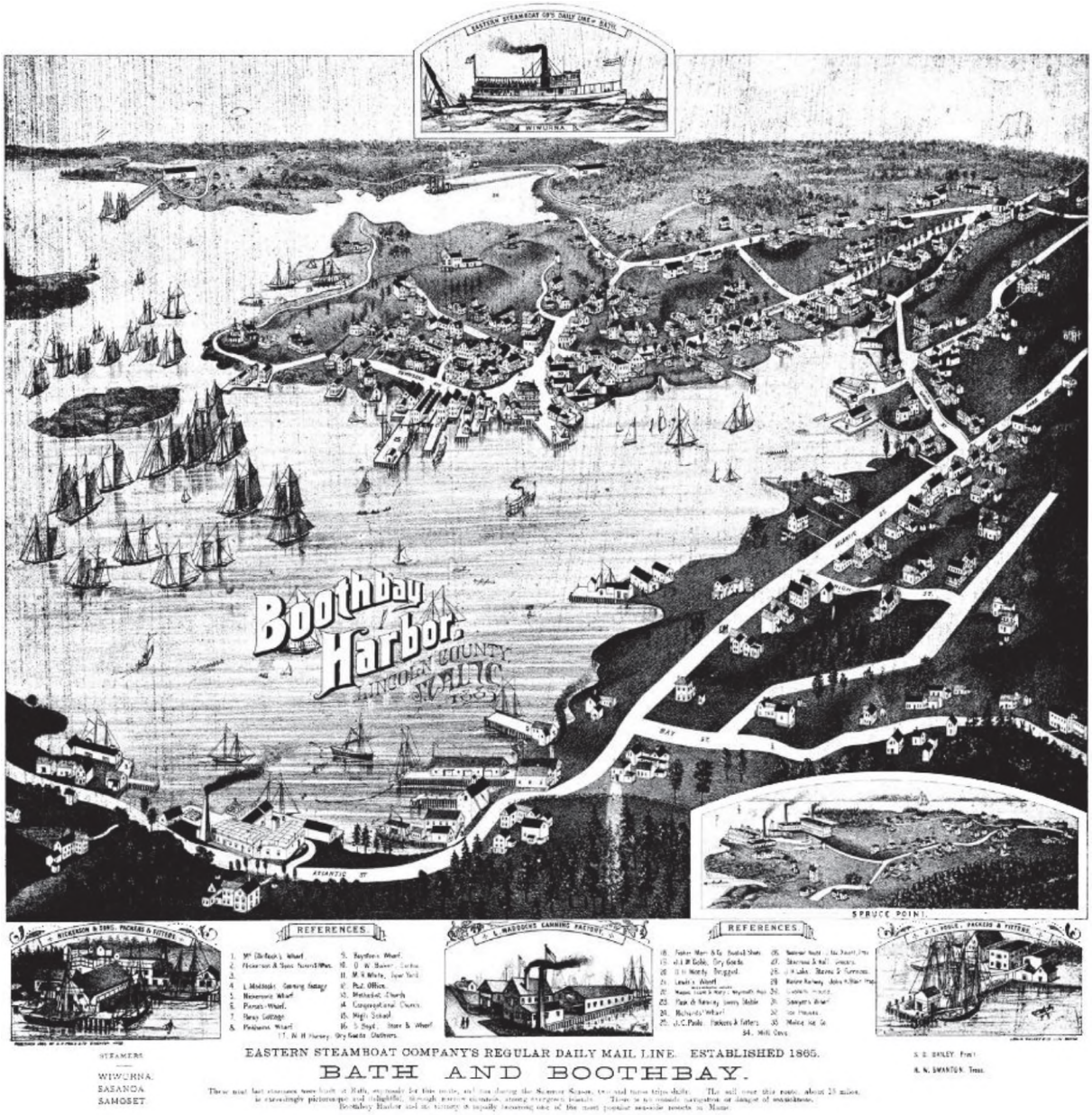
2015

Boothbay Harbor Comprehensive Plan 2015

Boothbay Harbor Comprehensive Plan Committee

Boothbay Harbor Comprehensive Plan
May 2015



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Preface

The previous Boothbay Harbor Comprehensive Plan was completed on September 23, 1996 and was found consistent with Maine's Comprehensive Planning and Land Use Act (1988) by the State Planning Office on March 14, 1997. In 2012, the town engaged the Lincoln County Regional Planning Commission (LCRPC) to assist a committee appointed by the Select Board to update the 1996 plan.

Boothbay Harbor has experienced some significant shifts in its economy and population over the almost two decades since the previous plan was prepared. The commercial fishing industry has undergone a great deal of retrenchment with the closure of vast areas of fishing grounds and the sale of a large portion of the groundfishing fleet. At the same time, lobster hauls have increased dramatically, although the prices received by local fishermen have been inconsistent at best. Another critical trend has been the "aging" of the town (along with Maine and other states), which is a major challenge and opportunity for workforce, health care, and other parts of our community.

The 1996 plan anticipated that the population of Boothbay Harbor would increase from a projected 2,850 in 1997 to 3,100 by 2005 due to continued net in-migration of new residents to the community. In fact, the population experienced a decrease to an estimated 2,151 in 2011, due primarily to continued out-migration of younger people and a lessening in the growth rate of new year-round residents. As the peninsula continues to recover from the historic recession of recent years, these trends may ease but, as the Comp Plan Committee has made clear with its findings and recommendations in this plan, significant improvement will hinge on job creation and affordable housing along with maintenance of Boothbay Harbor's quintessential coastal Maine small town environment.

Acknowledgements

It is important to recognize all of the individuals who devoted their time and effort in preparing this Comprehensive Plan. Boothbay Harbor is a small community and conflicting work schedules and multiple commitments made it difficult for committee members to attend each meeting but without the contributions of the following individuals, it would not have been possible to complete the plan successfully.

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Many Thanks To All

Vision Statement

Water Boothbay Harbor cherishes the natural world, which surrounds us: the clean air, beautiful landscapes of woods, fields, water, and rock, and amazingly diverse habitats and fisheries. There is one "resource" that is dominant, that seems to pervade all aspects of our environment, and of our community's current and future development – water.

Fresh water, tidal flats, wetlands, and coastal and ocean waters – water is integral to most every aspect of life in Boothbay Harbor. From shellfish and fishery resources, wildlife habitats, scenic views and recreation, to shipbuilding, real estate and tourism, these assets are the foundation of this community, our sense of place and our economic future. The diverse ways we enjoy and use these assets are both complementary and competitive. In addition, the community recognizes the continuing risks of flooding and sea-level rise. Boothbay Harbor's future requires a more holistic and responsible stewardship to protect water quality, improve and manage public access to the water, and encourage new, compatible maritime uses by linking together development standards, economic incentives, infrastructure improvements, public education, and resource monitoring.

We Envision That...

The water quality in Adams and Knickerbocker Ponds will continue to meet or exceed state and federal standards.

Boothbay Harbor's work in coordination with state and federal agencies will continue to improve the quality of harbor and coastal waters and benefit local fisheries, boating, aquaculture, and tourism sectors.

The Town will monitor rising sea levels and storm surges, and take steps to plan to protect susceptible areas or reduce potential adverse impacts.

Significant natural habitats will be preserved and maintained.

See Goals and Objectives for more specific recommendations and implementation steps.

The Economy Will we create our future or stand by and deal with what comes? Choosing to build on our strengths and create opportunities for our future generations, local businesses will adapt to changing trends and market demands within their industries and increasingly connect by technology and capital with state, federal, and global networks. The community will support quality education at all levels, a critical ingredient to economic success. Continual strategic planning can clarify Boothbay Harbor's role in important sectors such as health care, education, marine sciences, fisheries, renewable energy, shipbuilding, and tourism, and determine how, at a municipal level, local officials and citizens can coordinate with state and federal resources to increase local employment and higher wage levels.

We Envision That...

An economic development plan for the Town will help retain and create local jobs. The focus will be on expanding the number and variety of year-round businesses, and encouraging local businesses and entrepreneurs. Community residents and entrepreneurs will find Boothbay Harbor a welcoming place to do business and the number and variety of year-round businesses will grow.

Schools and local employers will work together to increase opportunities for high school apprenticeships and employment with local businesses.

Health care in Boothbay Harbor will remain a major employer and economic sector. Given the town's demographic characteristics, new and expanded health care services will reflect community and regional needs in innovative and affordable ways.

The fishing and boatbuilding industries will adapt to the changing ocean environment and local and national economies and thrive in new sectors (aquaculture, for example) and new technologies.

Town government will facilitate the growth of aquaculture and other marine industries, in partnership with neighboring towns, state and federal agencies, Bigelow Labs, Darling Center, and the local tourism sector.

Boothbay Harbor will continue to be a premier destination for travelers, known for its high-quality experience, service, lodging, dining, and events.

See Goals and Objectives for more specific recommendations and implementation steps.

The Community Residents and visitors value the Harbor's unique community of people and places: eclectic downtown businesses; neighbors catching up at the Post Office, Library, and coffee shops; events at the school and the Y that bring everyone together; schooner wrecks and other archaeological sites in the harbor; and favorite walks, views and streetscapes. How do we change to stay vibrant and unique, yet protect these special qualities? Startling demographics about our increasingly older population and job trends challenge us to welcome new ideas and new residents. We can build on Boothbay Harbor's ability to attract young families and to sustain older generations by better utilizing existing resources and creating the right mix of affordable housing, employment, health care, and transportation resources. As inevitable and unexpected change occurs, Boothbay Harbor will find tools to support a community where our older residents thrive in their later years, where young people come to work and raise families, and where the past is still present in our residential and commercial neighborhoods and along the waterfront.

We Envision That…

The downtown will be sustained and enhanced with a mix of vibrant business, residential, and community uses.

Young families will choose to stay in or move to Boothbay Harbor and become active participants in community life by taking advantage of all available employment, affordable housing, job training and educational opportunities.

Town facilities and services will be operated and expanded as cost-effectively as possible and will meet the needs of year-round residents, local businesses, and seasonal residents and visitors.

Energy-efficient land uses, green building practices, renewable energy sources, weatherization, and other land and building adaptations to changing ocean level will reflect the community's balance between economic and environmental values.

The community will preserve traditional public access to open space and the shore, develop new public trails, and expand recreation opportunities for all ages.

Improvements to transportation and transit infrastructure and services, including bus, van, and ferry services, and bike-pedestrian safety and access will remain as important town priorities.

Visitors and residents will continue to enjoy the historic character of the downtown and surrounding neighborhoods and scenic views to the harbor from streets and public spaces.

See Goals and Objectives for more specific recommendations and implementation steps.

Summary of the Plan

This Comprehensive Plan presents a recommended approach to future land use for the Town of Boothbay Harbor. To begin the effort, the Comp Plan Committee reviewed and compiled an up-to-date topic analysis for all of the required areas.

Each of the topic chapters contains research, background and recommendations for future policies. At the conclusion of each topic chapter there are recommendations for policies and implementation strategies. The exception to this is Existing Land Use, whose recommendations are presented in the Future Land Use Plan. Some recommendations may require action by the Select Board, Planning Board, a designated committee and/or the town meeting. Encouraging economic development and affordable housing while protecting and enhancing the community's natural resources are key to the community's future growth. The Comp Plan Committee found during its work on this plan that water – marine and fresh, coastal and inland – is interwoven throughout the community's fabric and is perhaps Boothbay Harbor's most important attribute. It is why people come to live here, why businesses grow and prosper here, and why generations of Mainers have called our community home. Protecting our community's water resources will go far in ensuring a good future for "the Harbor."

Future Land Use Plan

State Goal

To encourage orderly growth and development in appropriate areas of each community, while protecting the state's rural character, making efficient use of public services, and preventing development sprawl.

Future Land Use Plan Overview

The land use plan is a key element in implementing Boothbay Harbor's vision for the future. It recommends areas in town where the majority of future growth can occur while preserving other areas as rural or environmentally fragile. It is based on the existing pattern of growth in town and presents the town's desired future in 2024.

The plan focuses both on distinct neighborhoods of the town and key natural features. An example of a neighborhood is the downtown. Key natural features include the shorefront, valuable wildlife habitat, and lake watersheds. While the plan supports the protection of the natural environment, it also promotes measures to assure a sound economy and housing opportunities.

Land Needed for Future Development

The Existing Land Use Chapter predicts that 175 additional acres of land would be developed by 2024. The town would then have nearly 1,100 acres of developed/protected land. This is about 51 percent of the 2,100 acres of land not subject to development constraints. These projections should be considered the highest case scenario that allows for ample unanticipated growth. About 100 acres of this land would be residential, 50 acres commercial, and 25 acres light manufacturing/research/related activities.

The plan must address both new construction on undeveloped land and redevelopment in existing areas. An example of the latter would be an expansion of a commercial site or the tear down of a small building and its replacement by a much larger structure. Given the high value of waterfront property and the limited vacant, developable land along Route 27, considerable redevelopment is likely.

Future Land Use Principles

The proposed land use plan is based on the following principles:

- Boothbay Harbor is a small town with limited, vacant developable land. This means that land must be used wisely;
- The creation of sustainable, year-round jobs and year-round businesses and services is critical to maintaining a year-round, age-diverse community;
- The town's marine resources and their allied industries are essential to Boothbay Harbor's prosperity;
- Preservation of those natural features that make the town a nice place to live and visit is important while also allowing opportunities for affordable housing;
- Manufactured housing parks would continue to be allowed in their current locations;
- Due to the vulnerability of fresh and saltwater resources, all development must be subject to careful review of storm water runoff and other drainage impacts and be consistent with the low impact development standards recommended in the goals and objectives;

- Development practices must avoid costly extension of services to areas where minimal tax revenue can be expected; and
- The Town is pedestrian- and bicycle-friendly.

PROPOSED PRIMARY GROWTH AREAS

This section discusses the primary areas where the Future Land Use Plan recommends that growth occur. All areas in Boothbay Harbor except the proposed *Rural District* and *General Residential-Rural District* are considered growth areas. They include the Downtown Business, General Business, Maritime/Waterfront, Business Park, General Residential Growth and Special Residential Districts. See FLUP Figure 8 for the proposed Future Land Use Map.

The Downtown

In 2024, the downtown remains a vibrant focus of a community that is pedestrian friendly and has a mixture of land uses. It is welcoming to small stores, dining, and entertainment services, many of which are open year-round. There are ample parking opportunities adjacent to shopping areas. There is also a good system of sidewalks and bicycle facilities.

The purpose of the Downtown Business District is to provide general retail sales, services, public utilities and business space in locations capable of conveniently servicing community-wide and regional trade areas and oriented to pedestrian and automobile access, and to preserve village character. In the three Downtown Business sub-districts (A, B, and C), the only difference is in parking requirements.

In the *Downtown Business District*, ground-floor uses on the commercial streets are primarily retail. This use is given priority since retail stores must be visible to pedestrians who are window shopping. The upper floors are reserved for professional offices and residential uses. Since professional office visits are more frequently done by appointment, they do not need the immediate visibility of retail uses.

Currently, single-family residences and duplexes are allowed without restriction in the downtown. The plan recommends that new residential uses not be permitted on the ground floor of key commercial streets except if they are accessory to a non-residential use, such as a bed and breakfast. Downtowns that allow residential uses to displace commercial uses usually lose their vitality. There is also the potential of conflicts in high pedestrian traffic areas between residences and pedestrians. Late night crowds and public events can disrupt the quiet normally associated with residential areas.

The plan encourages the preservation of the residential parts of the downtown. This involves restricting commercial uses from areas that are predominantly single-family homes. The residential streets offer a pleasant walking experience and adequate on-site parking for all uses.

It is also important that capital investment planning reflects the need to keep sidewalks and other infrastructure well maintained and preserve and/or expand points of physical and visual access to the waterfront. These investments would be supplemented by the provision of benches, bicycle racks, tree plantings, and pocket parks. Given the importance of the municipal office building in generating pedestrian traffic, the plan recommends that renovation or replacement plans focus on keeping as many town government functions as possible in the downtown.

In recognition of the importance of preserving a village-like residential neighborhood, the plan recommends that the Planning Board evaluate whether a *Village Residential District* should be created, as illustrated below, adjacent to the Downtown. Long-established residential neighborhoods where there are limited mixed uses on small lots within walking distance of the downtown could be included in this zone. The purpose is to protect existing residential neighborhoods, some of which have historically important buildings or reflect a sense of time and place of bygone years. Areas near the downtown where there is more vacant land would not be suitable for this district.

FLUP Figure 1 Village Residential Study Area

It will be up to the Planning Board to investigate the feasibility and desirability of creating a *Village Residential District*, including permitted uses and dimensional standards. It is envisioned that it would largely follow the provisions of the *General Residential District* with some distinctions. For example, uses associated more with lower density areas such as greenhouses and resorts should not be permitted. Multi-family uses should be limited to four units per building and bed and breakfasts should be allowed. To assure that residential rental opportunities are not unduly restricted, portions of the downtown would continue to be within the *General Residential* or *Downtown Business Districts* to allow for a higher density of multi-family uses. If the Planning Board decides to propose the creation of this Village Residential District, the Comprehensive Plan, Future Land Use Map and Land Use Ordinance will need to be amended.

Route 27 Corridor

The Route 27 corridor is a key commercial area in 2024 that serves as the gateway to the town. Unlike the downtown, it is aimed primarily at larger-scale uses reached primarily by vehicles. The primary zoning would continue to be *General Business*. The area's appeal would be enhanced by revised aesthetic standards in the land use code. These would include both on-site and roadside landscaping, buffering, and architectural harmony guidelines that would enhance its appearance as a gateway. These provisions would also apply to redevelopment of existing sites. Since there is a shortage of developable land in this area, much of the land use activity is expected to be reuse of existing sites.

The plan also recommends that measures be enacted to encourage the development of back lots. This would include site plan review standards that require applicants proposing to develop or redevelop property to designate rights of way that connect their properties to adjoining parcels so as not to preclude future access. For example, a site plan for development of a frontage parcel would need to show how access to a vacant, but developable parcel to the rear could occur in the future. The development review process would include an assessment to determine if there are adjacent developable parcels. If all adjoining land faces severe development constraints, access provision requirements to adjoining parcels would be waived.

To encourage use of back parcels, the planning board during development review could encourage or require applicants to create curb cuts on secondary roads that connect with Route 27 rather than on the highway itself. Offering incentives such as reduced frontage or parking requirements for applicants who locate on secondary roads also may encourage use of back parcels. These provisions bring customers off the immediate strip and make development on back lots more visible and viable. These changes are part of the overall revisions to the town's access management standards that are recommended in the Goals and Objectives.

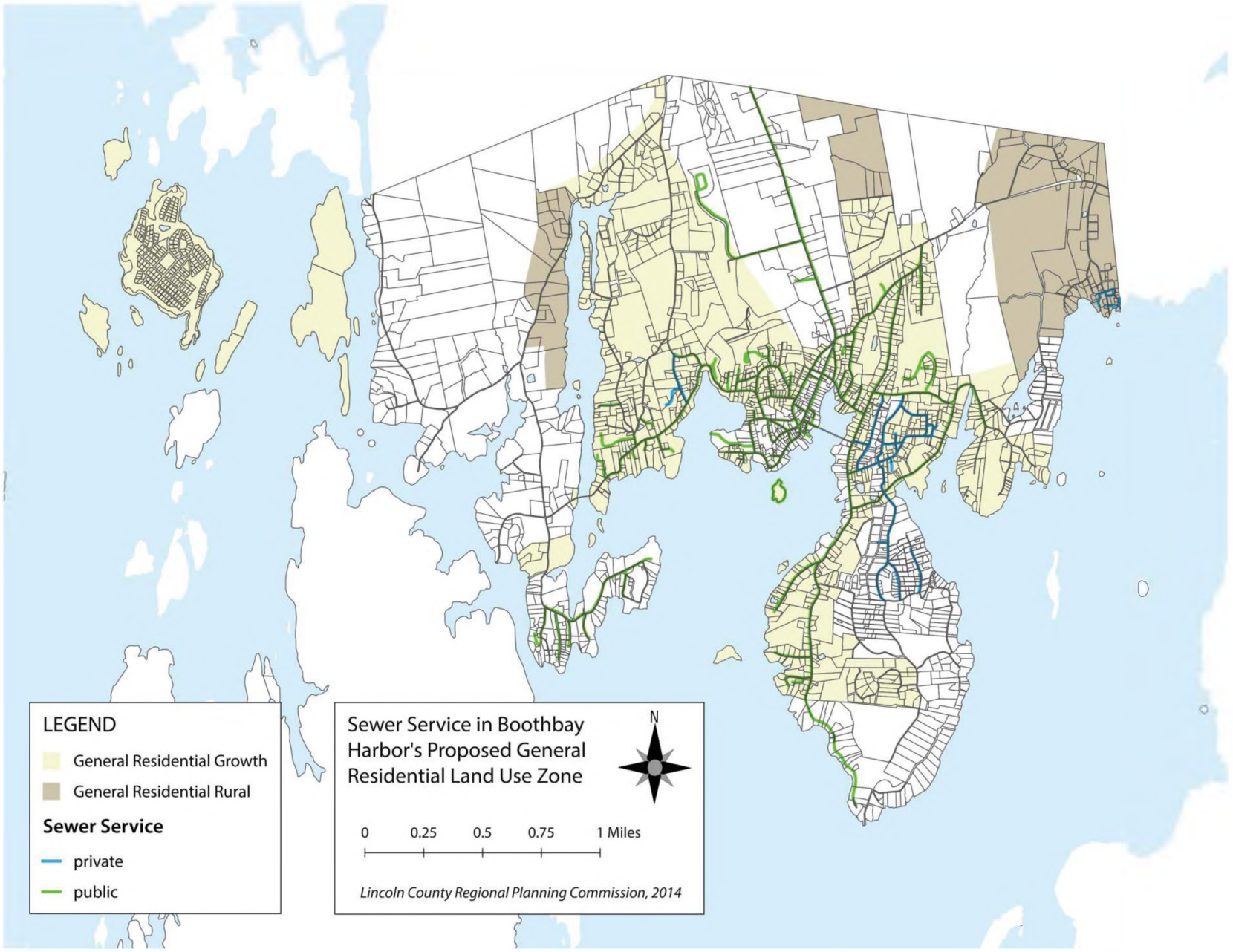
In order to keep the area attractive for future investment, the plan recommends that stricter buffering and vegetative planting standards be required for uses normally located on the back of a property. For example, dumpsters, fuel storage tanks, and old equipment would need to be shielded from other properties. Rather than have it apply in all circumstances, this site plan review requirement would be at the planning board's discretion. Overall, the site plan review standards would assure that future development is protected from negative impacts of uses on existing developed properties.

In the interests of relieving traffic congestion in the downtown, the site plan review process would give the planning board the authority to require that applicants reserve space for or otherwise accommodate trolley and bus stops. This would facilitate use of public transit. It would also allow some patronage of businesses along Route 27 by those without access to a private vehicle.

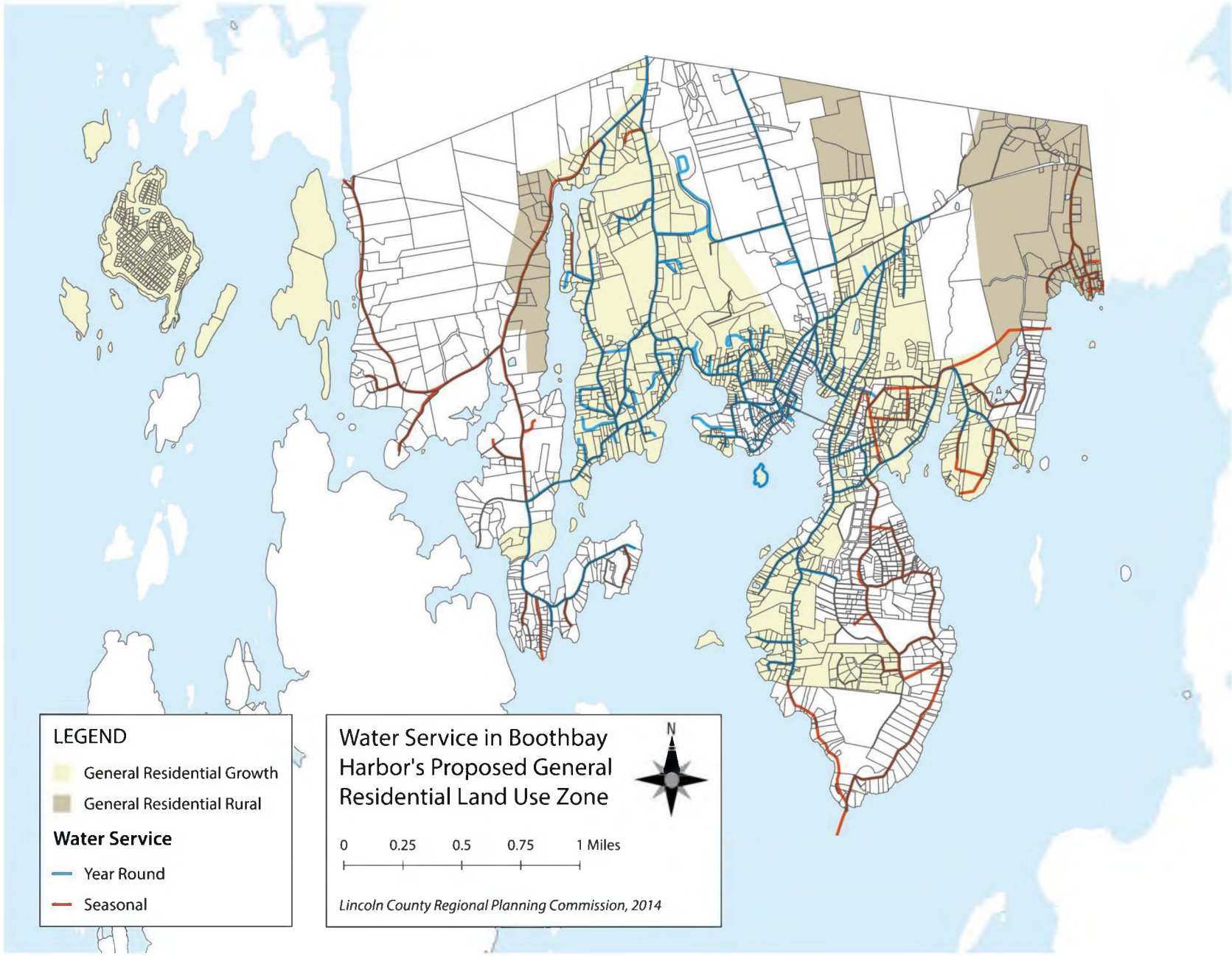
General Residential Areas

The plan recommends that the *General Residential District* be divided in a *General Residential-Grow*th and *General Residential-Rural Districts*. The principal distinction between the districts is that the *General Residential-Growth District* would be that portion of the existing *General Residential District* that is now served or likely to be served by public water and/or sewer in the future while the *General Residential-Rural District* would include the rest of the existing *General Residential District*. In order to accomplish this, the existing public water and sewer service areas within the *General Residential District* were identified. In addition, areas likely to be served in the future were evaluated. The results presented in FLUP Figures 2 and 3 provide the basis for the division of the district into the *General Residential-Growth* and *General Residential-Rural Districts* as shown on the General Residential Growth & Rural Map.

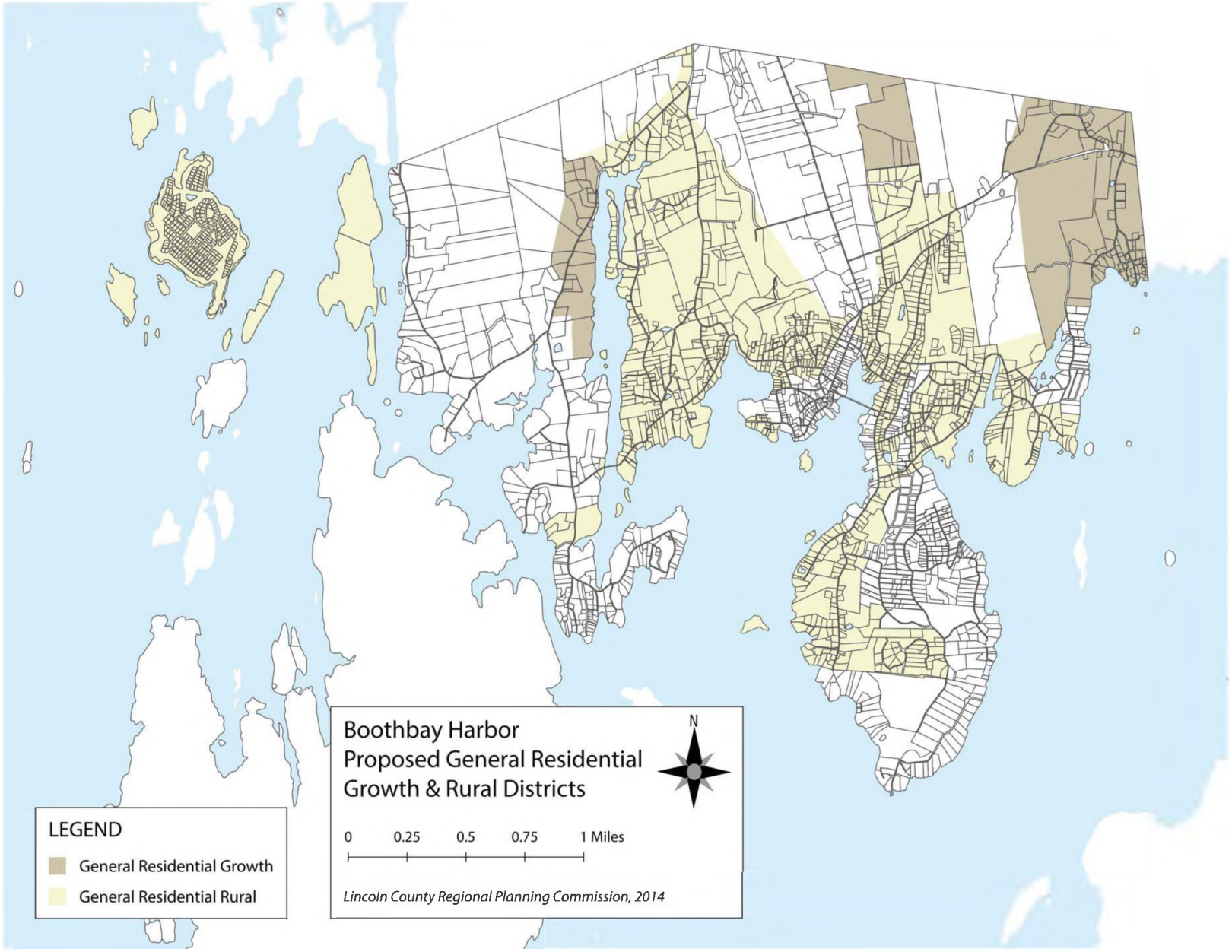
FLUP Figure 2 Sewer Service in Boothbay Harbor's General Residential Land Use Zone



FLUP Figure 3 Water Service in Boothbay Harbor's Residential Land Use Zone



FLUP Figure 4 General Residential Growth & Rural Districts



While the permitted uses and basic dimensional standards would remain the same for both districts, there would be incentives available to developers for creating village-type features. For example, developers who agree to install amenities such as sidewalks and shared open space per the open space subdivision guidelines could be granted a density bonus of one unit for every ten units built.

One of the goals of the plan is to encourage affordable housing. This goal is addressed by expressly permitting open space subdivisions and houseminiums in both the *General Residential-Growth* and *General Residential-Rural Districts*. An open space subdivision is one in which minimum lot sizes and road frontages are reduced in exchange for preserving open space. While preservation of open space is important, the increase in density of development made possible by lowered lot sizes and frontages will also reduce the cost of infrastructure and make housing more affordable.

The plan recommends that most of those areas presently zoned *General Residential* retain their current zoning with some modifications such as incentives for those who created village-type features. Developers that agree to install amenities such as sidewalks and shared open space per the open space subdivision guidelines would be granted a density bonus of one unit for every ten units built.

Houseminiums consist of detached single-family residences on a common lot. The density of such developments is calculated on the same basis as multi-family developments, thereby allowing more residences on a given development parcel compared to a standard subdivision and resulting in lower housing costs.

Except as discussed below, lots without public or shared water and sewer could not be less than the current minimum lot size of 40,000 square feet. However, the density bonus would allow a 10 percent reduction in lot sizes for single-family homes served by water and sewer. This would mean a minimum lot size of 9,000 square feet. For homes served by either water or sewer, the minimum lot size would be 18,000 square feet subject to clear evidence that water supply and wastewater disposal arrangements are adequate. Major recommended changes to dimensional standards are summarized in FLUP Table 1 at the end of this chapter.

Multi-family units would be an allowed use, as would the commercial uses currently allowed in the *General Residential District*. The current standards for multi-family units would remain. These include buffering requirements that minimize visual impact.

