical data and keep Department policies and procedures current with the latest industry standards.

In terms of sustainability and energy efficiency measures, the Police Department installed low wattage, energy efficient fluorescent light bulbs in the building in 2016. Basic recycling of paper, cardboard, plastic products is also available. The police patrol vehicles are equipped with more fuel-efficient 6 cylinder engines, which have replaced the larger 8 cylinder engines. The Department also has better engine and drive train warranties for new vehicle purchases, which enhances the economic sustainability of the Police Department's budget. In addition, the Department continue to capitalize on grant funding that is available to fund training, new equipment purchases and overtime directed patrols as an effort to enhance financial sustainability.

Fire Department

Fairhaven's Fire Department currently has 24 Career Firefighters (full time), 1 Civilian Employee (full time), and 18 Call Firefighters (part time-on call).

There are two Fire Stations in Fairhaven. Station 1 the Headquarter was built in 1964 and has large space to accommodate apparatus built in the 1960's, communications center, administration offices, dormitories and a meeting hall/EOC. The station was renovated in 2001 to incorporate handicap bathroom facilities, female dormitories and bathroom facilities, and additional administration space. A new roof was put on the building in 2014.

The current condition of Station 1 is fair, however, there are a number of issues:

- ▶ Apparatus bay designed in 1964: The bays were designed for apparatus that was manufactured back in 60's and 70's. Current apparatus is difficult to fit into station safely. Engine 2, a 1984 500 Gallon pumper is scheduled to be replaced in the very near future, however there is no place to house the new piece of equipment. Two ambulances are kept next door at the police department due to lack of space on the Fire Department side. This causes a brief delay in response.
- ▶ Decontamination Room (Personnel): It is required by OSHA to limit the amount of blood borne pathogens and carcinogens in firefighting gear. A separate room is required for firefighters to remove their equipment and shower removing the products of combustion and other hazards. Currently there is no decontamination room.
- ▶ Decontamination Room (Equipment): Equipment needs to be deconned and blood borne pathogens need to be contained. Currently there is no proper way to decontaminate equipment in house.
- ▶ Laundry Areas: No existing laundry areas for personnel to launder their apparel. There is currently an extractor washer for the firefighting gear, but no washer/dryer in the station for uniforms. Currently they bring home contaminated clothing to be cleaned.
- ▶ EMS Supply Room: EMS Equipment has to be kept in a locked room that is environmentally controlled. The fire department has no location that can house this equipment in their station and is currently using an equipment room over in the Police Department.
- ▶ Apparatus front ramp: The apparatus front ramp is slowly collapsing due to the weight of the trucks. Several repairs have been done and more will be done in summer 2017. The apparatus doors are over thirty years' old and showing signs of wear and tear.
- ▶ Cellar/Sewer Drainage: A main drain that travels out south from the building and under the apparatus ramp connects drainage pipe that has a partial blockage. Sewer department is recommending tearing up the apparatus ramp and replacing pipe.
- ▶ Training: The need to provide training to Fire Department personnel is of the utmost importance. Live fire training and equipment training is conducted almost daily ranging from 1 to 2 hours. The need for a modern training facility and tower that will not impact the neighborhood is recommended.

- ▶ Trailer/Boat Storage: Several trailers, including the hazmat trailer and Marine 68 are kept outside and Marine 68 is stored in a steel shed. This delays response exposes the trailers outside to the elements of the harsh winters.
- ▶ Heating System: Heating system is an old non-efficient boiler that is in need of replacement.
- ▶ Cooling System: Current communications and IT require environmental controls. Currently no central air exists and the Fire Department require to replace non-efficient window units in various locations to maintain temperatures.
- ▶ Storage: No room for records storage and equipment. All spaces are currently maxed out on availability.

Station 2 was built in 1950 and has a single bay and a toilet. This station is used during blizzards and hurricanes but currently houses the reserve piece Engine 2. Station 2 is in poor condition and missing essential functions including vehicle exhaust system, kitchen, decontamination rooms and sleeping quarters. Designed in the 1950's, Station 2 was built to hold apparatus of that generation. The current 1984 piece barely fits in this station which will not hold any larger piece of equipment either. This along with Headquarters (Station 1) will not accommodate another engine until renovations are made.

The Fire Department manages the following equipment:

A. Response Vehicles

a. Engines

- i. Engine 1: 1995 1250 GPM Pumper
- ii. Engine 2: 1984 1000 GPM Pumper (Scheduled to be replaced)
- iii. Engine 3: 2002 1250 GPM Pumper
- iv. Engine 4: 2008 1250 GPM Pumper

b. Ladder

- i. Ladder 1: 1985 110ft Aerial (Scheduled to be replaced. Town Meeting in May 2017 approved funding for the replacement)

c. Ambulances:

- i. Medic 1: 2013 International/Horton Class 1 Ambulance
- ii. Medic 2: 2008 GMC/Horton Class 1 Ambulance
- iii. Medic 3: 2003 Ford/Road Rescue Class 1 Ambulance (Scheduled to be replaced)

d. Other

- i. Car 1: 2016 Chevrolet Tahoe
- ii. Car 2: 2011 Chevrolet Tahoe
- iii. Car 3: 2005 Chevrolet Tahoe
- iv. Rescue 1: 1995 Heavy Rescue
- v. FPI: 2008 Ford F150 Utility Vehicle
- vi. Unit 5: 1995 Ford F350 with Skid Pump

B. Generator

- a. Fixed diesel generator at station. Automatic start to supply police and fire with power during outage. Currently the unit is 15 years old.
- b. 20KW generator on rescue one for portable generator needs.

The Fire Department currently uses the following metrics to measure performance:

- a. ISO rating (Insurance Service Office)
- b. NFPA (National Fire Protection Agency)
- c. OSHA (Occupational Safety and Health Administration)
- d. Internal: Internal QA/QI audits

In 2016, the department responded to 3,353 calls for service. This does not include mandatory inspections, fire safety inspections, oil burner inspections, propane inspections, fire detector/carbon monoxide inspections and various other inspections. While there is no major access issue in most of Fairhaven's neighborhoods, there are concerns regarding limited access in Poverty Point and southern part of Farmfield Street

Currently the department is meeting the demand, however there is typically a 3 to 6 percent increase in volume each year. The Fire Department has currently maxed out on space for equipment, storage and personnel and will need new locations in order to expand in the future years. When the Fire Station was renovated in 2001, it was intended to be a two phase project to address some of the storage and space issues that have become more urgent today. Phase two was not completed due to other capital projects. As funding has been appropriated for a feasibility study to relocate the Fire Department, it is highly recommended that the Fire Department's issues be considered and prioritized.

Library

The Millicent Library of Fairhaven is one of the most iconic and historic buildings located in Fairhaven Center. The building was constructed and gifted to the Town in 1892 by the Henry Rogers' family in memory of Millicent Gifford Rogers, the youngest daughter who died unexpectedly in 1890 at the age of seventeen. An addition was put on to the original library building in the 1960s.

The Library belongs to the SAILS Library Network and shares resources with other cities and towns. The library website was established since 1995 and some of the library holdings haven been digitized since. For Fiscal Year 2016 excluding digital subscriptions, downloadable books and databases, the Library has the following resources:

- Holdings – Printed Books 58,378; Printed magazines 178; CDs & DVDs 21,970
- Circulation – Printed Books 44,663; Printed magazines 5,257; CDs & DVDs 36,889

In addition to these holdings and circulation items, the Library also provides public access to computers and internet, and loans out internet hotspots. The library and its Friends group provide programming on various topics.

The Library has five full-time staff who work 37 hours each per week, three part-time staff who work 19 hours each per week, two part-time custodians alternating between 15 and 19 hours per week each, and several part-time staff filling in a total of 25 hours per week. The staff routinely attends workshops and training sessions. Statistical reports on all

Massachusetts libraries are generated annually, while statistics are generated by the SAILS network as well on a monthly basis.

The library building is in overall good condition. Over the past several years, the building has gone through phased repointing projects. There are several grant proposals in the wings to continue additional repointing and exterior repairs over the next two to three years. There have been a number of measures taken to improve the energy efficiency of the Library, including replacement of lighting fixtures per the recommendations of the electric company and replacement of inefficient windows with more efficient ones. Replacements of the air conditioning units that only regulate the workroom and Rogers Room are also more efficient.

The library is the only free meeting place in the center of town and many organizations use it. Currently the Library provides adequate space and resources to meet today's community needs. As the population of the Town has been stable since the 1960s and there is no anticipated significant increase in the near future, the Library will likely be capable of meeting future community needs as well, although a number of improvements are expected in order to better serve the community, such as parking and universal air conditioning.

Council on Aging

The Fairhaven Council on Aging (COA)/Senior Center building, located at 229 Huttleston Avenue, was constructed in 2001 at the same time as the Fairhaven Recreation building, which is attached by an adjoining door. The building is located in an easily accessible area off of a main street and served by a generous numbers of parking spaces and an appropriate number of handicap parking spaces. The building is in good condition structurally as well as aesthetically. There is enough restroom space including a single handicap accessible restroom. The building is handicapped accessible at all 6 doorways leading from outside in. The outside of the building is well lit.

The grounds of the Senior Center are landscaped with beautiful trees, a memorial flower garden, six raised vegetable gardens, picnic tables, bocce court and the Phoenix Rail Trail running behind the building. The facility space indoors and outdoors is being well maintained by a custodian (35 hours per week). Within a year, a senior friendly outdoor workout station will be constructed in the back yard (pending grant funding). The inside of the building has many big windows allowing lots of natural light. The walls are painted soft yellow and blues. The building has only a typical HVAC system which doesn't provide indoor air quality control. At times the odor from the sewer treatment plant flows into the building from vents on the outside of the building which is unpleasant. The odor also makes it impossible to sit outside in the summer sometimes.

The present space of the COA/Senior Center creates an hour to hour challenge for a number of reasons:

- A. The COA houses the Supportive Social Day Program where 20-25 people (with some level of cognitive disability) spend the day in a supervised setting. There is no designated space for this group and several times throughout the day the group is moved to a different area of the facility to be able to accommodate COA

programming not related to the Social Day. The staff is creative and makes the space work for what is needed for that particular day.

- B. The COA programming has increased over the past 5 years which again creates space problems. Some programming has been moved to after hours to assist with this situation. Some programming has been denied for lack of space or has been moved to other town buildings (i.e. housing facilities). With the baby boomer population almost at full swing, this COA will not be large enough, within the next 5-8 years, to efficiently provide seniors of this town and surrounding towns with activities, education and programming.
- C. The HVAC system has been problematic for several years basically because of ongoing problems with computer chip placement on the Recreational Centers roof. Lightening causes the chips to become destroyed and traces over to the COA side and destroys the COA chips. Over the course of the fiscal year, 80% of the COA building repair/maintenance budget line goes toward HVAC repair. It was approved by the Town Administer for the COA/Rec Center to receive a new HVAC system in FY2019.

The COA encourages health and wellness through many different types of programming, including Healthy Cooking Classes, guest speakers from the community providing advice and knowledge regarding the importance of health care, support groups (i.e. for those dealing with dementia, depression, grief, pet loss), wellness clinics, health fairs, exercise programming (Zumba Gold, Chair Yoga, Osteo, Tai Chi, Biking Group, Walking Group, dancing). To enhance social wellbeing, there is a Single Senior Supper Club for widowed and single folks who don't want to eat dinner alone, an LGBT Supper Club for the South Coast 60 and over LGBT population, weekly mall trips, congregate lunch program open to seniors 60 and over, and various card and board games weekly. If additional space becomes available, the number of times some of these groups meet could be increased and new activities can be added to better serve the seniors.

Programming and calculation of volunteers, seniors and social day participants are computed by a program called My Senior Center. Seniors who enter the building swipe their Fairhaven Senior Center card through the machine and select from the screen what event they are here for. All events that are offered at the senior center are listed in My Senior Center. This program allows staff to pull up reports needed to apply for grants and for statistics kept for record keeping. In April, a volunteer appreciation luncheon is held for all volunteers who assisted the COA in some capacity. This director calculates the hours each has spent and multiplies the hours at a hypothetical average hourly wage of \$12.00 per hour. In 2016, 70 volunteers spent over 19,000 hours of volunteerism, saving the town \$234,072. A 4'x3' "check" is written to the town and given to the selectmen making town residents aware of the importance of our volunteers.

Winter is always tough on the seniors. Census always decreases slightly as the more frail seniors tend to remain at home rather than risk a fall. In Snow event, the COA remains open if the town hall is open. At the discretion of the COA director, the COA may be open but all activities may be cancelled. If school is cancelled, the Supportive Social Day is cancelled. If school is open, it is of the discretion of the COA director whether or not to hold Social Day. At times, the Social Day may be open but with no transportation. The Fairhaven COA, in

collaboration with the Fairhaven Commission on Disability, have created a program called Sand for Seniors. Seniors who wish to participate in the program receive a 5 gallon bucket filled with the sand /salt mix (same as used on the roads and obtained from the DPW). Students from the Northeast Maritime institute in Fairhaven volunteer to fill the buckets and deliver them to the senior's homes. A list of seniors who are alone or who are frail elders is kept and updated yearly.

The Fairhaven shelter is located at the Fairhaven Middle School but seniors are reluctant to leave their homes even for a short time. In summer months, the COA has used AC units that people have donated and the AC units are given to seniors who cannot afford one. It is in the planning to enhance the COA/REC Center to become the shelter for the town. A walk-in freezer has to be installed, a generator has to be installed and electrical has to be updated to accommodate the increased electrical needs.

School District

Good schools benefit a community's families and help to preserve property values for everyone. Fairhaven residents have traditionally supported their public schools and worked hard to ensure that children receive an excellent education. Many residents come into contact with school buildings, not only parents and children, but also those participating in community or recreational activities that take place inside school facilities.

The Fairhaven Public Schools is a local PK-12 school district. In the 2015-2016 School Year, the School District served approximately 2,000 students. All 140 teachers in the Public Schools are highly qualified and licensed in Teaching Assignment. The District and School Leadership includes the School Committee, the Office of the Superintendent of Schools, the Office of Student Services, and the building principals. The school department operates four school buildings, including:

- ▶ East Fairhaven Elementary
- ▶ Wood Elementary
- ▶ Hastings Middle School
- ▶ Fairhaven High School

Fairhaven's Public Schools have been highly rated by parents of school aged children and future school aged children in the community. In the 2015-2016 School Year, there were a record total of students inducted into the National Honor Society at Fairhaven High School. The School District has received national recognition from the College Board. More recently, Fairhaven High School was shortlisted for inclusion in Newsweek's ranking of America's Best High Schools. Fairhaven High School also continues to be named a Level One School now for three consecutive years.