Special Residential District

The Special Residential District includes most of the community's residentially-zoned coastal waterfront. With the exception of inns, motels, expansions to existing marinas and governmental buildings, the Special Residential District is limited to single-family residences. Because it represents some of Boothbay Harbor's most attractive residential areas, it is now almost completely developed with little potential for many additional homes or residential lots. During the period 2002-2007, 11 residences were constructed in the Special Residential District but some of these represented replacements of existing homes. Given these conditions, no changes are proposed to the boundaries, uses or dimensional standards in the Special Residential District.

Business Park District

Another district for consideration by the Planning Board would be the *Business Park District*. The proposed district would be designed to attract light manufacturing and research-related businesses. It is proposed as a "floating" district as further described below. Other uses would be allowed only if they are accessory to the primary intended uses. These provisions are necessary to assure that the park is developed for its intended use. Operations allowed in the park would be subject to performance and buffering standards to assure that they have no adverse impacts on surrounding properties. The standards would be stricter if there were adjacent residential uses.

The Future Land Use Map does not show the location of this district since it is a "floating" district. This means that when a proposed use that meets the criteria of the land use code for this zone is submitted, designation of the zone location requires a separate town meeting vote, and the Comprehensive Plan and Future Land Use Map will also need to be amended. The minimum lot size would be 2.5 acres for a previously developed non-residential property. This would facilitate reuse of a vacant property. For an undeveloped property, a 5-acre minimum would be required. This allows for greater buffering in less developed areas.

WATERFRONT AREAS

Development in these areas requires review standards that protect sensitive environmental features and water quality. These are distinct from rural areas since there is a high demand for waterfront and water view property. These areas can expect to experience continued development or conversion of existing land uses to more intense uses.

Low-impact development (L.I.D.) standards are particularly important here. In general, development should be designed so most storm water runoff is captured on-site and that water resources are not threatened by any runoff that leaves the property. Examples of L.I.D. practices include, but are not limited to, rain gardens, permeable paving, and roof drainage measures such as rain barrels that reduce the volume of water that reaches the ground.

The plan also recommends that actions be taken to make the waterfront, harbor, and other coastal shoreland areas more resilient to the impacts associated with sea level rise and increasing storm surges. Examples include increasing the minimum first floor elevation of buildings in areas identified as susceptible and requiring that plans for new, expanded or replacement structures demonstrate how they will assure adequate resiliency.

The Waterfront and Harbor

Boothbay Harbor retains its working waterfront in 2024. The plan recommends that the current *Maritime-Water Dependent District* continue. Given the importance of the working waterfront to the town's economy, however, the standards for land uses that do not require waterfront access should be reviewed.

Continued capital investment in harbor facilities is important but, while the working waterfront is primarily focused on meeting the needs of maritime businesses, the waterfront itself is a significant attraction for both residents and visitors. The plan recommends that provisions be added to the land use ordinance to preserve physical and visual access to the harbor. Such provisions may include establishing a maximum height in the Maritime-Water Dependent District and maintaining sightlines from existing public streets and parks.

The zoning measures are supplemented by the other waterfront protection and development recommendations included in the Goals and Objectives. These include, but are not limited to creation of a *Marine Enterprise Zone*. This proposed zone will be in the harbor waters and may be beyond the scope of municipal land use controls. The purpose of this zone would be to encourage new and expanded aquaculture businesses by creating an as-yet undefined off-shore area where federal, state and local aquaculture-related permitting could be pre-approved. New or expanded businesses would only need to satisfy permit conditions in order to begin operations.

Other Coastal Areas

These environmentally fragile areas retain their current character. If the town continues to attract retirees, more seasonally occupied homes in the shoreland are likely to be converted to year-round use. Older, small homes may be torn down and replaced with larger dwellings with more impervious area. While state shoreland zoning standards offer basic protection of these areas, the town enacts stricter review guidelines that would establish low-impact development standards for all development and redevelopment within the Shoreland zone in areas beyond the 250 feet that are subject to shoreland zoning. See also the provisions for increasing the resiliency of structures to sea level rise and increasing storm surges discussed above.

Lake Watersheds

Due to the vulnerability of the town's freshwater lakes to phosphorus loading and other sources of non-point pollution, development in these watersheds continues to be monitored carefully. As mentioned in the Goals and Objectives, the phosphorus loading standards need to be reviewed for adequacy and, if necessary, updated. Any increase in impervious surface (beyond minor alterations not subject to shoreland zoning permits) would require town review to assure that there is no threat to lake water quality.

RURAL AREAS

These are the parts of town with more undeveloped land. They are further from the town center and commercial services. Residents generally depend on private vehicles rather than walking for most activities.

Rural Residential Areas

This plan identifies rural residential areas for evaluation and inclusion in a proposed new *Rural Residential District*. These areas of Boothbay Harbor include high-value wildlife habitat, important wetlands, significant wildlife habitats, steep slopes and the remaining large parcels of undeveloped land. They also include areas characterized by hydric and shallow-to-bedrock soils. This latter condition is especially significant when considering the future cost of extending utilities to these areas should they be developed as growth areas. These resources and site conditions are illustrated in FLUP Figures 5, 6 and 7 and were important in varying degrees in developing the proposed boundaries of the *Rural Residential District* as presented in FLUP Figure 8. (Note that other resources that are also used to define rural areas, such as Atlantic Salmon, Brook Trout, Roseate Tern, Shorebird, and Piping Plover Habitats, rare plants, rare natural communities and others are not present.) The primary developed use in the *Rural Residential District* is single-family homes. Other allowed uses would be those related to natural resource-based businesses and services, nature tourism/outdoor recreation businesses, farmers' markets and farm stands, and home occupations.

The recommended minimum lot size for individual lots in the *Rural Residential District* would be 80,000 square feet (any existing lot less than 80,000 square feet would be grandfathered). While it is also recommended that any subdivision proposed in the *Rural Residential District* be developed as an open space subdivision, the planning board could reduce the minimum lot size to as little as 20,000 square feet and waive the minimum frontage requirement as long as access to individual lots is assured, water supply and waste water disposal requirements meet state standards and an acceptable amount of open space is set aside.

Open space created through this process would be permanently preserved although it could be managed for its agricultural or timber value. The planning board review process would encourage areas with high natural resource and/or recreational value to be designated as open space. If recreational uses are proposed in an area with high-value natural resources, the applicant would be required to demonstrate measures to protect those resources from potential damage. The open space provisions would encourage but not require the protected land to be visible from the existing public way. This helps maintain the rural appearance of the area.

Land not normally considered suitable for development would not be counted toward the square-foot minimum. For example, wetlands and steep slopes would not be considered part of the minimum lot size in an open space subdivision. This avoids developers using the open space provisions to build on marginal land that would not normally be considered suitable for development. Houseminiums would also be permitted but the maximum number of units would not exceed those possible under the open space development provisions.

Summary of Measures to Distinguish Between Growth & Rural Areas

The State Comprehensive Plan Review Criteria Rule states that the "designation of rural areas is intended to identify areas deserving of some level of regulatory protection from unrestricted development for purposes that may include, but are not limited to, supporting agriculture, forestry, mining, open space, wildlife habitat, fisheries habitat and scenic lands, and away from which most development projected over ten (10) years is diverted." The

Rule further states that "The Future Land Use Plan must identify proposed mechanisms, both regulatory and non-regulatory, to ensure that the level and type of development in rural areas is compatible with the defined rural character and does not encourage strip development along roads" and "rural areas (should) not include land areas where the community actively encourages new residential, institutional, or commercial development. Finally, it requires that at least 75 percent of dollars for new municipal growth-related capital investments during the 10-year comprehensive planning period be made in designated growth areas (see Public Facilities and Services Strategies in Chapter 11).

The plan recommends a combination of regulatory and other techniques to encourage development in the growth areas, manage development in environmentally sensitive areas, and keep rural areas relatively rural. The recommended changes to the land use code preserve long-established residential streets near the downtown and designate new areas for residential growth. Wise use of existing commercial areas is promoted by encouraging back lot development. The plan also requires that at least 75 percent of dollars for new municipal growth-related capital improvements during the 10-year comprehensive planning period be made in designated growth districts such as Downtown Business, General Business, Business Park, Maritime/Waterfront, General Residential Growth and Special Residential Districts.

The land use code imposes more restrictions on development in rural areas. These include a larger minimum lot size and mandatory open space subdivisions. There are also new standards to protect water quality.

Public investment in sidewalks and other pedestrian amenities helps make the growth areas more attractive. The establishment of the research business park will also require public investment. The town policy to keep as many of the municipal government functions in the downtown draws people to that area. The upgrades to the public water and sewer systems will make higher density development more attractive for some uses. It is normally less costly to connect to a public system than invest in an on-site supply or disposal facility.

Evaluation Method

The goal is to attract 75 percent of new development or applications for expansions and replacement of existing uses to the growth areas. The code enforcement officer will note the number of residential dwelling units occurring in growth, environmentally fragile, and rural areas over a five-year period. This will include creation of additional units in existing buildings such as accessory apartments or conversion of a single-family home to a duplex. The total square footage of non-residential development will also be noted. If these indicators show that less than 75 percent of development is occurring in the growth area, these policies will be reviewed to determine what additional measures are needed.

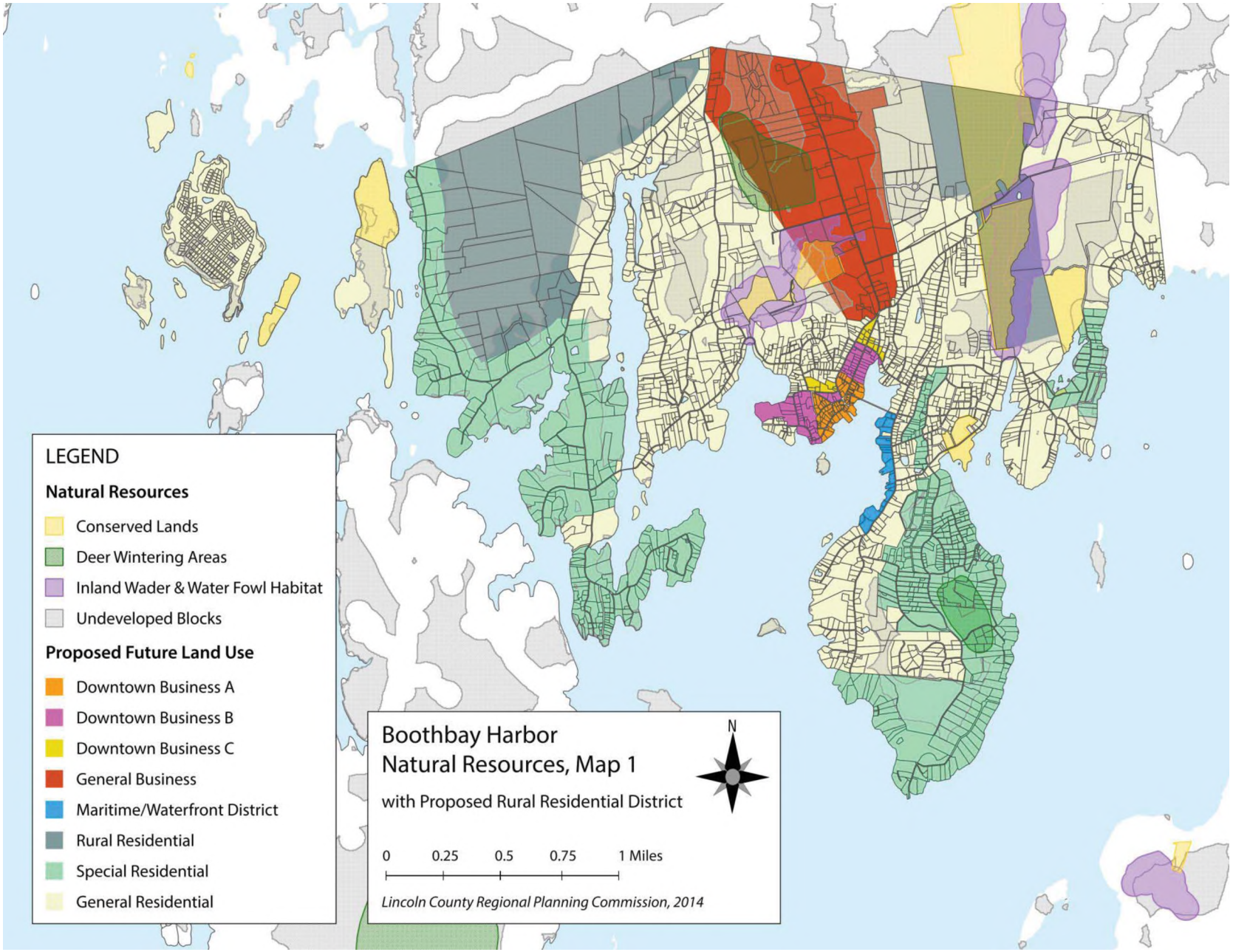
Summary of Proposed Lot Dimensional Changes

No dimensional changes are proposed for the Resource Protection, Special Residential, Downtown Business, and Maritime/Water Dependent Districts. The current standards set different dimensional requirements for General Residential lots depending on the presence or absence of town water and sewer, and the plan proposes that these requirements be extended to include any state-approved public water supply or wastewater disposal system, including communal systems built by a developer.

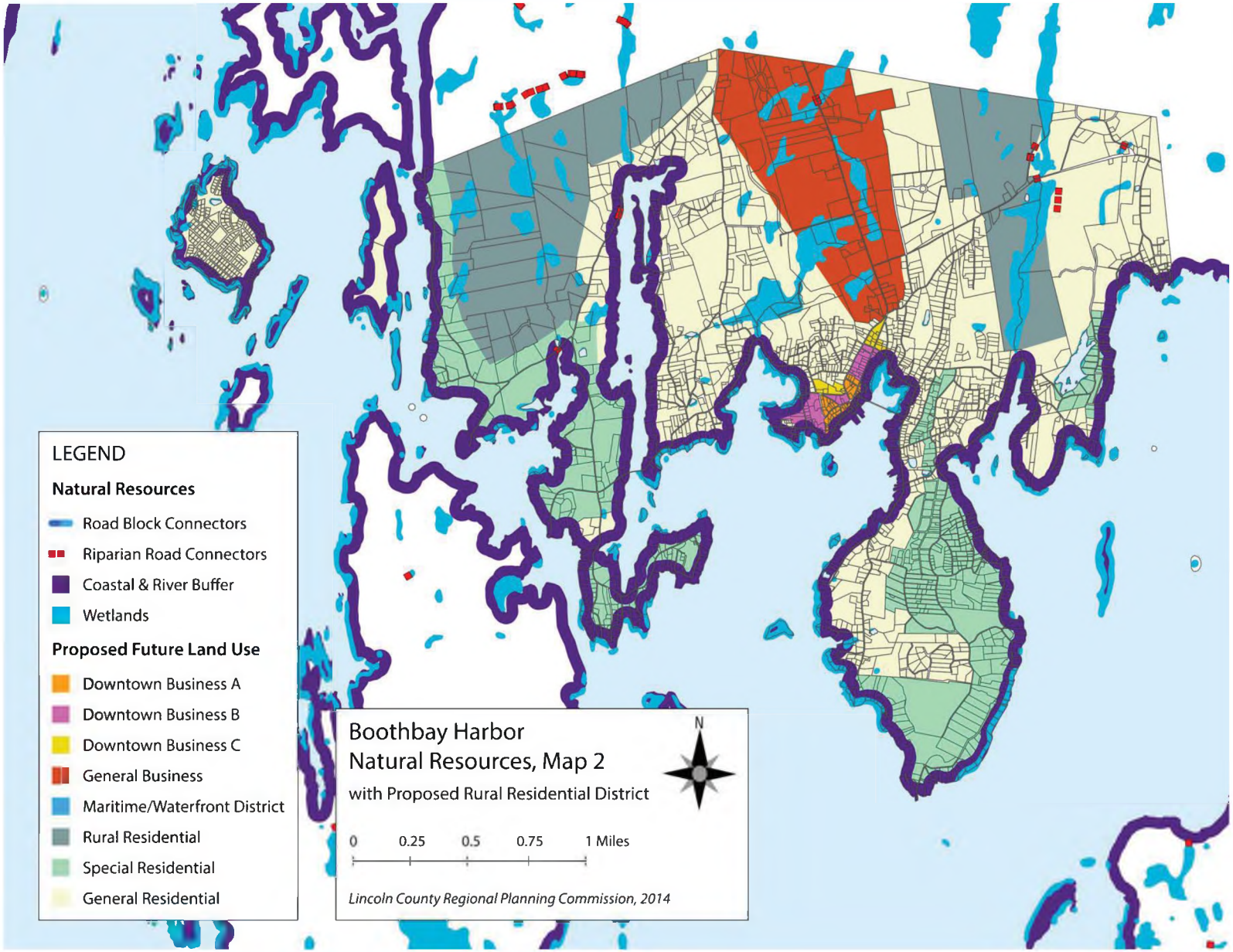
FLUP Table 1 Minimum Lot Size or Dwelling Unit

	PUBLIC WATER OR SEWER	NO PUBLIC WATER OR SEWER	PUBLIC WATER & SEWER
General Residential - Growth & General Residential - Rural	10,000 sf; 9,000 sf if part of open space subdivision	20,000 sf; 18,000 sf if part of open space subdivision	MF 20,000 sf; all others 40,000 sf
Proposed For Rural Residential	20,000 sf if part of open space subdivision; 80,000 sf otherwise	20,000 sf if part of open space subdivision; 80,000 sf otherwise	20,000 sf if part of open space subdivision; 80,000 sf otherwise

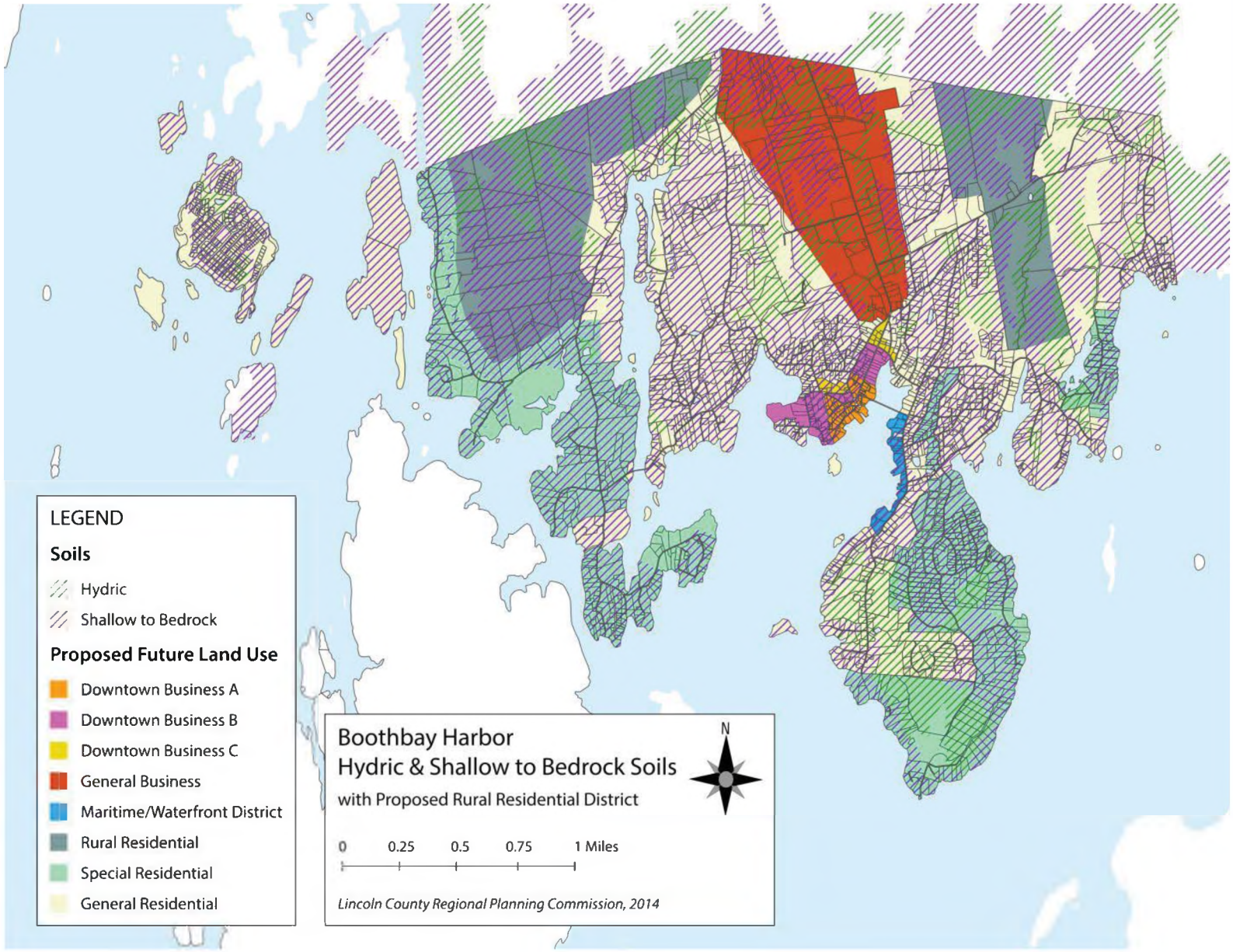
FLUP Figure 5 Boothbay Harbor Proposed Future Land Use & Natural Resources, Map 1



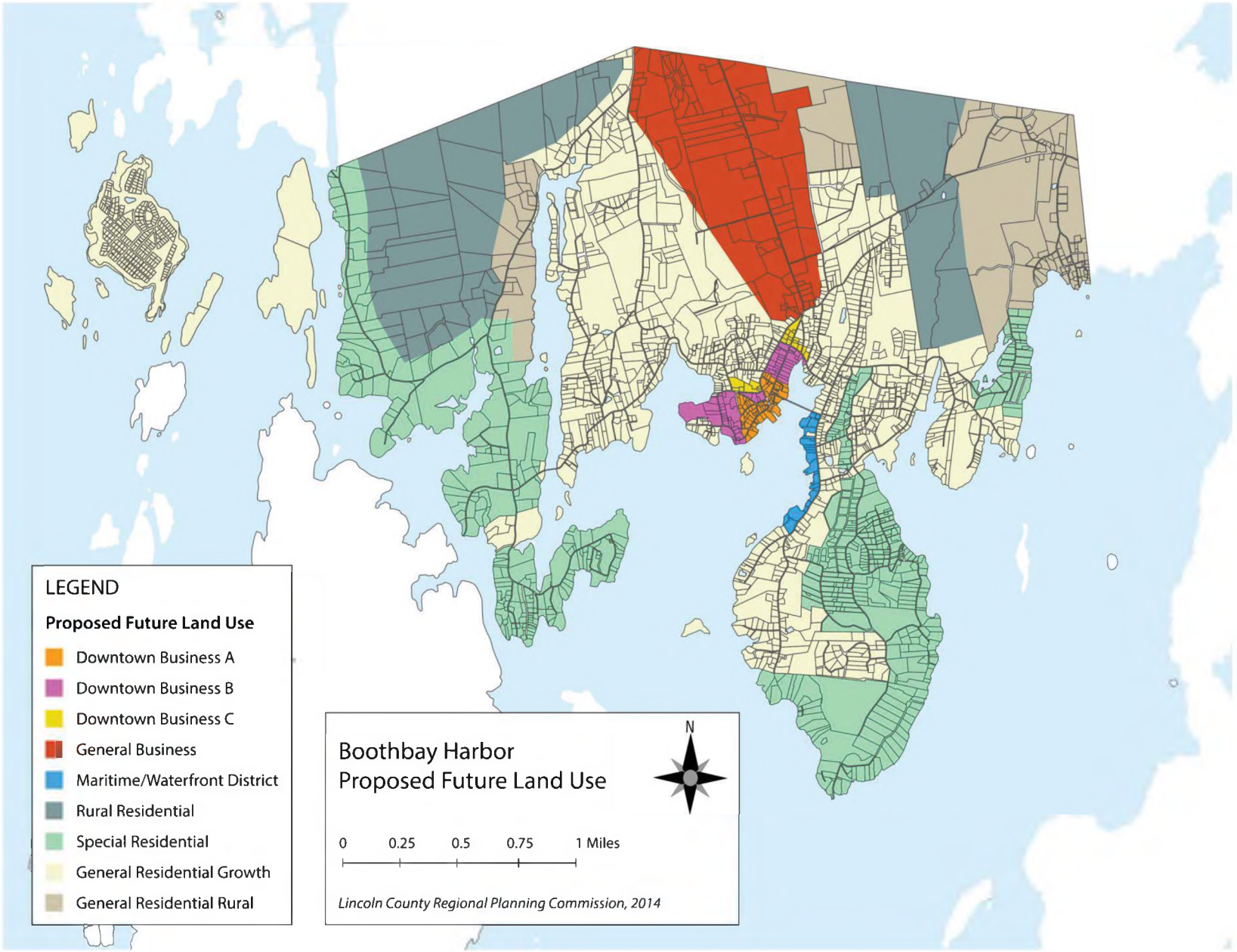
FLUP Figure 6 Boothbay Harbor Proposed Future Land Use & Natural Resources, Map 2



FLUP Figure 7 Boothbay Harbor Hydric & Shallow to Bedrock Soils



FLUP Figure 8 Boothbay Harbor Proposed Future Land Use Map



Goals, Policies & Strategies

State Goal

To encourage orderly growth and development in appropriate areas of each community, while protecting the state's rural character, making efficient use of public services, and preventing development sprawl.

Policies

1. To coordinate the community's land use strategies with other local and regional land use planning efforts.
2. To support the locations, types, scales, and intensities of land uses the community desires as stated in its vision.
3. To support the level of financial commitment necessary to provide needed infrastructure in growth areas.
4. To establish efficient permitting procedures, especially in growth areas.
5. To protect critical rural and waterfront areas from the impacts of development.

Strategies

The plan recommends the following measures to implement the Future Land Use Plan (as described in the preceding Future Land Use Plan Chapter):

1. MAKE THE FOLLOWING REVISIONS TO THE LAND USE CODE:

A. Amend the Downtown Business District Standards:

i. To prohibit new primary residential uses on the ground floor of commercial streets. Accessory residential uses such as the private living quarters of bed and breakfasts and of other lodging establishments would be allowed;

ii. Restrict new ground floor uses on commercial streets to those dependent on easy pedestrian access (such as, but not limited to, retail operations and food serving establishments); and

iii. Allow residential and professional office operations on the upper floors of commercial streets.

B. Revise General Business District Standards. The following changes are recommended:

i. Amend roadside landscaping, buffering, and architectural harmony guidelines in order to improve the appearance of the area;

ii. Enact measures to encourage the development of back lots including requiring site plan review applicants to designate rights of way that connect their properties to adjoining parcels. If all adjoining land faces severe development constraints, access provision requirements to adjoining parcels would be waived;

iii. Give the planning board the authority to require applicants to create curb cuts on secondary roads that connect with Route 27 rather than on the highway itself;

iv. Offer incentives such as reduced frontage or parking requirements for applicants who locate on secondary roads;

v. Give the planning board the authority to require stricter buffering and vegetative planting standards for uses normally located on the back of a property such as dumpsters, fuel storage tanks, and old equipment. Overall, the site plan review standards would assure that future development will be protected from negative impacts of uses on existing, developed properties;

vi. Give the planning board the authority to require applicants to designate areas for bus stops and bicycle racks.

C. Revise General Residential District Standards. The plan recommends the following changes:

i. Divide the General Residential District into the General Residential-Growth and General Residential-Rural Districts based on the existing or likely future presence of public water and sewer services; maintain existing permitted uses and dimensional requirements;

ii. Developers that agree to install amenities such as sidewalks and common open space per the open space subdivision guidelines would be granted a density bonus of one unit for every ten units built (see FLUP Table 1 in the Future Land Use Plan Chapter for details on densities);

iii. All increases in densities would require clear evidence that water supply and wastewater disposal arrangements are adequate.

D. Evaluate Creation of a Business Park District.

This is a "floating zone" that would not be assigned a location until voted upon at town meeting. It would be an area designed to attract light manufacturing and research businesses. Other uses would be allowed only if they are accessory to the primary intended uses. It would meet the following criteria:

i. All operations allowed in the park would be subject to performance and buffering standards to assure that they have no adverse impacts on surrounding properties. The standards would be stricter if there were adjacent residential uses;

The minimum lot size would be 2.5 acres for a previously developed non-residential property. This would facilitate reuse of a vacant property. For an undeveloped property, a 5-acre minimum would be required.

E. Amend the Maritime-Water Dependent District. The plan recommends the following revisions to this district:

Review changes in land uses in the Maritime-Water Dependent District and consider revisions that would increase the protection of water-dependent uses.

F. Other Shoreland Districts and Lake Watersheds.

The plan recommends no changes to these zone standards beyond stricter low impact development provisions and related measures that address storm water runoff and phosphorus loading specified elsewhere in the plan (see Water Resources Goals).

G. Create the Rural Residential District.

The primary developed uses are single-family homes and those related to natural resource-based businesses and services, nature tourism/outdoor recreation businesses, farmers' markets and farm stands, and home occupations. The following provisions are recommended:

i. The minimum lot size would be 80,000 square feet;

ii. Open space subdivisions would be mandatory with the individual minimum lot size as small as 20,000 square feet if water supply and waste water disposal arrangements meet state standards;

iii. Land not normally considered suitable for development (wetlands and steep slopes) would not be counted toward the 80,000 square-foot minimum in an open space subdivision.

Implementation Strategy

The Planning Board or its designee drafts new standards as part of its revisions to the land use code.

Responsibility

Planning Board, Select Board, & Town Meetings

Time Frame

2016-2017

2. THE PLANNING BOARD WILL EVALUATE WHETHER A VILLAGE RESIDENTIAL DISTRICT SHOULD BE CREATED ADJACENT TO THE DOWNTOWN.

This district would consist of older, established residential streets that are served by public water and sewer and are within walking distance of the downtown. It could contain the following standards:

- The primary allowed use would be single-family homes and accessory apartments;
- There would be strict buffering requirements for any new use other than single-family homes;
- Commercial uses would be limited to neighborhood type stores, bed and breakfasts, and home-based occupations that are clearly accessory to the residential use and primarily sell products made on premises (such as home-made chocolates or woven goods); and
- Multi-family dwellings of up to 4 units would be allowed.

Implementation Strategy

The Planning Board evaluates the potential positive and negative impacts of a new Village Residential District, including permitted uses and dimensional requirements and, if deemed to beneficial to the community and residents within the district, drafts suitable amendments to the land use code.

Responsibility

Planning Board, Select Board, Town Meeting

Time Frame

2016-2017

3. THE IMPLEMENTATION OF THE FUTURE LAND USE PLAN IS ALSO ACCOMPLISHED THROUGH THE FOLLOWING GOALS ADDRESSED ELSEWHERE IN THE PLAN:

Water Quality (See State Goal 1) Recommended improvements to the public water and sewer systems facilitate higher density development.

The Economy (See State Goal 7) The plan recommends extension of public utilities to a proposed research business park, should suitable land be found.

Recreation (See State Goal 9) The plan recommends measures to preserve open space in rural areas and promote in-town walking options in growth areas.

Transportation (See State Goal 10) Specific steps include investments in sidewalks, public transit, and pedestrian facilities in the growth areas.

Public Services and Facilities (See State Goal 11) Town policy will be to keep as many of the town office functions as possible in the downtown. This section also endorses a multi-year sidewalk improvement program. See also Introduction to Strategies: In order to ensure that municipal investments in infrastructure are made efficiently and do not result in unforeseen future demand for services in rural, non-growth areas of the community, 75% of new municipal growth-related capital improvements during the 10-year comprehensive planning period shall be made in designated growth districts.

Introduction

The following 14 chapters contain detailed data and analyses of a wide range of topic areas. Included in each chapter are recommendations for policies and implementation strategies for the community. Many policy recommendations reflect concerns and opinions expressed by respondents in the 2013 community survey. The results of that survey are provided in Appendix B.

CHAPTER 1- HISTORIC RESOURCES

State Goal

To preserve the State's historic and archaeological resources.

Analyses

1. **Are historic patterns of settlement still evident in the community?**

   The traditional fishing and farming settlement has largely disappeared from the community as the fishing industry and resources have changed, and as the Town's tourism and related commercial sectors have grown and replaced shipbuilders and fish processors. Boothbay Harbor Shipyard on Commercial Street continues on a smaller scale the legacy of its predecessors, Townsend Marine Railway (founded in the 1869) and Frank Sample.

2. **What protective measures currently exist for historic and archaeological resources and are they effective?**

   Historical and archaeological resources are required to be identified and considered for any development requiring site plan approval under the Land Use Code (170: 69-70).

3. **Do local site plan/subdivision regulations require applicants proposing development in areas that may contain historic/archaeological resources to conduct a survey for such resources?**

   Site Plan Review requires the identification of archaeological resources within 250 feet of the project boundaries and an assessment of the impact of a development on archaeological resources. If any portion of the site has been identified as containing historic or archaeological resources, the development must include appropriate measures for protecting these resources, including but not limited to modification of the proposed design of the site, timing of construction and limiting the extent of excavation. All work shall be in accordance with the Secretary of Interior's Standards for the Treatment of Historic Properties.

   Subdivision Review requires the developer to submit evidence that the location of the development has been submitted to the Maine Historic Preservation Commission and a landscape plan that preserves any historic features. It does not require a survey for historic or archaeological resources but the Planning Board can require additional information if requested by the Maine Historic Preservation Commission (MHPC).

4. **Have significant historic resources fallen into disrepair, and are there ways the community can provide incentives to preserve their value as an historical resource?**

   Many older homes in the community have been purchased by recent year-round and seasonal residents. In many cases, some history is preserved (building footprint and possibly exterior detail), and much is lost as interiors are usually substantially renovated. An important preservation project initiated and accomplished by local residents was the restoration and re-opening of the Pythian Opera House in early 2000s.

Condition and Trends

The community's Comprehensive Planning Historic Preservation Data Set prepared and provided to the community by the Historic Preservation Commission, and the Office, or their designees.

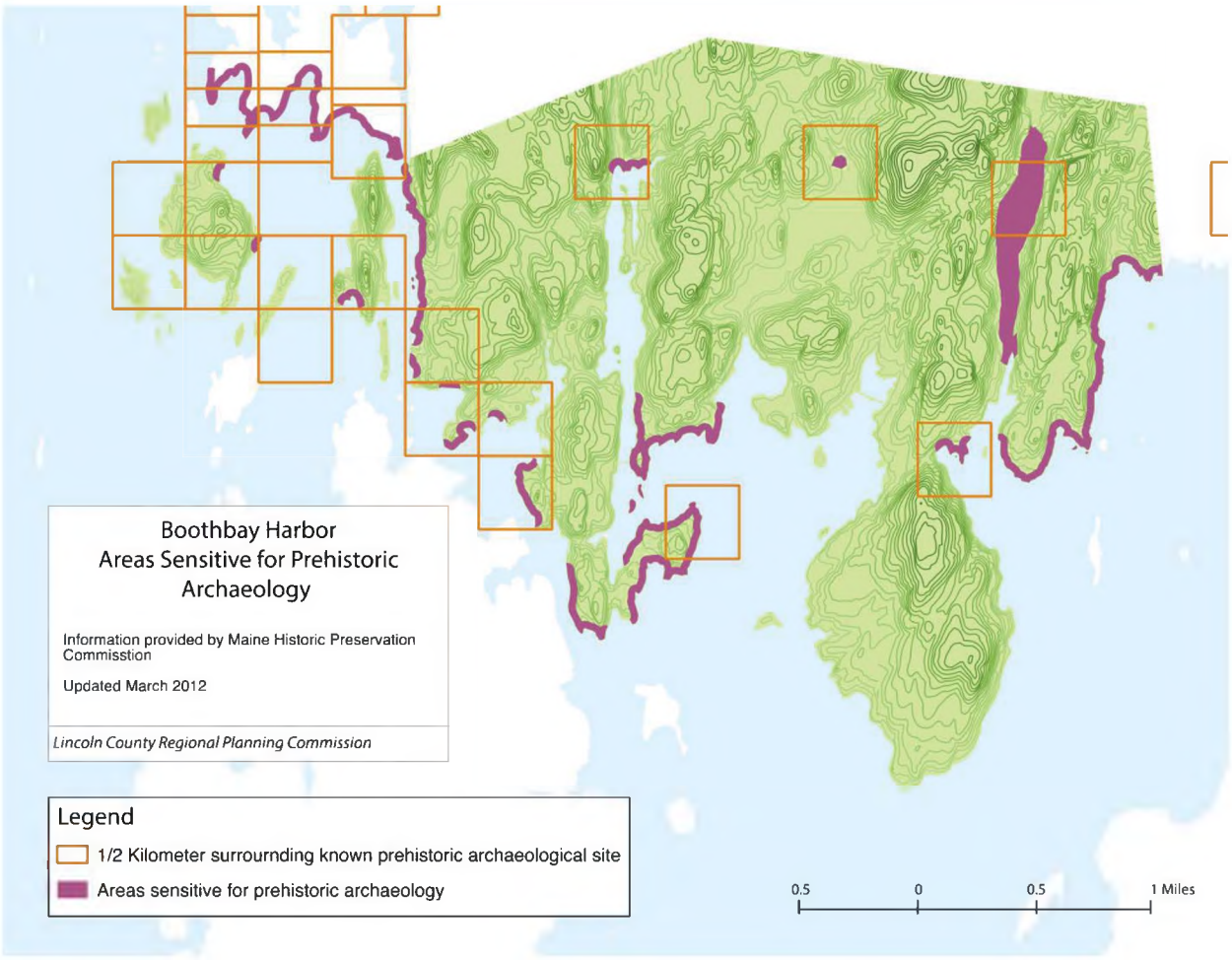
1. THE FOLLOWING STRUCTURES ARE ON THE NATIONAL REGISTER OF HISTORIC PLACES:

Auld-McCobb House, Oak Street
Boothbay Harbor Memorial Library
Pythian Opera House, 86 Townsend Avenue

Table 1.1 General Locations of Historic Archaeological Sites and Areas Sensitive for Historic Archaeology As Documented by the MHPC

SITE	TYPE	PERIODS OF SIGNIFICANCE
Curtis Settlement	Settlement	1666-1688, 1730-1775
Romana	Wreck, Schooner	1898
Augustus J. Fabens	Wreck, Schooner	March 15, 1891
Mcfarland's Point Fort	Military, Fort	1814
Edna M. Mcknight	Wreck, Schooner	Built 1918
Agnes And Elizabeth	Wreck, Dragger	20th Century?
Courtney C. Houck	Wreck, Schooner	1913 - 1945
Brig Remains	Wreck, Brig	The Boxes Checked Are Only A Guess -Af
Pennsylvania	Wreck, Schooner	February 1860
Pine Tree Shillings	Artifact Find, Coin	17th Century Coin
Agate	Wreck, Schooner	1900
Barbara W.	Wreck, Schooner	November, 1920?
Bessie A.	Wreck, Schooner	Wrecked On Long Ledge, Boothbay Harbor, May 1, 1908
Fancy Packet	Wreck, Unidentified	1834
Gypsey	Wreck, Schooner	1850
Mary Cook	Wreck, Unidentified	1842
Mary Weaver	Wreck, Schooner	Oct-18
Only Son	Wreck, Brig	1825
Sebena	Wreck, Schooner	January 2, 1899
Sharon	Wreck, Unidentified	1844
Telegraph	Wreck, Unidentified	1882
Witch Of The Wave	Wreck, Unidentified	1874

Figure 1.1 Areas Sensitive for Prehistoric Archaeology



The MHPC has indicated that, in Boothbay Harbor, 20 prehistoric sites are known, of which 8 are likely to be eligible for listing in the National Register of Historic Places. Site 16.65 (Hodgdon Cove) was listed in the National Register on June 29, 1984. One site is located on Meadow Brook and the rest are located in the shoreland zone (uneroded shoreline along tidewater). Professional archaeologists, mostly from the University of Maine, surveyed about 50% of Boothbay Harbor's shore-land in the 1980s.

Outline of Boothbay Harbor's History

Early History

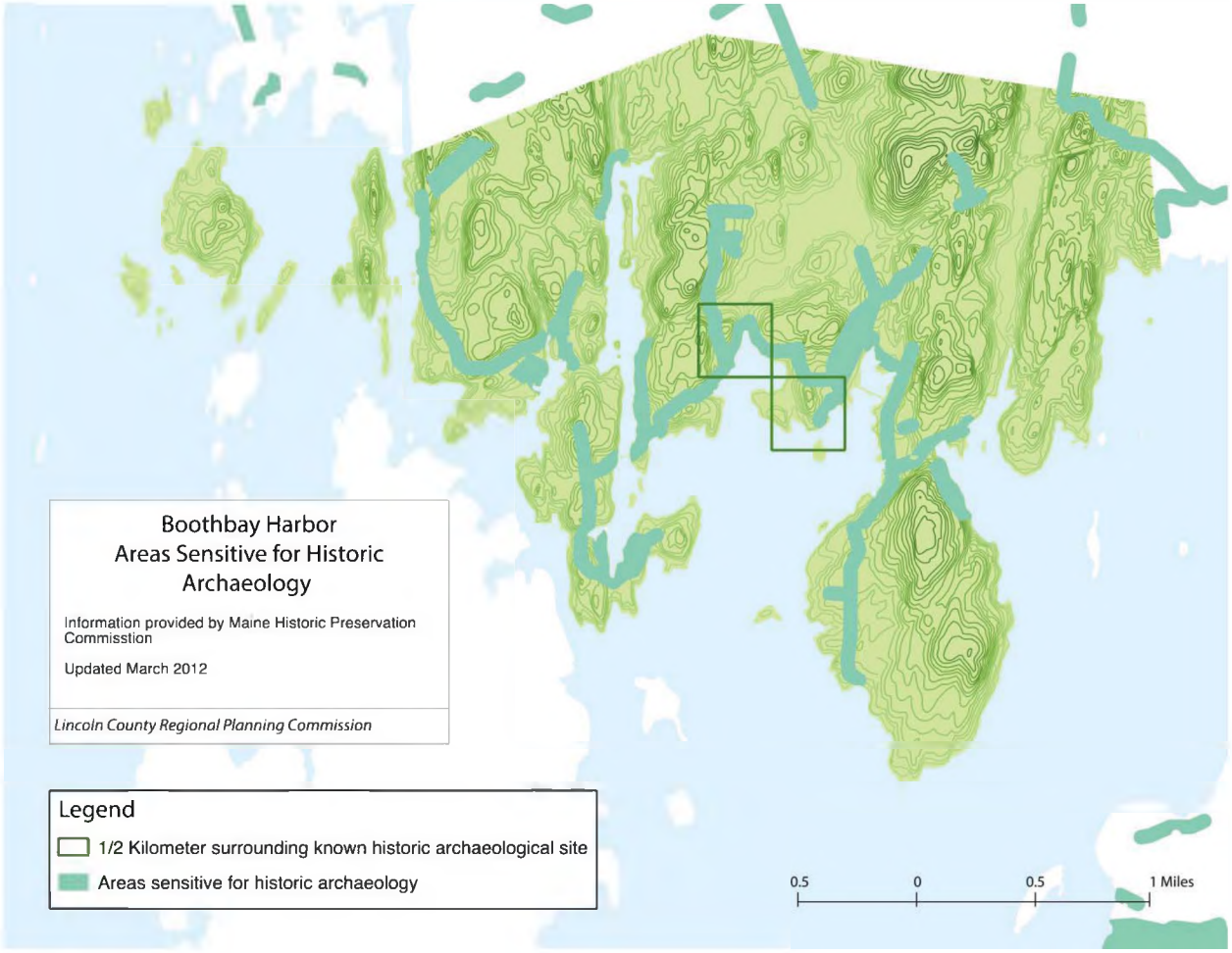
The earliest attempts at settling the Boothbay Harbor region were made by fishermen, but these settlements were ravaged by King Philip's War in 1675 and Indian forays in 1690. The area remained uninhabited until 1729. At that time, the entire Boothbay Harbor region became the settlement of Townsend, which included present day Boothbay Harbor, Boothbay and Southport. On January 31, 1764, the settlement petitioned the General Court of Massachusetts for incorporation. Governor Bernard signed

the act of incorporation on November 3, 1764, naming the area Boothbay. The first Town meeting was in 1765, and the first school was established in 1767. The Town of Southport split from Boothbay in 1842, followed by Boothbay Harbor in 1889 when a dispute arose over constructing a water system.

WARS

While the area that became Boothbay Harbor was affected by all of the major wars involving the United States, the Revolutionary War probably caused the most suffering. Families were directed to stockpile food and other resources in common, and to carefully guard depots. British men-of-war threatened the harbor. The ill-fated fleet that attacked the British at Castine rendezvoused in the harbor. Many local men lost their lives when the fleet was destroyed in the subsequent battle.

Figure 1.2 Boothbay Harbor Areas Sensitive for Historic Archaeology



The War of 1812 resulted in the construction of a number of breastworks (one at Hospital Point) and fortifications, but there were no invasions. During the Civil War, the Town voted increasingly large promised bounties to pay the volunteers that Boothbay was compelled to supply (though these were never paid). During World War I, a home guard was organized and held weekly drills. Boat building increased, a local machine shop built cartridge cases for the government, and 141 local men enlisted in the

war effort. Boothbay Harbor contributed its share of enlisted men during World War II, the Korean War and the Viet Nam Conflict. Several machine shops supplied the armed forces with parts, and local boatyards, including Irving Reed's and Frank Sample's, built minesweepers and other craft for the U.S. government during World War II and the Korean War.

LIFE AT THE TURN OF THE CENTURY

In the early 1900s, sailing vessels were still important in carrying trade, and dozens of schooners frequently crowded the harbor. Steamboats were in their heyday. Livery stables, blacksmith shops, and carriage makers were prominent. Streets and highways were unpaved, dusty in the summer, muddy in the spring, full of frozen ruts in the fall, and frequently impassable in the winter. Electricity and acetylene gas co-existed on Townsend Avenue, Commercial Street, and Atlantic Avenue, although most homes still used kerosene. Four ice houses sold their product abroad, and the new cold storage plant ran on ammonia. Telephone lines were spreading out slowly, "flicker" movies were shown in the opera house, pleasure boats operated on naphtha, and every rural neighborhood had its one teacher, nine-grade school. Summer visitors arrived by steamboat from nearby small cities, to be taken by launch, surrey or buckboard to cottages or hotels. The harbor boasted steamboat services, sardine and fish factories, and boatbuilding. The downtown included a wide variety of retail outlets, ranging from grocery and clothing stores, to chandleries.

MAJOR DEVELOPMENTS

Telephones In 1897, the Legislature created a telephone company to serve the region. That year, the first phone was put into operation, and by 1919, there were 352 subscribers. The New England Telephone and Telegraph Company purchased the local system in 1904.

Gas Works In 1890, an acetylene gas plant was constructed in a wooden building on Gilead Street. Mains ran under the principal street and provided gas for lighting and cooking. The system suffered from a number of serious maintenance problems, and is no longer in existence.

Street Lights In 1877, a village improvement society was formed to provide street lights. Each member agreed to put a kerosene lamp in front of his home. In 1892, the first municipal appropriation was made to install public kerosene lamps. In 1895, Luther Maddocks built a sardine factory with a steam plant to produce electricity, and in 1901, the Town voted to switch from kerosene to electric street lights.

Summer Season In the first two decades of the 20th century, many people came to Boothbay Harbor with steamer trunks to stay the summer in hotels and cottages. Hotels became an important part of the local economy. Many cottages were built during this era, and in 1895, the Boothbay Harbor Yacht Club was established. In 1922, Parker Nickerson built the first log cabin on Sprucewold, and by 1923, 10 cabins were available. By 1906, Bayville already contained 36 cottages. Appalachee was another "summer colony," and each formed their own association. The advent of the automobile, and the accompanying popularity of cottages and motels, resulted in the decline of the steamboat era, and Boothbay Harbor's early hotels and large summer estates.

Water Supply Disputes over funding a water system led to the creation of Boothbay Harbor and its separation from Boothbay in 1889. In 1894 the Harbor finally accepted a water system, Adams Pond was taken by eminent domain from Boothbay as a water supply, and water was piped to a couple of streets in the Harbor. Chlorination was added in 1923 and over the years, year-round and seasonal lines have been added in the Harbor and Boothbay to serve additional customers. A new water filtration and chlorination facility was constructed in 1994 to meet current federal and state water quality standards. Also, an auxiliary water line to Knickerbocker Pond was built in 1994 to ensure adequate water supplies during emergency conditions.

Sewer Systems In 1961, the Maine Legislature created the Boothbay Harbor Sewer District to provide sewerage collection and treatment facilities for the community. New collection lines were installed, a treatment plant was constructed on Sea Street in 1963, and the system became fully operational in 1964. A secondary facility was added to the treatment plant in 1994 and sewer lines were extended to Boothbay Center to serve the area near the southern end of Adams Pond.

Traffic The automobile came to Boothbay Harbor about 10 years after engines began appearing on local boats. By 1919, "no parking" signs began to be posted in the downtown. Highway 27 was taken over by the State and tarred in 1925, and in 1927, the Town made its first appropriation for tar. In 1924, the Town bought its first snowplow. One-way traffic was first introduced as a summertime measure in 1946. Additional one-way traffic was instituted shortly after the preparation of the Town's first Comprehensive Plan in 1961. Since that time, the automobile has continued to dominate the community.

Fires A number of fires had a significant impact on the Town. In 1886, a major fire wiped out a number of businesses and threatened the entire village. This fire focused attention on the need for a water system, which was subsequently formed. In 1924, the Kenniston Block was destroyed by fire. In 1945, a major fire destroyed a portion of the west side waterfront. In 1947, the Town voted to purchase the land, remove the old building, and build a bulkhead, install fill, and construct a float and runway.

SHIPYARDS

A number of shipyards served the region in the twentieth century, constructing and servicing yachts, fishing boats, schooners and other merchant ships, and naval vessels. A partial listing of some of the larger boatyards includes: Norman Hodgdon, Rittall's Boatyard, Blake's Boatyard, The Railway and Atlantic Construction Company, the Frank Sample Shipyard, and Reed's Shipyard (now Jon Marsh's Lobster Dock). While yacht-building proved to be lucrative for many yards in the early part of the last century, the lack of demand during the Depression and World War II caused it to go into serious decline in the 1930s and 1940s. However, the Irving Reed and Frank Sample shipyards provided significant contributions to the World War II shipbuilding effort and continued to be an important part of the local economy. Establishments still in existence include the Boothbay Harbor Shipyard and Blake's Boatyard.

FISHING

At the turn of the century, cod and other ground fish supported four packing plants. However, the cooking of menhaden, or pogies, for oil and fertilizer was coming to an end, and business ceased at the fertilizer plant on Spruce Point in 1906. Lobstering was an important and growing business, employing many people at least part-time. By 1916, the Poole Cold Storage plant was one of just six operating on the Maine coast. Competition from Canadian fish was an issue in the early 1900s, and as early as 1912, coastal

fishermen were expressing concern about "the ravages of the beam trawlers." In 1904, a new fish hatchery was built on McKown Point, and in 1948, the facility was converted to a biological research lab serving New England's commercial fishing industry. The facility changed from federal to state ownership, and portions were leased to the Bigelow Laboratory until its relocation to East Boothbay. The Boothbay Cold Storage Company was established on the west side of the harbor in 1893, and experienced many financial ups and downs right through the 1920s. In 1919, a new cold storage facility was started on the east side on the site of the former Pickert Sardine Factory. However, it was not completed until 1925. It changed hands many times. In 1931, its ownership was merged with the west side facility and renamed the Boothbay Harbor Fish and Cold Storage Company.

Other Highlights

2. OTHER HISTORICAL HIGHLIGHTS INCLUDE THE FOLLOWING:

1869 - Establishment of telegraph service in the Town
1876 - Donation of land by Captain Allen Lewis on Mt. Pisgah to be used as a park, later known as Lewis Park
1880 - Boothbay Library Association founded
1887 - Establishment of Isle of Springs
1894 - Construction of the Opera House, a portion of which was used as the Town Office until 1931. It served as the Town Hall until the 1970s when the consolidated school was built.
1901 - Establishment of a footbridge
1911 - Establishment of Bayville Village Corporation
1908 - Establishment of St. Andrew's Hospital on land acquired by Dr. George Gregory
1916 - Home delivery of mail established
1923 - Renovation of the former Chapman Reed house into the present Memorial Library
1931 - Purchase of Nickerson House to be used as Town Office
1954 - Establishment of municipal parking lot to the north of the footbridge
1957 - Construction of new High School
1959 - Purchase of land for parking lot adjacent to fire station
1963 - Construction of sewage treatment plant
1967 - Establishment of YMCA
1967 - Fish hatchery fire
1969 - Expansion of St. Andrews Hospital
1975 - Barrett Park leased from the State
1978 - Construction of new grammar school
1982 - Destruction of Strand Theater by fire
1986 - Construction of new municipal building
1987 - Purchase of Fish Pier
1992 - New Dept. of Marine Resources facility built on mckown Point
1994 - Construction of new water filtration facility and auxiliary water line to Knickerbocker Pond
1994 - Secondary sewerage treatment process added to sewer treatment facility
1994 - Sewer lines extended to Boothbay Center
1994 - Frizzell lot purchased for public parking
2003 - Re-opening of Opera House, after preservation by local citizens

There is no comprehensive inventory of historical or archaeological resources. The Boothbay Region Historical Society's archives contain a wealth of historical material (for example, documents, photographs, and maps) that can be helpful in researching locally-important historical and archaeological resources.

Threats to Local Historic Resources

Most of the National Register properties have been preserved through private and community efforts, including the Auld-McCobb house, known as The Brick House, and the Opera House. The Library remains the center of the village and has recently undergone renovation and expansion. Other local historic resources, currently unidentified or un-mapped, may be threatened by the general activities of land use change, as residential, commercial or industrial trends continue.

State Goal

To preserve the State's historic and archaeological resources.

Policies

Protect to the greatest extent practicable the significant historic and archaeological resources in the community.

Strategies

1. Protect Known Historic Archeological Sites

For known historic archeological sites and areas with sensitive prehistoric archeology, through local land use ordinances require subdivision or non-residential developers to take appropriate measures to protect those resources, including but not limited to, modification of the proposed site design, construction timing, and/or extent of excavation.

Implementation Strategy

Review local ordinances for provisions to require developers to protect prehistoric archeological resources in project design and implementation.

Responsibility

Planning Board, Select Board, Town Meeting

Time Frame

2015-2016

2. Solicit Input from the Maine Historic Preservation Commission

Adopt or amend land use ordinances to require the Planning Board (or other designated review authority) to incorporate maps and information provided by the Maine Historic Preservation Commission into their review process.

Implementation Strategy

Amend local ordinances to require input from the Maine Historic Preservation Commission to be included in the review process.

Responsibility

Planning Board, Select Board, Town Meeting

Time Frame

2015-2016

3. Consider a Comprehensive Community Survey of Historic and Archeological Resources

Work with the Boothbay Region Historical Society and/or the Maine Historic Preservation Commission to assess the need and, if necessary, plan for a comprehensive community survey of the community's historic and archeological resources.

Implementation Strategy

Appoint an Historic Resources Committee including representatives of the Boothbay Region Historical Society to evaluate the need for a comprehensive survey of historic and archeological and, if necessary, plan for such a survey.

Responsibility

Select Board, Town Manager

Time Frame

2015-2016

4. Consider Protecting Important Aspects of Boothbay Harbor's Historic Character and Existing Significant Views to the Harbor from Streets and Public Spaces

Work with the Boothbay Region Historical Society and the Planning Board to develop a plan to identify important aspects of the community's character and create an inventory of significant views to the harbor.

Implementation Strategy

The Historic Resources Committee will develop an inventory of significant views of the harbor, identify aspects of the community's historic character, and suggest mechanisms for protecting them.

Responsibility

Select Board, Town Manager

Time Frame

2015-2016

CHAPTER 2 - WATER RESOURCES

INTRODUCTION

The primary focus of this chapter is fresh water resources. Marine water quality is addressed in the Marine Resources Chapter. Both municipal water supply and waste water disposal are addressed in the Public Services and Facilities Chapter.

Freshwater is vital not only as a source for local drinking water, but also as an essential and pervasive element of a healthy natural environment. Protection of freshwater resources are important in maintaining quality of life for town residents, supporting tourism, and sustaining wildlife, vegetation, aquatic organisms, and natural productivity in near-shore marine waters.

State Goal

To protect the quality and manage the quantity of the State's water resources, including lakes, aquifers, great ponds, estuaries, rivers, and coastal areas.

Analyses

1. **Are there point sources (direct discharges) of pollution in the community? If so, is the community taking steps to eliminate them?**

   According to the 1996 plan, there were 111 overboard discharges (OBD's) in Boothbay Harbor. Since 1996, the Maine Department of Environmental Protection has worked to reduce the number of OBD's along the entire coast. As of 2012, there were 57 OBDs remaining in Boothbay Harbor. It should be noted that there are also 123 OBD's in the adjoining town of Boothbay and 149 in Southport. The combined total for the three towns is 329. Many of these discharge into waters shared with Boothbay Harbor.

   Although not a source of pollution, it is significant to note that the municipal sewage system discharges treated wastewater just offshore from the Boothbay Region Shipyard near Sea Street. The status of the sewage collection and treatment system is discussed in the Public Services and Facilities Chapter. There is further discussion of marine water quality in the Marine Resources Chapter. See Figure 5.1 in the Marine Resources section.

2. **Are there non-point sources of pollution? If so, is the community taking steps to eliminate them?**

   As discussed in the Land Use Chapter, about 340 acres (9.6 percent of the land area) consists of impervious surface. This means there is the potential for non-point pollution to occur from storm water runoff from streets, parking lots, and buildings. The town has detailed provisions in its municipal land use code regarding erosion and sedimentation and storm water management. These standards refer to state storm water laws. They promote retention of storm water on the property to minimize runoff off-site. As mentioned in the Land Use Chapter, the town's storm water design standards may have to be adjusted to reflect the recent trend toward more intense storm events that result in higher levels of runoff.

3. How are groundwater and surface water supplies and their recharge areas protected?

The town land use code has detailed review standards for aquifers and their recharge areas. These include requirements for a hydrologic assessment for developments that may affect water quality of a mapped aquifer. There are also standards to assure that a development does not affect the water supply of an adjoining property.

According to Maine Geological Survey, there are no significant aquifers in town. A "significant aquifer" is defined as one "capable of yielding 10 gallons or more of ground water per minute to a properly installed well." The nearest aquifer lies just north of the Boothbay Harbor town line in Boothbay. There are very limited data on the condition of private drinking water wells.

There are measures to protect lake watersheds from phosphorus loading. The land use code requires that a development within the watershed of a great pond have a phosphorus control plan in accordance with the 1992 DEP guidelines. This reference could be updated to reflect more current DEP standards.

Public works crews and contractors should be required to use best management practices to protect water resources in their daily operations (e.g. salt/sand pile maintenance, culvert replacement, street sweeping, and public works garage operations).

* ***Public works are discussed in the Public Services and Facilities Chapter.***

4. Are there opportunities to partner with local or regional advocacy groups that promote water resource protection?

Boothbay Harbor has water rights to Adams Pond and Knickerbocker Lake in the adjoining town of Boothbay. The towns of Edgecomb, Southport, Boothbay and Boothbay Harbor are all members of the Boothbay Region Water District. Adams Pond is the primary drinking water source for the district. The water district is discussed in the Public Services and Facilities Chapter.

There is also a history of cooperative ventures in the Damariscotta Estuary. The Damariscotta River Association established the Tidewater Watch Program in 1988 and, using a volunteer group of River Stewards, collects samples for water quality monitoring along the River.

Conditions and Trends

1. GREAT PONDS

West Harbor Pond is the only great pond in Boothbay Harbor. It is 86 acres in size, including some adjoining wetlands. The entire watershed is 522 acres. According to the Maine Department of Inland Fisheries and Wildlife, spawning runs of alewives, eels, smelt and shad enter the pond annually and contribute significantly as critical seasonal food sources for game fish and birds.

A small fishway was installed at the outlet of West Harbor Pond by the Department of Marine Resources to facilitate entry of anadromous species to the Pond, and access upstream to Knickerbocker Lake and upland tributaries. This fishway needs to be cleared of obstructing brush intermittently and maintained in sound operable condition to provide clear entry of spawning animals in the Spring and return of progeny to saltwater in the Fall.

The pond is on DEP's list of lakes most at risk from development. The Maine DEP and the Volunteer Lake Monitoring Program (VLMP) have cooperated in the collection of lake data since 1983, to evaluate water quality, track algae blooms, and identify trends. In addition, with formation in 2008 of the West Harbor Pond Watershed Association, monthly sampling and analysis of key water quality parameters in the pond, has been done in collaboration with the Boothbay Harbor Sewer District.

In addition to basic chemical information, monitoring water clarity using the traditional Secchi Disk has also been done. In summary, the water quality of West Harbor Pond is slightly below average, based on measures of SDT, total phosphorus (TP), and Chlorophyll-a (Chla). The potential for nuisance algal blooms and subsequent low levels of dissolved oxygen, particularly at depth, on West Harbor Pond, is high.

West Harbor Pond is a non-colored lake with an average SDT of 4.2m (13.8ft). The range of water column TP for West Harbor Pond is 9 - 14 parts per billion (ppb) with an average of 11 ppb, while Chla ranges from 2.5 - 9.9 ppb with an average of 5.3 ppb. Recent dissolved oxygen (DO) profiles show high DO depletion in deep areas of the lake. The potential for TP to leave the bottom sediments and become available to algae in the water column (internal loading) is high. Oxygen levels below 5 parts per million stress certain cold water fish, and a persistent loss of oxygen may eliminate or reduce habitat for sensitive cold water species.

Volunteers from the West Harbor Pond Watershed Association have been monitoring the pond for invasive plant species since 2008. An educational campaign has been started which includes workshops on aquatic plant identification and a DIFW sponsored session on inspecting boats and other watercraft. In 2012, native milfoil was observed in the pond for the first time, in two locations: near the only boat landing on the pond, and adjacent to the dock of a seasonal rental property.

Though native milfoil is not considered as damaging as Eurasian milfoil, this discovery underscores the real threat of invasive species. West Harbor Pond connects directly to Knickerbocker Lake, and hence to the municipal drinking supply, via Campbell Stream. Migrating fish, water fowl, ospreys, herons, and other birds easily move back and forth between these water bodies and have the potential to spread invasive flora and fauna once a problem species becomes established. Besides natural vectors, seaplane activity on West Harbor Pond is another potential source for the introduction of invasive species.

Flushing rate is the amount of time required for lake water to be renewed each year: an average flushing rate for Maine lakes is 1-1.5 flushes per year. Though the calculated flushing rate for West Harbor Pond is 3.58, this relatively high number can be misleading. The pond is actually an impoundment with freshwater held back by a granite levee directly adjacent to the ocean. Since failure of a longstanding siphon system in 2009, the outflow from the pond is surface water only; water at depth is not exchanged except during seasonal 'turnover' (a natural process that typically brings nutrients to the surface and stimulates a late season algal bloom).

High conductivity readings in summer months are not totally understood but likely have several contributing elements:

1. Elevated water levels reduce effectiveness of near shore septic systems;
2. Inflow of water from Knickerbocker Lake;
3. Runoff from increasing shoreland development;

4. Saltwater intrusion through the granite dam; and
5. Salt in water vapor carried by prevailing southwesterly winds in the summer.

While, as mentioned above, the town has land use ordinance measures to manage water quality, particular attention needs to be paid to land development activities in this watershed. A further deterioration in water quality may reduce the recreational appeal of the lake and affect the property values of shorefront homes.

2. WETLANDS

Wetlands are discussed in the Natural Resources Chapter.

3. SURFACE DRINKING WATER SUPPLY

This is addressed in the Public Facilities and Services section.

4. RIVERS

The Sheepscot and Damariscotta Rivers border the Boothbay Peninsula. According to 2010 DEP data, major portions of these rivers do not meet state water quality standards, and are prohibited for the taking of shellfish. In many cases, this classification is due to insufficient data, which is a function of understaffed state monitoring programs. In some locations, there are real problems evidenced by low dissolved oxygen in the waster and unproductive bottom. For information, go to www.maine.gov/dep/water/monitoring/305b/index.htm.

5. THREATS TO WATER QUALITY OR QUANTITY

A major threat to water quality is non-point source pollution, mainly storm water runoff. As mentioned, town ordinances have partially addressed this issue. The town may want to consider other measures such as implementing low impact development techniques that focus on catching storm water before it leaves the property. The Public Works Department has identified specific drainage improvements (see the Public Services and Facilities Chapter).

Another threat to water quality is from individual septic systems. The 2010 Census reported that there were 3,266 dwelling units in town. Sewer district records for 2012 indicate that there were 1,110 residential connections, which includes multi-family buildings that are on a single meter. The remaining dwellings (roughly two-thirds of the total) depend on septic systems. The age and condition of these systems need to be monitored. The Water District has recommended the extension of sewer lines around the shorefront of Adams Pond and Knickerbocker Lakes.

6. STEPS TO IMPROVE WATER QUALITY MITIGATE SOURCES OF POLLUTION, AND CONTROL OR PREVENT THE SPREAD OF INVASIVE SPECIES

Measures to address water quality for the Boothbay Region Water District are discussed in the Public Services and Facilities Chapter. As mentioned above, the West Harbor Pond Watershed Association has been monitoring West Harbor Pond for invasive species since 2008.