Overall speaking, Fairhaven's Public Schools have the capacity to serve the current and foreseeable future needs of the community, as long as proper capital improvements are made as necessary. Currently, the Superintendent of Schools is a sitting member of the Town of Fairhaven Capital Planning Committee. The Fairhaven Public Schools has formally submitted multiple proposals as part of its five-year capital plan with the town specific to the school department, including:

- ▶ Fairhaven High School Wood Window Restoration Project
- ▶ Fairhaven High School Exterior Major Improvements
- ▶ Fairhaven Ethernet Dedicated Internet ServiceFairhaven High School Gymnasium Dehumidification

Public Works

Public Works in Fairhaven is governed by the five-member, unpaid elected Board of Public Works Commissioners who set policy and establish the rules, regulations, fees and procedures of the public works in the town. The Public Works Department includes five divisions, namely Highway, Parks and Grounds, Sewer/Wastewater, Solid Waste, and Water Divisions, who manage and maintain the town's roadway, park and utility infrastructure systems, including roads, parks, cemeteries, beach, bike paths, water, sewer, storm drainage, trash collection, vehicle maintenance, and recycling center. The Public Works have approximately 60 full time employees and 20 plus seasonal staff. The main building at 5 Arsene Street houses the highway division, water division, repair garage, and administration.

Fairhaven's drinking water supply comes from the Mattapoissett River Valley Water Supply District operated by the Towns of Fairhaven, Marion and Mattapoissett. The District's water treatment facility is located in the Town of Mattapoissett, where water pumped from six wells is treated and redistributed to served towns. Fairhaven receives 2 to 3 million gallons of treated water from the water district per day, which is distributed throughout town by 4 water pump stations. The water district adequately serves the community. There is no foreseeable water supply capacity issue. Currently there is no automatic metering system in place. Residential water meters get read semiannually and commercial meters get read quarterly, which takes considerable staff capacity to accomplish.

Fairhaven's sewage and wastewater treatment system consists of two wastewater collection/treatment plants, namely the Arsene Street facility and the West Island Treatment Plant, a water pollution control facility on Arsene Street, and 17 pump stations throughout the town. While some of the wastewater treatment facilities have been online for more than 50 years, the town manages to make upgrades when necessary to maintain the capacity.

The water pollution control facility is a conventional activated sludge digester designed for 5 million gallons a day (MGD) of wastewater flow, though it typically receives only 3 gallons daily which is not enough to feed the digester. The plant discharges to the inner harbor through an outfall located west of the intersection of Church and Main Streets. Prior to discharge the flow is treated to levels of biological oxygen demand (BOD) and total suspended solids (TSS) below those dictated to the town thru the National Pollutant Discharge Elimination System (NPDES) permit which is issued jointly by the Massachusetts Department of Environmental Protection (DEP) and the federal Environmental Protection Agency (EPA).

The Town is currently awaiting a new permit from these agencies that will likely require nitrogen elimination in treated discharge. This will have considerable impact on the operation and viability of the sludge digester as the discharge from the digester is loaded with nitrogen. The Town will need to weigh in these considerations when planning for any

future rehab project. Overall, the town's wastewater treatment capacity is adequate to serve the current and foreseeable future community needs.

The Town hires a third party vendor for curbside trash pickup and recycling services, which are offered to both residents and businesses. Trash is picked up weekly while recycling is provided on a biweekly basis. The Town does not charge separately for solid waste disposal, although the Town might consider a pay-as-you-throw program in the future in an effort to further encourage recycling and compost in the community.

In terms of stormwater management, the Town holds and complies with a Municipal Separate Stormwater Systems (MS4) General Permit that regulates water pollution by stormwater runoff. Stormwater catch basins are cleaned every year and digitized in GIS for better tracking and management. In addition to maintain compliance, the Town strives to provide public education on stormwater pollution and proper handling of hazardous materials.

The Public Works services are overall well-balanced. The primary needs in short and long term as identified by the BPW Superintendent include:

- ▶ Install town wide automatic water metering system.
- ▶ Increase staff size, particularly seasonal staff and licensed water and wastewater staff.
- ▶ Continue enhancing proper staff training.

Goals and Recommendations

Goal 1: Develop plans and funding to rebuild, expand, or replace key public facilities, and the staff needed to support the Town operations.

Recommendations:

4. Develop a Facilities Master Plan for all Town buildings that identifies near, mid, and long term improvements (and costs), so that the Town will have a comprehensive inventory of the required maintenance and capital improvements needed for its public facilities.
5. Develop a plan to implement the recommendations identified in the Facilities Master Plan.
6. Assess the need to add staff and enhance necessary staff trainings to departments to address anticipated growth and implement the recommendations included in the 2040 Master Plan so that the town can deliver its services effectively.

Goal 2: Ensure public safety officials have the facilities to handle today's needs as well as projected future needs of the community.

Recommendations:

4. Prioritize the relocation and expansion of the Police and Fire Department to address community safety needs.
5. Allocate appropriate funds in the Town's Capital Improvement Plan to support necessary upgrades and improvements to the Police and Fire Department.
6. Continue to invest in training and professional development for Fairhaven's Police and Fire Department staff.

Goal 3: Enhance senior services in Fairhaven.

Recommendations:

5. Explore feasibility of expanding the current Senior Center to meet the space needs for programs serving the Town's senior population.
6. Evaluate and enhance transportation services offered to seniors and residents with disabilities.
7. Provide additional recreation opportunities geared toward seniors through the Recreation Department.
8. Encourage collaboration among the COA, Recreation Department and Fairhaven Public Schools to promote inter-generational activities.

Goal 4: Develop plans for key infrastructure elements that need improvement.

Recommendations:

7. Continue to fund annual improvements to roadways and seek opportunities to obtain state funding for long-term transportation enhancements as identified in the Transportation chapter.
8. Prepare an updated master plan for the Water Department to forecast future needs for investments in pump stations, wells, and the delivery of water to the Town.
9. Invest in an Automatic Reader System for water meters in Town to improve the Town's ability to collect meter reading data and billing procedures.
10. Prepare a long-term plan for the use of the Sludge Digester System to ascertain the cost benefit of the continued use of this facility, considering new MS4 permitting requirements.
11. Prepare a long-term plan for the Sewage Treatment Plant to ascertain the cost benefit of the continued use of this facility, considering new MS4 permitting requirements.
12. Invest in education programs and materials that provide residents and business owners information about solid waste and recycling programs to improve the town's participation rate in these programs.

Goal 5 Continue to take advantage of opportunities for sustainable energy within the Town's facilities and services.

Recommendations:

6. Undertake an energy audit of municipal buildings and develop a plan to implement recommendations
7. Undertake a vehicle fleet assessment to ascertain opportunities to right size vehicles and increase fuel efficiency (See Sustainability goals for Green Fleets)
8. Incorporate cost-effective Green Infrastructure strategies into all municipal projects for storm water management, drainage.
9. Seek ways to increase recycling and reduce solid waste disposal.
10. Educate Town residents about storm water issues and proper management.

Goal 6 Invest in the Town's schools to provide state-of-the-art educational facilities

Recommendations:

2. Work closely with the School Department to identify capital improvements that are needed to support the schools, such as window and exterior renovations to the High School, dedicated internet service, and other improvements needed to maintain and enhance the Town's schools.

Open Space and Recreation

5

Introduction

To be added.

Baseline Conditions Analyses

To be added.

Goals and Recommendations

Goal 1: Preserve our farmland and working agricultural landscapes.

Recommendations:

5. Acquire specific critically located parcels of land to prevent development in inappropriate (e.g., coastal) areas in Fairhaven.
6. Encourage continued participation and enrollment in farmland and forestry preservation programs under MGL 61, 61A and 61B, and in the state's Agricultural Preservation Restriction (APR).
7. Preserve important agricultural soils/working agricultural landscapes in conjunction with state and local food systems security planning
8. Work with the Agricultural Commission to develop an up-to-date Plan of Work that integrates appropriate conservation and open space goals and objectives

Goal 2: Increase awareness and stewardship of our conservation, open space, and recreational assets.

Recommendations:

4. Develop a web-based map of conservation, recreation, and open space assets as part of an Open Space and Recreation web page
5. Prepare information, including directional and on-site narrative and graphic signage and brochures, highlighting conservation and recreation areas, and encouraging stewardship and appropriate use.
6. Establish a permanent Open Space Committee to work with other boards and commissions to help promote the Open Space and Recreation Plan

Goal 3: Set aside more land for conservation, open space, and water supply protection.

Recommendations:

4. Continue to work with the Mattapoissett River Valley Water Supply Protection Committee to protect the resources of the Mattapoissett River aquifer.
5. Revise and update the provisions of the Water Protection Overlay Zoning District in the Nasketucket River Watershed.
6. Encourage responsible and continuous land use management and planning within all water and marine related resource areas.

Goal 4: Provide quality life-long recreational opportunities for all citizens regardless of age or ability.

Recommendations:

6. Continue to develop recreational and athletic facilities, including multi-purpose fields, pathways, and play areas, particularly in underserved parts of town.
7. Meet ADA required accessibility standards for access to all town-owned conservation, recreation, and athletic facilities, per the ADA Transition Plan.
8. Improve access and facilities at the Town Beach on West Island.
9. Continue to work to develop bicycle connections from the existing Phoenix path to other parts of town and to existing regional pathways.
10. Work with the Wellness Committee to plan and develop the recommended Fitness Trail.

Historic and Cultural Resources

Goal 1: Enact a Demolition Review Bylaw.

Recommendations:

6. Two introductory public meetings over the next year, cosponsored by the FHC and the Planning Board, to introduce the topic and initiate community discussions.
7. Draft bylaw components based on input from the public meetings.
8. Finalize bylaw based on public input and bring to the Town Meeting. Revisit bylaw components based on objections as necessary.
9. Produce reference booklet that provides relevant information regarding the bylaw for property owners, realtors, and community members.
10. Institute communications program to inform and assist property owners subject to bylaw, and ensure that the demolition review program is maintained in a responsible way.

Goal 2: Expand Understanding of Historic Resources in the Town.

Recommendations:

5. Complete historic resource inventories of two neighborhood subdivisions or landscapes (farmsteads, culturally-significant open space, etc.) over the next five years.
6. Expand use of 20th century history in heritage programming.
7. Utilize historic development to guide planning and zoning efforts for mixed-use development.
8. Consider establishment of neighborhood conservation districts or local historic districts.

Goal 3: Establish local historic district(s).

Recommendations:

7. Create local historic district study committee, under the provisions of M.G.L. Chapter 40C, General Laws.
8. Utilize historic resource inventory form (see Goal 2) to determine the historic significance of the local historic district and approximate boundaries. Potential local historic district areas include the town center, and the Poverty Point neighborhood.
9. Initiate public opinion surveys and to gauge public interest. Use newspaper articles, newsletters, local access TV stations, and other forums to share potential benefits and property owners' concerns, and address any misunderstandings.
10. Produce preliminary study report including proposed local historic district methodology, significance, boundary justification, recommendations for bylaw, map, property index, historic resources inventory form(s), and photographs. Submit preliminary study report to MHC for review.
11. Hold public hearing on proposed district.

12. Produce final report based on comments received and bring to town meeting. When passed, notify Attorney General, record map at Registry of Deeds, and notify MHC.

Goal 4: Link Historic Preservation with Economic Development.

Recommendations:

3. Prepare/sponsor National Register nominations for threatened buildings and areas.
4. Advertise National Register status to realtors and developers, encouraging the use of tax credits and highlighting successful historic tax credit rehabilitation at Oxford School.

DRAFT

Transportation

6

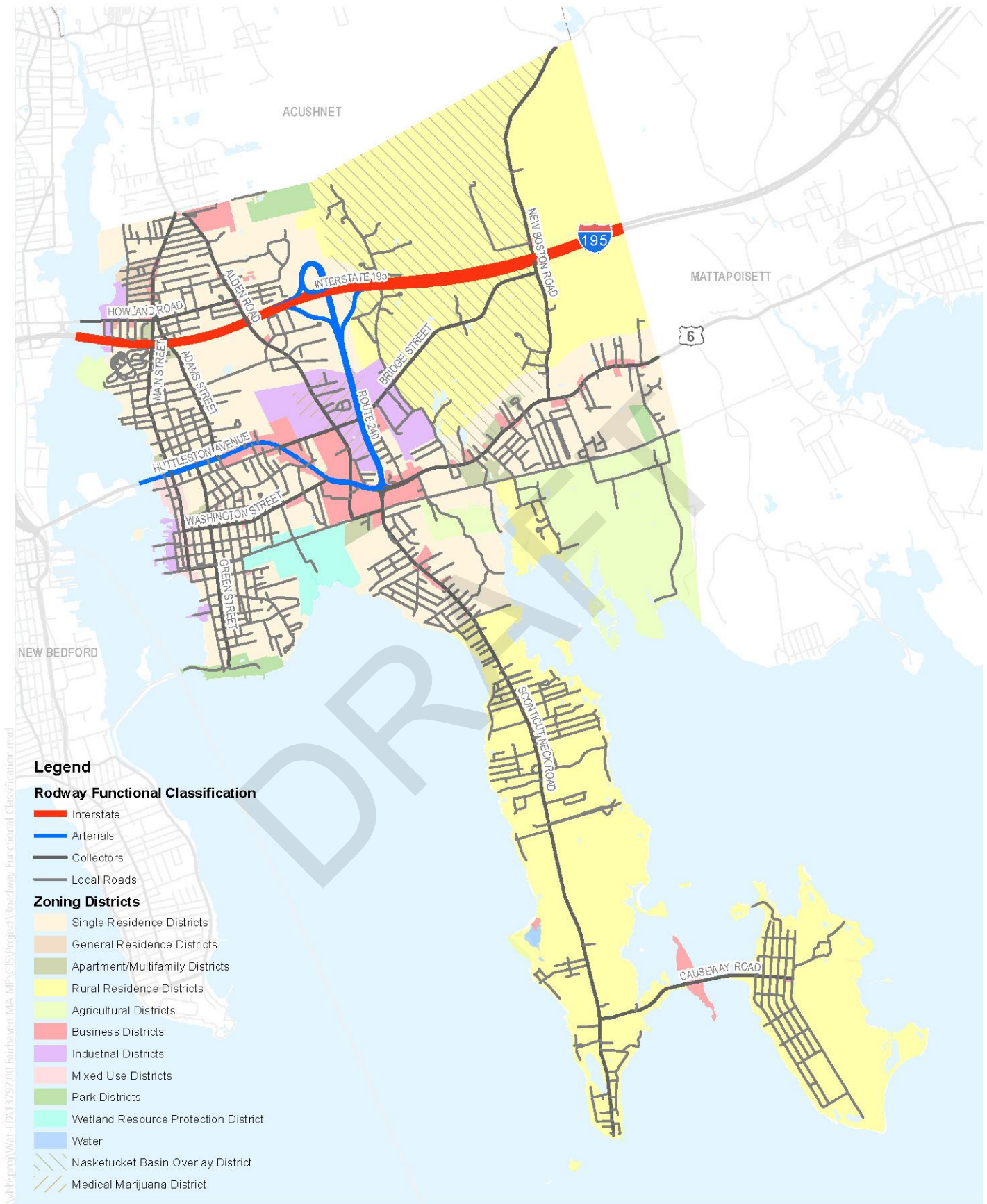
Introduction

Transportation infrastructure serves as the backbone of a community, connecting the Town's residents to its businesses, cultural resources and neighboring communities. The Transportation element of the Master Plan provides an overview of the existing transportation network as well as providing a strategy on how to enhance the existing infrastructure to provide a more cohesive community.