Conclusions

Boothbay Harbor faces several water resource-related challenges:

1. Increasing demand for treated public drinking water drawn from current surface water supplies;
2. A substantial amount of impervious surface resulting in high volumes of storm water runoff;
3. A high concentration of Overboard Discharges;
4. Degraded near shore waters affects shellfish harvesting with potential impact on tourism;
5. Long-term trend of deteriorating water quality in West Harbor Pond.

State Goal

To protect the quality and manage the quantity of the State's water resources, including lakes, aquifers, great ponds, estuaries, rivers, and coastal areas.

Policies

1. To protect current and potential drinking water sources.
2. To protect significant surface water resources from pollution and improve water quality where needed.
3. To protect water resources in growth areas while promoting more intensive development in those areas.
4. To minimize pollution discharges through the upgrade of existing public sewer systems and wastewater treatment facilities.
5. To cooperate with neighboring communities and regional/local advocacy groups to protect water resources.

Strategies

In recognition of their importance to the health, recreational opportunities, and general wellbeing of residents and visitors, Boothbay Harbor aims to protect and manage its water resources while also accommodating future growth. The plan recommends the following steps:

1. Address Malfunctioning Overboard Discharges

The town will continue to work with the Maine Department of Environmental Protection (DEP) to review the status of overboard discharges (OBD's) and upgrade or replace those that pose a threat to marine water quality.

Implementation Strategy

Encourage removal of overboard discharges and replace them with engineered systems that do not pollute.

Responsibility

Maine DEP

Time Frame

Ongoing

2. Assure Management of Sewage Treatment Plant Discharge

The plan recommends that the Sewer District personnel continue to monitor the treatment plant discharge and make any improvements required to assure that it is in compliance with all state and federal licensing standards.

Implementation Strategy

Any necessary improvements would be included in the District's capital investment plan.

Responsibility

Boothbay Harbor Sewer District

Time Frame

TBD

3. Revise Storm Water Run-Off Standards

The plan recommends that the storm water runoff standards be revised to reflect more intense storm events and include low-impact development review standards.

Implementation Strategy

The Planning Board or its designee drafts new standards as part of its comprehensive revisions to the land use code.

Responsibility

Planning Board, Select Board, Town Meeting

Time Frame

2016-2017

4. Preserve Lake Water Quality

The plan supports efforts of the West Harbor Pond Watershed Association to monitor lake water quality. The Association is urged to share its findings with the Planning Board or its designee on an annual basis. The plan endorses efforts to seek DEP Non-Point Source funding through grant programs such as, but not limited to, the 319 Program.

Implementation Strategy

The West Harbor Pond Watershed Association, with support from the Maine DEP and the Volunteer Lake Monitoring Program, continues its water testing and identification of threats to water quality. If it is deemed likely that the town can submit a competitive grant, funds are sought from the DEP or other agencies.

Responsibility

West Harbor Pond Association

Time Frame

Ongoing

5. Update Phosphorus Review and other Lake Watershed Land Use Standards

As part of the overall revision process for the municipal land use code, the Planning Board or its designee contacts the Lake Watershed Division of the Maine DEP to determine if its current phosphorus review and other watershed land use standards reflect the most current recommended guidelines. If necessary, the standards are updated.

Implementation Strategy

The Planning Board or its designee drafts new standards as part of its comprehensive revisions to the land use code.

Responsibility

Planning Board

Time Frame

2016-2017

6. Monitor and Address Invasive Plant Species

The plan supports efforts to monitor the presence of invasive plant species and undertake measures to avoid their introduction and promote their removal through the following steps:

1. Continue the education program with support from the Maine Department of Inland Fisheries and Wildlife (MDIFW);
2. Continue to test for the presence of invasive plant species and, if necessary, consult with the MDIFW and other appropriate sources of technical assistance on removal/clean-up options;
3. Notify operators of sea planes landing on the pond of their potential to introduce invasive species; and
4. Coordinate invasive species prevention/removal efforts with counterpart organizations in the town of Boothbay.

Implementation Strategy

The West Harbor Pond Watershed Association with support from the Maine Department of Inland Fisheries and Wildlife expands current efforts.

Responsibility

West Harbor Pond Association

Time Frame

Ongoing

7. Improve Water Quality of West Harbor Pond

The plan recommends that the town work with the Maine Department of Transportation to return the West Harbor Pond Dam siphoning system to an operational basis in order to improve pond water quality and water level control.

Implementation Strategy

The Town Office contacts the Maine Department of Transportation to determine what needs to be done to correct the operational deficiencies of the siphoning system.

Responsibility

Town Office

Time Frame

Ongoing

8. Work Cooperatively with the Town of Boothbay on Joint Threats to Protect Water Quality

The plan recommends that the two towns continue to coordinate efforts to manage water quality. Specific areas of focus include invasive species, water quality monitoring, and phosphorus control. If deemed competitive, the two towns should consider a joint grant application to address non-point source pollution.

Implementation Strategy

This is a continuation of 4. Address Threats to Drinking Water Quality above, albeit in cooperation with the town of Boothbay. The plan supports the following objectives:

1. Assure that storm water management review standards consider the presence of wells on adjoining properties so that the risk of contamination is reduced;
2. Identify and upgrade/replace septic systems that threaten drinking water supplies;
3. Endorse efforts by the Water and Sewer Districts to expand their service areas, whereby reducing dependence on private wells and septic systems;
4. Assure full compliance with Public Works Department Best Management practices in areas not served by public water.

Implementation Strategy

1. See 3. Revision of Storm Water Standards above and 7. Review Public Works Best Management Practices below;
2. See 6. Assess Condition of Septic Systems below;
3. See Public Facilities and Services; and
4. Review Public Works Best Management Practices.

9. Assess Condition of Septic Systems

The plan recommends that the LPI (or a designee) works with Maine DEP to identify areas where inadequate systems may be expected to be concentrated and encourage owners of inadequate systems to take advantage, if qualified, of grant funding to replace or upgrade such systems.

Implementation Strategy

The LPI contacts the Maine DEP to jointly evaluate septic systems and conducts site visits at suspect properties.

Responsibility

LPI

Time Frame

2018-2019

10. Review Public Works Department Best Management Practices and Revise if Necessary

The plan recommends review of public works best management practices for their adequacy in minimizing storm water runoff from public works projects. Examples of possible revisions include assuring that road salt is loaded onto trucks in a covered area of impervious surface, prompt clean-up of any spills, and requiring that fueling operations occur in a covered area.

Implementation Strategy

The Public Works Director obtains online examples of best management practices and determines if any changes to town department operations are feasible.

Responsibility

Public Works Director

Time Frame

2018-2019

11. Continue Participation in Regional Watershed and Estuary Ventures

The plan endorses participation in regional water quality endeavors in the Sheepscot and Damariscotta river basins and continued cooperation with the town of Boothbay regarding Knickerbocker Lake.

Implementation Strategy

1. The town continues to send representatives to relevant meetings.
2. If proven desirable, it could become a partner in a multi-town estuary and watershed planning grant.

Responsibility

Town-appointed Representative

Time Frame

Ongoing

12. Low-Impact Development

The plan recommends that the storm water runoff standards be revised to reflect more intense storm events and include low-impact development review standards.

Implementation Strategy

Revise subdivision and site plan review standards to reflect more intense storm events. Adopt low-impact development standards.

Responsibility

Planning Board, Select Board, Town Meeting

Time Frame

2015-2016

CHAPTER 3 - NATURAL RESOURCES

INTRODUCTION

Boothbay Harbor's natural resources are important to the town in several ways. First, careful stewardship of wildlife and fisheries habitats creates opportunities for hunting and fishing. Second, the natural features attract tourists and maintain the town's high quality of life. Third, managing the natural environment allows land development to occur in a manner that reduces the risk of harm from hazards such as flooding, erosion, and pollution.

State Goal

To protect the State's other critical natural resources, including without limitation, wetlands, wildlife and fisheries habitat, sand dunes, shorelands, scenic vistas, and unique natural areas.

Analyses

1. **Are any of the community's critical natural resources threatened by development, overuse, or other activities?**

   While there are no specific threats, land development trends and the large influx of seasonal visitors means that the town needs to assure that its ordinances continue to be enforced. The threats to water quality are discussed in the Water Resources Chapter.

2. **Are local shoreland zone standards consistent with state guidelines and with the standards placed on adjacent shorelands in neighboring communities?**

   Boothbay Harbor has updated its shoreland zoning standards to be consistent with the current Maine DEP guidelines.

3. **What regulatory and non-regulatory measures has the community taken or can the community take to protect critical natural resources and important natural resources?**

   The Town land use code has provisions requiring that uses be compatible with natural resources. There are also detailed standards for significant wildlife habitat areas. These require that a buffer strip of sufficient area be established to provide wildlife with travel lanes between areas of available habitat. Adequate provisions must be made to ensure maintenance of these travel ways. Development plans submitted within or adjacent to mapped wildlife areas must include mitigation measures aimed at minimizing the adverse impacts of development on these resources. These mitigation measures include clustering of the project and setbacks from wetlands, streams, and waterways.

   Some of these resources are subject to state regulation under the Natural Resources Protection Act (NRPA). For more information on significant wildlife habitats and the NRPA, see http://www.maine.gov/dep/blwq/docstand/nrpapage.htm. This act sets standards to protect key natural features such as certain wildlife habitats, wetlands, and other water bodies from adverse impacts of development.

There are also 209 acres of land protected through public ownership or conservation easement. These are shown on Figure 13.6 (Existing Land Use Chapter). They account for about 5.9% of the total town land area of 3,548 acres.

4. **Is there current regional cooperation or planning underway to protect shared critical natural resources? Are there opportunities to partner with local or regional groups?**

Boothbay and Boothbay Harbor work jointly to protect the water quality of Adams Pond. The Boothbay Region Land Trust works on conservation and trail projects in Southport, Edgecomb, Boothbay, and Boothbay Harbor. The Trust has developed over 30 miles of hiking trails that accommodate various skill levels.

Conditions and Trends

Boothbay Harbor's natural resources are shown on the series of maps found on the Beginning with Habitat web site: http://www.beginningwithhabitat.org/the_maps/status-b.html. Beginning with Habitat (BwH), a collaborative program of federal, state and local agencies and non-governmental organizations, is a habitat-based approach to conserving wildlife and plant habitat on a landscape scale. The goal of the program is to maintain sufficient habitat to support all native plant and animal species currently breeding in Maine. BwH compiles habitat information from multiple sources, integrates it into one package, and makes it accessible to towns, land trusts, conservation organizations and others to use proactively. BwH is designed to help local decision makers create a vision for their community, design a landscape, and develop a plan that provides habitat for all species and balances future development with conservation.

1. WATER RESOURCES AND RIPARIAN HABITATS

The shore areas of the saltwater and freshwater bodies are riparian habitats. These habitats are the transitional zone between aquatic habitats and wetlands and dry or upland habitats and include the banks and shores of streams, rivers, ponds, and lakes, and the upland edge of wetlands. If individual towns fully implement existing shoreland zoning regulations, up to 80 percent of Maine's terrestrial vertebrate animals that use riparian areas for a part of their life cycle will benefit. Riparian habitat also benefits water quality by buffering and filtering runoff before it affects other water sources.

Development may destroy an area of riparian habitat, but its effects reach far beyond the new construction. Habitat fragmentation may divide the range an animal needs to survive. Blanding's and spotted turtles, for example, need both wetland and upland habitats. Development may prevent the turtles from reaching their required feeding, resting, and breeding locations. Quality of habitat may further be degraded with the advent of invasive plants along roads. Often populations of predatory animals such as raccoons and skunks increase with the addition of roads. While protected by shoreland zoning, the habitats have been affected by the relatively high density development in the downtown area and along Routes 27 and 96.

There are approximately 105 acres of freshwater wetlands. These are shown on Figure 4.2. Wetlands include such familiar terms as bogs, marshes, swamps, and salt marshes, but also include lesser known and appreciated forested wetlands and vernal pools. Wetlands are some of the most productive natural areas in the world, and provide habitat for many types of wildlife, including waterfowl and wading birds; frogs, turtles, and snakes; fish; and shellfish. Wetlands naturally control floods, filter pollutants, retain nutrients, and reduce erosion. They also provide a myriad of educational and recreational opportunities including boating, hunting, trapping, fishing, and photography.

Most wetlands in Maine are given some level of oversight through the permitting process under state law, but small wetlands, including vernal pools, and forested wetlands receive very limited, if any protection. Cumulative loss of wetlands has led to significant storm water runoff problems in some Maine communities and threatens to eradicate local populations of some wildlife species, especially those that move between several small wetlands to meet their habitat needs. In addition, extensive development adjacent to wetlands has degraded the functions and values of many wetlands. Conservation of wetlands and surrounding riparian habitat is essential to ensuring that the full complement of Maine's plants and animals persist on the landscape.

2. HIGH-VALUE PLANT AND WILDLIFE HABITATS

No high-value plants or animal habitats have been documented in Boothbay Harbor. However, the town has deer wintering areas that have been mapped the Maine Department of Inland Fisheries and Wildlife. These are forested areas used by deer to avoid deep snow and cold. They are important sources of food during the winter months. These areas consist of dense softwood canopies interspersed with mixed stands or hardwoods and softwoods. These are considered Significant Wildlife Habitat and are protected by the NRPA.

There are also inland water fowl wading areas. These are used for breeding, wading, staging, and loafing areas by inland water fowl. They serve as feeding, breeding, and roosting habitats for inland wading birds.

There are areas of high value habitat for Priority Trust Species. The 91 U.S. Fish and Wildlife Service Gulf of Maine Priority Trust Species include animals and plants that regularly occur in the Gulf of Maine watershed and meet any of the following criteria:

- Federally endangered, threatened, or candidate species;
- Migratory birds, sea-run fish and marine fish that show significant and persistent declining population trends, OR have been identified as endangered or threatened by 2 or 3 states in the Gulf of Maine watershed; and
- Species of concern as identified in the U.S. Shorebird Conservation Plan, Colonial Waterbird Plan or Partners in Flight

The species that could occur in Boothbay Harbor are shown marked with an asterisk in the following table. Their listing on this table does not necessarily mean that they are found in town. Rather, habitat conditions exist that could allow them to occur.

Table 3.1 Priority Trust Species Habitats

Birds	Louisiana Waterthrush	Veery *
American Bittern *	Marsh Wren *	Whimbrel *
American Black Duck *	Nelson's Sharp-Tailed Sparrow	Whip-poor-will *
American Oystercatcher	Northern Flicker *	White-winged Scoter
American Woodcock *	Northern Goshawk	Wood Duck *
Arctic Tern	Northern Harrier *	Wood Thrush *
Bald Eagle *	Olive-sided Flycatcher *	Yellow Rail *
Baltimore Oriole *	Osprey *	
Bay-breasted Warbler	Peregrine Falcon *	**Fisheries**
Bicknell's Thrush	Pied-billed Grebe *	Alewife *
Black Scoter *	Piping Plover	American Eel *
Black Tern	Prairie Warbler *	American Shad *
Black-bellied Plover *	Purple Sandpiper *	Atlantic Salmon *
Blackburnian Warbler *	Razorbill *	Atlantic Sturgeon *
Blackpoll Warbler	Red Crossbill *	Blueback Herring *
Black-throated Blue Warbler	Red-headed Woodpecker	Bluefish *
Blue-winged Warbler *	Red Knot *	Horseshoe Crab *
Buff-breasted Sandpiper	Red-shouldered Hawk *	Cape May Warbler
Canada Warbler *	Upland Sandpiper	Chestnut-sided Warbler
Common Loon *	Saltmarsh Sharp-Tailed Sparrow	
Common Snipe *	Sanderling *	**Plants**
Common Tern	Scaup (Greater and Lesser)	Eastern Prairie Fringed
Eastern Meadowlark *	Seaside Sparrow	Orchid
Field Sparrow *	Sedge Wren *	Furbish's Lousewort
Golden-winged Warbler	Semipalmated Sandpiper *	Robbins' Cinquefoil
Grasshopper Sparrow	Short-billed Dowitcher *	Small Whorled Pogonia
Hudsonian Godwit *	Short-eared Owl	
Killdeer *	Snowy Egret *	**Mammals**
Least Sandpiper *	Solitary Sandpiper *	Canada Lynx
Least Tern	Spruce Grouse	
Little Blue Heron *	Surf scoter *	**Reptile**
Little Gull	Tricolored Heron *	Plymouth Red Belly Turtle
Roseate Tern	Shortnose Sturgeon *	
Ruddy Turnstone *	Winter Flounder *	

Source: Maine Department of Inland Fisheries and Wildlife

About 81 percent of respondents to the public opinion survey favored the enactment of measures to preserve traditional views to the harbor from major local roads such as Townsend Avenue, Commercial Street, Union Street, Atlantic Avenue, West Street, or Western Avenue.

Conclusions

Boothbay Harbor has already taken significant steps to protect its natural resources through its land use ordinances. As a town with limited land area and a high rate of developed land, it is challenging to maintain large blocks of undisturbed habitat. The town may want to require development subject to site plan review or subdivision approval in rural areas to submit a natural resource impact statement. This would require the applicant to identify key natural resources and suggest mitigation measures.

State Goal

To protect the State's other critical natural resources, including without limitation, wetlands, wildlife and fisheries habitat, sand dunes, shorelands, scenic vistas, and unique natural areas.

Policies

1. To conserve critical natural resources in the community.
2. To coordinate with neighboring communities and regional and state resource agencies to protect shared critical natural resources.

Strategies

The plan supports the management of Boothbay Harbor's natural resources so that they are preserved in a sustainable manner while also allowing opportunities for development. This will be accomplished through the following objectives:

1. REVISE THE LAND USE CODE TO PROMOTE THE CONSERVATION OF CRITICAL NATURAL RESOURCES

A. Refer to the Maine Department of Inland Fisheries and Wildlife (MDIFW) "Beginning with Habitat" maps on land use permit applications forms. The applicant would be asked if any high-value plant and wildlife habitats identified in the maps lie within the area affected by the proposed change or expansion in land use and what mitigation measures are being considered;

B. Require the identification of any Priority Trust Species and appropriate mitigation measures; and

C. Give the Planning Board the option to seek the opinion of the MDIFW or a natural resources consultant on the natural features identified and the proposed mitigation measures. In rural or environmentally fragile areas (as defined in the Future Land Use Plan) the Planning Board would have the right to require that a natural resource impact statement be submitted as part of the standard application material. If an environmentally important feature is identified in a growth area, the board may also request additional information on environmental impacts.

Implementation Strategy

The Planning Board or its designee drafts new standards.

Responsibility

Planning Board, Select Board, Town Meeting

Time Frame

2016-2017

2. CONSERVE KEY SCENIC VIEWS

The preservation of scenic views is encouraged by:

A. Requiring the identification of key scenic views in the subdivision and site plan review application forms and a listing of proposed measures by the applicant to minimize any adverse impacts; and

B. Working with area land trusts and willing landowners to have easements placed on properties that are part of a scenic view shed.

Implementation Strategy

a. The Planning Board develops a list of key scenic views, including specific locations, for inclusion in the land use code.

b. The Planning Board or its designee drafts new standards.

c. The Planning Board contacts the local land trust and the landowners to inquire if there is mutual interest in protecting these view sheds (see also Strategy 4 in Historic Resources).

Responsibility

Planning Board, Select Board, Town Meeting

Time Frame

2016-2017

3. PRESERVATION OF FISHERIES

The plan promotes the preservation of freshwater and marine fisheries resources by:

1. Assuring that West Harbor Pond fishway is cleaned on a basis sufficient to allow adequate passage of fish; and

2. Working with the MDIFW to prevent the introduction of invasive fish species.

Implementation Strategy

1. The Public Works Department contacts the MDIFW to determine the best procedure for keeping the fishway clear.
2. The West Harbor Pond Association contacts the MDIFW for information on managing invasive fish species.

Responsibility

1. Public Works Department
2. West Harbor Pond Association

Time Frame

2016-2017

4. PROTECTING UNDEVELOPED BLOCKS OF RURAL WILDLIFE HABITAT

The plan promotes the protection of these areas by:

1. Identifying undeveloped blocks of rural wildlife habitat in the future land use plan;

2. Designating such areas as rural in the future land use plan;

3. Informing residents and landowners of options such as current use taxation and land conservation easements to minimize the tax burden; and

4. Providing public education to inform builders and landowners of the economic and environmental benefits of maintaining open space.

Implementation Strategy

This is addressed in the Future Land Use Plan. The Town Office has informational material about current use taxation available at the front counter.

Responsibility

Comprehensive Planning Committee
Town Office

Time Frame

2015

5. DEVELOP BALANCE BETWEEN ECONOMIC AND ENVIRONMENTAL VALUES

The plan promotes this balance by encouraging public education (including brochures and other information sources at the Town Office) to inform builders and property owners of the economic and environmental benefits of green building practices, renewable energy, weatherization and adaptations to changing ocean levels.

Implementation Strategy

The Code Enforcement Officer will gather relevant information brochures and information on energy efficiency and green building practices, renewable energy, protection against changing ocean levels and weatherization, display them at the Town Office, and make them available to those proposing to develop or renovate their properties.

Responsibility

Code Enforcement Officer

Time Frame

2015

CHAPTER 4 - AGRICULTURAL & FORESTRY RESOURCES

INTRODUCTION

The 1996 Comprehensive Plan noted that agriculture and forestry did not play a significant role in Boothbay Harbor's land use character or economy. This conclusion is still valid today. Open space has been a component of Boothbay Harbor's rural character and is important to residents. This chapter describes agricultural and forestry resources in Boothbay Harbor and recommends steps for their augmentation. The format of this chapter follows the State Comprehensive Plan Criteria Rule as amended in August 2011.

State Goal

To safeguard the State's agricultural and forest resources from development that threatens those resources.

Analyses

1. **How important is agriculture and/or forestry and are these activities growing, stable, or declining?**

   A very small portion of the Town's land is devoted to agricultural use: about 31 acres were assessed as farmland in 2011. See Figures 4.1 and 4.2. Based upon soil type, relatively little land is classified as Prime Farmland or Additional Farmland of Statewide Importance in Boothbay Harbor. Due to the rise of niche farming regionally and statewide, the agricultural sector has grown in importance over the past decade outside of the Town and has potential for further growth as the appreciation of locally-grown organic food increases. As of 2012, there was one active farm in Boothbay Harbor.

   In 2009, the Census recorded that 21 Boothbay Harbor residents (and 733 Lincoln County residents) worked in farming, fishing, and forestry occupations. These figures do not fully reflect the part-time, seasonal, migrant and informal employment. The public's appreciation of the value of locally-raised healthy food has boosted the market for these commodities. Accordingly, grocery stores and supermarket chains are offering more local produce and related goods for sale.

   A small amount of land, less than 90 acres, is enrolled in the tree growth program for individual woodlot owners, which is a decline of 19 acres since the year 2000. There is potential for an increase in such activities, but large-scale industrial forestry does not occur and is unlikely in the foreseeable future.

Figure 4.1 Farmland Soils

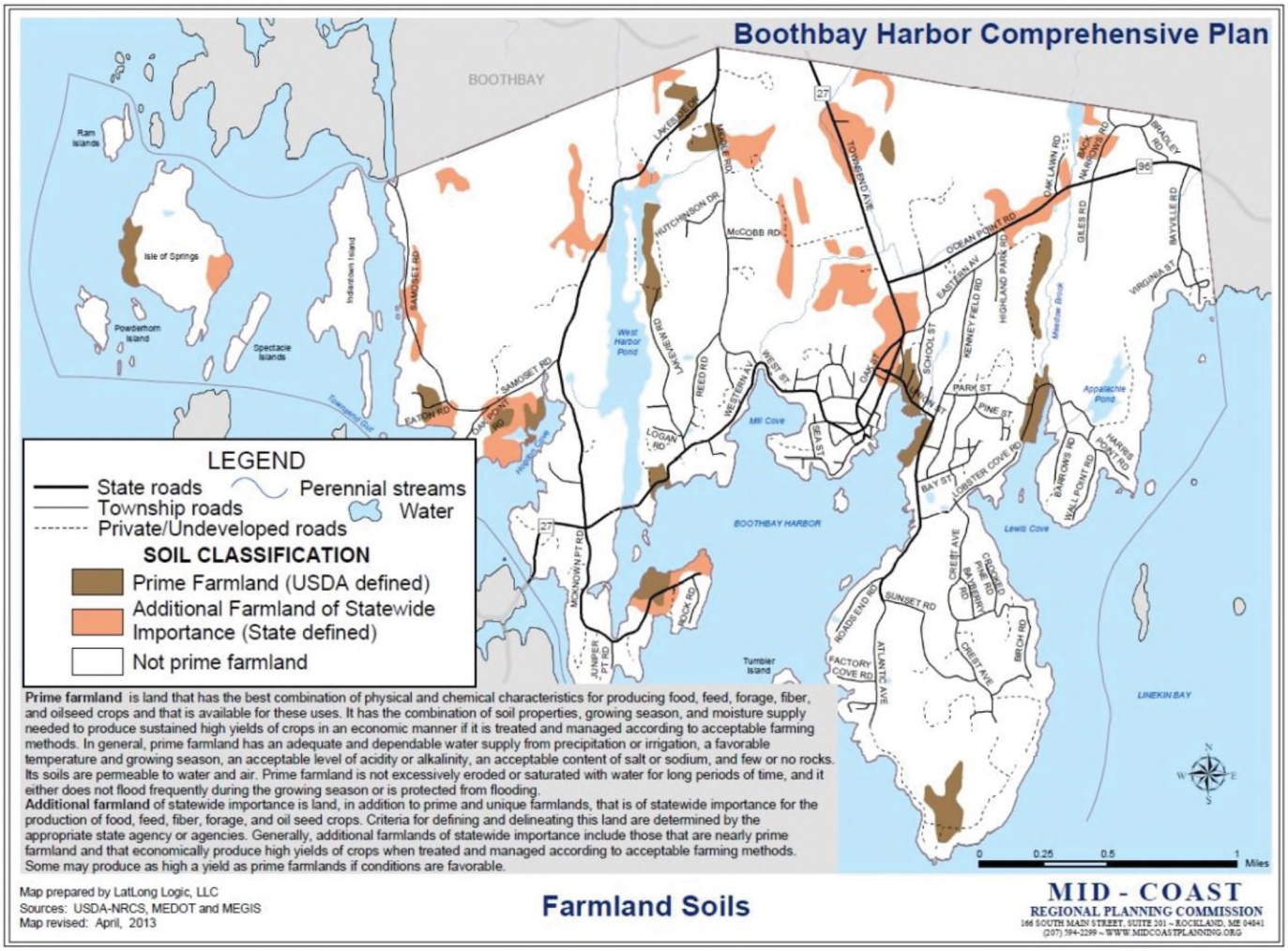
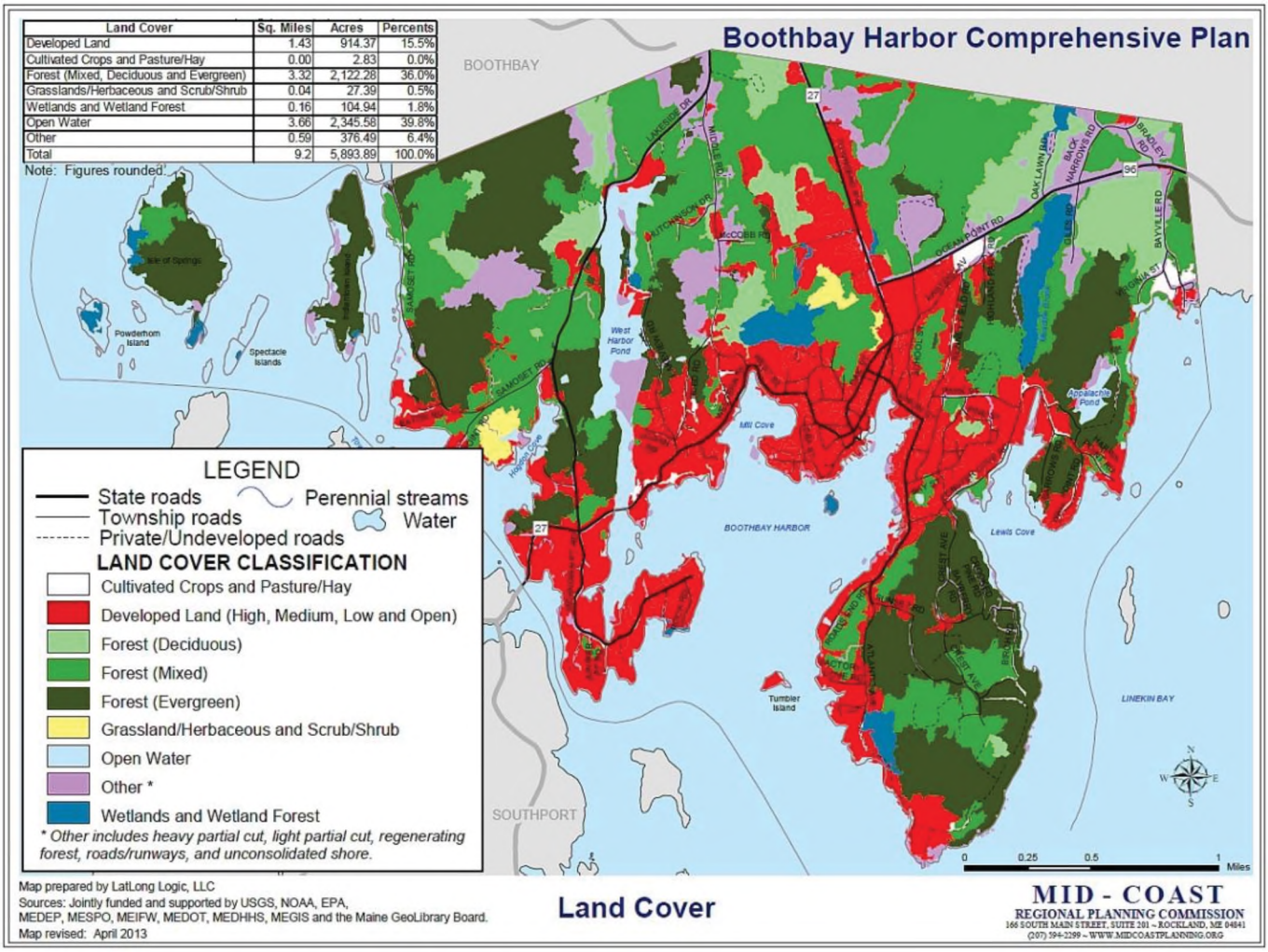


Figure 4.2 Land Cover



2. **Is the community currently taking regulatory and/or non-regulatory steps to protect productive farming and forestry lands? Are there local or regional land trusts actively working to protect farms or forest lands in the community?**

   The Boothbay Harbor Land Use Chapter of the Town Code allows agriculture in these three districts: General Residential (conditional), General Business (conditional), and Resource Protection (conditional). The Town Code defines agriculture as: "The production, keeping or maintenance for sale or lease, of plants and/or animals, including, but not limited to, forages and sod crops; grains and seed crops; dairy animals and dairy products; poultry and poultry products; livestock; fruits and vegetables; and ornamental and greenhouse products." Farm uses and structures are allowed in General Residential and in General Business (conditional). Forest management, except timber harvesting, is allowed town-wide. Timber harvesting is allowed in these four districts: General Residential, Special Residential, General Business, and Resource Protection (conditional).

   The Town does not encourage farmers and woodlot owners to place their lands into conservation, or to enroll in current use tax programs because of the substantial amount of acreage already in the tree growth and open space programs. Voluntary actions by landowners to seek conservation easements or to enroll in tax programs are the preferred strategy for protecting farmland and forestland because such approaches respect individual choice and property rights. Town-wide regulations, which require a majority vote at a town meeting for adoption, can be amended or repealed in future years. Therefore, such regulatory approaches offer no guarantee of permanent protection.

   There are land trusts active in the community including the Boothbay Region Land Trust (office in Boothbay Harbor) and the Maine Coast Heritage Land Trust (office in Topsham).

3. **Are farm and forest landowners taking advantage of the state's current use tax laws?**

   Some woodlot owners are using these tax programs. See the figures in the Conditions and Trends section.

4. **Has proximity of new homes or other incompatible uses affected the normal farming and logging operations?**

   Within the past five years, the Code Enforcement Office has received no complaints from the owners of new homes or businesses near agricultural and forestry operations. The Town has received no complaints from farmers and woodlot owners about new development around their properties. The Town can advise farmers and woodlot owners on best management practices and put these persons in contact with state officials for further guidance to reduce complaints from neighbors.

5. **Are there large tracts of agricultural or industrial forest land that have been or may be sold for development in the foreseeable future? If so, what impact would this have on the community?**

   Several undeveloped parcels contain Prime Farmland and/or Farmland of Statewide Importance, but are not actively farmed. If development occurred on these parcels, the viability of future farming operations could be affected. Niche farming, however, has demonstrated agricultural viability even on smaller lots with fragmentation between residential and agricultural uses.

6. **Does the community support community forestry or agriculture (i.e. small woodlots, community forests, tree farms, community gardens, farmers' markets, or community-supported agriculture)? If so, how?**

   The community supports non-regulatory approaches for farming and forestry including farmer's markets: it works with the Boothbay Harbor Region Chamber of Commerce to promote agricultural products, and with school lunch programs to incorporate local foods, and offers public outreach and education on the importance of local farms and forestlands.

7. **Does the community have town or public woodlands under management, or that would benefit from forest management?**

The Town does not own a woodlot.

Conditions and Trends

See Figure 4.1 for the location of Prime Farmland soils (USDA defined), and soils categorized as Additional Farmland of Statewide Importance (State defined). County-level agricultural data from the U.S. Department of Agriculture is shown in the next tables. Town-level USDA data is not available.

Table 4.1 Lincoln County 2007 Agricultural Census Detail

SALES BY COMMODITY GROUP	VALUE
Vegetables, melons, potatoes, and sweet potatoes	$2,373,000
Fruits, tree nuts, and berries	$901,000
Nursery, greenhouse, floriculture, and sod	$2,181,000
Poultry and eggs	$1,070,000
Cattle and calves	$238,000
Milk and other dairy products from cows	$2,646,000
Hogs and pigs	$42,000
Sheep, goats, and their products	$87,000
Aquaculture	$1,627,000
Other animals/other animal products	$227,000
Top Crop Items	Acres
Forage - hay, grass silage, greenchop	6,000
Land in berries	545
Vegetables harvested for sale	463
Sweet Corn	215
Top Livestock Inventory Items	--
Layers	13,794
Broilers and other meat-type chickens	2,716
Cattle and calves	1,960
Pullets for laying flock replacement	1,244
Turkeys	734

Source: USDA Agricultural Census

Note: Non-disclosed categories excluded.

Farms increased in number but decreased in average size from 1997 to 2007 in Lincoln County. Land in agricultural use increased by 4,079 acres to total almost 30,000 acres.

Table 4.2 Lincoln County 1997, 2002 and 2007 Agricultural Census Comparison

CATEGORY	1997	2002	2007	% CHANGE
Number of farms	210	292	363	72.9%
Land in farms (acres)	25,920	30,618	29,999	15.7%
Average size of farm	123	105	83	-32.5%
Market value of products sold	$6,329,00	$7,542,00	ND	--
Value of crops, nursery, greenhouse	$2,270,00	$3,548,00	$5,854,00	157.9%
Value of livestock, poultry, related products	$4,059,00	$3,994,00	ND	--
Government payments	$38,000	$66,000	$172,000	352.6%

Source: USDA Agricultural Census, 1997, 2002, 2007
Notes: ND = Non-disclosed. Figures were taken from the year indicated, rather than from later-year retrospective Census reports, which show some discrepancies from earlier data.

Most timber harvesting in Boothbay Harbor was performed using the selection method, with an annual average of 8.0 acres out of a total annual average harvest of 8.16 acres, as shown in the next table for the years 1991 to 2010.

Table 4.3 Boothbay Harbor Summary of Timber Harvest Information (in acres)

YEARS	SELECTION HARVEST	SHELTERWOOD HARVEST	CLEARCUT HARVEST	TOTAL HARVEST	CHANGE OF LAND USE	# OF ACTIVE NOTIFICATIONS
	38	0	0	38	0	6
1996-2000	74	0	0	74	1	9
2001-2005	12	0	0	12	13	4
2006-2010	28	3	0	31	1	7

Source: USDA Agricultural Census, 1997, 2002, 2007
Notes: ND = Non-disclosed. Figures were taken from the year indicated, rather than from later-year retrospective Census reports, which show some discrepancies from earlier data.

1. BOOTHBAY HARBOR FARMS, FARMLAND, AND MANAGED FOREST LANDS & THREATS

In 2011, Boothbay Harbor had one parcel of approximately 31 acres of farmland (Town Assessor records). None of this land is protected from development through the farmland current use tax program or through conservation easements. See Figure 4.1 for the locations of areas best suited for agricultural activities based upon soil conditions.

The Maine Organic Farmers and Gardeners Association records no certified organic farms in Boothbay Harbor. The closest certified organic farm is located in Boothbay (Lyric Meadow Farm).

Forested areas comprise about 2,122 acres of the Town, which is about 36% of the Town area. See Figure 4.2. (Note: Almost 40% of the area of Boothbay Harbor is classified as open water.) Most forestlands in the Town are privately owned.

Areas most threatened include those with suitable soils for farming that are not under a conservation easement, such as an area south of Route 96, which is proposed to be developed for residential use.

2. ENROLLMENT IN MAINE'S FARM, TREE GROWTH, AND OPEN SPACE LAW TAXATION PROGRAMS

In 2011, the Town Assessor recorded that almost 90 acres were in the tree growth tax program. One parcel (19 acres) was withdrawn from the tree growth program between 2000 and 2011. In 2011, no land was enrolled in the farmland current use tax program or in the open space tax program. No parcels were added or withdrawn from these two tax programs between 2000 and 2011. No parcels were recorded with conservation easements.

Table 4.4 2011 Current Use Tax Programs In Town

CATEGORY	PARCELS	ACRES
Open Space Tax Program	0	0
Tree Growth Tax Program	7	89.38
Farmland Tax Program	0	0

Source: Town Assessor

The current use tax programs provide a property tax savings to landowners of farmland and forestland who choose to participate. Under these programs, land is taxed at its current use rather than for its development potential (full-market value). Should enrolled landowners leave these programs, they are assessed a penalty to make up the difference in valuation between current use and full-market value for development. The next table summarizes these programs.

3. COMMUNITY FARMING & FORESTRY ACTIVITIES

The closest Farmer's Market is held in Boothbay, on the Commons, Thursday mornings, May to October.

Table 4.5 Summary of Current Use Tax Programs

PROGRAM	FARMLAND PROGRAM (Tax Bulletin #20)	OPEN SPACE PROGRAM (Tax Bulletin #21)	TREE GROWTH PROGRAM (Tax Bulletin #19)
Purpose	To encourage farmlandowners to maintain and improve land that is used for farming, agricultural or horticultural activities.	To encourage landowners of open, undeveloped land to prevent or restrict its use from development by conserving scenic resources, enhancing public recreation, promoting game management or preserving wildlife or wildlife habitat.	To encourage forest landowners to retain and improve their forestlands; to promote better forest management; and to support the overall forest products industry in Maine.
Types of Land Cover	Mixed – annual and perennial crops, pasture, orchards, blueberries, wetlands, woodland and wasteland.	Undeveloped acres – open and/or wooded land that is not intended to be developed for commercial or residential purposes.	Forested land used primarily for the growing of trees used to produce commercial forest products.
Length of Time	Permanent: May be withdrawn with payment of penalty; must be withdrawn if used for non-conforming purposes.		
Enrollment	Voluntary enrollment by landowner. The Town sets the value based upon value of the land as farmland only. State published per acre values recommended but not required.	Voluntary enrollment by landowner. The Town sets the valuation based upon comparable sales statutorily prescribed percentage reduction from full value.	Voluntary enrollment by landowner. The State tax Assessor determines the 100% valuation per acre for softwood, hardwood, and mixed wood cover types by region each year. Areas within a parcel other than classified forest acres must be valued on a fair market value basis.
Tax Implications	Landowner's proportionate tax burden is reduced.		
Municipal Benefit	Avoids costs associated with development; state subsidies are positively impacted.		Avoids costs associated with development; state subsidies are positively impacted; direct subsidy available from the State.

Source: Maine Revenue Service

State Goal

To safeguard the State's agricultural and forest resources from development which threaten these resources.

Policies

1. To safeguard lands identified as prime farmland or capable of supporting commercial forestry.
2. To support farming and forestry and encourage their economic viability.

Strategies

1. MAINE FOREST SERVICE CONSULTATION

Implementation Strategy

Consult with the Maine Forest Service district forester when developing any land use regulations pertaining to forest management practices as required by 12 M.R.S.A. §8869.

Responsibility

Planning Board, Select Board, Town Meeting

Time Frame

Ongoing

2. SOIL AND WATER CONSERVATION DISTRICT CONSULTATION

Implementation Strategy

Consult with Soil and Water Conservation District staff when developing any land use regulations pertaining to agricultural management practices.

Responsibility

Planning Board, Select Board, Town Meeting

Time Frame

Ongoing

3. CRITICAL RURAL AREAS AND LAND USE ORDINANCES

Implementation Strategy

Amend land use ordinances to require commercial or subdivision developments in critical rural areas, if applicable, to maintain areas with prime farmland soils as open space to the greatest extent practicable.

Responsibility

Planning Board, Select Board, Town Meeting

Time Frame

Ongoing

4. CRITICAL NATURAL AREAS AND HOUSING LIMITS

Implementation Strategy

Limit non-residential development in critical rural areas (if the town designates critical rural areas) to natural resource-based businesses and services, nature tourism/outdoor recreation businesses, farmers' markets, and home occupations.

Responsibility

Planning Board, Select Board, Town Meeting

Time Frame

Ongoing

5. CURRENT USE TAX PROGRAMS

Implementation Strategy

Encourage owners of productive farm and forest land to enroll in the current use taxation programs and consider maintaining traditional public access to open space and the shore and permitting development of new trails open to the public.

Responsibility

Select Board

Time Frame

Ongoing

6. AGRICULTURAL LAND USES

Implementation Strategy

Permit land use activities that support productive agriculture and forestry operations, such as roadside stands, greenhouses, firewood operations, sawmills, log buying yards, and pick-your-own operations.

Responsibility

Planning Board, Code Enforcement Officer

Time Frame

Ongoing

7. ENCOURAGE SMALL-SCALE AGRICULTURE

Implementation Strategy

a. Seek incentives for fostering development of small-scale, intensive agricultural production activities. Emergence of new production technologies enables successful operation of intensive agricultural production systems. Such activities can be wholly directed toward production of valuable crop species such as vegetable species, micro-greens, and herbs and spices, or integrated production systems which incorporate the culture of aquatic species as well.

b. Review town ordinances to identify provisions that may discourage or needlessly adversely affect small-scale operations.

Responsibility

Planning Board, CEO

Time Frame

Ongoing

CHAPTER 5 - MARINE RESOURCES

INTRODUCTION

Boothbay Harbor's waterfront is a defining characteristic of the community. The shoreline is used by lobstermen, commercial fishermen, marinas, and companies and individuals specializing in the building, maintenance, repair, and storage of boats. It is also used by tourism-related businesses such as inns, restaurants, charter boats, recreational boats, marinas, and specialty retail shops. There is also a significant vacation and seasonal home use of Boothbay Harbor's shoreline.

The principal harbor and port in Town is Boothbay Harbor, located between McKown Point and Spruce Point. Mill Cove is also located within this area. Other harbors include Lewis Cove and Lobster Cove to the east of Spruce Point and Bayville Harbor near the base of Linekin Neck. On the east shore of Boothbay Harbor are Hodgdon Cove, and Townsend Gut, the channel between Southport and Boothbay Harbor. The west side of Boothbay Harbor's shoreline borders the Sheepscot River and includes several islands, the larger of which are Isle of Springs and Indiantown Island.

Although the Boothbay Harbor economy is diversified among several business categories, the waterfront represents an important component of the Town's economic base. Jobs associated with marine resources, marine infrastructure repair and service, and the boat trades have been part of the Boothbay Harbor economy throughout the Town's history. Marine resources are also valued for recreation and habitat preservation. The preservation of the community's marine-related activities and the need to create more public access to the shore continue to be priorities.

The purposes of this chapter are to help the Town identify and manage its marine resources, protect the health of residents, and safeguard the local economy dependent upon these resources. The format of this chapter follows the State Comprehensive Plan Criteria Rule, as amended on 8/6/11. State provisions are italicized.

State Goal

To protect the State's marine resources industry, ports and harbors from incompatible development and to promote access to the shore for commercial fishermen and the public.

Policies

For coastal communities, the Growth Management Act requires that a local comprehensive plan address the state coastal management policies (38 MRSA §1801). These are:

1. To promote the maintenance, development, and revitalization of the State's ports and harbors for fishing, transportation and recreation;
2. To manage the marine environment and its related resources to preserve and improve the ecological integrity and diversity of marine communities and habitats; to expand our understanding of the productivity of the Gulf of Maine and coastal waters, and to enhance the economic value of the State's renewable marine resources;

3. To support shoreline management that gives preference to water-dependent uses over other uses, that promotes public access to the shoreline and that considers the cumulative effects of development on coastal resources;
4. To discourage growth and new development in coastal areas where, because of coastal storms, flooding, landslides or sea-level rise, it is hazardous to human health and safety;
5. To encourage and support cooperative state and municipal management of coastal resources;
6. To protect and manage critical habitat and natural areas of state and national significance and maintain the scenic beauty and character of the coast even in areas where development occurs;
7. To expand the opportunities for outdoor recreation and to encourage appropriate coastal tourist activities and development;
8. To restore and maintain the quality of our fresh, marine and estuarine waters to allow for the broadest possible diversity of public and private uses; and
9. To restore and maintain coastal air quality to protect the health of citizens and visitors and to protect enjoyment of the natural beauty and maritime characteristics of the Maine coast.

Analyses

1. Is coastal water quality being monitored on a regular basis?

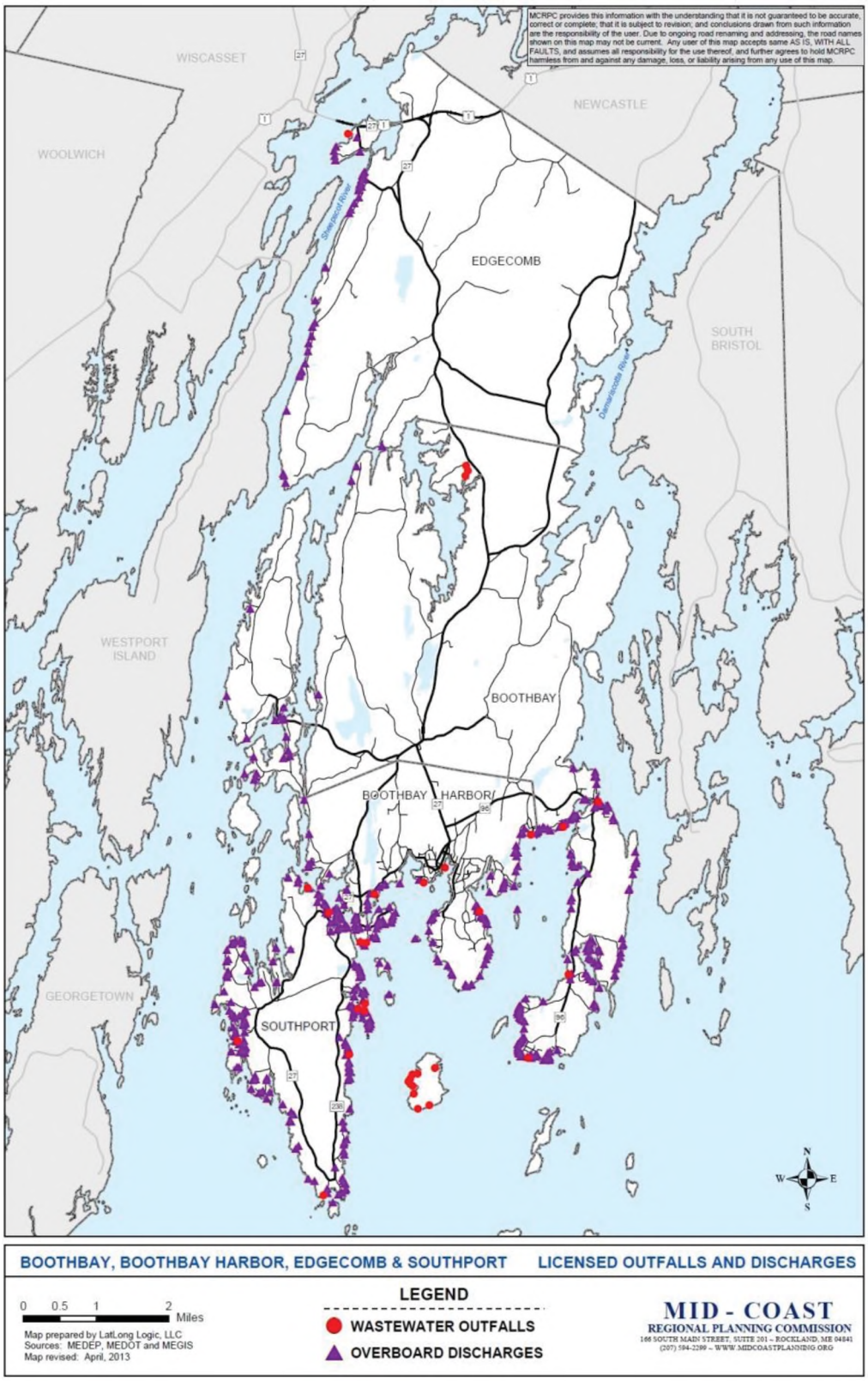
The State monitors water quality regionally in Boothbay Harbor and other water bodies within and surrounding the Town. The State and the Boothbay Harbor Sewer District monitor water quality at the site of discharge of treated effluent from wastewater facilities on a regular basis. See Figure 5.2 for the locations of water quality monitoring stations as identified by the US Environmental Protection Agency (EPA).

2. Is there a local or regional plan in place to identify and eliminate pollution sources?

Municipal plans to eliminate pollution are, for the most part, embodied in the town's land use codes. Any new construction or improvements to existing structures must meet the pollution control measures defined throughout the town's land use codes. In addition the town provides a pump-out boat and a pump-out float (24-hour operation in season) to help keep the harbor clean.

The Maine Department of Environmental Protection (DEP), Bureau of Land and Water Quality lists 60 licensed, active overboard discharges, down from 111 in the year 1996, and 7 licensed wastewater outfall facility locations (one of which is for dumping snow) approved within Boothbay Harbor. McKown Point has had an estimated 19 overboard discharges removed after the sewer was extended along the roadways in this area. Some of these individual overboard discharge systems had served multiple seasonal cottages. See Figure 5.1 for the locations of these point sources of pollution within Boothbay Harbor. The amount of point source pollution has decreased with fewer licensed discharges than licensed previously. Vegetative buffers, as required in shoreland zoning and the proper use of fertilizers and appropriate disposal of chemicals, are reducing pollution runoff.

Figure 5.1 Wastewater Outfalls and Overboard Discharges



Shellfishing for the area falls under Shellfish Growing Area WP, which includes the coastal waters of Southport, Boothbay Harbor and Boothbay. The Maine DMR records no management plan for this area but it has noted "Shellfish growing area WP will continue to be sampled to determine if the water quality in Hodgdon Cove will remain stable…If the water quality continues to be good, the area will be surveyed to see if it can be reopened for shellfish harvest. Additional sampling stations will be reactivated when licensed overboard discharges are removed." As of 2011, this area and most others within the Town's coastal waters remained closed to shellfishing. Boothbay Harbor has received a "clean harbor designation" from the State: there are six marinas with pump-out facilities and the Town operates a pump-out boat and a pump-out float.

3. Has closing of clam or worm flats threatened the shellfishing industry, and are sources of contamination known? Are sources point (direct discharge) or nonpoint sources?

See Figure 5.2 for areas prone to shellfish closures, which include nearly all of the coastal waters of Boothbay Harbor, and for the locations of point sources of pollution, as noted above. Water quality can be degraded by multiple factors, resulting from natural occurrences and from human activity. Pollution can be classified by its origin. Point source pollution originates from a single point, such as an outflow pipe, an overboard discharge including untreated or insufficiently treated wastes from a residence, business, or industry. Non-point source pollution, for example from storm water runoff of fertilizer, phosphorous, motor oil and other chemicals, is also of concern. Vegetative buffers, as required in shoreland zoning and the proper use of fertilizers and appropriate disposal of chemicals, can reduce pollution runoff.

Dissolved oxygen in Linekin Bay is decreasing, creating stresses for marine life. Causes may include storm water runoff, increasing temperatures, changes in circulation, bacteria and chlorine from overboard discharges and outfalls and will continue to impact aquaculture. Additional monitoring of oxygen levels in the harbor is recommended.

Over the past 10 years, an estimated 20 to 29 residents have been employed in clamming. This number fluctuates based upon the general economy and closures of clam flats. Some clam to earn a second income. Closures of clam flats, especially after heavy rains, reduce the dependability of this occupation to provide a steady income. The four-town shellfishing ordinance allows residents of participating towns to harvest in any of these municipalities. This has proven very beneficial to sustain clamming. Maine DMR records show that the total numbers of residents who fish, lobster, clam or work with other marine resources has declined somewhat over the past five years. See the Conditions and Trends section below for figures.

Pollution reduction measures include new pump-out facilities, as noted, and the reduction in overboard discharges. Further similar measures would be beneficial to shellfishing.

4. Are traditional water-dependent uses thriving or in decline? What are the factors affecting these uses? If current trends continue, what will the waterfront look like in 10 years?

Over the past decade, the data from landings and licensing show that the commercial activity within Boothbay Harbor has generally declined. Landings data from the Maine Department of Marine Resources for 2001 and 2011 show decreased total landings by weight and value. The number of commercial licenses has also declined. Nonetheless, the total level of marine activity may or may not have decreased; tourism continues apace and no major facilities have changed use. See the Conditions and Trends section below for more information. There are two aquaculture lease applications (to study kelp-based treatment of wastewater effluent) in the Town.

There are no local records on the number of people employed in marine-related businesses in Town. State and federal regulations have often curtailed fishing and lobstering activities. The high value of waterfront property has resulted from increased demand for residential development in shoreland areas. However, this has been tempered somewhat by the downturn in the real estate market.

It is anticipated that within the next ten years employment in this sector will decline locally. The Town, of course, cannot control the national market for marine products, State and federal regulations, or the real estate market. However, current marine-related uses are protected in shoreland zoning ordinance provisions, described below.

5. Is there reasonable balance between water-dependent and other uses, and between commercial and recreational uses? If there have been recent conversions of uses, have they improved or worsened the balance?

According to the Code Enforcement Officer and Planning Board, within the past ten years few conversions of water-dependent uses (and structures) to non-water-dependent and residential (seasonal and year-round) uses have occurred. What conversions have taken place have had little effect on marine-based activities within the Town.

In 2005, about 19% of registered moorings were used for commercial fishing, 4% were for other commercial uses, 33% were rental, and 45% were for personal use. In 2012, there were 929 moorings, of which 44% were commercial, 52% were for personal use, and 4% for other uses. Of the total number of moorings, 31% were rental.

Recreational, charter and tourist boating activities have expanded during the last ten years, and are likely to continue to do so. In the summer of 2012, small cruise ships (100 to 200 passengers) stopped in Boothbay Harbor twice a week. Currently they are using private facilities and thus future growth may depend upon creating or enhancing public access for these ships. Cruise ships of varying size will likely increase their presence in the region and include Boothbay Harbor as a port of call more frequently. There is agreement that these activities should be balanced to maintain traditional water-dependent uses of the harbor. See the Economy Chapter for more information.

6. How does local zoning treat land around working harbors?

The Boothbay Harbor Land Use Code includes a Maritime/Water Dependent District to protect current working waterfront activities and it encompasses most of the east side of the harbor. "The intention of this land use district is to protect traditional commercial water-dependent uses such as commercial fishing, boatbuilding, marine service and repair, etc., from other competing but incompatible uses; to conserve points of public access to coastal waters; and to give preference in identified areas to commercial water-dependent uses over recreational and residential uses." It is believed that this district and its permitted uses, prohibited uses, and dimensional requirements have effectively served Boothbay Harbor.

The Boothbay Harbor Land Use Code regulates water-oriented uses by district to protect the traditional working waterfront. See the Conditions and Trends section below for more information.

7. Is there a local or regional harbor or bay management plan? If not, is one needed?

The harbor and the waterfront are managed by a Harbor Master and deputy Harbor Master under the direction of the Town's Port Committee, which meets monthly year-round. The Port Committee contains a cross section of waterfront users. There is no local or regional harbor or bay management plan. None is needed as the Port Committee manages the harbor comprehensively.

8. Are there local dredging needs? If so, how will they be addressed?

The last dredging of the harbor took place in 1914-1916. Based on a comparison of depth soundings from the late 1800s, there has been little change in harbor depth. Boothbay Harbor is designated by the US Army Corps of Engineer as a recreational, non-commercial harbor. Future dredging of the harbor is not anticipated.

9. Is there adequate access, including parking, for commercial fishermen and members of the public? Are there opportunities for improved access?

Access to the waterfront for both commercial fishermen and the public is provided by a combination of public and private facilities. The public facilities include Whale Park (with dockage), Barrett's Park (with winter gear storage), the footbridge (with dockage), the Fisherman's Memorial (scenic views only), the boat ramp at Townsend's Gut, and the Fish Pier (dockage, launching ramp and commercial facilities).

The Town of Boothbay Harbor has been working steadily on plans to renovate the Town-owned Fish Pier. Numerous workshops and public meetings have been held, and two professional studies were commissioned; a 2006 report by Coastal Enterprises, Inc. titled "Boothbay Harbor: Keeping the Balance, A Harbor Profile and Fish Pier Study", and in April 2010, a Gawron-Turgeon study entitled "Boothbay Harbor Fish Pier: Feasibility Study/ Master Plan Report." In 2012, this effort culminated in a town meeting vote to appropriate $474,000 for Fish Pier renovations. In the fall of 2012, the Selectmen allocated $118,000 of that amount to take down the unsafe structures located on the pier and to rebuild the pier where the structures once stood. This work is scheduled to start in the spring of 2013. Upon completion of this work, the Town will have a safe, clean and more easily accessed Fish Pier. There are no current plans to rebuild any structures on the pier with the remaining funds, but the Town anticipates discussing this issue with potential tenants. Proposed uses must be marine-related uses that require direct water access.

See the Public Facilities and Services Chapter and the Capital Investment Plan in the Fiscal Capacity Chapter for more information.

10. Are important points of visual access identified and protected?

See the Natural Resources Chapter for a description of scenic resources, including points of visual access and the protection status of these locations. Most of these sites are found within or are close to shoreland areas.

The Land Use Code includes this definition of scenic resource, "That specific location, view or corridor, as may be identified in the Comprehensive Plan or by a state or federal agency, that consists of: (1) A three-dimensional area extending out from a particular viewpoint, focusing on a single object, such as a mountain, resulting in a narrow corridor, or a group of objects, such as downtown skyline or mountain range, resulting in a panoramic view corridor; or (2) A vehicular right-of-way or viewpoint that contains lateral terrain features such as valley sides or woodland as observed to either side of the observer, constraining the view into a narrow or particular field, as seen when one travels along a roadway, waterway or both."

The Special Residential District has as one of its purposes, "…that natural resources and scenic values are not compromised and neighbors are not adversely affected." Similarly," The Resource Protection District includes areas in which development would adversely affect water quality, productive habitat, areas of significant wildlife habitat, biological ecosystems or scenic and natural values."

General requirements for subdivisions include the "Preservation of natural and historic features. The Planning Board shall require that a proposed subdivision design include a landscape plan that will show the preservation of existing trees, the replacement of trees and vegetation, graded contours, streams and the preservation of scenic, historic, or environmentally desirable areas."

The Site Plan Review standards state "Environmentally sensitive areas, including but not limited to wetlands, steep slopes, floodplains, significant wildlife habitats, fisheries, scenic areas, habitat for rare and endangered plants and animals, unique natural communities and natural areas, and sand and gravel aquifers must be maintained and preserved to the maximum extent."

Within Land Use Code general requirements is the following: "Sites selected primarily for scenic or passive recreation purposes shall have such access as the Board may deem suitable and shall have no less than 25 feet of road frontage. The configuration of such sites shall be deemed adequate by the Board with regard to scenic attributes to be preserved, together with sufficient areas for trails, lookouts, etc. where necessary and appropriate."

11. What is the impact of rising sea levels?

The Lincoln County Regional Planning Commission, the Maine Geological Survey, the Maine Coastal Program and NOAA completed a study of the potential impacts of sea level rise on Lincoln County including Boothbay Harbor. For study results see http://lcrpc.org/sea-level-rise-scenarios. Many scientists believe that sea level will increase between 2 feet and 6 feet along the Lincoln County coastline in the next 100 years. In fact, considering only current Antarctic and Greenland ice sheet and polar ice cap melting rates and the effects of ocean thermal expansion, sea level is projected to rise 12.6 inches by 2050 alone.

The most obvious marine impact in Boothbay Harbor would be the increase in water level relative to marine facilities such as docks and wharfs. There are, however, several other potential impacts that could significantly affect the local marine economy. As sea level rises, low marshes may be converted to open water while high marshes will migrate to higher elevations depending upon local topography. In addition, some existing high marshes will be inundated more frequently and become low marshes. These changes in the local ecosystem can dramatically affect the habitats of shellfish and the ability of near shore areas to serve as incubators for commercial fisheries.

Melting of the ice caps and ice sheets will continue to contribute to rising ocean temperatures, which appear to be impacting the number and type of commercial fish species off Boothbay Harbor. Further, there are concerns that rising sea temperatures could affect lobstering and lead to the introduction of warm water intruders, such as green crabs, into a formerly cold water habitat.

In addition to sea level rise, Boothbay Harbor is susceptible to impacts associated with hurricane surge as illustrated in Figure 5.5. Such impacts will likely be exacerbated as climate changes result in more severe hurricanes.

Conditions and Trends

See Figures 5.2 through 5.4, in addition to what is provided in this section.