Fairhaven's existing transportation network is typical of many coastal New England towns, with a main corridor through its center, a spur to the beach/recreational areas, a service road along the harbor, and numerous narrow spokes that provide access to the residential neighborhoods located off the mainline. This is a typical roadway layout for a Town that began as a sea-based industrial community before converting to a suburban commuter-based society. As Fairhaven plans for its future, the Town has the ability to focus enhancements to its transportation network in a way that takes advantage of the existing infrastructure, as well as providing new and improved connections to the Town's numerous natural, cultural and economic resources. By building around these resources, Fairhaven aspires to develop a modern transportation system that fits within the existing infrastructure and serves the needs of all of its residents.

Baseline Conditions Analyses

The Town of Fairhaven is located in Bristol County in southeastern Massachusetts. The southeastern region has a healthy mix of cities, suburbs, and rural areas. The community is bordered by Acushnet to the north, Mattapoisett to the east, and the Acushnet River to the west. The City of New Bedford lies on the opposite shore of the Acushnet River. Fairhaven is approximately 50-miles south of Boston and 35 miles southeast of Providence, Rhode Island.



0 0.25 0.5 1 Miles

Fairhaven 2040 Master Plan

Fairhaven, MA

Source: Town of Fairhaven, MassGIS

Roadway Functional Classification

Existing Transportation System

The transportation system within Fairhaven varies dramatically from tight-knit streets that make up the downtown and residential areas, to the roads that provide access to some of the more rural portions of the community, and to the corridors that provide regional connections to other communities and regions. These roadways can be referred to as interstates, arterials, collectors, and local roadways. Each contributes toward creating a street “hierarchy”, whereby each type of street should promote a combination of access and/or mobility. Figure 6-1 provides a graphical view of the Fairhaven roadway network and how it interacts with the various zoning districts within the Town.

As previously noted, Fairhaven is within driving distance of Boston (50 miles), Cape Cod (26 miles), and Providence, RI (35 miles). The Town also has central access to many of the regional highways, with I-195 and Route 6 traversing the Town, I-495 located to the east, and Route 140 located to the west. The highways in the community offer good regional transportation access and mobility including:

- ▶ Interstate 195: is a limited access highway that provides east-west regional access between Providence, Fall River and New Bedford to the west and Interstate 495 to the east. Interchange 18 is located within Fairhaven and provides access to Route 240, which connects directly to Route 6 and Sconticut Neck Road.
- ▶ Route 6: is a principal arterial that bisects the Town and provides east-west mobility within the Town and the region. This roadway serves as the principal access to the Town’s retail and commercial areas.
- ▶ Sconticut Neck Road: a minor arterial located on the south side of Town that provides north-south mobility and access to many residential neighborhoods, as well as serving as the main access to two of the Town’s public beaches (Pope and West Island).
- ▶ Main Street: a minor arterial roadway on the westerly side of Town that provides north-south mobility between Acushnet to the north and the historic downtown area and Fairhaven harbor to the south.
- ▶ Alden Road: a minor arterial roadway that provides north-south mobility between Acushnet to the north and the big-box commercial areas at its intersections with Route 6 and Bridge Street to the south. At its southernmost point Alden Road also provides access to the Phoenix Rail Trail.

Overall, there are 135 miles of roadway within the Town, of which 82 are maintained by the Town, 19 are maintained by MassDOT, with the remaining mileage consisting of private ways.

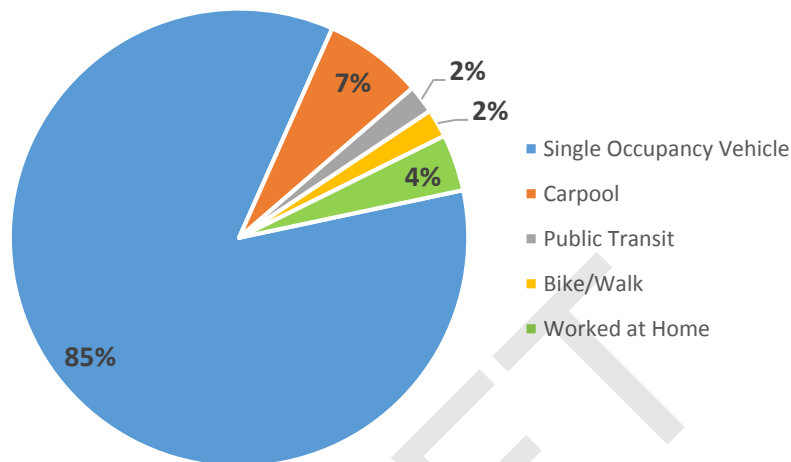
Modes of Travel

To gain a better understanding of how people move within and through Fairhaven, the mode share for commuters (or workers) was reviewed. Figure 6-2 provides a breakdown of the mode split data provided by the U.S. Census Bureau⁵. Based on the available information the overwhelming majority of Fairhaven’s working age population (92-percent)

⁵ Mode share data based on U.S. Census Bureau, 2007-2011 American Community Survey (<http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>)

relies predominantly on the automobile, be it driving alone or carpooling, to get to and from work. Public transit makes up the next most popular means of commuting (2-percent combined). Commuters that walked or biked to work made up a combined 1 ½-percent of the working population. Approximately 4-percent of Fairhaven residents work from home.

Figure 6-2 Means of Transportation



Source: MassDOT Crash Portal

Since the mode share heavily favors the automobile, it is important to also get an understanding of the commuting patterns for both residents of Fairhaven and for workers of Fairhaven-based employers. Table 6-1 presents the information collected as part of the 2010 U.S. Census; which in summary:

Table 6-1 Census Journey-to-Work Data for Fairhaven Residents and Employees

Location of Employment ¹	Percent of Residents	Percent of Workers	Location of Residence
New Bedford	27.1%	29.5%	Fairhaven
Fairhaven	24.2%	28.5%	New Bedford
Dartmouth	11.3%	10.3%	Dartmouth
Fall River	4.2%	5.8%	Acushnet
Taunton	3.4%	3.3%	Mattapoisett
Acushnet	3.2%	3.0%	Fall River
57 other Towns/Cities (combined)	26.7%	19.6%	42 other Towns/Cities (combined)

Source: U.S. Census Bureau, 2010 Census Journey-to-Work Data

¹ Other Towns and Cities not listed comprise less than three percent or less each

Approximately 24 percent of Fairhaven residents surveyed work in Fairhaven, while 30-percent of people who work in Fairhaven, also live within the Town. Given the substantial portion of individuals that both live and work in the Town of Fairhaven, the potential exists

to substantially reduce the number of commuting trips made via automobile. While the existing mode share within the town leans heavily towards the automobile, targeted transportation improvements could be made that would promote travel by other modes. Improvements could range from better educating residents on available means of transportation to constructing new sidewalks bicycle accommodations.

Pedestrian and Bicycle Accommodations

Pedestrian and bicycle mobility are an important part of any transportation plan, as providing better access for non-motorized alternatives and encouraging these modes will help reduce congestion and the overall number of vehicle miles traveled. In return environmental benefits can be realized as the number of automobiles on the road is reduced. Figure 6.3 displays the existing pedestrian and bicycle facilities within the Town.

Pedestrian Access

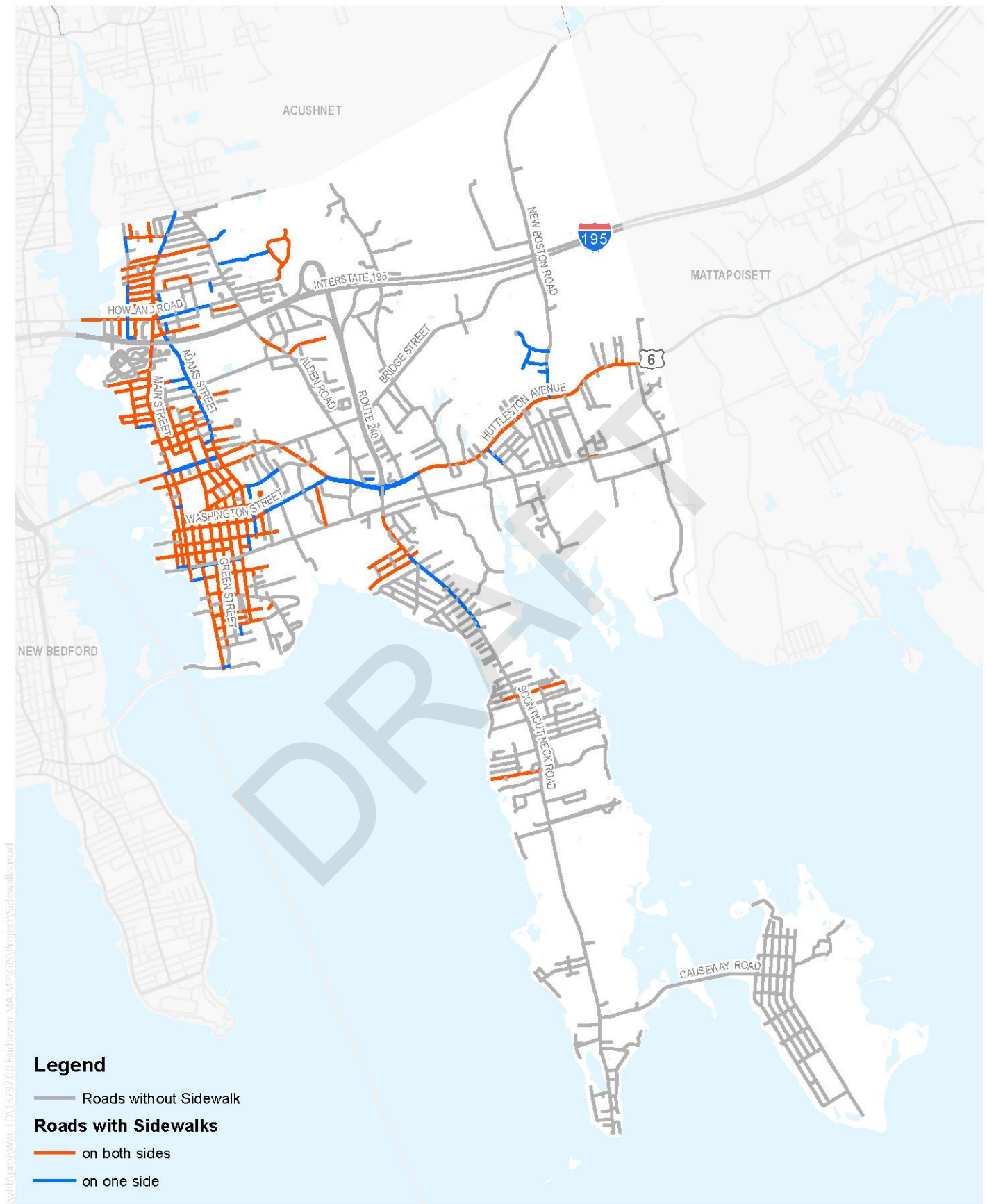
The Town has approximately 65-miles of sidewalks, as illustrated in Figure 6.3. Most of these sidewalks are located downtown and along Route 6 with others scattered through the various residential roadways throughout the Town. The ability of Fairhaven residents to commute and accomplish other errands via walking is limited once one leaves the downtown area. It should also be noted, that while sidewalks may be present, they are not necessarily in walkable condition as many are extremely narrow and show signs of significant wear.

It was previously stated that slightly more than 1-percent of residents in Fairhaven walk to work; therefore, it is important to maintain and provide new sidewalks so that this number can increase. Maintaining sidewalks is also important to provide increased independence for populations less likely to have access to personal vehicles including the elderly and at-risk populations. Just as important as sidewalks, pedestrian crosswalks and handicap accessible ramps need to be reviewed.

What is VMT or Vehicle Miles Traveled?

A central goal of most sustainable transportation plans is to reduce overall Vehicle Miles Traveled (VMT) in a community or region; this refers to the total number of miles traveled in a vehicle in an area over a certain period of time. VMT is correlated with household density, access to transit, distance to shops/services, proximity to employment, land use and income.

A collection of methods and strategies for reducing vehicle congestion and VMT is called a Transportation Demand Management (TDM) program. There are many strategies that can be considered as part of a TDM program; including but not limited to: improved transportation options, incentives to use alternative modes of transportation, parking management, and policy and institutional reforms.



↑ 0 0.25 0.5 1 Miles

Fairhaven 2040 Master Plan

Fairhaven, MA

Source: Town of Fairhaven, MassGIS

Roadways and Sidewalks

According to a 2010 study prepared by the Metropolitan Area Planning Council (MAPC), the average household in the Commonwealth drive more than 75-miles per day; which is based on data from over 149 cities and towns. This study identified Fairhaven as a town where residents travel less daily than the average community surveyed. The average daily vehicles miles traveled (VMT) for residents of Fairhaven was between 50- and 75-miles per day. Per the same study, residents of Fairhaven have a round-trip commute of between 20 and 25 miles, on average. Non-commuting trips (errands, pleasure trips, etc.) made by Fairhaven residents range, on average, from 1 to 8 miles, with the low end of the range focused around the Harbor and the longer trips from residents that live on the south or east edges of the Town.

Bicycling

Bicycle facilities can generally be classified as on-road (bicycle accommodating shoulders, bike lanes, etc.) or off-road (bike and/or mixed-use paths). Fairhaven is home to the Phoenix Bike Trail, which is an off-road 3.2-mile segment of the South Coast Bikeway that runs from the intersection of South Street and Main Street east to the Matapoissett town line where it continues easterly as the Mattapoissett Rail Trail. The approximately 1-mile long Little Bay spur departs the main trail at its intersection with Arsene Street and travels south connecting to Orchard Street just east of Sconticut Neck Road.

The on-road bicycle facilities are primarily limited to isolated roadway segments with wide shoulders, such as Alden Street between Staples and David Drown Boulevard. The Town's Bicycle Committee was able to secure funding for sharrows and "Share the Road" signage on Sconticut Neck Road, New Boston Road and Main Street. There are currently no other signed bikeways within Fairhaven and limited on-road facilities within the Town that accommodate bicycles. The limited on-road facilities forces bicyclists to travel in the road or on the sidewalk, increasing the potential for conflicts with vehicles and pedestrians, respectively. The limited on-road facilities may also affect the use of the Phoenix Bike Trail by limiting the ability for cyclists to access the trail without a car.