Figure 5.2 Marine Resources

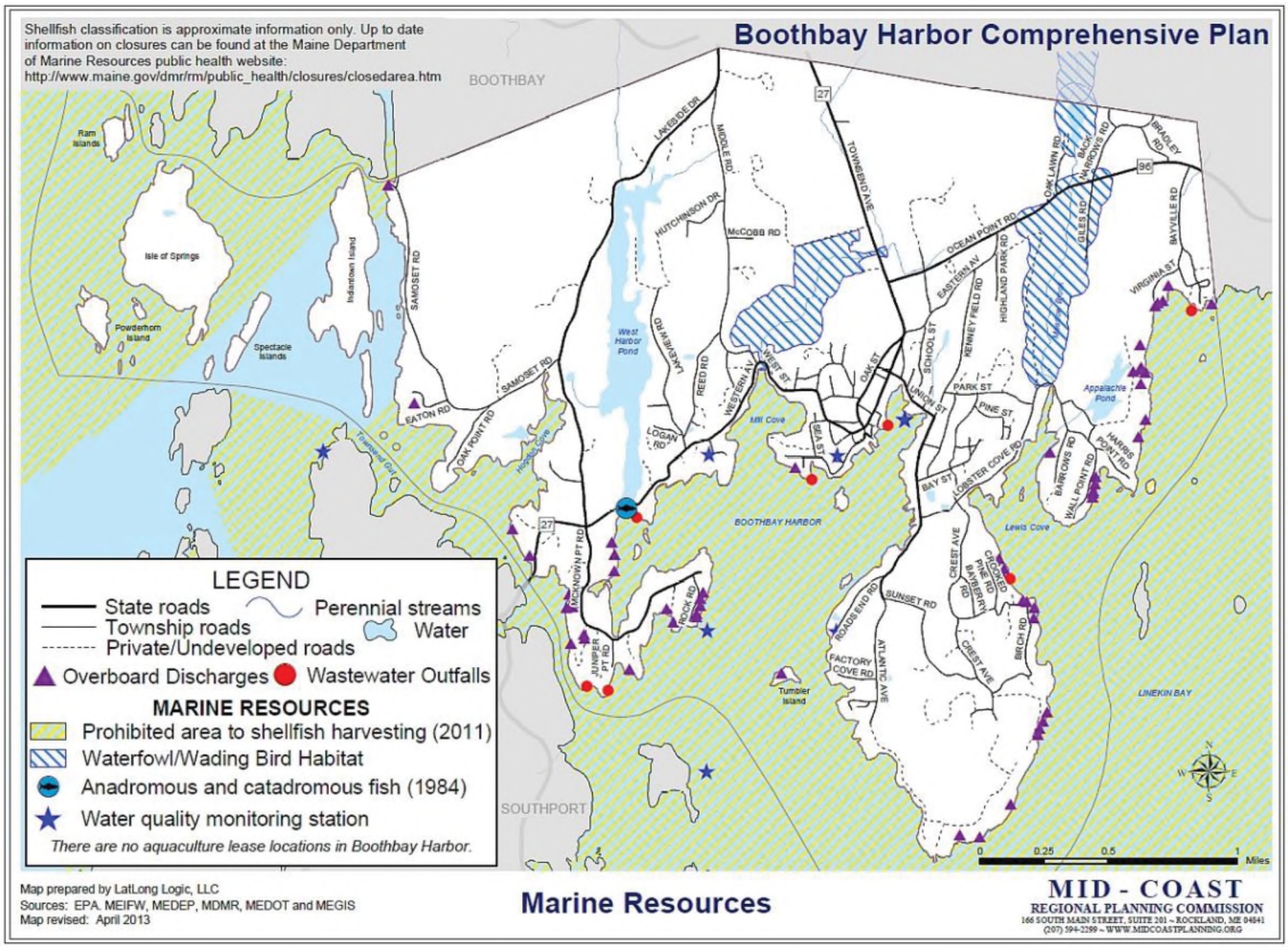


Figure 5.3 Water Resources

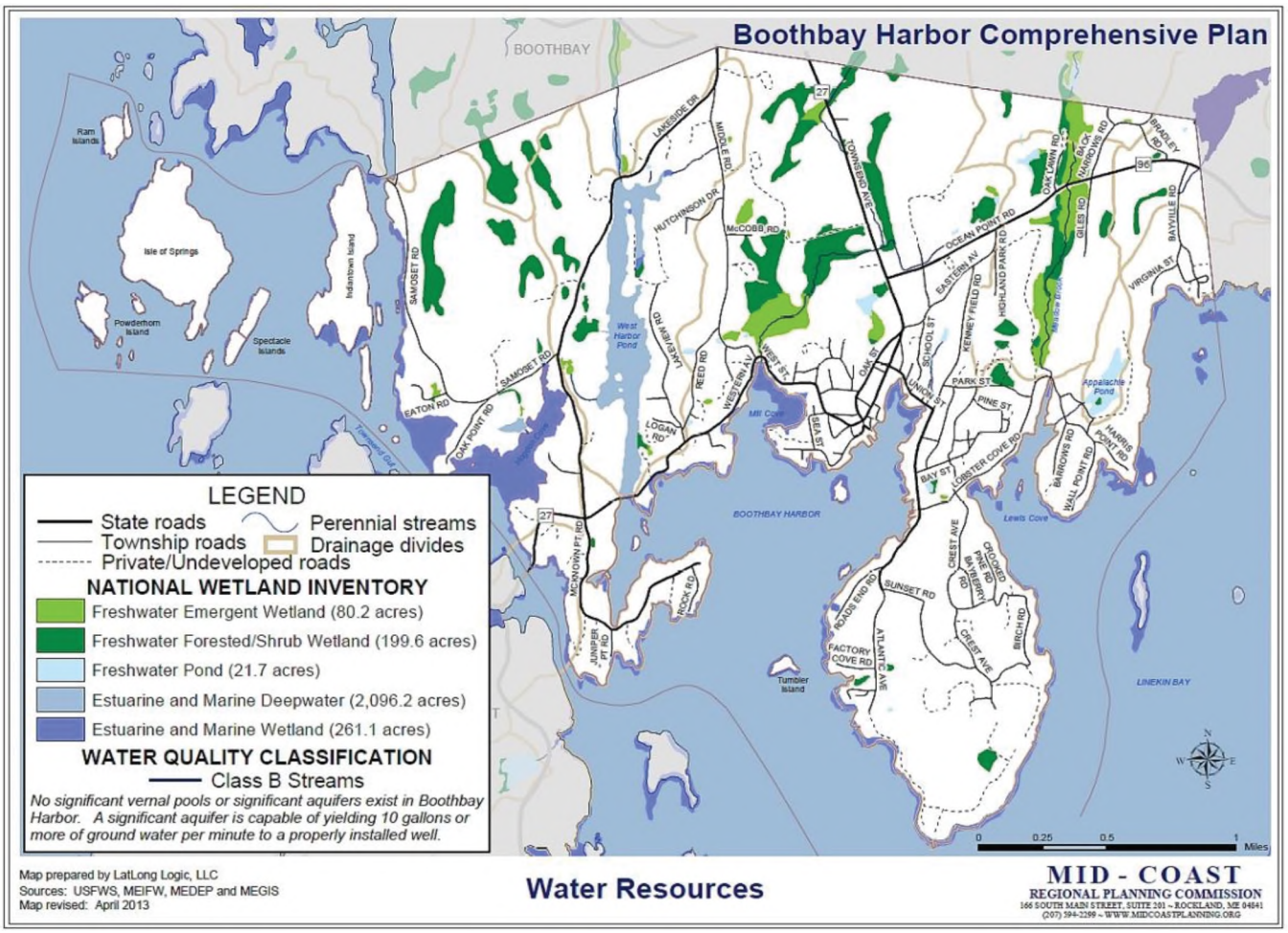


Figure 5.4 Public Facilities

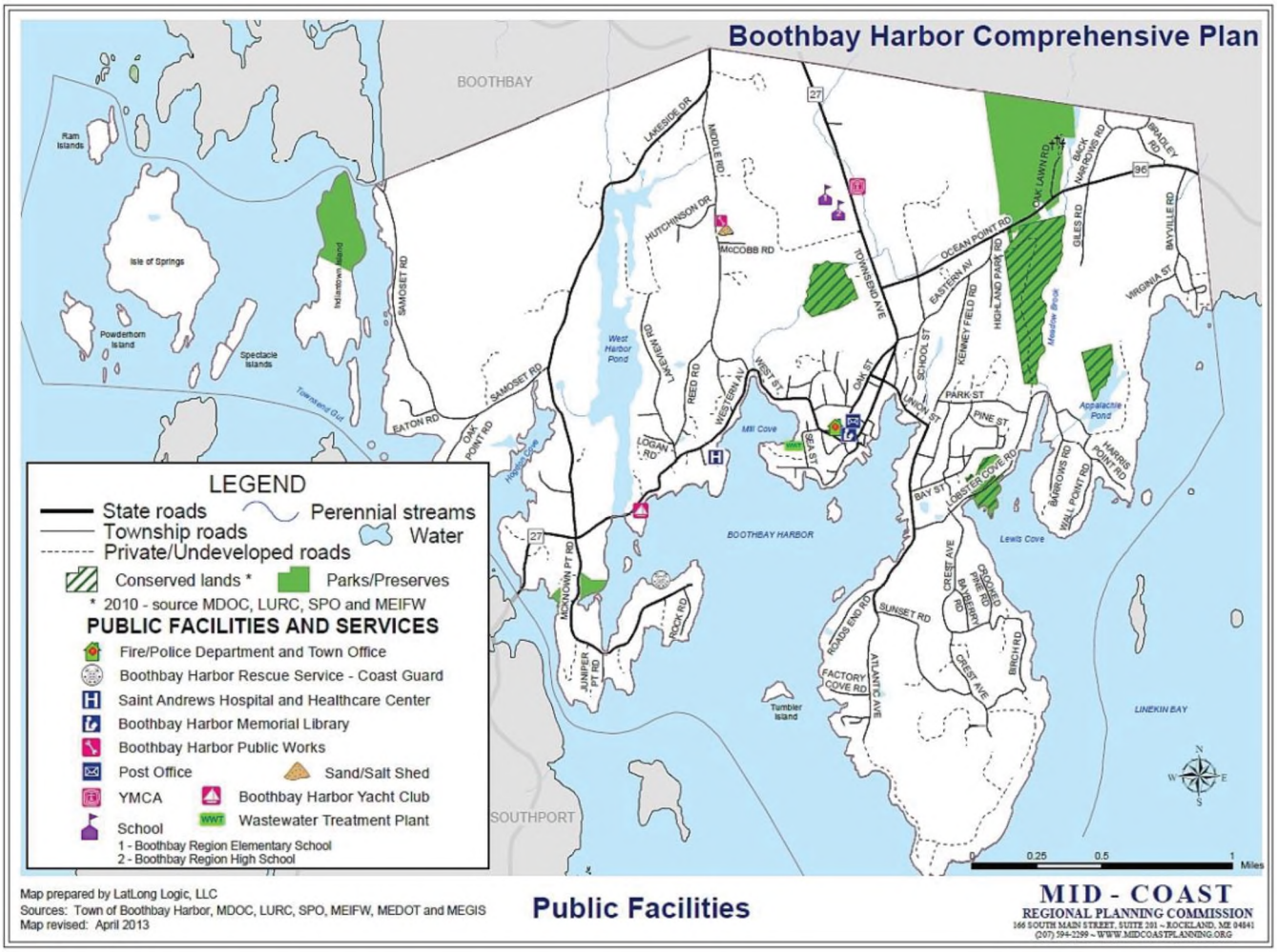
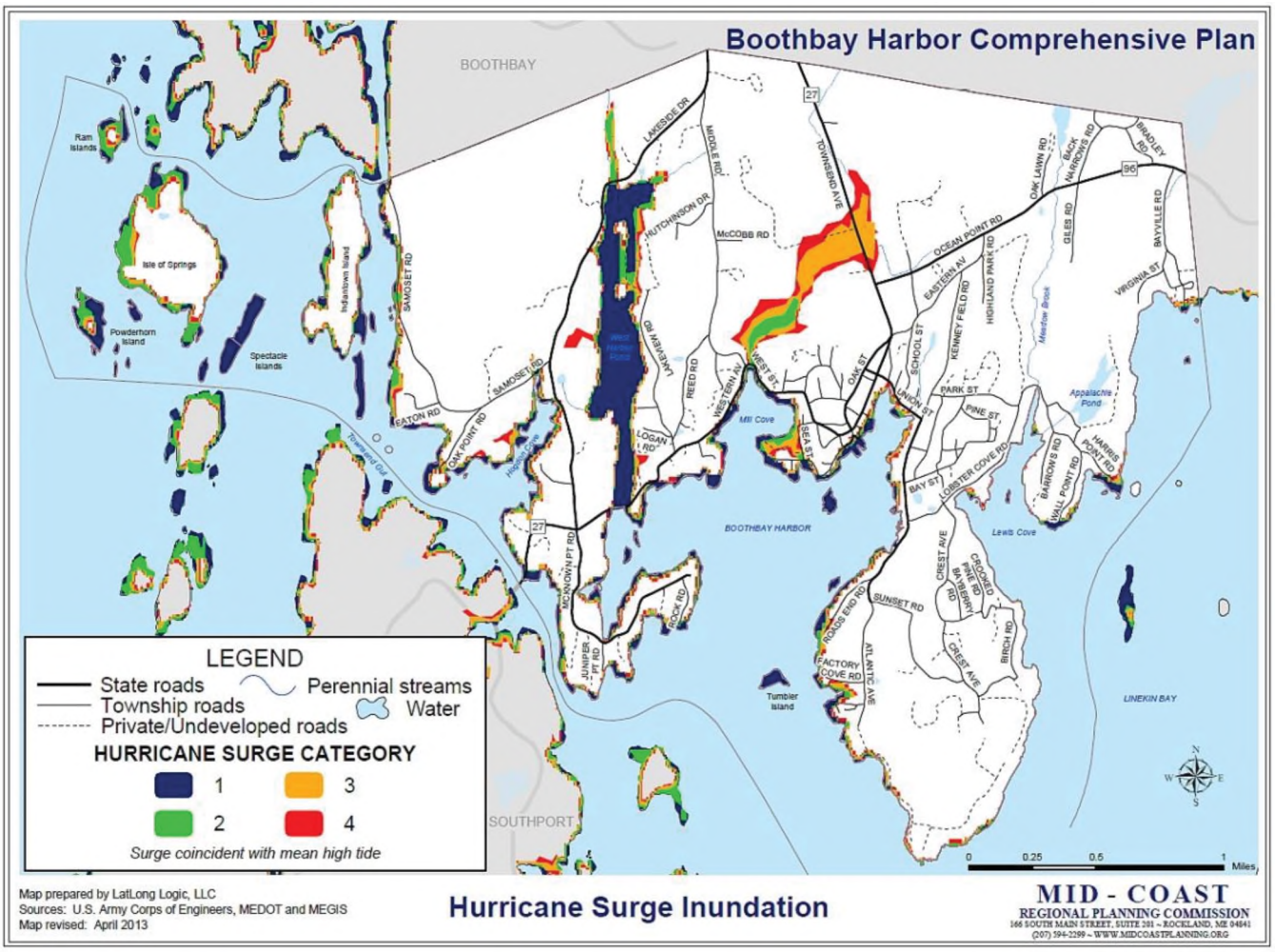


Figure 5.5 Hurricane Surge Inundation



The number of residents holding marine resource licenses (dealers and harvesters) has decreased by 14 in the past six years to total 117, while the number of commercial lobster tags registered to Boothbay Harbor residents has decreased by 90 to total 3,680.

Table 5.1 Marine Resource Licenses Held by Boothbay Harbor Residents

	2006	2007	2008	2009	2010	2011
Dealers	34	33	26	26	28	30
Harvesters	97	98	90	82	87	87

Source: Maine DMR

Table 5.2 Total Lobster Trap Tags by Boothbay Harbor Residents

	2006	2007	2008	2009	2010	2011
Total Tags	3,770	4,220	4,420	4,015	3,805	3,680

Source: Maine DMR

Maine DMR categorizes marine licenses as shown in the next table for Boothbay Harbor residents.

Table 5.3 Total Lobster Trap Tags by Boothbay Harbor Residents

LICENSES	2006	2007	2008	2009	2010	2011
Comm. Fishing – Crew	9	9	7	5	5	4
Comm. Fishing – Single	5	6	8	7	10	11
Comm. Shrimp – Crew	12	9	12	11	8	11
Comm. Shrimp – Single	0	1	1	1	2	2
Comm. Pelagic & Anadromous – Crew	0	0	0	0	0	2
Comm. Pelagic & Anadromous – Single	0	0	0	0	0	2
Comm. Shellfish	9	11	11	11	9	9
Comm. Shellfish +70	1	0	1	1	1	1
Eel, Eel Pot/Hoop Net	0	0	0	0	1	0
Enhanced Retail	0	0	0	0	1	1
Lobster/Crab Apprentice Under 18	1	1	0	0	0	0
Lobster/Crab Non-Comm.	16	19	10	9	13	9
Lobster/Crab Class II +70	0	0	4	3	4	5
Lobster Meat Permit	5	4	4	4	4	3
Lobster Trans, Out-of-state	2	2	2	2	2	1
Lobster Trans, Supp	1	2	2	2	1	1
Lobster/Crab Apprentice	4	2	2	2	2	2
Lobster/Crab Class I	13	13	11	14	15	15
Lobster/Crab Class II	30	30	32	27	25	23
Lobster/Crab Class III	5	6	3	4	3	4
Lobster/Crab Over Age 70	3	2	2	2	2	1
Lobster/Crab Student	12	11	11	9	10	7
Lobster/Crab Under Age 18	0	0	0	1	1	0
Marine Worm Digging	2	2	3	2	3	1
Quahog (Mahogany)	0	1	0	0	0	0
Recreational Saltwater Fishing Operator	0	0	0	0	0	4
Retail Seafood	31	30	23	23	24	25
Scallop – Diver	0	0	0	1	0	1
Scallop – Dragger	1	1	1	1	0	0
Scallop with Tender	0	0	0	0	1	0
Scallop –Non-Comm.	5	4	6	2	1	1
Sea Urchin/ Scallop Tend	2	0	0	0	0	0
Sea Urchin – Diver	1	1	1	1	0	1
Sea Urchin – Dragger	1	1	1	1	1	1
Sea Urchin with Tender	0	0	0	0	1	0
Shellfish Trans, Out-of-state	1	1	1	1	1	1
Shellfish Trans, Supp	1	1	1	1	1	1
Wholesale No Lobsters	2	2	2	2	1	2
Wholesale No Lobsters, Supp	0	0	0	1	1	1
Wholesale with Lobsters	6	5	5	5	5	5
Wholesale with Lobsters, Supp	5	4	4	4	4	4

Source: Maine DMR

Boothbay Harbor total landings recorded by Maine DMR are shown for 2001 and 2011 in the next table. The amount of lobster caught decreased 20.5% in weight and decreased 19.3% in value. Total landings decreased 47.7% in weight and decreased 19.9% in value during this period.

Table 5.4 Boothbay Harbor Landings 2001 and 2011

YEAR	SPECIES	LIVE POUNDS	VALUE
2001	Lobster	1,692,733	$5,390,292
	Other species	2,427,859	$803,541
	Shrimp	187,737	$180,206
	Total	**4,308,329**	**$6,374,039**
2011	Bloodworms	129	$1,433
	Lobster	1,346,068	$4,349,609
	Other species	32,472	$88,390
	Shrimp	831,369	$600,520
	Soft clam	44,557	$66,575
	Total	**2,254,595**	**$5,106,527**

Source: Maine DMR, 5/2/2012

Note: 2011 data are preliminary.

The number of boats registered to Boothbay Harbor residents is shown in the next table.

Table 5.5 Boat Anchorage in Boothbay Harbor

BOAT LENGTH (FT)	2011
12-20	71
21-30	42
31-40	65
41-49	6
50+	4
Total	**188**

Source: Maine DMR

See Figure 5.2 for the location of point sources of pollution within Boothbay Harbor, which are identified in the tables that follow.

Table 5.6 Licensed Active Overboard Discharges (OBD)

WATER BODY	NUMBER LICENSED	TOTAL LICENSED FLOW (GPD)
Boothbay Harbor	15	7,040
Campbell Cove	1	600
Lewis Cove	3	960
Linekin Bay	27	9,110
Lobster Cove	2	1,060
Townsend Gut	12	4,530

Source: Maine DEP.
Notes: GPD (gallons per day) of effluent.

Table 5.7 Wastewater Facilities in Boothbay Harbor

NPDES LICENSE	OWNER	WATER BODY	CLASS	CATEGORY
ME0100064	Bayville Village Corp.	Linekin Bay	Treated	Minor
ME0100064	Boothbay Harbor Sewer	Boothbay Harbor	Treated	Major
MEU503975	George Whitten	Townsend Gut	Treated	Minor
MEU502398	Juniper Point Effluent Comm.	Boothbay Harbor	Treated	Minor
ME0001571	Linekin Heights Assoc. Pool	Lewis Cove	Treated	Minor
MEU500868	Oak Grove Condominiums Inc.	Lewis Cove	Treated	Minor
ME0036340	Town of Boothbay Harbor	Atlantic Ocean	Other (snow)	Minor

Source: Maine DEP

1. WATER-DEPENDENT USES IN BOOTHBAY HARBOR

The principal harbor and port in Town is Boothbay Harbor, located between McKown Point and Spruce Point. Mill Cove is also located within this area. Other harbors include Lewis Cove and Lobster Cove to the east of Spruce Point and Bayville Harbor near the base of Linekin Neck. On the east shore of Boothbay Harbor are Hodgdon Cove, and Townsend Gut, the channel between Southport and Boothbay Harbor. The west side of Boothbay Harbor's shoreline borders the Sheepscot River and includes several islands, the larger of which are Isle of Springs and Indiantown Island.

Boothbay Harbor's shoreline and harbors are used by a diversity of marine and water-oriented activities. These activities include traditional commercial marine uses such as boatbuilding/repair/storage, fisheries (harvesting, retail, and wholesale), shellfish, and lobster pounds. The shoreline and harbors also accommodate many tourism related businesses such as inns, motels, restaurants, charter boats, recreational boats, marinas, and specialty retail shops. There is also a significant vacation and seasonal home use of Boothbay Harbor's shoreline. All of these uses compete for space along the shoreline and harbors for access to the ocean.

A 2006 report by Coastal Enterprises, Inc. titled, "Boothbay Harbor: Keeping the Balance, A Harbor Profile and Fish Pier Study," identified about 490 parcels along the harbor. Of these, 420 were residential parcels, 41 parcels were for hotels/restaurants, 9 parcels were for commercial fishing uses, 2 parcels were boatyards, 7 parcels were for private yacht club uses, and 11 parcels were for public use.

The next table lists marine-related activities and uses along the waterfront.

Table 5.8 Marine-Related Activities and Uses in 2012

TYPE	NUMBER	TYPE	NUMBER
Charter Boats: Tours	9	Charter Boats: Fishing	5
Lobster Boats	NA	Marinas	8
Commercial Docks	4	Public Docks	3
Public Fish Pier	1	Charter Boat Docks	3
Boat Rentals	2	Coast Guard Station	1
Dept. of Marine Resources Facility/ Aquarium	1	Marine Fueling Facility	4
Boat Yard	2	Lobster Pound	1
Fish Market	3	Marine Construction	2
Lobster Dealers	4	Yacht Club	1
Ocean Parks	3	Ramps	3
Waterfront Motels	7	Marine Railways	2
		Footbridge Across Harbor	1

Source: Town of Boothbay Harbor

The 2006-2010 American Community Survey of the Census recorded that 45 persons in Boothbay Harbor were employed in the agriculture, forestry, fishing and hunting, and mining categories, the majority of which were likely in the fishing subcategory.

See the Official Shoreland Zoning Map for the existing zoning along and near water bodies. Most development *along water bodies is residential and tourist-related commercial, not water dependent. Commercial uses are primarily located adjacent to the village area. Water dependent uses are found at and near landings and docks, which are mostly within the village area and along Atlantic Avenue.

2. REGULATIONS INFLUENCING SHORELAND LAND USE PATTERNS

Boothbay Harbor has adopted shoreland zoning provisions in the Land Use Code that are intended to protect shorefront areas. Districts include General Residential, Special Residential, Downtown Business, Maritime/Water Dependent, General Business, Stream Protection and Resource Protection.

As shown in the next table, the Land Use Code regulates water-oriented uses by district.

Table 5.9 Water-Oriented Uses

	GR	SR	DB10	MW	GB	RP
Accessory uses or structures	C	P	C	C		
Aquaculture uses. No processing or storage	P		P	C	P	
Aquaculture products, processing, warehousing, sales (retail and wholesale)				P		
Boat building and repair, commercial operations	P		P	C		
Boathouses	C	C	C	C	C	
Breakwaters and causeways	P	P	P	P		P
Marinas			P	P		
Marina expansion		P[12]	P	P		
Piers, docks and wharves	C[16]	C	C[16]	C		C
Seafood products, processing, warehousing, sales (retail and wholesale)				P		
Tour or charter boat operations			C	C	C	

Source: Boothbay Harbor Land Use Code

GR: General Residential District
SR: Special Residential District
DB: Downtown Business District
MW: Maritime/Water Dependent District
GB: General Business District
RP: Resource Protection District
Y: Use allowed without a permit
C: Uses requiring a building permit or other type of permit from the Code Enforcement Officer
P: Conditional uses and requiring site plan review approval from the Planning Board in accordance with the requirements of Article V of this Land Use Code.
Blank: Not permitted
DB10: In the Downtown Business District, the following uses shall not be permitted: Within 75 feet of the normal high-water mark, the conversion of an existing building to a hotel of any size or the expansion of a nonconforming use.
The projection of second floor overhangs into required setbacks.
The expansion or construction of structures constructed out over the water that are not marine-related.
P12: Provision restricted to Blake's Marina
C16: See § 170-101B (7), Shoreline zoning, for size and height standards.

It is believed that these water-oriented uses support the working waterfront and traditional maritime activities. See the Land Use Code for more information on standards and uses.

Boothbay Harbor participates in the National Flood Insurance Program, and the Town has adopted Floodplain Management Ordinance provisions. Special flood hazard areas are inundated by 100-year floods, i.e., less than a one percent chance of being equaled or exceeded in a given year. Ordinance provisions limit development in flood prone areas and require that new development in these areas is suitably designed to withstand flooding.

3. LOCAL OR REGIONAL HARBOR, OR BAY MANAGEMENT PLANNING

The port committee and harbor master have led harbor management efforts.

4. LOCAL AND REGIONAL HARBOR FACILITY IMPROVEMENT PLANNING

See Figure 5.4 for the locations of harbor facilities. The primary harbor facilities include the Town Landing, Fish Pier and the Footbridge.

As noted in the *Analyses* section above, the Town has plans to rebuild the public fish pier, based on professional studies, workshops, and public discussions held since then. The Town has set aside funds for different pier projects. Contracts have been awarded for some demolition and pier work and the Selectmen have drafted a proposal to interested marine-related businesses.

5. PUBLIC ACCESS POINTS TO THE SHORE

See Figure 5.4 for the locations of public landings, boat launches and parks with water access. See the Recreation Chapter for a description of these facilities. Public access to the harbor is available at several sites. See the *Analyses* section above response to question # (9) for their identification. Over the next ten-year planning period, it is believed that current capacity at public facilities will be adequate to meet anticipated demand. Proposed improvements to these facilities include the Fish Pier, noted above, and the addition of a float and dock at Barrett's Park. See the Capital Investment Plan in the Fiscal Capacity Chapter for more information.

6. SCENIC RESOURCES ALONG BOOTHBAY HARBORS SHORELINE

Boothbay Harbor has extensive scenic resources, most of which are found within or are close to shoreland areas. In addition to the locations presented in Table 5.10, it is recommended that turnouts along public roads for viewing and picture taking be identified so that residents and visitors can take advantage of the many attractive water views in the community.

Table 5.10 Shoreline Scenic Resources

SITE NAME AND LOCATION	FEATURE (S) SEEN FROM SITE	PRIORITIZED RATING/ RANKING	CURRENT PROTECTION STATUS OWNERSHIP (EASEMENTS)
West Harbor Post Office	Western Ave.		BBH Yacht Club - none
Our Lady Queen of Peace Church	Inner Harbor		Portland Diocese - none
Footbridge	Inner Harbor, Atlantic Ave., Downtown		Town
Fisherman's Memorial	Atlantic Ave.		Town
Maine State Aquarium	Inner Harbor		State

Source: Town of Boothbay Harbor

State Goal

To protect the State's marine resources industry, ports and harbors from incompatible development and to promote access to the shore for commercial fishermen and the public.

Policies

1. To protect, maintain and, where warranted, improve marine habitat and water quality.
2. To foster water-dependent land uses and balance them with other complementary land uses.
3. Complementary land uses to marine dependent land uses might include support services to the fishing industry (ice making, gas, etc) as well as piers, docks, wharves and parking facilities which are set aside for commercial water dependent uses. To maintain and, where warranted, improve harbor management and facilities.
4. To protect, maintain and, where warranted, improve physical and visual public access to the community's marine resources for all appropriate uses including fishing, recreation, and tourism.

Strategies

1. ADDITIONAL RECREATIONAL NEEDS

Implementation Strategy

Identify needs for additional recreational and commercial access (which includes parking, boat launches, docking space, fish piers, and swimming access).

Responsibility

Port Committee, Harbormaster

Time Frame

2015-2017

2. CLEAN MARINA/BOATYARD PROGRAMS

Implementation Strategy

Continue to encourage owners of marine businesses and industries to participate in clean marina/boatyard programs.

Responsibility

Harbormaster

Time Frame

Ongoing

3. WORKING WATERFRONT ACCESS PILOT PROGRAM

Implementation Strategy

Provide information about the Working Waterfront Access Pilot Program and current use taxation program to owners of waterfront land used to provide access to or support the conduct of commercial fishing activities.

Responsibility

Harbormaster, Town Clerk, Economic Development Committee

Time Frame

Ongoing

4. HARBORMASTER AND PORT COMMITTEE SUPPORT

Implementation Strategy

Continue to provide sufficient funding for and staffing of the harbormaster and/or harbor commission.

Responsibility

Budget Committee, Select Board, Town Meeting

Time Frame

Ongoing

5. BAY MANAGEMENT PROGRAMS

Implementation Strategy

Support implementation of local and regional harbor and bay management plans.

Responsibility

Select Board

Time Frame

Ongoing

6. ACCESS TO COASTAL WATERS

Implementation Strategy

Work with local property owners, land trusts, and others to protect major points of visual and physical access, including boat launches, to coastal waters, especially along public ways and in public parks. Consider purchasing rights of first refusal, permanent easements and/or fee title for access points or properties of critical importance to marine, civic, or recreational activities.

Responsibility

Select Board, Town Manager, Land Trusts, Property Owners, Town Meeting

Time Frame

Ongoing

7. EDUCATIONAL OUTREACH

Implementation Strategy

Improve public information and education related to coastal management and the use of local marine resources.

Responsibility

Harbormaster, Town Clerk, Port Committee

Time Frame

Ongoing

8. EROSION CONTROL AND LOW IMPACT DEVELOPMENT

Implementation Strategy

Consider amending the Zoning Ordinance to incorporate Low Impact Development standards to reduce runoff and other pollution from new development or redevelopment. Observe present setback limits. Avoid sensitive areas with slopes of 8% or more, where construction will occur between September 15 and April 15, and areas with moderate to highly erodible soils that will be exposed for more than one month. Minimize the amount of bare soil exposed, limit clearing on building sites, as soon as possible, cluster buildings, and build one phase at a time. Minimize water-impervious surfaces that increase runoff. Direct water away from bare soil locations. Divert storm water into channels and install ditch turnouts so that runoff flows into vegetated areas. Ensure that storm and other drainage systems empty into adequately-sized channels and don't enter sewer systems.

Responsibility

Ordinance Committee, Planning Board, Town Meeting Vote

Time Frame

2015-2017

9. HARBOR, LAND USE AND SHORELAND ORDINANCES

Implementation Strategy

Continue to evaluate and amend or draft, if necessary, local ordinances to ensure that they provide priorities for commercial boats, fairly allocate moorings, provide for clear mooring standards and relocate moorings as necessary to accomplish efficiency of harbor use, improved navigation and safety, and separation of harbor user groups. Increase float space and dinghy space as feasible to meet current needs.

Responsibility

Port Committee, Town Meeting Vote

Time Frame

2015-2017

Implementation Strategy

Continue to evaluate and amend or draft, if necessary, dock regulations to minimize the potential negative impacts of a proliferation of these structures in ecologically sensitive areas, or areas where navigation might be impeded.

Responsibility

Port Committee, Planning Board, Select Board, Town Meeting

Time Frame

2017-2018

Implementation Strategy

Periodically review the Shoreland Zoning Ordinance to suggest amendments to protect the health and vitality of marine resources.

Responsibility

Code Enforcement Officer, Planning Board, Select Board, Town Meeting

Time Frame

Ongoing

10. POINT SOURCE POLLUTION: OVERBOARD DISCHARGE ELIMINATION

Implementation Strategy

Seek to remove overboard discharges and replace them with engineered systems that do not pollute.

Responsibility

Maine DEP

Time Frame

Ongoing

11. TOWN LANDINGS

Implementation Strategy

Continue to make appropriate improvements to public landings as needed. Provide off-street parking improvements to satisfy existing needs at these landings. Acquire property or perpetual use rights to support landing use within areas not currently adequately served.

Responsibility

Select Board, Town Manager, Public Works

Time Frame

Ongoing

12. WATER QUALITY MONITORING AND PROTECTION

Implementation Strategy

Continue to work with the Department of Marine Resources regarding impacts on water quality resulting from existing and potential pollution sources. Identify and mitigate existing pollution resulting from subsurface septic disposal, overboard septic discharge into coastal waters and vessel septage discharge. Utilize volunteer water quality monitoring to pinpoint pollution sources. This method could be used to identify malfunctioning septic systems or other pollution sources in problem areas on the Boothbay Harbor shoreline.

Responsibility

Harbormaster, LPI, Boothbay Harbor Sewer District, Department of Marine Resources

Time Frame

Ongoing

13. ADDRESSING THE IMPACTS OF SEA LEVEL RISE

Implementation Strategy

a. Consider applying for funding from the Maine Coastal Program or other agencies to develop a strategy to improve the resiliency of public and private buildings and facilities that have been identified as at-risk from the impacts of rising sea level and storm surge and work with the Harbormaster, Select Board, Town Manager and Code Enforcement Officer to implement such strategy.

b. Consider amending local ordinances to increase the height and resiliency of buildings and facilities at risk from rising sea level and storm surge as they are repaired, improved or replaced.

c. Work with the Department of Marine Resources to monitor changes in local marine resources such as shellfish habitat, new invasive species, marine incubator habitat, and commercial fish stocks.

Responsibility

Harbormaster, Shellfish Warden, Code Enforcement Officer, Planning Board, Select Board, Town Meeting, Department of Marine Resources

Time Frame

Ongoing

14. UPGRADE ROAD DRAINAGE SYSTEMS

Implementation Strategy

The Public Works Department will continue to upgrade road drainage systems to reduce runoff into coastal waters.

Responsibility

Public Works Director, Select Board

Time Frame

Ongoing

15. MARINE ENTERPRISE ZONE – (SEE IMPLEMENTATION STRATEGY #8 IN CHAPTER 7)

CHAPTER 6 - POPULATION & DEMOGRAPHICS

INTRODUCTION

An important goal of the municipal comprehensive plan is to relate the demographics of a community to its economy, development and environment. Most of the chapters and the recommendations of this plan are dependent upon or strongly influenced by the size and composition of Boothbay Harbor's current and forecasted population, both year-round and seasonal. The format of this chapter follows the State Comprehensive Plan Criteria Rule as amended in August 2011.

State Goal

None required.

Analyses

1. **Is the rate of population change expected to continue as in the past, or to slow down or speed up? What are the implications of this change?**

   Over the past 50 years, the population of Boothbay Harbor has decreased from 2,252 persons in 1960 to 2,165 persons in 2010, and an estimated 2,151 persons in 2011, for a loss of 101 persons in this period. (For earlier years, see the History Chapter.) The State has recently issued new forecasts for the State, counties, and towns in five-year increments through 2030. While the previous projections estimated that Boothbay Harbor's population 2024 as 2,200, this new projection forecasts the Town's 2030 population to be 1,463. This is a decrease of 32 percent from 2010 – 688 people – a significant trend likely to impact many aspects of community life and municipal finances. Another aspect of the demographics is the aging of Town's residents, which could also contribute to a modest increase in the demand for existing or expanded municipal services. See the Fiscal Capacity Chapter for more information. For the seasonal population forecast, see the response to question 3.

2. **What will be the likely demand for housing and municipal and school services to accommodate the change in population and demographics, both as a result of overall change and as a result of change among different age groups?**

   There are many aspects of population change, with different implications for the Town's economy, housing, municipal services, and schools. The projected population decline brings both challenges and opportunities, including increased availability of current housing stock. If the year-round population declines as projected, the increased availability of housing units could improve housing affordability. The increasing need for smaller units as household size decreases (seen locally over the past 40 years) also could prompt changes in zoning to permit higher unit density and reduced lot requirements for conversions or new construction.

   Much of the change seen in the Town's population has been in the increasing numbers of older individuals. The demand for services to meet elderly needs such as assisted living is expected to increase. At the other end of the generations, enrollments in Town schools have declined by 16.2% over the past decade, compared to a State decrease of about 9.4%. School forecasts of future enrollments are not available. For planning purposes, enrollments are predicted to remain stable or decline modestly. Expanded school facilities will not be needed. However, the renovation or replacement of these aging facilities will be of concern. See the Public Facilities and Services Chapter for more information.

To balance the demographic trends of increasing elders and decreasing youth, the Town could attract younger families with children through the promotion of year-round local employment opportunities and the provision of more affordable housing options. See the Housing Chapter and Economy Chapter for details.

3. **Does your community have a significant seasonal population, and is the nature of that population changing? What is the community's dependence on seasonal visitors?**

In 2010, the Census recorded 899 seasonal housing units in Boothbay Harbor, up from 802 units in 2000 and 701 units in 1990. The national average household size was 2.58 persons in 2010. Accordingly, on average there were about 2,320 people in seasonal housing units in Town. Based upon seasonal housing unit construction observed over the past 20 years, and a continuation in the declining national average household size, an additional 140 seasonal housing units are forecast to be built by 2024. This would total 1,039 units and would support a seasonal resident population of approximately 2,410 persons by 2024. Of course, this is an estimate subject to the declining average household size and the vacation habits of seasonal homeowners. See the Housing Chapter for more information.

Boothbay Harbor has approximately 867 rooms in transient accommodations (hotels, motels, inns) according to the Boothbay Harbor Region Chamber of Commerce. As a whole, the Chamber's region, which includes Boothbay/East Boothbay, Boothbay Harbor, Edgecomb, Southport, and Monhegan, has an estimated 1,240 rooms in transient accommodations and 150 spaces at campsites. The Windjammer event in June attracts an estimated 7,000 visitors to Boothbay Harbor. Given the large number of seasonal visitors, the Town is very dependent upon this sector to support the local economy. See the Economy Chapter for more information.

4. **If your community is a service center or has a major employer, are additional efforts required to serve a daytime population that is larger than its resident population?**

Boothbay Harbor is a service center community and requires additional municipal facilities, services, and staffing to serve a daytime population that is significantly larger than its resident population, especially during the summer tourist season.

Boothbay Harbor has several major employers. The expansion or contraction of these businesses affects the Town's population and finances. See the Public Facilities and Services Chapter and the Economy Chapter for information on the types of businesses and municipal services that are used by the daytime population, and trends in these sectors.

Conditions and Trends

1. DETAILED PAST DEMOGRAPHICS, 1960-2011

In the past 50 years, Boothbay Harbor lost 101 residents between 1960 and 2011 (a decline of 4.5%), to total an estimated 2,151 persons in 2011. (In comparison, the Town of Boothbay gained 1,507 people, an increase of 93.2%, during this same period for an estimated total of 3,124 in 2011). From 1960 to 2011, Lincoln County saw an 85% increase in its population, adding 15,727 residents to total an estimated 34,224 persons in 2011. The State had a 37% increase in population from 1960 to 2011.

Table 6.1 Population from 1960 to 2011

YEAR	BOOTHBAY HARBOR	LINCOLN COUNTY	MAINE
1960	2,252	18,497	969,265
1970	2,320	20,537	993,722
1980	2,207	25,691	1,125,043
1990	2,347	30,357	1,227,928
2000	2,334	33,616	1,274,923
2010	2,165	34,457	1,328,361
2011 Est.	2,151	34,224	1,328,188
Change	-101	15,727	358,923
Percent Change	-4.5%	85.0%	37.0%

Source: U.S. Census

Boothbay Harbor lost year-round population in the 1970s, 1990s, and in the last decade. Gains during the 1980s have not offset the overall decline in population seen from 1960 to 2011. Lincoln County and the State have grown in each of the last five decades.

Table 6.2 Percent Population Changes

PERIOD	BOOTHBAY HARBOR	LINCOLN COUNTY	MAINE
1960 - 1970	3.0%	11.0%	2.5%
1970 - 1980	-4.9%	25.1%	13.2%
1980 - 1990	6.3%	18.2%	9.1%
1990 - 2000	-0.6%	10.7%	3.8%
2000 - 2010	-7.2%	2.5%	4.2%
2010 - 2011	-0.6%	-0.7%	0.0%

Source: U.S. Census

From 2000 to 2010, the Town's population decreased by 169, according to the Census. During this period, there were 155 births and 535 deaths, for a net loss of 380 individuals. Accordingly, it can be calculated that 211 persons moved into the Town during this period, which reduced the total population decline that would have otherwise occurred.

Table 6.3 Vital Statistics for Boothbay Harbor

VITALS/YEAR	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	TOTAL
Births	16	16	15	21	15	12	15	7	15	12	11	155
Deaths	39	44	38	39	42	49	40	50	55	75	64	535
Net	-23	-28	-23	-18	-27	-37	-25	-43	-40	-63	-53	-380

Sources: Maine Office of Data, Research and Vital Statistics: 2000-2008; Boothbay Harbor Annual Town Reports: 2009-2010[1]

[1] Note: The death statistics from state and town sources do not match. State figures used for 2000-2008, town figures used for 2009 and 2010.

In 2010, females comprised 54.5% of Boothbay Harbor's population, while males comprised 45.5%. For Lincoln County, females comprised 51.0%, while males comprised 49.0%. Statewide, females comprised 51.1%, while males comprised 48.9%. The median age of Boothbay Harbor residents has increased by almost 16.3 years over the past 40 years. In 2010, the Town median was 7.7 years more than the County median.

Table 6.4 Median Age

AREA	1970	1980	1990	2000	2010	% CHANGE
Boothbay Harbor	39.5	39.1	41.3	48.3	55.8	41.3%
Lincoln County	34.6	33.5	37.3	42.6	48.1	39.0%
Maine	28.6	30.4	33.9	38.6	42.7	49.3%

Source: U.S. Census

In the past 20 years, Boothbay Harbor lost population in these age groups: 0-20, 22-44, and 70-74, as the table below shows. The Town gained population in all the other groups, most noticeably for those aged 50-54, and those aged 65-69. This suggests that the Town became more attractive to those in or nearing retirement age than it is to younger families with children.

Table 6.5 Age Groups in Boothbay Harbor

POPULATION	1990	2000	2010	CHANGE	% CHANGE
Under 5 years	138	95	62	-76	-55.1%
5 to 9 years	139	88	62	-77	-55.4%
10 to 14 years	124	135	72	-52	-41.9%
15 to 17 years	81	88	56	-25	-30.9%
18 and 19 years	59	43	28	-31	-52.5%
20 years	30	18	16	-14	-46.7%
21 years	16	17	18	2	12.5%
22 to 24 years	76	49	52	-24	-31.6%
25 to 29 years	130	99	84	-46	-35.4%
30 to 34 years	149	111	79	-70	-47.0%
35 to 39 years	173	148	87	-86	-49.7%
40 to 44 years	173	176	110	-63	-36.4%
45 to 49 years	143	166	153	10	7.0%
50 to 54 years	101	158	185	84	83.2%
55 to 59 years	142	197	181	39	27.5%
60 and 61 years	60	52	80	20	33.3%
62 to 64 years	94	87	121	27	28.7%
65 to 69 years	139	167	216	77	55.4%
70 to 74 years	118	141	116	-2	-1.7%
75 to 79 years	105	132	135	30	28.6%
80 to 84 years	77	78	113	36	46.8%
85 years and over	80	89	139	59	73.8%
Total	2,347	2,334	2,165	-182	-7.8%

Source: U.S. Census

Lincoln County also saw declines in the recent past in ages 0-19 and 25-44. All other age groups saw increases, with the greatest increase for those aged 50-59.

Table 6.6 Age Groups in Lincoln County

POPULATION	1990	2000	2010	CHANGE	% CHANGE
Under 5 years	2,012	1,621	1,605	-407	-20.2%
5 to 9 years	2,180	2,083	1,690	-490	-22.5%
10 to 14 years	2,129	2,451	1,916	-213	-10.0%
15 to 17 years	1,300	1,472	1,257	-43	-3.3%
18 and 19 years	717	659	639	-78	-10.9%
20 years	272	238	277	5	1.8%
21 years	237	208	240	3	1.3%
22 to 24 years	861	737	913	52	6.0%
25 to 29 years	1,901	1,533	1,493	-408	-21.5%
30 to 34 years	2,368	1,870	1,564	-804	-34.0%
35 to 39 years	2,553	2,436	1,916	-637	-25.0%
40 to 44 years	2,384	2,770	2,109	-275	-11.5%
45 to 49 years	1,919	2,780	2,614	695	36.2%
50 to 54 years	1,404	2,617	2,912	1,508	107.4%
55 to 59 years	1,522	2,310	2,959	1,437	94.4%
60 and 61 years	598	710	1,152	554	92.6%
62 to 64 years	976	1,014	1,808	832	85.2%
65 to 69 years	1,532	1,708	2,432	900	58.7%
70 to 74 years	1,272	1,513	1,590	318	25.0%
75 to 79 years	979	1,243	1,330	351	35.9%
80 to 84 years	681	824	1,010	329	48.3%
85 years and over	560	819	1,031	471	84.1%
Total	30,357	33,616	34,457	4,100	13.5%

Source: U.S. Census

2. RECENT 2030 PROJECTIONS

The State Planning Office predicts that Boothbay Harbor's population will decrease by 32 percent from 2010 to 2030 and that Lincoln County's population will decrease by about 15 percent. For planning purposes, the 2030 year-round population of the Town is forecast to total a maximum of 1,463 persons, 688 less than the 2011 estimate. The table below shows the projections for the four towns on the peninsula and Lincoln County.

Table 6.7 Population Projections 2015 to 2030

	2015	2020	2025	2030	CHANGE	% CHANGE
Boothbay Harbor	1,979	1,803	1,632	1,463	516	-26.10%
Boothbay	3,031	2,947	2,858	2,752	279	-9.2%
Southport	565	515	466	418	147	-26.02%
Edgecomb	1,211	1,195	1,175	1,147	64	-5.3%
Lincoln County	33,142	31,886	30,595	29,157	3,985	-12.02%

Source: Maine State Planning Office, February 2013

The Town trends are the result of certain factors affecting Boothbay Harbor, Lincoln County, Maine, and much of the Northeastern United States – the aging of the baby-boomer generation, low birth rates, and low rates of in-migration. The State projects that Lincoln County's population will decrease about four percent over the next five years and about that same percent each five years through 2030. The picture of the aging of the Lincoln County in this time period is described in the next table. Population growth will be most pronounced for those 75 years and older. Major declines are forecasted for age groups 40-69 and 5-24. Keep in mind that the longer-term projections are not as accurate as short-term numbers, due to the many factors that go into the calculations.

Table 6.8 Population Projections for Lincoln County

POPULATION	2015	2020	2025	2030	CHANGE	% CHANGE
Under 5 years	1,391	1,318	1,276	1,236	- 155	-11.1%
5 to 9 years	1,590	1,408	1,344	1,309	- 281	-17.7%
10 to 14 years	1,635	1,556	1,392	1,337	- 298	-18.2%
15-19	1,850	1,607	1,539	1,392	- 458	-24.8%
20-24	1,570	1,550	1,364	1,312	- 258	-16.4%
25-29	1,367	1,486	1,480	1,333	- 34	-2.5%
30-34	1,379	1,283	1,379	1,382	+ 3	0.2%
35-39	1,567	1,413	1,333	1,414	- 153	-9.8%
40-44	1,752	1,463	1,326	1,256	- 496	-28.3%
45-49	2,035	1,715	1,450	1,326	- 710	-34.9%
50-54	2,503	1,979	1,679	1,435	- 1068	-43.5%
55-59	2,736	2,362	1,876	1,599	- 1177	-43.0%
60-64	2,892	2,678	2,316	1,851	- 1041	-36.0%
65-69	2,916	2,859	2,664	2,316	- 600	-20.6%
70-74	2,357	2,799	2,767	2,597	+ 240	10.8%
75-79	1,432	2,097	2,485	2,472	+ 1040	72.6%
80-84	1,062	1,149	1,677	1,985	+ 920	86.6%
85+	1,110	1,167	1,251	1,606	+ 496	44.7%
Total	33,143	31,888	30,597	29,158	- 3985	-12.0%

Source: Maine State Planning Office, 2013

To create a healthy local economy and a vibrant community, Boothbay Harbor can identify municipal actions to build on opportunities presented by the older age groups and to increase employment and housing that could assist in attracting and supporting young families, in coordination with County, State, and national efforts.

3. OTHER DEMOGRAPHIC DATA

The average household size has decreased in Boothbay Harbor, Lincoln County, and statewide. This trend is due to several factors: a lower proportion of married couples, fewer children per family, and more people living alone longer. Declines in average household size can result in growth of the housing stock even when population growth is nominal, or when year-round population declines are offset by increased seasonal housing demand. See the Housing Chapter for more information.

Table 6.9 Persons per Household/Average Household Size

YEAR	BOOTHBAY HARBOR	LINCOLN COUNTY	MAINE
1970	2.60	2.98	3.16
1980	2.30	2.68	2.75
1990	2.26	2.52	2.56
2000	2.05	2.35	2.39
2010	1.90	2.24	2.32
Percent Change	-26.9%	-24.8%	-26.6%

Source: U. S. Census

Boothbay Harbor has had proportionally more residents with a high school and a bachelor's degree or higher than has Lincoln County or the State over the past 20 years. The last decade saw a notable increase in the percentage of Town residents with a high school and a college degree. See the Public Facilities Chapter for current enrollment figures in area schools.

Table 6.10 Educational Attainment

	YEAR	BOOTHBAY HARBOR	LINCOLN COUNTY	MAINE
High School Graduate or Higher	1990	83.97%	81.43%	78.83%
	2000	89.59%	87.93%	85.37%
	2010	95.1%	92.4%	89.8%
Bachelor's Degree or Higher	1990	23.54%	22.22%	18.77%
	2000	30.29%	26.61%	22.87%
	2010	41.0%	31.6%	26.5%

Sources: U. S. Census, American Community Survey 5-year estimates

State Goal

None required.

Policies

None required.

Strategies

None required.

CHAPTER 7 - ECONOMY

INTRODUCTION

An understanding of the local economy, in context of local and regional trends, is important in comprehensive planning. This information can be used in developing goals and formulating economic development strategies. One of the most critical economic goals of any comprehensive plan is to provide stable, year-round jobs in order to retain people of working age.

State Goal

Promote an economic climate that increases job opportunities and overall economic well-being.

Analyses

Is the economy experiencing significant change, and how does, or might, this affect the local population, employment, and municipal tax base?

Tourism has been a major focus of the Boothbay Harbor economy for over a century. Other historical parts of the Town's economy include boatbuilding and fisheries. These sectors decreased in importance over the past several decades, yet remain critical parts of the local, regional, and state economy. In the mid-20th century, widespread automobile ownership and improved roads made it possible for residents to begin to commute to jobs elsewhere in the region. A "balancing" trend is the increasingly diverse home occupations that are part of our current economy due to the new internet "highway." In addition, trends in commercial and luxury boats, aquaculture, and alternative energy bring opportunities and challenges to this community and the region.

The following section describes the Town's economy by the kinds of jobs residents hold and the industries that employ them. Also, income and wages are described along with annual employment cycles and commuting trends.

Conditions and Trends

1. EMPLOYMENT BY OCCUPATION AND INDUSTRY

Table 7.1 compares Lincoln County's and Boothbay Harbor's labor forces. It must be stressed that the data are estimates based on a sample and have a margin of error. One major difference is that only 3.9 percent of Town's labor force was employed in manufacturing compared 11.1 percent of the County's. Educational services, health care, and social assistance accounted for 32.8 percent of the Town's labor force, compared a 23 percent proportion for the County. While Boothbay Harbor is primarily a tourism/resort community, the proportion of residents employed in arts, entertainment, recreation, accommodations, and food services is only slightly higher (9.3 %) than the County (8.1 %). Retail trade accounted for 10.3 percent of the Town's labor force, compared to 12.9 percent for the County.

It must be stressed that these data are for where Boothbay Harbor residents work. They do not reflect the actual number of jobs in Town. Some people commute into Town for work but data on the rate of in-commuting are not available.

Table 7.1 Employment by Occupation and Industry, Boothbay Harbor and Lincoln County, 2010 Estimates

	BOOTHBAY HARBOR		LINCOLN COUNTY	
	NUMBER	% OF TOTAL	NUMBER	% OF TOTAL
Occupation				
Civilian employed population 16 years and older	1,048	100%	16,634	100%
Management, business, science, and arts occupations	441	42.00%	5,864	35.30%
Service occupations	149	14.20%	2,377	14.30%
Sales and office occupations	210	20.00%	3,687	22.10%
Natural resources, construction, and maintenance occupations	171	16.30%	2,866	17.20%
Production, transportation, and material	77	7.30%	1,840	11.10%
Industry				
Civilian employed population 16 years and older	1,048	100%	16,634	100%
Agriculture, forestry, fishing, and hunting	45	4.30%	906	5.40%
Construction	100	9.50%	1,668	10.00%
Manufacturing	41	3.90%	1,826	11.10%
Wholesale trade	23	2.20%	334	2.00%
Retail trade	108	10.30%	2,147	12.90%
Transportation, warehousing and utilities	55	5.30%	605	3.60%
Information	15	1.40%	277	1.70%
Finance, insurance & real estate	46	4.40%	730	4.40%
Professional, scientific, management, and administrative/waste management services	88	8.40%	1,327	8.00%
Educational services, health care and social assistance	344	32.80%	3,833	23.00%
Arts, entertainment, recreation, accommodation, and food services	97	9.30%	1,345	8.10%
Other services except public administration	64	6.10%	870	5.20%
Public administration	22	2.10%	767	4.60%
Class of Worker				
Civilian employed population 16 years and older	1,048	100%	16,634	100%
Private wage & salary workers	697	66.50%	11,630	69.90%
Government workers	206	19.70%	2,546	15.30%
Self-employed	145	13.80%	2,417	14.50%
Unpaid family members	0	0%	41	0.30%

Source: American Community Survey Estimates 2007-2011

2. INCOME AND WAGES

Table 7.2 presents Boothbay Harbor and Lincoln County income information for households and families. The Town's median household income of $48,062 is a little lower than the County's MHI of $48,862. The middle part of this table shows more about the sources of household income – earnings, social security, retirement, and public assistance. Close to 30% of the Town's households receive income from retirement, with a mean income of $37,419, considerably higher than the County's mean retirement income of $22,531. Median family income is significantly greater in Boothbay Harbor ($76,477) compared to the County MFI of $58,408, as is the per capita income, $37,069 compared to $28,741. As mentioned in the Population Chapter, the Town has more households of near retirement and retirement age, providing one possible explanation for higher retirement and family income.

In Boothbay Harbor, 6.9 percent of the households have an income of $200,000 or more, compared to a 3.3 percent rate for the County. While average incomes and income from earnings in Town are lower than the County's, Boothbay Harbor does have a greater proportion of wealthy residents (defined as those with an annual income of $200,000 or more). In Table 7.3 on Poverty Levels, Boothbay Harbor for the most part fares much better than the County as a whole for families and individuals living below the poverty level.[2] However, there are significant percentages of families with children (12.3%) and single female-headed households with children (21.7%) who live in poverty.

3. ANNUAL EMPLOYMENT PATTERN

Annual average employment trends are shown in Table 7.4, and the accompanying graph. Boothbay Harbor has consistently had a higher unemployment rate than Lincoln County. The data also show that the size of the labor force decreased steadily between 2006 and 2011 (from 1,346 to 1,248, nearly 9%). By contrast, the County's labor force decreased by 1 percent during the same period. This reveals that the Boothbay Harbor economy has fared worse through the recession than the entire County. The size of labor force tends to decrease during times of high unemployment as people stop looking for work. Some of the decrease, however, may be due to the aging of the population and people reaching retirement age.

Employment in Boothbay Harbor fluctuates by month. As seen in Table 7.5, the Town had a 13.9 percent unemployment rate in January 2011 compared to 5.0 percent in August. While the January Town rate was higher than the 9.2 percent rate for Lincoln County, the Town rate for August was slightly lower than the 5.5 percent rate for the County. These data clearly show the seasonal nature of employment in the Town. Unemployment rates are high in the off-season. Rates remained above 5 percent in the "shoulder season" months of May and September, but did drop to 5 percent in October.

[2] In determining the poverty status of families and unrelated individuals, the Census Bureau uses thresholds (income cutoffs) arranged in a two-dimensional matrix, consisting of family size (from one person to nine or more people) cross-classified by presence and number of family members under 18 years old (from no children present to eight or more children present). Unrelated individuals and two-person families are further differentiated by age of reference person (under 65 years old and 65 years old and over).

Table 7.2 Income and Benefits (in 2011 inflation-adjusted dollars)

	BOOTHBAY HARBOR		LINCOLN COUNTY	
	NUMBER	% OF TOTAL	NUMBER	% OF TOTAL
TOTAL HOUSEHOLDS	1,061		15,009	
Less than $10,000	51	4.8%	815	5.4%
$10,000 to $14,999	64	6.0%	716	4.8%
$15,000 to $24,999	97	9.1%	1,575	10.5%
$25,000 to $34,999	140	13.2%	1,924	12.8%
$35,000 to $49,999	218	20.5%	2,642	17.6%
$50,000 to $74,999	110	10.4%	3,213	21.4%
$75,000 to $99,999	153	14.4%	2,014	13.4%
$100,000 to $149,999	114	10.7%	1,285	8.6%
$150,000 to $199,999	41	3.9%	337	2.2%
$200,000 or more	73	6.9%	488	3.3%
Median household income (dollars)	$48,062		$48,862	
With earnings	763	71.9%	11,242	74.9%
Mean earnings (dollars)	$55,725		57,153	
With Social Security	510	48.1%	5,713	38.1%
Mean Social Security income (dollars)	$19,818		$16,659	
With retirement income	298	28.1%	3,427	22.8%
Mean retirement income (dollars)	$37,419		$22,531	
With Supplemental Security Income	7	0.7%	475	3.2%
Mean SSI (dollars)	$15,786		$8,714	
With cash public assistance income	25	2.4%	255	1.7%
Mean cash public assistance inc.(dollars)	$504		$2,972	
With food stamp/SNAP benefits (past 12 mos)	86	8.1%	1,229	8.2%
FAMILIES	661		9,910	
Less than $10,000	0	0.0%	314	3.2%
$10,000 to $14,999	19	2.9%	321	3.2%
$15,000 to $24,999	24	3.6%	640	6.5%
$25,000 to $34,999	53	8.0%	1,135	11.5%
$35,000 to $49,999	145	21.9%	1,840	18.6%
$50,000 to $74,999	83	12.6%	2,376	24.0%
$75,000 to $99,999	123	18.6%	1,526	15.4%
$100,000 to $149,999	100	15.1%	1,044	10.5%
$150,000 to $199,999	41	6.2%	313	3.2%
$200,000 or more	73	11.0%	401	4.0%
Median family income (dollars)	$76,477		$58,408	
Per capita income (dollars)	$37,069		$28,741	

Source: 2007-2011 American Community Survey

Table 7.3 Percent Living Below Poverty Level, Over Past 12 Months

FAMILIES		ALL FAMILIES	MARRIED COUPLE FAMILIES	FAMILIES W/FEMALE HOUSEHOLDER, NO HUSBAND
Boothbay Harbor	**Total**	2.90%	1.20%	12.30%
	With related children under 18 years	7.70%	0.00%	21.70%
	With related children under 5 years only	0.00%	0.00%	0.00%
Lincoln County	**Total**	7.2%	3.7%	23.5%
	With related children under 18 years	14.1%	4.3%	40.9%
	With related children under 5 years only	23.0%	3.7%	82.6%

INDIVIDUALS	BOOTHBAY HARBOR	LINCOLN COUNTY
All people	5.90%	9.8%
Under 18 years	4.90%	14.0%
Related children under 18 years	4.90%	13.8%
Related children under 5 years	0.00%	19.7%
Related children 5 to 17 years	6.20%	11.8%
18 years and over	6.10%	8.8%
18 to 64 years	8.70%	9.2%
65 years and over	1.70%	7.6%
People in families	2.30%	7.5%
Unrelated individuals 15 years and over	18.70%	18.6%

Table 7.4 Annual Employment, Boothbay Harbor and Lincoln County

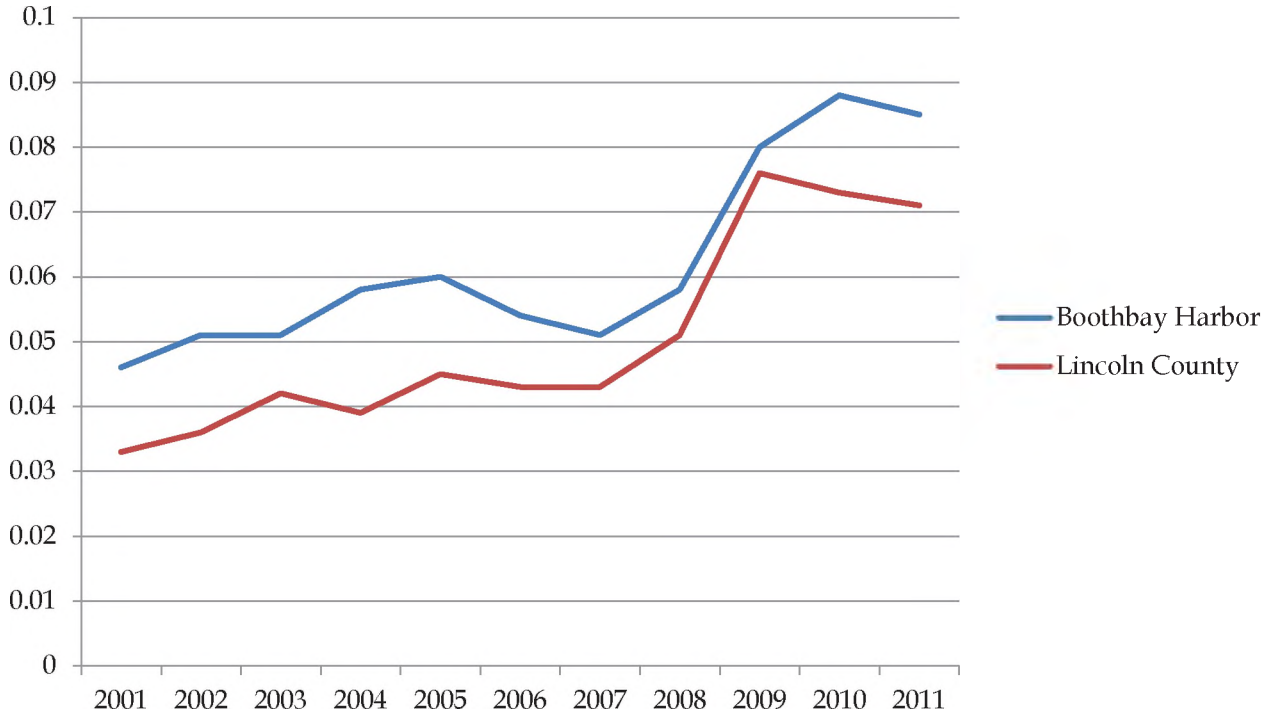
		LABOR FORCE	EMPLOYMENT	UNEMPLOYMENT	UNEMPLOYMENT RATE
2001	Boothbay Harbor	1,270	1,212	58	4.60%
	Lincoln County	17,691	17,112	579	3.30%
2002	Boothbay Harbor	1,266	1,201	65	5.10%
	Lincoln County	17,695	17,060	635	3.60%
2003	Boothbay Harbor	1,285	1,220	65	5.10%
	Lincoln County	17,814	17,066	748	4.20%
2004	Boothbay Harbor	1,285	1,210	75	5.80%
	Lincoln County	18,013	17,309	704	3.90%
2005	Boothbay Harbor	1,290	1,213	77	6.00%
	Lincoln County	18,185	17,374	811	4.50%
2006	Boothbay Harbor	1,346	1,273	73	5.40%
	Lincoln County	18,495	17,704	791	4.30%
2007	Boothbay Harbor	1,301	1,235	66	5.10%
	Lincoln County	18,161	17,289	772	4.30%
2008	Boothbay Harbor	1,296	1,221	75	5.80%
	Lincoln County	18,366	17,432	934	5.10%
2009	Boothbay Harbor	1,255	1,155	100	8.00%
	Lincoln County	18,001	16,629	1,372	7.60%
2010	Boothbay Harbor	1,245	1,136	109	8.80%
	Lincoln County	18,191	16,860	1,331	7.30%
2011	Boothbay Harbor	1,228	1,124	104	8.50%
	Lincoln County	18,307	17,008	1,299	7.10%

Source: Maine Department of Labor

Table 7.5 Monthly Employment, Boothbay Harbor and Lincoln County

		LABOR FORCE	EMPLOYMENT	UNEMPLOYMENT	UNEMPLOYMENT RATE
Jan-11	Boothbay Harbor	1,070	921	149	13.90%
	Lincoln County	17,355	15,751	1,604	9.20%
Feb-11	Boothbay Harbor	1,059	908	151	14.30%
	Lincoln County	17,208	15,879	1,629	9.50%
Mar-11	Boothbay Harbor	1,074	927	147	13.70%
	Lincoln County	17,353	15,792	1,561	9.00%
Apr-11	Boothbay Harbor	1,066	961	105	9.80%
	Lincoln County	17,482	16,124	1,358	7.80%
May-11	Boothbay Harbor	1,173	1,076	97	8.30%
	Lincoln County	18,064	16,809	1,255	6.90%
Jun-11	Boothbay Harbor	1,374	1,290	84	6.10%
	Lincoln County	19,128	17,897	1,231	6.40%
Jul-11	Boothbay Harbor	1,507	1,440	67	4.40%
	Lincoln County	20,111	18,892	1,219	6.10%
Aug-11	Boothbay Harbor	1,537	1,460	77	5%
	Lincoln County	20,207	19,091	1,116	5.50%
Sep-11	Boothbay Harbor	1,361	1,274	87	6.40%
	Lincoln County	18,767	17,668	1,099	5.90%
Oct-11	Boothbay Harbor	1,251	1,189	62	5%
	Lincoln County	18,418	17,337	1,081	5.90%
Nov-11	Boothbay Harbor	1,122	1,021	101	9%
	Lincoln County	17,789	16,582	1,207	6.80%
Dec-11	Boothbay Harbor	1,137	1,018	119	10.50%
	Lincoln County	17,793	16,571	1,222	6.90%

Figure 7.1 Annual Unemployment Rate, 2001 - 2011 Boothbay Harbor & Lincoln County



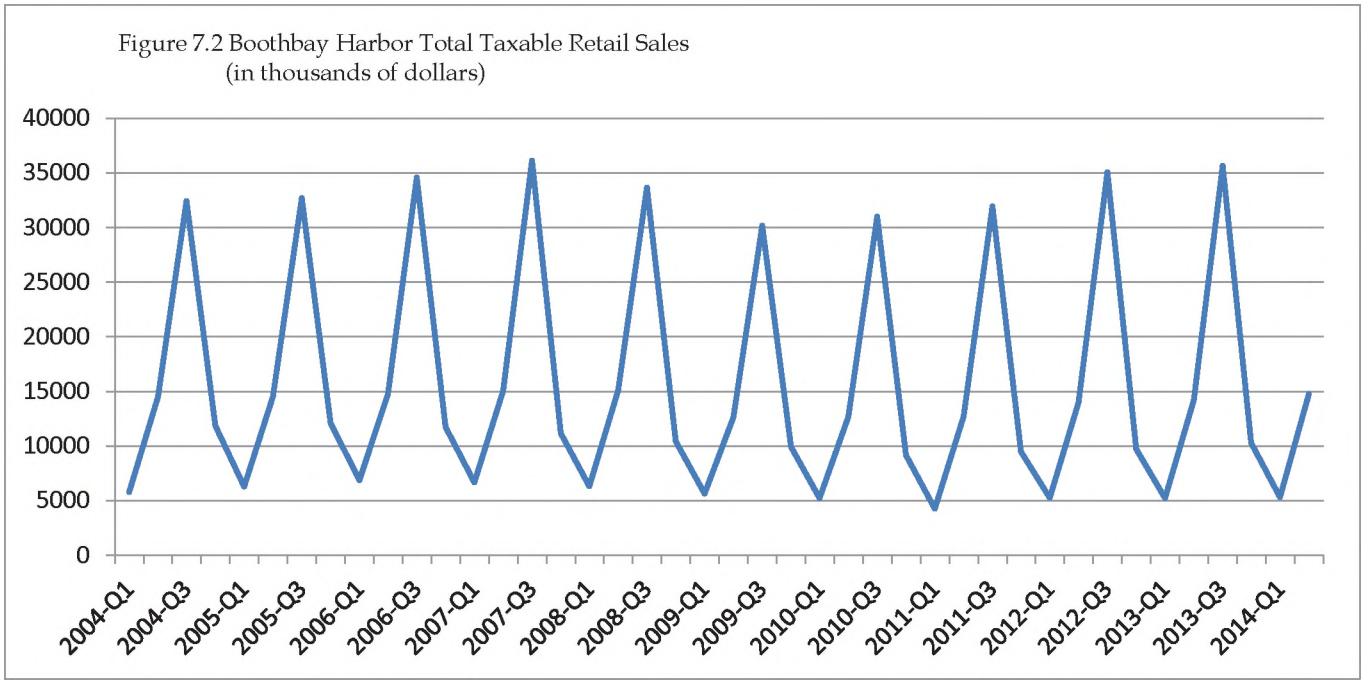
4. RETAIL SALES AND TRENDS

The State tracks taxable retail sales, which are good indicators of the diversity of this important sector, including variations within a year and over time. The graph below shows how retail spending in Boothbay Harbor changes by quarter within a year and trends over the past five years. Within a year in Town, the County and the State, the third quarter (July – Sept) is the highest spending month, and the first quarter (Jan – March) is the lowest spending month. There is a greater difference, however, in Boothbay Harbor, from low to high than in either the County or the State. In 2008, third-quarter spending in Town was 5.3 times the first-quarter spending. In the County, the difference was 2.4, and in the State, 1.5 times. By 2012, the quarterly differences in the County and the State were about the same, but in Town, the "difference factor" from winter to summer increased to 6.7. This confirms what is commonly known – the Harbor's summer economic activity is critical to the overall health of the Town. This also shows opportunity – boosting the "shoulder" and winter seasons will bring more spending and more weeks of employment.