Roadway Safety

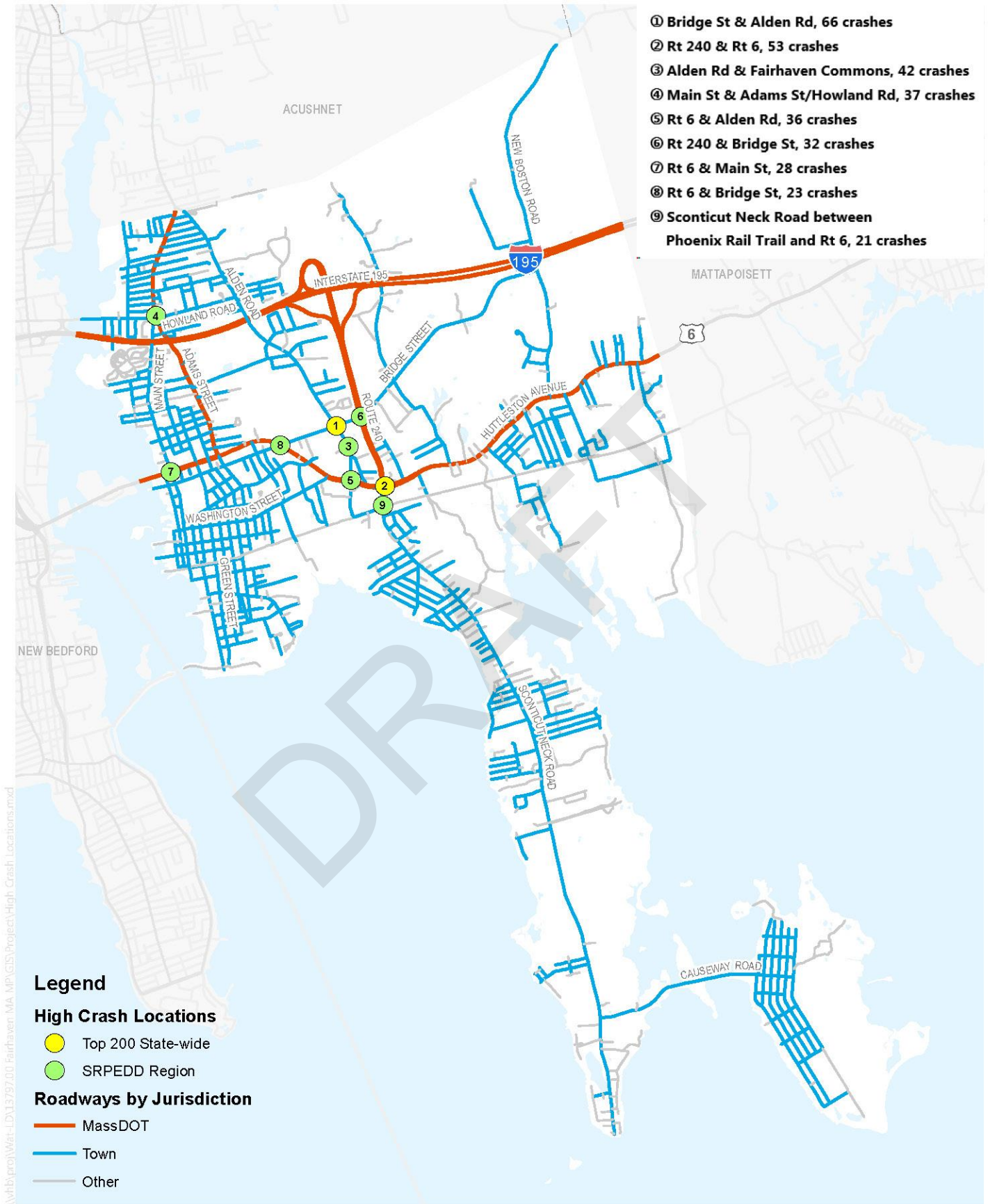
Providing a safe transportation network is critical for multiple reasons beyond limiting injuries and damage to personal property. Unsafe roadways and intersections can result in dividing lines within a community as well as keeping outside travelers from using town roadways and thus limiting potential tourism and business growth.

Why Do Crashes Happen?

Rear-end collisions are often a result of congestion or vehicles stopping to allow vehicles to enter the mainline of traffic from a street or a driveway; also called "courtesy crashes".

Angle type collisions typically occur when there are high side-street volumes trying to enter the mainline traffic stream.

Sideswipe collisions are often a result of on-street parking or vehicles attempting to pass vehicles attempting to turn into side streets or driveways

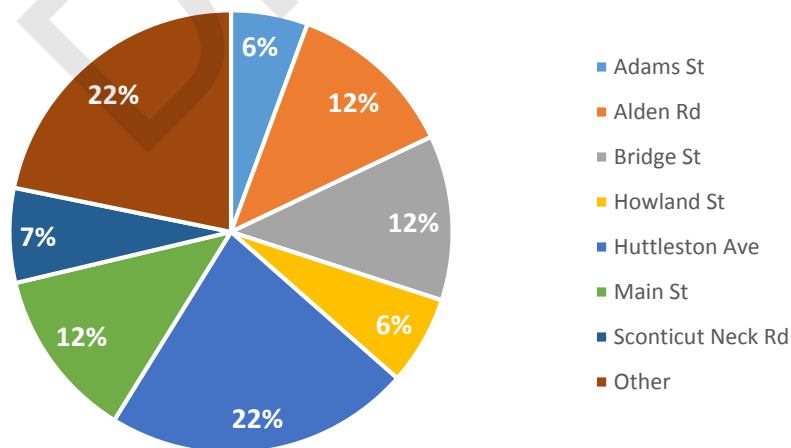


Numerous studies, conducted by both public and private entities, have looked at existing safety concerns at various locations within the town. Most recently MassDOT has identified areas in Fairhaven that are high crash cluster locations.⁶ These clusters have been identified as part of MassDOT's Highway Safety Improvement Program (HSIP)⁷ in conjunction with the Federal Highway Administration (FHWA). The following nine locations were identified; which were illustrated in Figure 6-4:

- ▶ Route 240 and Bridge Street
- ▶ Huttleston Avenue (Route 6) and Route 240/Sconticut Neck Road
- ▶ Huttleston Avenue (Route 6) and Alden Road
- ▶ Huttleston Avenue (Route 6) and Bridge Street
- ▶ Huttleston Avenue (Route 6) and Main Street
- ▶ Sconticut Neck Road and David A Drown Boulevard/Phoenix Rail Trail
- ▶ Alden Road and Bridge Street
- ▶ Alden Road and Fairhaven Commons

In addition to providing a summary of the high crash locations in Town identified by MassDOT, VHB developed a Town Wide Crash Chart (Figure 6.5) to summarize the number of crashes along major corridors. This data was prepared by VHB using the MassDOT database for the most recent three years (2012 through 2014) available. Per the MassDOT database approximately 1,500 crashes occurred on roads within the Town of Fairhaven between the years of 2012 and 2014. Approximately 76% of all crashes within the Town over this period occurred on seven roadways: Adams Road, Alden Road, Bridge Street, Howland Street, Huttleston Avenue, Main Street, and Sconticut Neck Road.

Figure 6-5 Crash Breakdown



Source: MassDOT Crash Portal

Some information taken from the review of the available crash data includes:

⁶ MassDOT Top Crash Locations map application www.services.massdot.state.ma.us/maptemplate/TopCrashLocations/

⁷ Massachusetts Strategic Highway Safety Plan (<http://www.mhd.state.ma.us/default.asp?pgid=content/traffic/shsp&sid=level2>)

- ▶ There were 5 fatal crashes during the three years reviewed, all of which occurred during non-daylight hours.
 - Of the 5 fatalities, 3 involved pedestrians and 2 were single-vehicle crashes.
- ▶ There were 23 crashes involving pedestrians and bicycles Town-wide, including 3 fatalities (all pedestrians).
 - Of the 3 pedestrian fatalities, one occurred at each of the following locations: on Francis Street south of Route 6, the intersection of Adams Street at Plymouth Avenue, and the intersection of Sconticut Neck Road at Gilbert Street.
 - From the available data, it was unclear why the pedestrians were in the roadway. While sidewalks are provided on each of the roadways where the crashes occurred, not all the sidewalks are ADA-compliant and there are no ADA-compliant crosswalks at any of these locations, which may contribute to the pedestrians being in the roadway.
- ▶ The remaining 2 fatal crashes involved single vehicle crashes that

Public Transportation

Passenger Rail Service

There is no direct passenger rail service to Fairhaven. The closest MBTA Commuter Rail station is located on the Middleborough/Lakeville town line, off I-495 interchange 4, which is an approximately 30-minute drive from Fairhaven. The Middleborough/Lakeville Station is the last stop on the MBTA's Middleborough/Lakeville Line, which provides service to South Station in Boston, with stops in Brockton, Braintree and Quincy along the way.

MassDOT and the MBTA are currently in the process of restoring commuter rail service to the region, which was discontinued in 1958, via the South Coast Rail Commuter Rail Extension project. Based on a recent Notice of Project Change filed by MassDOT, the project is expected to be phased, with service being restored to the region under Phase I by upgrading the existing rail infrastructure in the area to meet current standards. As part of Phase II of this project, the MBTA's Stoughton Line will be extended to the city of New Bedford via a new electric-powered rail service. As part of the project the new Whale's Tooth multiuse, multimodal terminal will be constructed on New Bedford harbor, located opposite Fairhaven harbor.

Bus and Para Transit Service

The SRTA operates one (1) primary bus route (Route 11) through the Town, which runs between the SRTA Terminal in New Bedford and Stop & Shop on Sconticut Neck Road while making stops at Market Basket, the Southcoast Health System and Wal-Mart. In February 1, 2017 the SRTA and GATRA announced a new bus route that will run between Wareham and New Bedford, making a stop at the Southcoast Health System. The SRTA also operates demand response service for its member communities as well as a Boston Hospital Shuttle, which runs between the SRTA Terminal in New Bedford and eleven (11) Boston hospitals.

Goals and Recommendations

Goal 1: Become a bicycle and pedestrian friendly community by expanding existing bicycle and pedestrian facilities.

Recommendations:

6. Develop a Town-wide Complete Streets Policy and apply for MassDOT Complete Streets grants
7. Focus new sidewalk construction in areas with missing segments and around attractions (e.g. Downtown, Schools and the Bike Path).
8. Use signage and pavement markings to define a Town-wide on-street bicycle network.
9. Work with MassDOT and the City of New Bedford to provide a safe bicycle connection to the proposed New Bedford Transportation Center.
10. Educate the community on bike rules and safety, including "Safe Routes to Schools" and other use of bike facilities.

Goal 2: Increase the use of public transit by Town residents and employees.

Recommendations:

6. Join regional efforts to support the South Coast Rail extension.
7. Educate residents on available existing and future public transit services (post schedules in public places, including public school, Town Hall and the library).
8. Work with the SRTA, neighboring communities and local businesses to enhance the existing local shuttle service.
9. Work with SRTA to add support facilities (benches, shelters, parking, etc.) at existing SRTA bus stops.
10. Work to expand door-to-door service for disabled and aging residents.

Goal 3: Improve Town-wide traffic flow and safety.

Recommendations:

6. Work with MassDOT to advance safety improvements at HSIP-eligible locations, particularly the intersection of Route 6 and Bridge Street.
7. Evaluate streets surrounding the Downtown and waterfront for possible conversion to one-way to improve traffic movements and on-street parking.
8. Improve wayfinding signage through-out the Town.
9. Work with the police department to develop a strategic traffic enforcement plan.

10. Address safety issues related to heavy truck traffics in North Fairhaven near the quarry.

Goal 4: Improve maintenance of Town-wide transportation system.

Recommendations:

6. Prepare a sidewalk inventory and construction/maintenance plan.
7. Prepare a Town-wide pavement management plan.
8. Work to upgrade existing pedestrian facilities to conform to current ADA/AAB standards.
9. Work with MassDOT to upgrade existing traffic signals along Route 6 and Route 240.
10. Upgrade existing pavement markings and signage Town-wide.

Historic and Cultural Resources

Introduction

Historic resources serve many roles, including creating a tangible link to a town's heritage, providing distinctive characteristics to a town's many neighborhoods, and serving as an economic stimulus for local business owners. They inspire pride in a town's history, provide solid building stock, and serve as a catalyst for economic development. Maintaining a balance between the preservation of these resources while encouraging necessary growth and evolution of the built environment is one of the biggest challenges faced by towns that have centuries of history, such as Fairhaven.

The streetscapes, buildings, and landscapes that distinguish Fairhaven's neighborhoods are integral to their character, encouraging both long-time, multi-generational families to stay, and attracting new residents over time. Activities such as demolition or unsympathetic construction can result in a cumulative and irreversible impact on an entire neighborhood. At the same time, owners of older buildings often lack access to experts and information necessary to understand their options regarding the continued maintenance of these resources, and alleviate financial concerns.

Fairhaven has an unusually strong connection to its history, and is reliant upon the town's heritage to maintain its current role as a tourist destination. Self-billed as "A Small Town with a Big History," Fairhaven tells the story of the first wave of New England settlers in the 17th century; the maritime industries of whaling and ship building in the 17th and 18th centuries; and the Gilded Age-era philanthropy responsible for the high-style architectural displayed by many of the town's municipal and institutional buildings. As a result of the community's well-developed historic pride, Fairhaven has a strong track record of preservation advocacy and reuse of historic buildings, actively promoting rehabilitation of buildings to reflect modern needs while respecting historic features of the buildings and the neighborhoods surrounding them.

Vacant, high-profile buildings such as the Rogers School afford the opportunity to turn an unused property into a true public gem, continuing to serve Fairhaven's residents through their evolving use. For example, a planned rehabilitation by a private developer of the Oxford School into Chapter 40B affordable senior housing is utilizing historic tax credit incentives, demonstrating a direct relationship between historic resources, economic development, and social benefits. Projects such as this require detailed planning for both construction and ongoing operations, with the cooperation and support of the community, town officials and committees, architects, and developers. Studies to explore the future plans for the Rogers School, including the utilization of tax credits, were completed in early 2017.

Baseline Conditions Analyses

The several miles of waterfront that give Fairhaven its unique natural landscape shaped the town's cultural landscape as well. First settled in 1653 by one of the original Pilgrims, the town was recognized as a key strategic holding by the colonists as early as the American Revolution, when the first Fort Phoenix was constructed. The town's early economy reflected its Colonial Era agricultural origins, centered in the Oxford Village area upstream on the Acushnet River. When the first bridge linking Fairhaven and New Bedford near the mouth of the river near Buzzards Bay was constructed in 1802, a new maritime economy, centered on the new bridge and wharves, defined the next century of economic and land development. The two downtown areas associated with the wharves, the "20-Acre Purchase" and Fairhaven Center, contain architectural examples spanning the entire post-Revolutionary War spectrum, from Federal to Queen Anne styles. In the early 20th century, when many Massachusetts towns were beginning to feel the effects of declining traditional industries, Fairhaven's hometown benefactor Henry Huttleston Rogers used his Standard Oil wealth to donate stellar examples of municipal, institutional, and commercial buildings in his hometown, including the Town Hall, Millicent Library, the Unitarian Church and Parish House, Fairhaven High School, and the Tabitha Inn (a.k.a. Our Lady's Haven). Neighborhoods of modest Craftsman-style bungalows grew up along the river, while small-scale, cozy subdivisions developed along Sconticut Neck and West Island later in the 20th century.⁸

Historic Resources - By the numbers

Fairhaven has hundreds of documented archaeological sites and historic resources, several of which have received state and national recognition for their importance. The documentation for these resources have been researched, prepared, and filed by a number of people and organizations over time. The Massachusetts Historical Commission (MHC) serves as the central repository for these files, which can be found online in a searchable public database called the Massachusetts Cultural Resources Information System (MACRIS) at <http://www.mhc-macris.net>, and its companion GIS viewer at <http://maps.mhc-macris.net>.

⁸ The rich and extensive history of Fairhaven has been documented in several sources. The Fairhaven Office of Tourism website (<http://fairhaventours.com/historical-sources>) has an exhaustive list of books, articles, documents, and maps that illustrate the town's history, as well as a series of videos highlighting historical moments and artifacts.

These resources link the history of Fairhaven to its built environment; its community heritage to its community character.

Archaeological Sites

Nearly two dozen archaeological sites have been recorded in Fairhaven, and likely dozens more remain to be discovered and documented.⁹ The natural resources of the area that made it desirable to Colonial Era settlers – the waterfront, valuable river inlet, salt marshes, and woodland – benefitted several centuries of Native American populations as well, and Fairhaven boasts a variety of pre-Contact and post-Contact archaeological sites.

Information Gaps and Opportunities for Further Study

Although documented archaeological sites tend to be clustered along the coastline and at battlefield sites, much of the inland area of the town has not been subject to archaeological survey or excavation. The town's agricultural heritage, while not as well-studied as its maritime history, was its first primary occupation and is inseparable from Fairhaven's nearly four centuries of development. These unsurveyed inland areas present an opportunity to better document and understand Fairhaven's original and longest-running industry. Development of an archaeological sensitivity report can serve as a proactive strategy in areas identified for future growth and development as well, benefitting both the Town and potential developers.

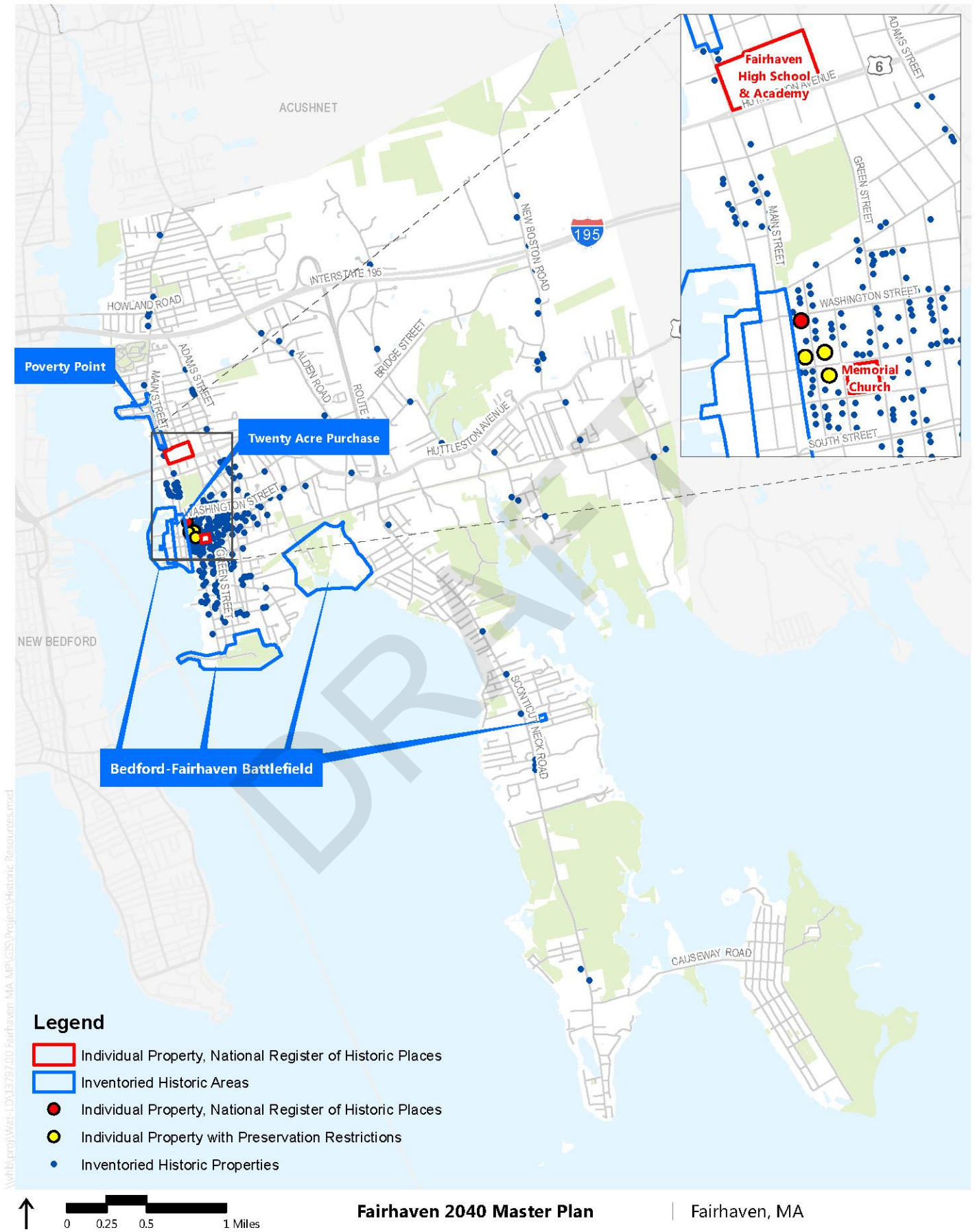
Above-Ground Historic Resources

This large category includes a variety of historic resource types:

- ▶ Buildings;
- ▶ Structures (such as bridges);
- ▶ Objects (such as monuments and memorials);
- ▶ Sites (such as battlefields); and
- ▶ Landscapes (such as groups of farms and scenic vistas).

These resources can be documented on an individual property basis, such as a building or farm, or grouped into areas that collectively tell a broader cultural story. Some resources have been listed in the National Register of Historic Places (National Register), which is the national list of significant places considered especially worthy of preservation, while others have received similar recognition at the state level (State Register). Most historic resources in Fairhaven have been documented on MHC inventory forms, which summarize the history and description of the resource for research and planning purposes, but the resources have not been evaluated for designation in the National or State Registers. As of March 2017, MACRIS includes 388 recorded individual historic resources and five recorded historic areas in Fairhaven (Figure 7-1).

⁹ The locations and content of archaeological sites is considered confidential information. While MHC maintains information pertaining to recorded sites, it is not accessible to the public. MHC provides input regarding the archaeological potential of an area for research and planning purposes on a case-by-case basis.



National Register

Fairhaven has five historic resources listed in the National Register, representing some of its most prominent landmarks:

- ▶ Fairhaven Town Hall (1894)
- ▶ Millicent Library (1881)
- ▶ Fairhaven High School and Academy (1906, includes Rogers Monument)
- ▶ Memorial Church (1903, includes Parsonage and Parish House)
- ▶ Ezekiel Sawin House (c. 1840)

In addition, the Fairhaven-New Bedford Bridge carrying Route 6 across the Acushnet River has been determined eligible for listing in the National Register. This means that the MHC has declared the bridge a significant historic resource, meeting the strict requirements for the National Register, but no formal nomination and listing has yet occurred.

Preservation Restriction

Fairhaven has four historic resources subject to a state-held Preservation Restriction. Preservation Restrictions are easements voluntarily placed on a property to prevent historically inappropriate alterations. These may be donated or purchased by a government body or private preservation organization, and in Massachusetts, several Preservation Restrictions are associated with the receipt of grant funding from the MHC through the Massachusetts Preservation Projects Fund (MPPF).

- ▶ Fairhaven Town Hall (also National Register-listed)
- ▶ Millicent Library (also National Register-listed)
- ▶ Fairhaven High School (also National Register-listed)
- ▶ First Congregational Church (State Register-listed)

Inventoried Properties

As noted above, these properties have been recorded on MHC inventory forms, which serve as important historical records and useful reference documents, but do not carry an official designation. Fairhaven has both individually inventoried properties and inventoried areas representing groups of properties linked by historical theme or development.

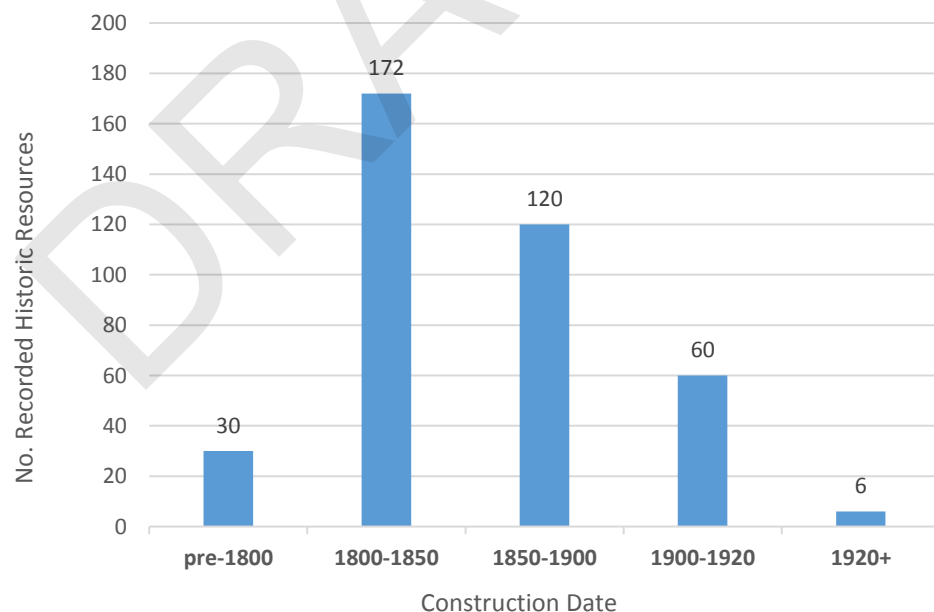
- ▶ Three inventoried areas
 - a. Oxford Village – Poverty Point
 - b. Twenty-Acre Purchase
 - c. Bedford-Fairhaven Battlefield
- ▶ 377 individually inventoried properties
 - a. 114 of these properties are located within one of the three inventoried areas listed above

- Eight individually inventoried properties are known to have been demolished since being recorded, including buildings such as the Captain Bunker House on Main Street (c. 1790) and the American (Atlas) Tack Company complex on Reynolds Drive (c. 1880).

Information Gaps and Opportunities for Further Study

The availability of geographical and informational data through MACRIS makes it possible to identify patterns in the recording of the town's historic resources, including areas which are far less represented in the inventory. A breakdown of Fairhaven's recorded historic resources indicates a concentration of pre-1920 resources, and dense geographic clustering of recorded resources in the town center and Oxford Village areas compared with the rest of the town. These patterns may indicate a lack of surviving resource types, under-reported categories of historic resources, or resource groups that have not been identified or studied to the same extent earlier, better-documented time periods. Often, these patterns do not result from a lack of interest, but instead reflect the documentation priorities of the town and MHC at the time of the last comprehensive historic survey (c. 1980). Understanding these patterns presents a unique opportunity for Fairhaven, where many of the small-scale, community-oriented residential subdivisions that continue to attract long-time and new residents developed during the 20th century. These neighborhoods, and the town's extant farms and agricultural land, are largely located outside Fairhaven's village centers.

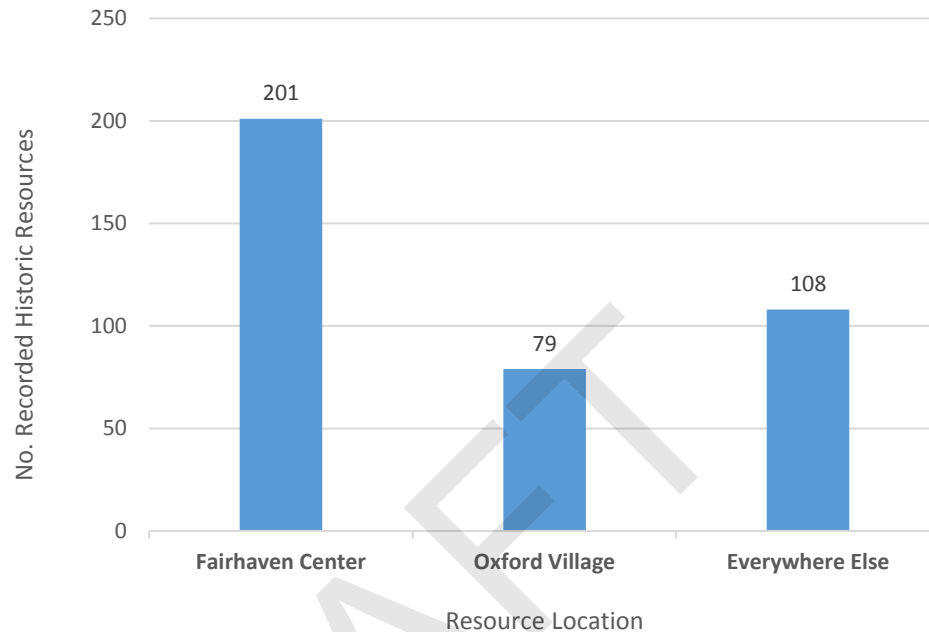
Figure 7.2 Distribution of Recorded Historic Resources by Time Period



Examining Fairhaven's recorded historic resources by construction date indicates that more than 90% of all documented resources were constructed between 1800 and 1920, at the height of the town's maritime industrial history. The smaller number of resources estimated to date to the Colonial and American Revolution eras (8%) is likely due the loss of these earliest resources over time. However, the distribution also indicates a notable decrease in recorded properties that were constructed after 1920 (2%). As these resources are more than 50 years old, and form some of Fairhaven's most distinctive residential neighborhoods

and streetscapes, greater efforts to understand them may help preserve the unique physical character of these communities.

Figure 7.3 Distribution of Recorded Historic Resources by Geographic Area



A similar analysis of recorded properties by general location indicates that more than half of Fairhaven's documented historic resources (52%) are located in the town center, clustered around the wharves at the mouth of the Acushnet River that have been the foundation of the town's industrial economy for centuries. A somewhat smaller number (20%) of recorded resources are concentrated in the Oxford Village neighborhood, further upstream. These two areas are the earliest and most densely developed hubs in Fairhaven, and the town's tourism industry and level of historical awareness can be traced directly to focused efforts to understand these neighborhoods. Documented resources outside of these two areas, however, make up just 28% of Fairhaven's recorded historic resources despite distinct pockets of development throughout the town. These other areas host some of the town's most cohesive residential areas, largest expanses of agricultural resources, and scenic rural and seaside viewsheds valued by the community. Preservation of these resources and understanding the qualities that make them significant are firmly linked to balancing desirable characteristics (such as neighborhood scale and layout, appreciation of and access to natural resources, coastal views, and property values) with future land usage and development needs.

Historic Resources Entities and Stakeholders

Fairhaven's historic resources and heritage are promoted and protected primarily by local commissions, the Office of Tourism, the Millicent Library archives, and private local organizations.

Historical Commission

The Fairhaven Historical Commission is responsible for community-wide preservation planning. It comprises seven members and up to five alternates. The Commission oversees a portfolio of town-owned historic properties, including the Old Stone Schoolhouse, Fort Phoenix, the Academy Building, and the Fire Museum, which houses old engines used for special events. The Commission also administers the House Plaque Program, an active initiative to recognize and honor Fairhaven's older homes with outdoor plaques commemorating their construction dates.

Community Preservation Committee

The Fairhaven Community Preservation Committee (CPC) administers the town's Community Preservation Act program, and includes at least one member of the town's Historical Commission along with representatives from the Conservation Commission, Housing Authority, Planning Board, and the Board of Public Works. In recent years, the Historical Commission has applied for and utilized CPC grants to conduct repairs of town-owned historic properties. The duties of the CPC include:

- ▶ Study the needs, possibilities, and resources of the Town regarding community preservation,
- ▶ Make recommendations to the Town Meeting regarding:
 - the acquisition, creation, and preservation of open space,
 - the acquisition, rehabilitation, restoration, and preservation historic resources,
 - the acquisition, creation, and preservation of land for recreational use,
 - the creation, preservation, and support of community housing, including the reuse of existing buildings, and
 - the rehabilitation or restoration of open space, historic resources, recreational land, and community housing acquired or created via the above duties.
- ▶ Make recommendations regarding setting aside funds for larger community preservation projects for which sufficient funds are not currently available.

Office of Tourism

A direct result of the last master planning effort undertaken by Fairhaven, the office of tourism serves as a welcome center and events hub, creating and leading tours, lectures, and family programming. Its goal is to provide visitors with "The New England Experience," providing information, history, and activities for tourists and residents. The office also maintains an extensive website with details about local accommodations, recreation, restaurants, and businesses. Fairhaven's history is one of its primary attractions, and the town's architectural and maritime heritage form the basis for the office's roster of tours. To accompany its programming, the office's website provides short articles and videos about some of the town's most famous historical figures and places.

Fairhaven Historical Society

The Fairhaven Historical Society is a volunteer-driven non-profit group established in 1968, which sponsors events and lectures throughout the year, including a popular holiday tour. In 1992, the Historical Society began operation of a local history museum, located in a Federal-style former schoolhouse known as the "Academy." The museum features a 19th century school room, a room displaying a collection of antique furnishings, a detailed model of 19th century sloop "Spray," and object collections that include photographs, art, and artifacts.

Colonial Club

Established by a group of Colonial Dames in 1912, the Colonial Club was organized to celebrate Fairhaven's centennial by collecting and preserving artifacts related to the town's history. Over the past 100 years, this private foundation has assembled an extensive collection of artifacts, antiques, documents, and works by local artists that have been curated and displayed throughout the town and on-site at the Coggeshall Memorial House on Cherry Street.

Goals and Recommendations

Goal 1: Enact a Demolition Review Bylaw.

Recommendations:

11. Two introductory public meetings over the next year, cosponsored by the FHC and the Planning Board, to introduce the topic and initiate community discussions.
12. Draft bylaw components based on input from the public meetings.
13. Finalize bylaw based on public input and bring to the Town Meeting. Revisit bylaw components based on objections as necessary.
14. Produce reference booklet that provides relevant information regarding the bylaw for property owners, realtors, and community members.
15. Institute communications program to inform and assist property owners subject to bylaw, and ensure that the demolition review program is maintained in a responsible way.

Goal 2: Expand Understanding of Historic Resources in the Town.

Recommendations:

9. Complete historic resource inventories of two neighborhood subdivisions or landscapes (farmsteads, culturally-significant open space, etc.) over the next five years.
10. Expand use of 20th century history in heritage programming.
11. Utilize historic development to guide planning and zoning efforts for mixed-use development.

12. Consider establishment of neighborhood conservation districts or local historic districts.

Goal 3: Establish local historic district(s).

Recommendations:

13. Create local historic district study committee, under the provisions of M.G.L. Chapter 40C, General Laws.
14. Utilize historic resource inventory form (see Goal 2) to determine the historic significance of the local historic district and approximate boundaries. Potential local historic district areas include the town center, and the Poverty Point neighborhood.
15. Initiate public opinion surveys and to gauge public interest. Use newspaper articles, newsletters, local access TV stations, and other forums to share potential benefits and property owners' concerns, and address any misunderstandings.
16. Produce preliminary study report including proposed local historic district methodology, significance, boundary justification, recommendations for bylaw, map, property index, historic resources inventory form(s), and photographs. Submit preliminary study report to MHC for review.
17. Hold public hearing on proposed district.
18. Produce final report based on comments received and bring to town meeting. When passed, notify Attorney General, record map at Registry of Deeds, and notify MHC.

Goal 4: Link Historic Preservation with Economic Development.

Recommendations:

5. Prepare/sponsor National Register nominations for threatened buildings and areas.
6. Advertise National Register status to realtors and developers, encouraging the use of tax credits and highlighting successful historic tax credit rehabilitation at Oxford School.

Sustainability

8

Baseline Conditions Analyses

The following discussions review existing conditions in the Town of Fairhaven concerning topics related to the sustainability of the Town's operations and community activities, particularly energy, waste management and recycling, water quality and consumption, and the generation of greenhouse gas (GHG) emissions. A review of climate change projections specific to sea level rise, floodplain expansion, and storm surge/hurricane inundation offer a planning basis for other elements within this Comprehensive Plan.

Energy

This baseline conditions analysis reviews the Town of Fairhaven's energy consumption, as well as looks at the ways by which the Town has sought to reduce such consumption, purchase and generate clean energy, and stabilize energy prices for its residents and businesses. It also provides a high-level assessment of how the Town's zoning ordinance promotes and/or deters renewable energy generation projects.

Consumption and Efficiency

The Town is committed to reducing the energy consumption associated with its operations. This is demonstrated by the implementation of several building system upgrades at its facilities and a street light energy efficiency program. Examples of building system upgrades include the replacement of inefficient lighting fixtures/lamps with more efficient alternatives (e.g., LEDs and low wattage fluorescents) at Town Hall, Millicent Library and the Police Station, as well as upgrades to windows and air conditioning units at Millicent Library.

The streetlight energy efficiency program included the conversion of over 1,400 high-pressure sodium streetlights to more efficient LED lamps that have a life expectancy of 17 years. The Town chose to tackle main thoroughfares first, and plans to use the resulting

savings for future conversions elsewhere. This project also includes two sets of traffic lights and warning lights at school crossings.

Renewable Energy Generation

There are several renewable energy generation projects in the Town, including two wind turbines and three solar power systems. Since May 2012, Fairhaven Wind LLC has operated two 1.5 MW wind turbines near the Waste Water Treatment Plant on Arsene Street. Under a 20-year agreement, the Town receives lease payments and property taxes, and purchases 100 percent of the power generated. Since monitoring began, the 3.0 MW system has generated approximately 13,500 MWh of clean energy, the equivalent of over 8,000 metric tons of carbon dioxide equivalents or over 19 million miles' worth of carbon dioxide emissions generated by the average American car (Fairhaven Wind, 2017).

In March 2013, Dynamic Energy (developer along with Blue Sky Power and Heliosage) and Revolution Energy (financer) completed the installation of a 487-kW solar array on the site of the Town's former municipal landfill. Under a power purchase agreement (PPA), the Town of Fairhaven purchases the electricity generated from the project's more than 2,000 solar panels at a cost less than it would otherwise pay to the local utility provider; the Town does not incur expenses associated with system ownership such as maintenance costs. Over a 30-year period, the PPA is expected to save the Town approximately \$1.5 million (Dynamic Energy, 2017).

Fairhaven is also home to a community solar project at 211 Mill Road. Developed by BlueWave Solar in partnership with Morgan Stanley, this 1.1 MW facility was commissioned in May 2016. The power output is shared among residents and small businesses in Fairhaven and the surrounding area, as well as by Winn Development affordable housing in the Greater New Bedford area (David, 2016). Other community solar projects, as proposed by Clean Energy Collective, include a 1.7 MW solar array that is currently under construction at 197 New Boston Road and a 2 MW solar array at 279 Mill Road. Clean Energy Collective is presently pursuing a special permit from the Town's Planning Board for its proposed project on Mill Road.

In addition to large-scale commercial renewable energy projects, the Town has many residential solar installations. Relatedly, the South Coast Energy Challenge sponsored the 2013 Fairhaven Solar Challenge that, in addition to 300 residents seeking information on optimizing home energy efficiency and solar photovoltaic (PV) energy systems, saw the installation of nine new residential solar PV systems at a negotiated 20 percent discount (South Coast Energy Challenge, 2017). The program was also responsible for the first "solar tour" in the region (held November 2013), an educational activity that has been replicated elsewhere in Massachusetts.

Town Zoning for Renewable Energy Facilities

In May 2013, the Town of Fairhaven added provisions for wind and solar PV energy facilities into its Zoning Ordinance; other forms of renewable energy (e.g., solar thermal, biofuel, geothermal, and wave and tidal) are not specifically regulated. These provisions address utility-scale, as well as on-site, small, and building integrated wind projects and large-scale and on-site ground-mounted, as well as roof-mounted solar PV systems. They are meant to

encourage such development, while providing standards that protect public safety and minimize environmental impacts, as well ensure adequate funding for decommissioning.

Per the Town's Zoning Ordinance, revised on May 3, 2014, utility-scale wind projects are an excluded use in Mixed Use districts, and require a special permit (granted by the Planning Board) in all other districts. On-site wind projects are an excluded use in Rural Residence, Single Residence, and Mixed Use districts, and require a special permit in all other districts. Small wind energy systems are a permitted use in all districts. Building integrated wind projects require a special permit in all districts. Large-scale solar PV systems are an excluded use in General Residence, Apartment/Multifamily, Park, and Mixed Use districts, and require a special permit in all other districts; on-site solar PV systems are a permitted use in all districts. Roof-mounted solar PV systems are a permitted use in all districts when connected behind the meter. As a condition of the special permit, operators of wind energy facilities are required to submit annual operations and maintenance reports to the Planning Board. As-of-right siting for renewable energy generation projects is not provided in the Town.

Noise from the existing wind turbines in the Town has been a concern among some residents since project commissioning. Unless determined not applicable, the Town's Zoning Ordinance requires conformance with Massachusetts Department of Environmental Protection's (MassDEP's) Division of Air Quality Noise Regulations (310 CMR 7.10) and the 10-dBA threshold contained in the MassDEP Noise Policy. At the request of the Fairhaven Board of Health, MassDEP conducted sound sampling of the Fairhaven Wind LLC wind turbines project in 2013. Among 24 sampling events, five exceedances at three locations were recorded.

Complaints related to the wind turbines, including noise concerns, can be filed by completing the Wind Turbine Impact Complaint Form. This form is available on the Board of Health's webpage on the Town's website.

Community Electricity Aggregation

In December 2014, the Town of Fairhaven voted to join the Southeastern Regional Planning and Economic Development District Community Electricity Aggregation Program, which is authorized under Massachusetts General Laws chapter 164, section 134. This is an opt-out program, as is standard in the Commonwealth, where customers are automatically included unless they otherwise object to participation; leaving the program does not incur a financial penalty.

Through leveraging the collective purchasing power of the residents and businesses in the Town, the Town of Fairhaven's community electricity aggregation program offers the following benefits:

- ▶ Competitive choice of electric supplier;
- ▶ Longer term rate stability;
- ▶ Lower cost power; and
- ▶ More renewable energy options to Town residents and businesses.

For the period between January 1, 2016 through June 30, 2016, customers realized a net savings of \$0.0131 per kilowatt-hour through the community aggregation program.

Waste Management and Recycling

The Town of Fairhaven no longer operates the landfill just west of Alden Road on Bridge Street. Municipal solid waste (MSW) collection is contracted by a waste hauler and transferred to the Southeastern Massachusetts (SEMASS) Resource Recovery Facility, a waste-to-energy plant in Rochester, MA. The SEMASS facility can process one million tons of solid waste each year – more than one-fifth of all MSW generated in the state annually – and produces enough electricity to serve nearly 75,000 homes (Covanta, 2017).

The Town offers curbside collection of recyclables to its residents. This program is mostly single-stream (i.e., crushed plastics [numbers 1 through 7], glass, and metal containers can be commingled); however, residents are asked to separate paper/cardboard. A recycling center at 5 Arsene Street offers residents additional waste diversion opportunities by providing for the collection of the following waste types:

- ▶ Appliances and white goods such as dryers and ovens
- ▶ Tires
- ▶ Oil filters and used oil
- ▶ Computers and TVs
- ▶ Mercury containing items such as lamps/light-bulbs and thermostats
- ▶ Scrap metal
- ▶ Lead and acid batteries
- ▶ Freon-containing items such as air conditioners and refrigerators
- ▶ Organic waste such as leaves and yard clippings

The organic waste collected at the recycling center is converted to loam, a fertile soil, that is available for use by the public. The Town of Mattapoisett Transfer Station, where bulky items such as cars, furniture, and mattresses and box springs are accepted, is also open to Fairhaven residents.

Wastewater

Wastewater management in the Town is guided by its Comprehensive Wastewater Management Plan (February 2013). Major wastewater management infrastructure includes the Water Pollution Control Facility on Arsene Street and the West Island Treatment Plant, as well as a wastewater collection system that encompasses 15 pump stations and approximately 75 miles of gravity/pressure sewer lines distributed throughout the Town.

On average, the Water Pollution Control Facility collects approximately 2.7 million gallons per day (mgd) of wastewater flow, 10 percent of which derives from the Town of Mattapoisett; design flow is 5 mgd. Maximum hourly wet weather flow at this facility is 16 mgd. After treatment, in accordance with the Town's National Pollutant Discharge Elimination System (NPDES), the Water Pollution Control Facility discharges to the New Bedford Harbor through an outfall located just west of the intersection of Church and Main Streets. The West Island Treatment Plant processes an average flow of 18,000 gallons (not

accounting for summer residency variations), and discharges to a well-field on the conservation area of West Island that is deeded to the Town.

In 2011, the Town added an anaerobic digester and combined heat and power system to its Water Pollution Control Facility. Waste activated sludge and scum are pumped to two mesophilic digesters where microorganisms reduce their volume and stabilize them. This process produces methane gas, which is stored and used to power a 100-kilowatt generator that produces heat for the digestion process, provides hot water for the plant, and generates all the electricity that the facility needs to operate. This system saves the Town money by reducing the plant's energy costs and by reducing costs associated with shipping sludge offsite to an incinerator in Cranston, Rhode Island. In 2015, the Town won a grant from the Southeastern New England Coastal Watershed Restoration Nutrient Management Grants Program to finance a nitrogen reduction pilot study at the Water Pollution Control Facility. This study will explore opportunities to reduce by 80 percent the amount of nitrogen being released into the inner harbor.

Water Quality and Consumption

The Mattapoisett River Valley Water District (MRVWD) Treatment Facility supplies all potable water for the Town of Fairhaven. The Town is the site of four of the District's eight ground water wells, which pump water to the treatment facility where it undergoes a PH adjustment followed by filtration. Completed in June 2008, the MRVWD Treatment Facility has the capacity to treat 6 million gallons per day (mgd), 2.7 mgd of which derive from the wells in Fairhaven. This project resulted from the planning and financial coordination of the Towns of Fairhaven, Marion, Mattapoisett, and Rochester after elevated levels of iron and manganese were found in each of the Town's water wells. Instead of constructing and operating independent water treatment facilities, one advanced facility was developed. This teaming decision saved the towns a collective \$4.9 million.

The Town's source water quality is monitored on a regular basis in order to ensure compliance with state and federal standards for quality and safety. Meeting these standards is supported through investments in water treatment, as demonstrated by the Town's investment in the MRVWD Treatment Facility, and maintenance of the water distribution system that includes raw and finished water transmission mains. Per the Town's 2016 Water Quality Report, no violations of any regulated contaminants were detected as part of the associated water quality analysis; average detected manganese levels were 6 parts-per-billion, which is well below the U.S. Environmental Protection Agency's health advisory level of 300 parts-per-billion.

Two connections that allow for the purchase of water from the City of New Bedford are maintained for redundancy and emergency purposes. The Town offers water conservation tips on its website, including information on testing for water leaks and other measures such as putting filled plastic bottles in toilet tanks, taking shorter showers, and watering house plants with leftover drinking water.

Greenhouse Gas Emissions and Climate Change

Increasing concentrations of greenhouse gases (GHGs) such as carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O) in the atmosphere are known to cause global warming - the rise in global average temperatures at the Earth's surface. Increasing global temperatures are transforming climate patterns and elevating sea levels, which can result in potentially dangerous effects to life and property, particularly for coastal communities such as the Town of Fairhaven. To mitigate the potential effects of climate change, many communities are looking to lead by example and measuring their GHG emissions to enable the management of such emissions and to identify mitigation strategies and reduction targets.

The Town of Fairhaven has not conducted a GHG emissions inventory; therefore, a baseline level of GHG emissions does not exist. In general, however, GHG emissions generated within the town come from local government operations (emissions that are the direct result of running the government) and community activities (emissions from all other activities occurring within the Town's geographic boundaries no matter the originator). Sources of local government and communitywide GHG emissions include:

- ▶ Energy use in buildings (e.g., the combustion of fossil fuels for building heating or cooling) and lighting fixtures (e.g., street lights);
- ▶ Energy use in vehicles and equipment (e.g., back-up generators);
- ▶ Solid waste disposal;
- ▶ Wastewater treatment process; and
- ▶ Accidental leaks of refrigerants and other gases categorized as GHGs.

Climate Change Mitigation

Although the Town has not completed a GHG emissions inventory, it has nevertheless taken significant steps to reduce GHG emissions from its own operations and other community activities. As previously noted, the Town has implemented efficiency projects (e.g., window replacements, HVAC upgrades, and lighting fixture/lamp conversions) to reduce energy consumption at its facilities; purchased, generated, and promoted renewable energy; and closed its landfill to instead send its MSW to a waste-to-energy plant where it is burned to generate electricity, which prevents landfill methane emissions associated with decomposing organic waste. In addition to the previously referenced efforts, the Town and its various departments have made targeted efforts to reduce GHG emissions from their operations. Examples of this include:

- ▶ The Fire Department is in the process of replacing Ladder #1 and, in the process, identified an opportunity to consolidate two pieces of equipment (Ladder 1 and Rescue 1). The replacement of Ladder 1 (dated 1985) with a newer, more efficient model would reduce GHG emissions and other air pollutants. The consolidation of Ladder 1 and Rescue 1 would see further air quality benefits due to the removal of Rescue 1 from Town roads.
- ▶ The Police Department improved the efficiency of its fleet by replacing its vehicles with 8-cylinder engines with more fuel-efficient 6-cylinder engine alternatives.

Climate Change Adaptation

The Town of Fairhaven is vulnerable to the potential effects of climate change, and with 29.4 miles of coastline, and much property and economic value along this coastline, it is particularly vulnerable to sea level rise, increased flooding, and more frequent and intense storm surge. Planning for related expected conditions in the short- and long-terms will be crucial to supporting the health and wellbeing of the Town's residents, as well as the Town's natural resources, infrastructure, economy, and identity/sense of place. Such planning will enable the Town to increase its resilience and ability to adapt to changing climactic conditions, and related decisions will help limit the cost of rebuilding if damage to property were to occur.

The following discussions offer a high-level review of the Town relative to projected sea level rise, floodplain expansion, and hurricane inundation – three hazards the Town identified as having the potential to have an effect on its people, economy, and built and natural environments. The Town, with a MEMA grant, is in the process of creating the Town's first ever Hazard Mitigation Plan, which is anticipated to be complete in 2018. The plan will provide more information on these and other applicable natural hazards, as well as detailed mitigation actions in the context of the Town's current vulnerabilities and current capacities for mitigation (i.e., capabilities).

Sea Level Rise

Relative sea level rise in the vicinity of Fairhaven was approximately 0.11 inches per year between 1932 to 2015, which represents a total increase of approximately 11.04 inches in 100 years (NOAA, 2013). Extrapolating this trend into the future, the Town should anticipate a minimum rise in sea level elevation of 6.0 inches by 2050. However, this scenario does not account for ocean expansion, ocean warming, and contributions from ice sheets. As this Comprehensive Plan is looking toward the future, planning for projects that will have a long lifespan (e.g., infrastructure, public facilities), and includes elements with factors that have a low tolerance for risk (e.g., population, housing, economic assets), this document considers additional sea level rise scenarios that account for these changing climatic conditions. Data associated with these scenarios (intermediate-low, intermediate-high, and highest) derive from *Global Sea Level Rise Scenarios for the United States National Climate Assessment* (Parris, et. al, 2012) and were refined by NOAA using local ground motion data from its long-term tide gauges; in this case, the local ground motion data comes from nearby Woods Hole, Massachusetts. Table 8-1 provides sea level rise projections under the lowest (extrapolating the mean sea level trend), intermediate low, intermediate high, and highest scenarios for 2025, 2050, 2075, and 2100.

Table 8-1 Sea Level Rise Projections

	Lowest	Intermediate Low	Intermediate High	Highest
2025	0.3 feet	0.4 feet	0.6 feet	0.8 feet
2050	0.5 feet	0.8 feet	1.5 feet	2.2 feet
2075	0.7 feet	1.3 feet	2.7 feet	4.2 feet
2100	0.9 feet	2.0 feet	4.3 feet	6.9 feet

Source: NOAA, 2017

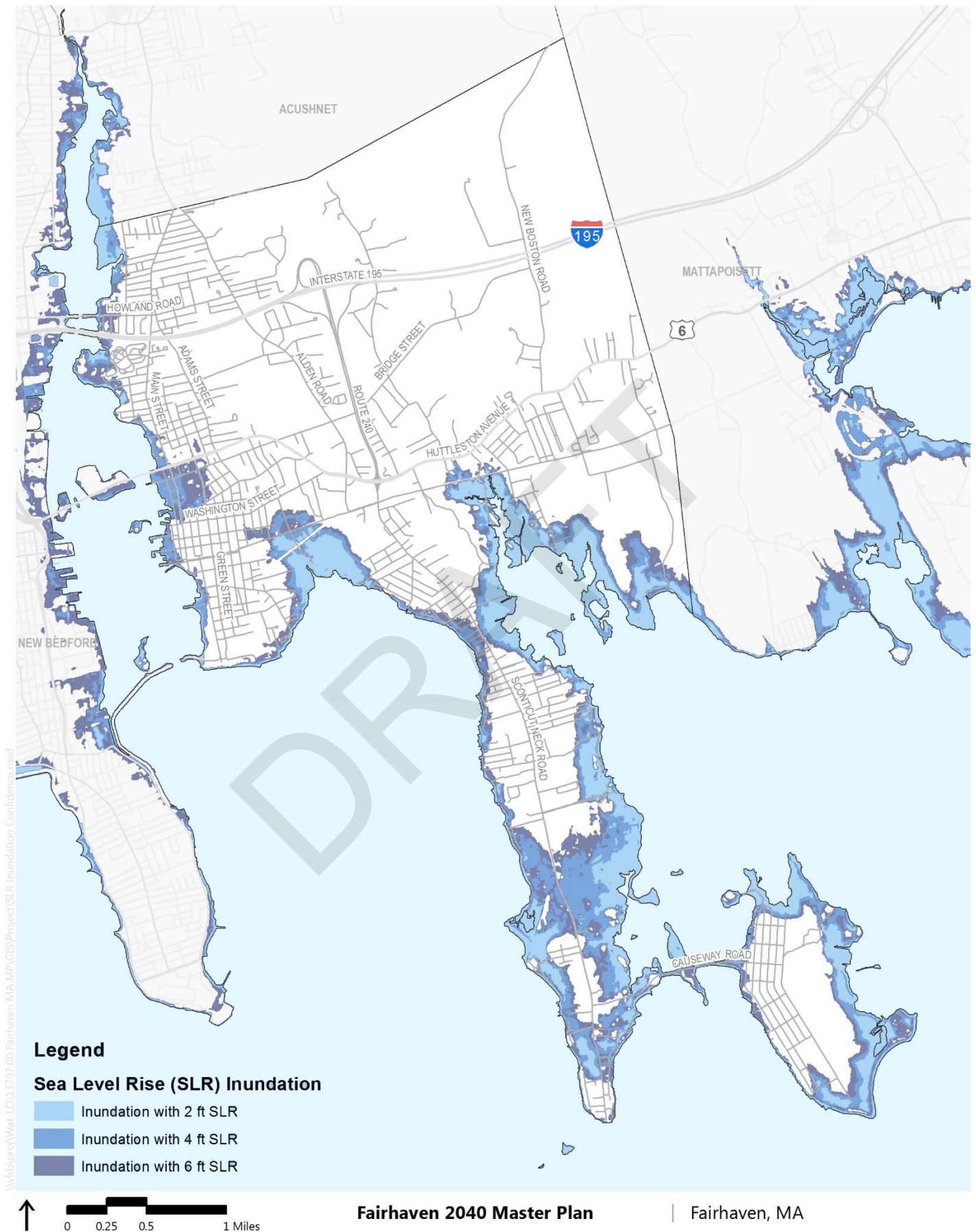


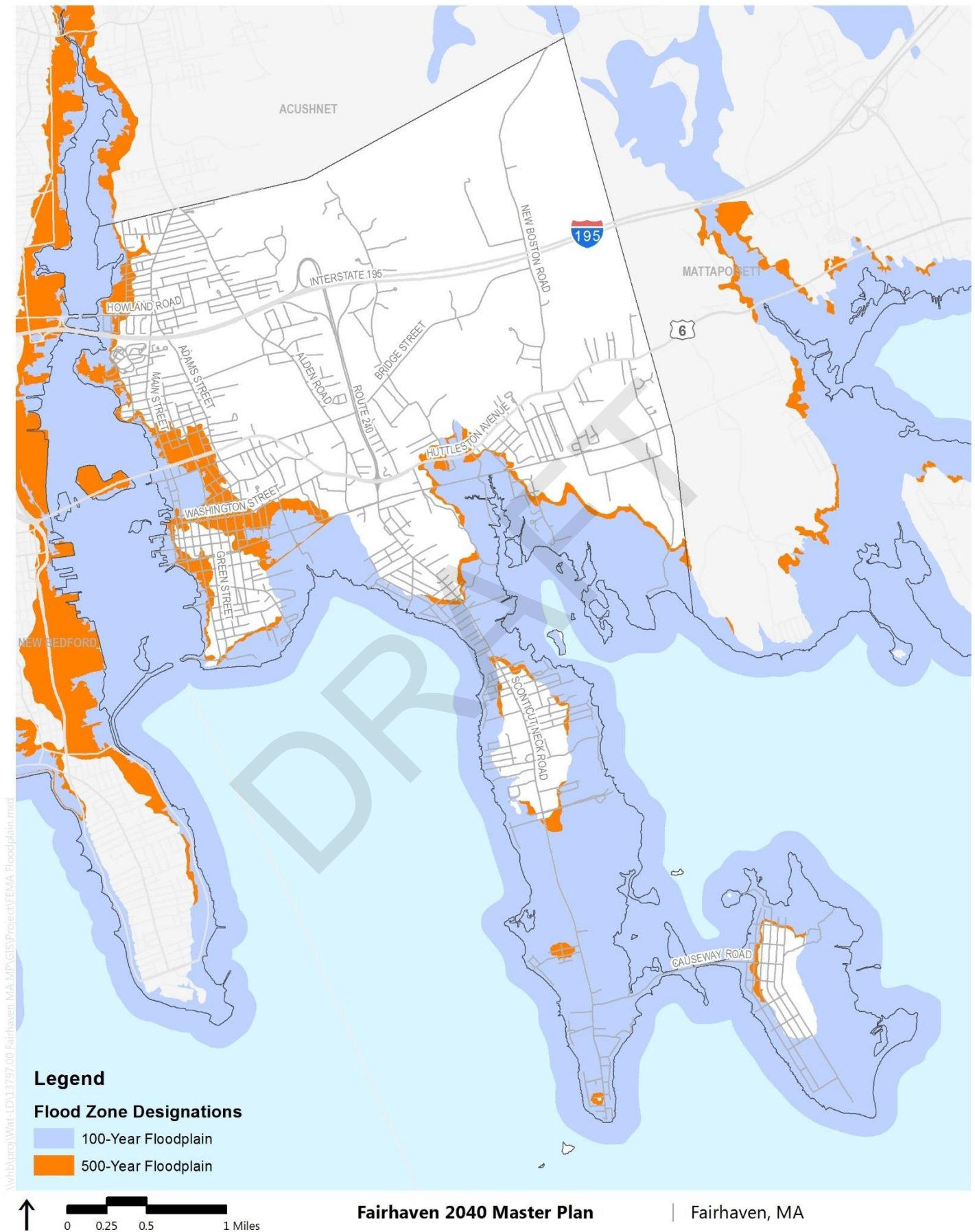
Figure 8-1 illustrates sea level rise elevation increases of 1, 2, 4, and 6 feet above the current Mean Higher High Water throughout the Town in the context of NOAA's reported confidence levels (high and low confidence - above and below 80 percent, respectively). Confidence levels represent known errors in elevation data and tidal corrections (NOAA, 2017).

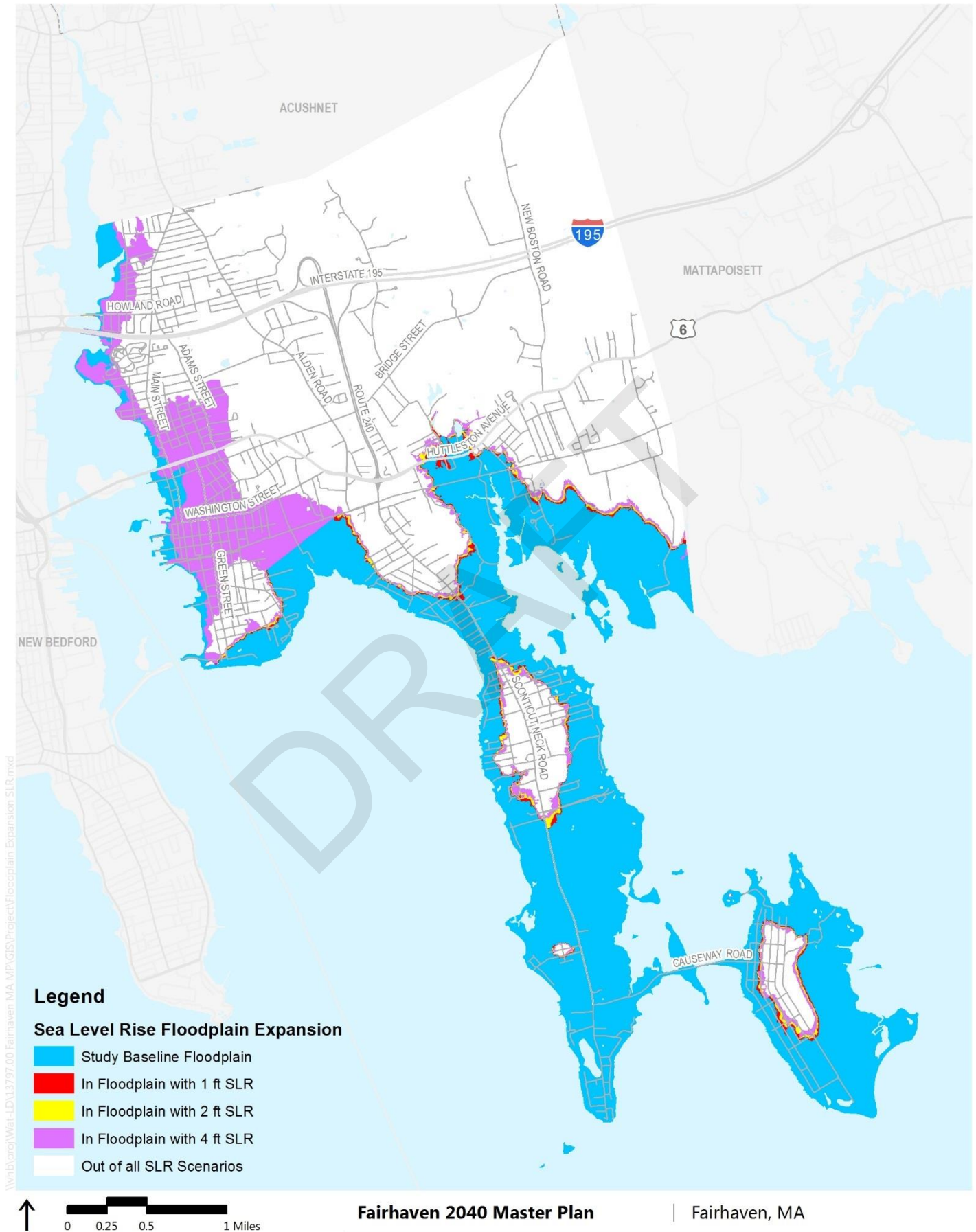
Flooding/Floodplain Expansion

Parts of the Town already experience periodic flooding. Major flooding threats are particularly prevalent in low lying coastal areas such as those on the southern portion of Sconticut Neck and West Island, and during events such as the king tides (i.e., higher than average tides caused by the close proximity of the moon to the earth). Some flooding can occur along New Bedford Harbor and the Acushnet river when run-off is high and storm surge activity is strong. Figure 8-2 illustrates the Town's 1.0 percent (100-year) and 0.2 percent (500-year) floodplain boundaries deriving from the Federal Emergency Management Agency (FEMA) digital Flood Insurance Rate Maps (FIRMs).

Published in 2012, *Projected Expansion of the Floodplain with Sea Level Rise in Fairhaven, Massachusetts* prepared by the Buzzards Bay National Estuary Program and Massachusetts Office of Coastal Zone Management, evaluated the potential expansion of the rare storm event floodplain in Fairhaven, Massachusetts from sea level rise. This study based its analysis on a baseline flood zone – the most landward extent of the 100-year floodplain identified in FEMA's FIRMs - that it modified using a highly detailed elevation set. It then expanded this baseline to account for 1-foot, 2-foot, and 4-foot rises in sea level using the same highly detailed elevation data. Figure 8-3 illustrates the published baseline and expanded floodplains from this study.

This floodplain expansion study compared the baseline floodplain and floodplain expansions to Town assessor data from 2009 to quantify the number of homes and total structure value within these areas. The results of the analysis revealed an increase of about 4 percent from baseline in the number of parcels with structures and total structure value under the 1-foot sea level rise scenario and an added 4 percent increase under the 2-foot sea level rise scenario. Under the 4-foot sea level rise scenario, the study demonstrated an approximately 137 percent increase from baseline in the number of parcels with structures and an approximately 180 percent increase from baseline in total structure value. Under the 4-foot sea level rise scenario, the study estimated an additional 1,637 parcels and \$264 million in assessed value would be located in the floodplain.





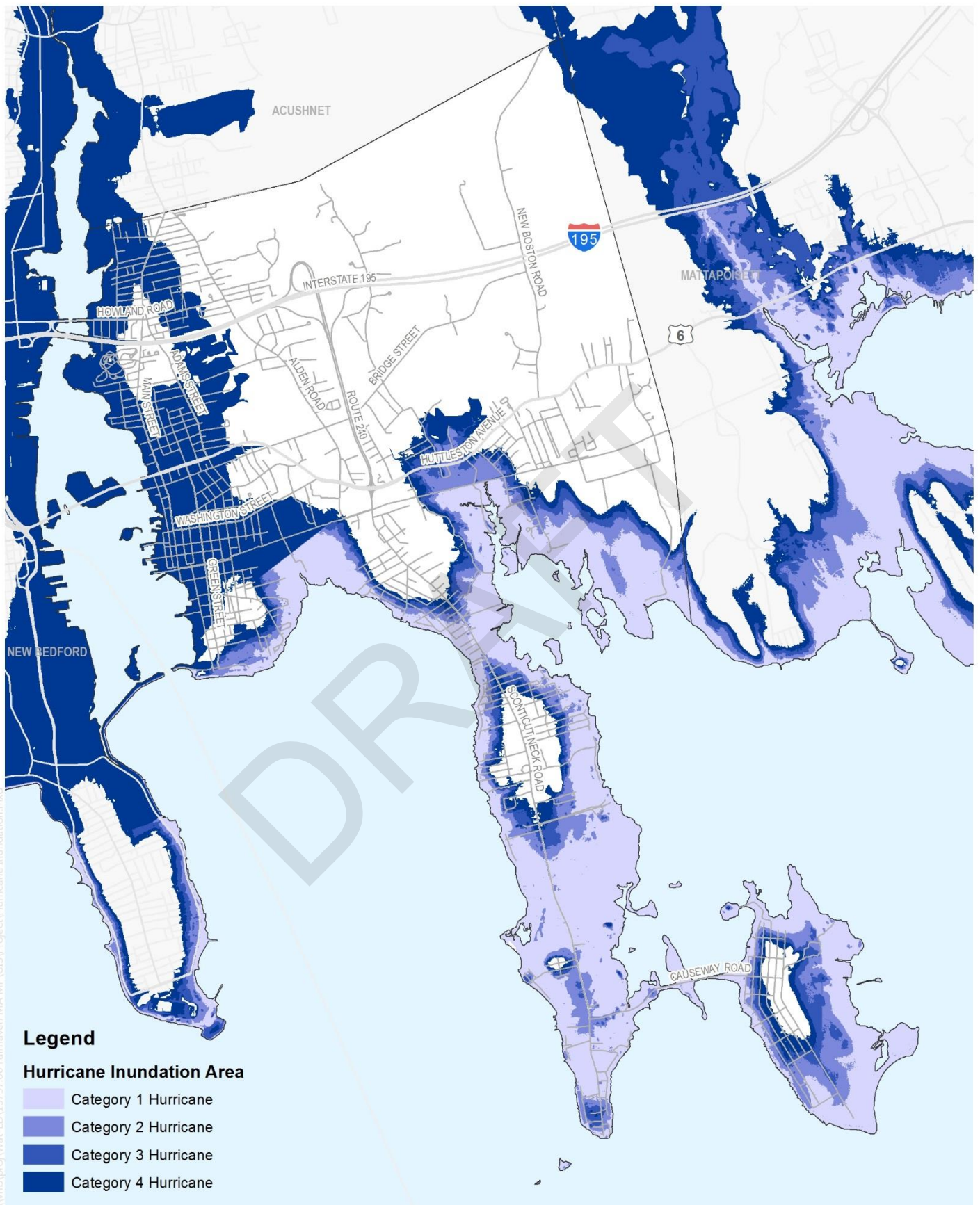
Storm Surge and Hurricane Inundation

The Town of Fairhaven's location on Buzzards Bay and its extensive coastline make it vulnerable to coastal storms such as hurricanes and nor'easters. It has historically been provided protection from such storms by a hurricane barrier that was constructed in 1966 across the mouth of the New Bedford Harbor and another barrier in the form of a dike that extends across the tidal marshes at the head of Priest's Cove. Coastal storms have resulted in wave damage, mostly to boats, low coastal roads, beaches, and seawalls. Portions of Sconticut Neck Road (between North Street and Grape Street and south of Camel Street) and the West Island causeway, as well as surrounding residential areas have experienced flooding by high storm waters. Coastal flooding in these areas are the result of waters regularly exceeding the 15-foot level because of high winds, large waves, and tidal action.

The Town has already seen increased frequency and severity of coastal storms (e.g., hurricanes, tropical storms, nor'easters), and there is a high probability of future events with the potential to cause severe and extensive loss, damage, and disruption due to sea level rise. Storm surge and the potential for related impacts will increase with sea level rise because of the increase in quantity of available water and related decrease in the height of stormwater barriers.

Figure 8-4 illustrates worst-case hurricane surge inundation area for Category 1 through 4 hurricanes, as prepared by the U.S. Army Corps of Engineers, New England District. As shown, much of Sconticut Neck and West Island are expected to be inundated during a Category 1 hurricane, while coastal areas beyond the hurricane barrier, including Fairhaven Center, are expected to be inundated during a Category 4 storm.

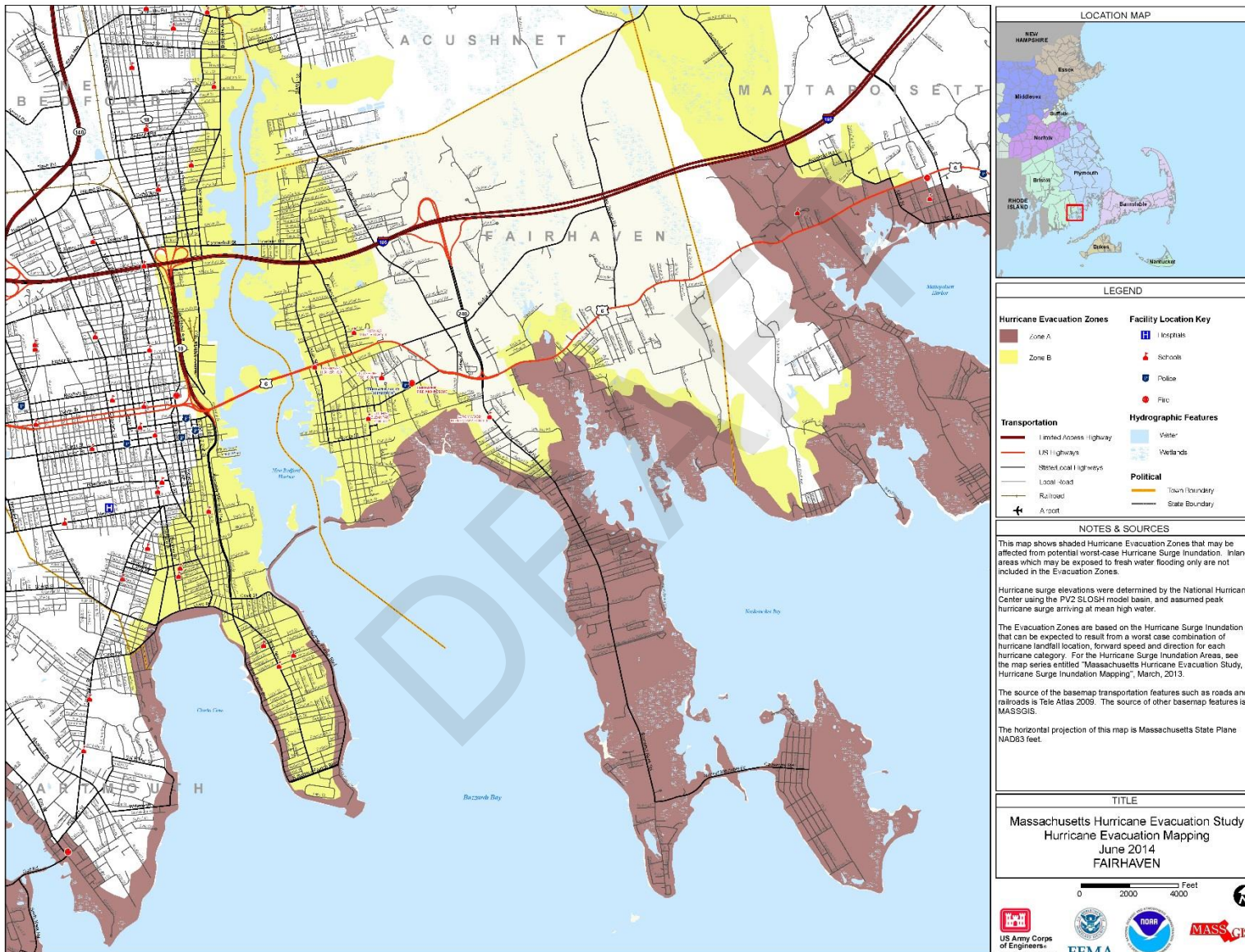
Evacuation orders for Sconticut Neck Road and West Island, along with other low-lying areas in the Town, are possible. Before such an order is issued, Public Works would switch off its water and wastewater service to these areas with the intention of preventing damage to the system and contamination. The Town requires residents in these areas to obtain an annual hurricane permit. These permits allow owners to return to their properties after an evacuation, and are intended to protect their properties from non-residents. Figure 8-5 depicts the existing Massachusetts Evacuation Zones in the Town of Fairhaven. As shown, all of Sconticut Neck and West Island are all within Zone A, which represents areas that would flood first from storm surge during a tropical storm or hurricane.



Fairhaven 2040 Master Plan

Fairhaven, MA

Figure 8-5 Massachusetts Evacuation Zones in Fairhaven



Goals and Recommendations

Goal 1: Establish systems for assessing, tracking, and reporting on the Town's sustainability performance.

Recommendations:

5. Conduct an energy baseline assessment for municipal operations and community-wide.
6. Complete a local government operations greenhouse gas (GHG) inventory.
7. Complete a community scale GHG inventory.
8. Develop, procure, or utilize a data management system that tracks, at a minimum, municipal operations energy and water consumption, costs, and associated GHG emissions.

Goal 2: Lead by example through continuous improvement of the energy efficiency of government operations and promotion of community energy efficiency programs.

Recommendations:

4. Conduct energy audits at Town facilities and develop a plan for implementation of Energy Conservation Measures.
5. Develop a Green Fleet plan and vehicle replacement schedule.
6. Provide information to the community about free and discounted energy audits, appliance rebates, and other energy improvement programs available to residents and businesses.

Goal 3: Enhance Fairhaven's resiliency to the likely impacts of a changing climate.

Recommendations:

5. Invest in infrastructure improvements that will protect the Town from the impacts of sea level rise, storm surge, and other flooding events, as well as extreme heat.
6. Update the Town's stormwater regulations to emphasize low-impact development, green infrastructure, and incorporation of future precipitation/flooding projections.
7. Incorporate future climate conditions into emergency response and evacuation plans.
8. Establish neighborhood networks of residents and businesses that are educated on sustainability and climate change resiliency and able to communicate effectively, especially to vulnerable citizens, during periods of emergency.

Goal 4: Position Fairhaven to leverage state, regional, and national resources for sustainability and resiliency.

Recommendations:

3. Evaluate current Green Community designation requirements and establish a clear plan for the Town to pursue designation and associated funding.
4. Adopt the STAR Community Rating System as a framework for making Fairhaven a more sustainable and resilient community.

Goal 5: Adopt land use, zoning, and building code policies that support healthy, sustainable development

Recommendations:

5. Promote mixed-use development through land use, zoning, and development incentives.
6. Adopt green building standards or incentives for development over an established size threshold.
7. Adopt a Complete Streets Policy.
8. Require that affordable housing be built to sustainable standards (such as LEED or Enterprise Green Communities) to ensure that such housing stock is healthy and affordable.