Looking at retail strengths, restaurants and lodging is the largest part of the retail sector in Boothbay Harbor. In the summer of 2012, for example, this sector made up about 60% of the total retail sales. In the County, summer spending in restaurants and lodging was about 39% of the total, and for Maine, it was about 23% of the total quarterly retail sales.

Table 7.6 Taxable Retail Sales in Boothbay Harbor, 2008 - 2012 (thousands of dollars)

	2008	2009	2010	2011	2012
Total Retail Sales	65,421.2	58,302.1	58,043.0	58,325.3	63,988.8
Consumer Retail Sales	64,347.7	57,428.5	57,222.3	57,480.2	63,132.2
Business Operations	1,073.5	873.6	820.7	845.1	856.6
Building	10,762.8	8,317.2	5,832.0	4,222.3	6,643.8
Food Store	7,939.2	8,946.6	8,892.2	8,538.3	8,612.5
General	4,078.3	3,636.8	3,584.6	3,836.1	4,118.9
Other	9,472.1	9,029.5	9,525.8	9,811.2	10,036.2
Auto Trans	3,919.40	2,614.9	2,479.4	2,792.3	2,343.3
Restaurants/Lodging	28175.9	24,883.5	26,908.3	28,280.0	31,377.5



5. OTHER ECONOMIC CHARACTERISTICS

The average commuting time for Boothbay Harbor residents in the 1996 plan "was just under 17 minutes." The average commuting time now is just about the same – 16.9 minutes, according to the 2010 American Community Survey (a supplement to the U.S. Census). By contrast, the mean commuting time for the County as a whole was 21 minutes in 1996, "one of the longest commutes in the state." The 2010 data indicate that the County commuting rate increased to 23.9 minutes. Boothbay Harbor's shorter average commuting time may result from more local sources of employment for Town residents than the County as a whole.

Industrial Zoning Standards

There is no dedicated industrial zone. The Town's land use code allows industrial as well as other uses in the General Business District. There are performance standards regarding buffers, location of loading areas, glare, lighting, and the storage of hazardous materials.

Recent Trends

While remaining tourist-dependent, the economy of Boothbay Harbor has changed substantially since the previous Comprehensive Plan. At that time, the only town in the County with a dominant industry was Wiscasset, where Maine Yankee was located. About 43 percent of the Lincoln County labor force was employed outside the County: the major economic drivers were located in Rockland, Augusta, and Bath-Brunswick. The closure of the Navy base in Brunswick further reduced job opportunities. In Boothbay Harbor, the retirement community known as St. Andrews Village was completed by St. Andrews Hospital in 2000 and brought new residents, jobs, and local spending to Town.

Local businesses continue to adapt to national economic trends in health care, research and development, tourism, fisheries, boatbuilding, and retail. Two developments of note are the Bigelow Laboratory for Ocean Sciences' expansion and move from Boothbay Harbor to new facilities in Boothbay, which began in 2011. This may not impact employees' place of residence but may affect local business spending. The remaining buildings in West Boothbay Harbor may create opportunities for expansion or new activities.

Lincoln County Health Care closed the St. Andrews Emergency Room in October 2013. While there was a projected loss of hospital positions, most affected employees have been placed elsewhere at the St. Andrews or Miles Campuses, or in the MaineHealth system. The ER is now an Urgent Care Center, and St. Andrews's critical access status has been transferred to Miles. LCHC is planning to expand outpatient services and possibly add long-term care beds, making the full impact on any job loss and local income and spending loss not entirely known at this point. St. Andrews has opened a renovated and expanded wellness and rehabilitation facility and a new wound care clinic in 2014.

Coastal Maine Botanical Gardens continues to grow, both its facility and number of visitors since 2007 when the Visitors Center opened. Garden visitor data are shown on Table 4. Though located a few miles up the road in Boothbay, CMBG individual and group visitors come to Boothbay Harbor by automobile, bus, or cruise ship, and spend time and money at Boothbay Harbor accommodations, restaurants, and stores.

Table 7.7 Coastal Maine Botanical Garden Visitor Data, 2007-2014

YEAR	VISITORS
2007	38,000
2008	47,000
2009	52,000
2010	85,500
2011	84,500
2012	89,300
2013	99,100
2014	(projected) 104,500

Source: Coastal Maine Botanical Gardens

Cruise ship visits also contribute to the economy. While there was one cruise ship visit in 2003 and four in 2006, CruiseMaine reported 24 visits to the Harbor in 2011 and 25 in 2012. As visitors' experiences are improved, these visits can give a significant boost to the Harbor's many shops, restaurants, and attractions.

Statoil North America, a Norwegian energy firm, was conducting research in 2012-2013 as part of its request for a commercial wind lease to build a demonstration project of full-scale floating wind turbines in an area covering about 22 square miles off Boothbay Harbor. The proposed project would have had a 12-MW production capacity through four wind turbine generators. The Maine Public Utilities Commission gave the company initial approval

in January 2013 under the state's Ocean Energy Act, but due to significant changes in the State energy licensing process last year, Statoil withdrew its plans.

Conclusions

Boothbay Harbor has unemployment rates above the County average, and lower wages than the County as a whole. Perhaps the Town's biggest challenge is addressing fluctuating employment and the seasonality of much of its economic activity. Local economic and community development policies and activities would benefit from coordination with the Lincoln County Regional Planning Commission, the Boothbay Harbor Region Chamber of Commerce, the Department of Economic and Community Development, and the Mid-Coast Economic Development District.

State Goal

Promote an economic climate that increases job opportunities and overall economic well-being.

Policies

1. To support the type of economic development activity the community desires, reflecting the community's role in the region.
2. To make a financial commitment, if necessary, to support desired economic development, including needed public improvements.
3. To coordinate with regional development corporations and surrounding towns as necessary to support desired economic development.

Strategies

Boothbay Harbor promotes an economy that offers a variety of well-paying year-round jobs within the town and within easy commuting distance. It seeks to preserve its important seasonal sources of employment, seek new tourism markets, and encourage home-based businesses, local entrepreneurial activities, and marine resource-based jobs with an emphasis on ocean sciences. The plan recommends that these goals be accomplished through the following measures:

1. ECONOMIC DEVELOPMENT STRATEGY

The Town undertakes an economic development strategy that:

a. Seeks new sources of employment and identifies opportunities for existing business sectors.

b. Expands the number and variety of year-round businesses

c. Creates a welcoming atmosphere to do business

d. Collaborates with other towns on the peninsula, including evaluating the potential for economic development staff to be shared between Boothbay Harbor and Boothbay (part or full-time, employee or contractor).

Implementation Strategy

Select Board will investigate appointing an economic development committee with members representing town boards, local businesses, business organizations and community residents to find funding for an economic development strategy. The committee oversees the drafting of this strategy and holds outreach meetings with the business community and the general public.

Responsibility

Select Board, Economic Development Committee, Boothbay Harbor Region Chamber of Commerce.

Time Frame

2015-2017

2. REGIONAL COORDINATION

Boothbay Harbor participates in regional efforts to diversify the Lincoln County and Mid-Coast economy. This will include ongoing involvement with county-wide efforts and supporting endeavors of other state and regional organizations that promote this goal.

Implementation Strategy

This is a continuation of current policy.

3. ASSISTANCE TO EXISTING BUSINESSES

The plan supports public-private sector measures to help businesses retain and create jobs. Specific steps include, but are not limited to, seeking grant and loan funds for necessary public infrastructure, business financing, and workforce training (such as Community Development Block Grants).

Implementation Strategy

The proposed Economic Development Committee develops ongoing relationships with county, regional, state and federal agencies about grant and loan programs to help meet the Town's needs, and recommends to the Select Board which funds should be sought. Joint grant applications with adjoining towns shall be considered whenever deemed feasible.

Responsibility

Select Board, Economic Development Committee

Time Frame

Ongoing

4. DEVELOPMENT OF LAND SUITABLE FOR BUSINESSES WITHIN THE REGION

The plan recommends that Boothbay Harbor encourage and support development (and re-development) of land suitable for new businesses and business expansion in the region. The Town or partners could establish a business park or work with the Town of Boothbay to develop a joint business park to attract light manufacturing and marine research businesses.

Implementation Strategy

The Economic Development Committee supports efforts in the region to identify land, either locally or regionally, suitable for business growth and development.

Responsibility

Economic Development Committee, Planning Board

Timeframe

2015-2016

5. LINKAGE BETWEEN SCHOOLS AND BUSINESSES

The plan recommends coordination between schools, local employers and businesses to create better matches between the schools and the needs of local businesses.

Implementation Strategy

The Economic Development Committee works with the School administration and teachers, and local businesses to expand opportunities for student mentoring and apprenticeships, and assist communications about workforce skills needed and school-based resources required to provide such skills.

Responsibility

Economic Development Committee, School Department, Chamber

Timeframe

2015-2016

6. ENSURE THAT THE HEALTH CARE SERVICES REQUIRED BY THE COMMUNITY ARE AVAILABLE

The Town Manager and Select Board meet regularly with local health care providers and key resident groups to discuss health care issues and plans for new or expanded services.

Implementation Strategy

The Select Board and Town Manager will continue to monitor the local health care situation and support appropriate health care options in the community.

Responsibility

Select Board, Town Manager

Timeframe

Ongoing

7. ASSIST THE FISHING AND BOATBUILDING INDUSTRIES TO ADAPT TO CHANGING ECONOMIC AND ENVIRONMENTAL CONDITIONS

The Economic Development Committee will monitor the local fishing and boatbuilding industries and advocate for them as needs arise.

Implementation Strategy

The Economic Development Committee will encourage the Select Board to include representatives of the fishing and boatbuilding industries on the committee.

Responsibility

Select Board, Economic Development Committee

Timeframe

Ongoing

8. CREATE A MARINE ENTERPRISE ZONE

The Planning Board should consider creating a Marine Enterprise Zone in partnership with neighboring towns, state and federal agencies, Bigelow Laboratory, Darling Center, and the local marine industries and tourism sectors to facilitate the growth of aquaculture and other marine industries.

Implementation Strategy

The Planning Board will invite representatives of the aforementioned agencies, institutions and sectors to discuss a potential Marine Enterprise Zone to encourage the growth and expansion of aquaculture and other marine industries.

Responsibility

Planning Board, Select Board, Economic Development Committee, Town Meeting

Timeframe

2015-2016

9. STRENGTHEN THE TOURISM SECTOR

The tourism sector will be strengthened through facilities upgrades (e.g., accommodations, attractions), infrastructure (e.g. waterfront, sidewalks), workforce training (e.g. customer service), improved regional transportation, and other actions that balance visitor demand/expectations with public-private capacity.

Implementation Strategy

The Town Manager, Public Works Director, Select Board, Economic Development Committee, and Chamber of Commerce identify strategies to upgrade municipal tourist facilities and assist the private sector in improving tourist services.

Responsibility

Select Board, Public Works Director, Town Manager, Economic Development Committee, Chamber

Timeframe

Ongoing

10. ANTICIPATE THE NEXT GENERATION OF TECHNOLOGIES

Up-to-date communication and energy technologies will help the community and region retain and attract businesses and residents.

Implementation Strategy

Given continual changes in technologies – cell towers, broadband, energy, electricity, and other utilities, for example – the Town should encourage the installation of new and improved services while maintaining attractive neighborhoods and scenic resources.

Responsibility

Select Board, Planning Board, and Economic Development Committee

Time Frame

Ongoing

11. HIGH-SPEED FIBER OR WI-FI NETWORK

Research and plan for high-speed internet service for businesses and residences along Route 27 and throughout the commercial and downtown areas.

Implementation Strategy

High-speed connectivity is an increasingly important asset for growing and emerging businesses and residents with home occupations. The Town will meet with local and regional providers and the business community to identify service alternatives and costs.

Responsibility

Select Board, Economic Development Committee, and BBH Region Chamber of Commerce

Time Frame

Ongoing

12. PROMOTE "GREEN" PRACTICES

Propose development patterns, building techniques, and energy uses as part of a strategy to attract new residents and young families.

Implementation Strategy

Energy-efficient land uses, green building practices, renewable energy sources, weatherization, and other land and building adaptations will reflect the Town's goal of balancing economic growth and environmental trends and values.

Responsibility

Select Board, Planning Board, Code Enforcement Officer

Timeframe

Ongoing

CHAPTER 8 - HOUSING

INTRODUCTION

This chapter identifies and analyzes housing trends, including tenure, type, age, and affordability, and forecasts housing needs for the planning period. Housing represents the major investment of most individuals. Property taxes provide the basis for funding municipal services and public schools. The format of this chapter follows the State Comprehensive Plan Criteria Rule.

State Goal/Minimum Policies

To encourage and promote affordable, decent housing opportunities for all Maine citizens.

Analyses

1. **How many additional housing units (if any), including rental units, will be necessary to accommodate projected population and demographic changes during the planning period?**

   Based upon observed trends, the 2024 year-round population of the Town is forecast to total an estimated maximum of 2,200 persons, an increase of 49 persons from 2011. However, the population projections developed by the former State Planning Office indicate a modest decline in year-round population by 2023. If accurate, this would imply no increase in the number of year-round dwellings. To allow for unforeseen population growth and the construction of seasonal homes, this plan projects an additional 100 units of housing, which could amount to 100 acres, assuming one acre per unit. Lots with public water and sewer as small as 10,000 square feet are allowed. This means that some new units may be built on smaller lots. Given the trend of most new residential construction occurring in rural areas, the majority of residential development is projected to occur on lots of at least one acre.

   The Census records that 182 homes were built in Town from 2000 to 2010, for an annual average of 18.2 units. If 100 units are built between 2011 to 2024, it would be less than the amount of growth seen during the previous decade.

   In 2009, the Census estimated that there were 240 units of renter-occupied housing in Boothbay Harbor, which was 20.4% of the total occupied housing stock. It is likely that rental housing will remain at a similar proportion over the next ten years, and if it does, that would mean 20 additional renter-occupied units would be constructed.

2. **Is housing, including rental housing, affordable to those earning the median income in the region? Is housing affordable to those earning 80% of the median income? If not, review local and regional efforts to address issue.**

   In 2010, the median income household in Boothbay Harbor ($41,081) could afford about 76% of the median home sale price in the Town ($173,750). The affordability for the Boothbay Harbor Labor Market Area was 76% and for Lincoln County was 83%. Housing affordability, as based upon the standard definition of not spending more than 30% of one's income on housing, concerns many, especially those earning less than the median income. Figures on the number of residents earning 80% of the median income were not available from the State. About 68% of renters in Town were unable to afford a two-bedroom apartment. Countywide, 59% of renter households were unable to afford the average two-bedroom apartment. "Unaffordability" can lead to overcrowding and substandard housing conditions.

Mobile homes comprise about 2.8% of Boothbay Harbor's housing stock, while multi-family units comprise about 13%. The Land Use Ordinance allows single-family units, including mobile homes, in nearly the entire Town. Multi-family units are allowed only in the General Residential and General Business Districts, which together account for much of the land area of Boothbay Harbor.

Affordable housing efforts in the Town since 2000 have included Harbor Pines and West Harbor Pines, located on the west side of Town, which are apartments for families and elderly residents. Originally developed with USDA Rural Development funds, Community Housing of Maine purchased the property in 2012 and has completely renovated all 36 units (16 family units and 20 elder units) in 2013. USDA's Multi-Family Revitalization and Demonstration Program, and Maine State Housing are financing the purchase and redevelopment.

Other affordable housing in Town includes Harborview Apartments and Statewide Bay I and II. Rocky Coast Group Home provides housing and support services for four mentally disabled individuals. See the Conditions and Trends section for the number of subsidized units in Town and for a description of regional affordable housing efforts.

3. Are seasonal homes being converted to year-round use or vice-versa? What impact does this have on the community?

Boothbay Harbor had 899 seasonal housing units in 2010. The Planning Board/Code Enforcement Officer reports that since 2000 there have been about a dozen conversions of seasonal units to year-round occupancy and no known conversions of year-round housing to seasonal use. While the Town does not actively monitor occupancy, there has been little appreciable impact on the community from conversions. As noted, some out-of-state owners of seasonal homes are converting these units for year-round use. If this continues, the demand for the construction of new housing units would be reduced by a small amount.

4. Will additional low and moderate-income family, senior, or assisted living housing be necessary to meet projected needs for the community? Will these needs be met locally or regionally?

A large portion of the forecasted population change in Boothbay Harbor will be in the older age groups. The demand for housing to accommodate the needs of the elderly will increase. There are 100 subsidized units currently (mostly for seniors) in Town. Existing assisted living facilities within Boothbay Harbor include the Inn of St. Andrews and Safe Havens (an Alzheimer's residence at St. Andrews Village). The construction of additional facilities, including assisted living, could be necessary to meet future local demand. Within Lincoln County, assisted living facilities are also located in Wiscasset, Damariscotta, Newcastle, and Waldoboro. At present, more options for elderly housing are found in the larger communities of Bath and Brunswick. It is likely that these larger regional service centers will continue to provide the majority of subsidized units, with a smaller, but growing portion provided nearby.

The closure of St. Andrews Hospital in 2013 and the conversion of its emergency room to an urgent care center may affect how the peninsula is seen by the older population that is dependent upon these services, unless comparable services are located nearby. The closure may inhibit housing demand for retirees. Currently Lincoln County Health Care is expanding and adding services at its Boothbay Harbor campus, and for now, the full impact of the 2013 changes is not known.

5. Are there other major housing issues in the community, such as substandard housing?

For Boothbay Harbor, an estimated 1.1% of housing units lacked complete kitchens and 0.5% lacked complete plumbing in 2010. The Code Enforcement Officer believes that these represent units under construction. The Code Enforcement Office records do not indicate any substandard housing units in which there are current and ongoing violations of life safety codes that endanger occupants.

6. **How do existing local regulations encourage or discourage the development of affordable/workforce housing?**

Statewide, affordable housing tends to be located on lots smaller than one acre, and/or as part of multi-unit development with connections to sewer or community wastewater systems. As noted, the current minimum lot size (10,000 square feet in areas with town water and sewer for all districts except Resource Protection) in Boothbay Harbor, along with the allowance of multi-unit housing in certain areas, can provide for affordable housing opportunities outside of shoreland areas. See the Conditions and Trends section for the number of subsidized units in Town.

Conditions and Trends

Over the past 20 years, the total number of housing units increased by 15.4% in Boothbay Harbor, while the Town's year-round population decreased by 7.8%. This housing increase was due principally to the construction of additional seasonal housing units and the decline in average household size (-15.9% from 2.26 in 1990 to 1.90 in 2010). There has been an increase in seasonal housing units in absolute terms from 701 to 899 units and in percentage terms, from 37.2% of total housing stock in 1990 to 41.3% in 2010.

Table 8.1 Housing Units in Boothbay Harbor

UNITS BY TENURE	1990	2000	2010	# CHANGE	% CHANGE
Total units	1,885	1,993	2,175	290	15.4%
Occupied	1,023	1,097	1,084	61	6.0%
Vacant	862	896	1,091	229	26.6%
Vacant, for rent		28	94		
Vacant, for sale only		20	51		
Vacant, rented or sold, not occupied		9	2		
For seasonal, recreational, occasional use	701	802	899	198	28.2%
All other vacant		37	36		

Source: U.S. Census

The increase in the number of housing units has occurred at a faster rate than the growth of population for Lincoln County over the past 20 years. Total population grew by 13.5% from 1990 to 2010 countywide, while housing grew by 34.0%. Growth in both year-round and seasonal housing has been notable. Seasonal housing comprised 28.7% of the County's total housing stock and over 41% of Boothbay Harbor's in 2010.

Table 8.2 Housing Units in Lincoln County

UNITS BY TENURE	1990	2000	2010	# CHANGE	% CHANGE
Total Units	17,538	20,849	23,493	5,955	34.0%
Occupied	11,968	14,158	15,149	3,181	26.6%
Vacant	5,570	6,691	8,344	2,774	49.8%
Vacant, for rent		245	477		
Vacant, for sale only		223	446		
Vacant, rented or sold, not occupied		103	98		
For seasonal, recreational, occasional use	4,686	5,860	6,733	2,047	43.7%
All other vacant		260	590		

Source: U.S. Census

In 2010, about 84.3% of the Town's housing was comprised of single-family units (detached and attached). The County's housing stock was 84.4% single-family units (attached and detached), while the State's was 71.6% (attached and detached). Boothbay Harbor's housing stock included 13.0% multi-unit housing, while the County had 6.0% and the State had 19.3%. At 2.8%, the Town had a significantly lower percentage of mobile homes as a proportion of its total housing than did the County (9.1%) and the State (9.0%).

Table 8.3 Estimate of Units by Structure Type, 2006-2010

CATEGORY	BOOTHBAY HARBOR		LINCOLN COUNTY		MAINE	
	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT
Total Est. Units	2,085	100.0%	23,230	100.0%	714,270	100.0%
1, detached	1,663	79.8%	19,321	83.2%	495,685	69.4%
1, attached	93	4.5%	287	1.2%	15,621	2.2%
2	67	3.2%	535	2.3%	37,570	5.3%
3 or 4	79	3.8%	413	1.8%	39,360	5.5%
5 to 9	94	4.5%	292	1.3%	29,477	4.1%
10 to 19	13	0.6%	66	0.3%	12,274	1.7%
20 to 49	18	0.9%	151	0.7%	10,985	1.5%
50 or more	0	0.0%	40	0.2%	8,914	1.2%
Mobile home	58	2.8%	2,125	9.1%	64,221	9.0%
Boat, RV, van, etc.	0	0.0%	0	0.0%	163	0.0%

Source: Census, American Community Survey
Note: The total American Community Survey "estimate of units by structure type" does not equal the total number of units as recorded by the Census in 2010.

According to US Department of Housing records, from 2001 to 2011, 94 housing unit permits were issued in Boothbay Harbor, of which three (3.2%) were for units in multi-family structures. Permit activity was greatest in 2003-2005.

Table 8.4 Housing Unit Building Permits Issued in Boothbay Harbor

UNITS	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	SUM	AVG
Total	0	11	20	15	19	2	0	4	11	5	7	94	8.5
Single-Family	0	8	20	15	19	2	0	4	11	5	7	91	8.3
Multi-Family	0	3	0	0	0	0	0	0	0	0	0	3	0.3

Source: US Department of Housing and Urban Development

From 2001 to 2011, 2,246 housing unit permits were issued in Lincoln County. At the County level, about 5.1% of all permits were for multi-family structures. During this period, most building permit activity occurred from 2002-2005.

According to the Planning Board/Code Enforcement Officer, between 2007 and 2012, two-thirds of Boothbay Harbor's housing constructed/located in Town was for single-family homes (stick-built and modular), while one-third was for mobile homes (manufactured with chassis). No multi-family units were constructed during this period.

Table 8.5 Housing Unit Building Permits Issued for Lincoln County

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	SUM	AVG
Total	177	264	338	385	302	217	179	131	104	77	72	2,246	204.2
Single-Family	175	261	334	357	274	199	157	126	99	77	72	2,131	193.7
Multi-Family	2	3	4	28	28	18	22	5	5	0	0	115	10.5

Source: US Department of Housing & Urban Development

Building activity was stronger earlier in the decade prior to the recession but returned to pre-recession levels in 2012.

The Code Enforcement Officer reports that permits for 33 new dwellings were issued between 2007 and 2012. Twenty-one of these were on individual lots and 12 in subdivisions or planned developments. Planning board records indicate that five subdivisions were approved between 2000 and 2012, creating 76 lots, 15 of which were built upon as of mid-October 2012.

About 79.6% of occupied housing in Boothbay Harbor was owner-occupied in 2009, as compared with 85.7% in Lincoln County and 72.8% for the State. About 20.4% of occupied housing was renter-occupied in the Town, 14.3% in the County, and 27.2% in the State. About 41.3% of total occupied housing in Boothbay Harbor was built before 1939. For the County that figure was 28.8% and for the State that figure was 27.8%. Boothbay Harbor has a relatively older housing stock than does Lincoln County or State. Substandard housing is more common with older units.

Table 8.6 Estimate of Housing Units by Age and Tenure, 2009

AGE OF HOUSING UNIT	BOOTHBAY HARBOR	LINCOLN COUNTY	MAINE
Total Occupied	1,178	15,365	542,617
Owner-occupied Total	938	13,161	395,233
Built 2000 or later	57	1140	36,060
Built 1990 to 1999	95	2,258	57,513
Built 1980 to 1989	72	2,413	63,661
Built 1970 to 1979	124	1,814	61,500
Built 1960 to 1969	65	839	29,535
Built 1950 to 1959	71	653	29,709
Built 1940 to 1949	75	407	20,017
Built 1939 or earlier	379	3,637	97,238
Renter-occupied Total	240	2,204	147,384
Built 2000 or later	0	95	8,004
Built 1990 to 1999	0	272	12,196
Built 1980 to 1989	42	317	20,080
Built 1970 to 1979	25	305	23,053
Built 1960 to 1969	9	200	10,883
Built 1950 to 1959	23	141	11,335
Built 1940 to 1949	33	83	8,366
Built 1939 or earlier	108	791	53,467

Source: Census, American Community Survey
Note: The total American Community does not equal the total occupied of units as recorded by the Census in 2010.

For Boothbay Harbor, an estimated 1.1% of housing units lacked complete kitchens and 0.5% lacked complete plumbing. The Code Enforcement Officer believes that these represented units under construction. For the County, 0.5% units were lacking complete kitchens or lacking complete plumbing. For the State, 0.9% units were lacking complete kitchens or lacking complete plumbing.

Table 8.7 Estimate of Kitchen and Plumbing in Housing Units, 2010

CATEGORY	BOOTHBAY HARBOR	LINCOLN COUNTY	MAINE
Complete kitchen facilities	1,165	15,289	546,235
Lacking complete kitchen facilities	13	76	4,890
Complete plumbing facilities	1,172	15,293	546,210
Lacking complete plumbing facilities	6	72	4,915

Source: Census, American Community Survey

In 2008, Boothbay Harbor had 100 subsidized housing units, of which 85 were designated for senior citizens. Countywide, there were 455 subsidized units, of which 200 were designated for senior citizens.

Table 8.8 Subsidized Housing Units, 2008

CATEGORY	BOOTHBAY HARBOR	LINCOLN COUNTY
Disabled units	0	12
Family units	7	110
Housing choice vouchers	8	91
Senior units	85	200
Special needs units	4	42
Total	100	455

Source: Maine State Housing Authority

In 2010, the median income earner in Boothbay Harbor could afford about 76% of the median home sale price in the Town. That is notably better than the 2006 figure of just 43%. Overall, median home sale prices declined 35.6% from 2006 to 2010. Most of that decline was seen in 2010. Incomes have risen 12.1% from 2006 to 2010 (in part, because some new Boothbay Harbor residents have higher incomes than those who left the community). The next table also shows the income needed to afford recent home sale prices, and home prices that are affordable for recent income figures. Home sale prices are for units sold through the multiple-listing service. These sales do not include homes and lands sold directly by the owner without the use of a real estate agent, which tend to fetch lower prices and are often sold or given to relatives.

In 2010, 63.3% (685) households in Boothbay Harbor could not afford the median home sale price.

Table 8.9 Boothbay Harbor Homeownership Affordability, 2006-2010

YEAR	2006	2007	2008	2009	2010
Index	0.43	0.4	0.4	0.53	0.76
Median Home sale price	$269,900	$284,500	$311,108	$237,000	$173,750
Median income	$36,644	$35,854	$39,000	$39,536	$41,081
Income needed to afford median home price	$85,724	$90,537	$98,709	$73,955	$54,170
Home price affordable at median income	$115,373	$112,667	$122,919	$126,700	$131,766

Source: Maine State Housing Authority

Table 8.10 Homeownership Affordability Index in 2010

AREA	BOOTHBAY HARBOR LMA	LINCOLN COUNTY	MAINE
Affordability Index	0.76	0.83	0.88
Median Home Sale Price	$210,000	$180,000	$165,000
Median Income	$49,913	$48,541	$48,405
Income needed to afford median home price	$65,576	$58,806	$55,282
Home price affordable at median income	$159,840	$148,580	$144,474
Households unable to afford median home price	72.1% (2,467)	60.0% (9,097)	57.5% (318,038)

Source: Maine State Housing Authority

Note: The affordability index is the ratio of Home Price Affordable at Median Income to Median Home Price. An index of less than 1.00 means the area is generally unaffordable – i.e., a household earning area median income could not cover the payment on a median-priced home (30-year mortgage, taxes and insurance) using no more than 28% of gross income. The Boothbay Harbor LMA includes Boothbay, Boothbay Harbor, Edgecomb and Southport.

In 2010, median incomes were higher outside of the Town in the Boothbay Harbor Labor Market Area, in Lincoln County, and in the State. Housing affordability was comparable in the Town and Labor Market Area, but somewhat more affordable in the County and State. This is due to lower-priced land and homes inland (away from coastal and shoreland areas), and a higher percentage of mobile homes found inland with Lincoln County and surrounding areas.

At the Town level, almost 68% of renters could not afford an average two-bedroom unit. That figure is higher than the County (59%) and State (53.7%), suggesting the likelihood of some overcrowding by low-income families in small apartments.

Table 8.11 Renter Households Unable To Afford Average 2-Bedroom Rent, 2010

AREA	BOOTHBAY HARBOR	BOOTHBAY HARBOR LMA	LINCOLN COUNTY	MAINE
Percent of households unable to afford avg. 2 BR rent	68.0%	62.5%	59.0%	53.7%
Number of households unable to afford avg 2 BR rent	192	330	1,291	81,696
Average 2 BR rent (with utilities)	$957	$942	$873	$826
Income needed to afford avg. 2 BR rent	$38,283	$37,695	$34,933	$33,029

Source: Maine State Housing Authority

Notes: BR = Bedroom

The Boothbay Harbor LMA includes Boothbay, Boothbay Harbor, Edgecomb and Southport

According to the Census, in 2010, an estimated 142 individuals (6.0%) in Boothbay Harbor lived in poverty as defined by the federal government. For Lincoln County that figure was 10.8%. For the State, it was 12.6%. See the Economy Chapter for more information. Information on Boothbay Harbor homeowner and rental households earning up to 80% of the Household Area Median Income was not available from the Maine State Housing Authority.

1. AFFORDABLE & WORKFORCE HOUSING EFFORTS

Several local and regional agencies operate a variety of programs to assist Boothbay Harbor residents. Through State and federal grants, private foundations and donations, Midcoast Maine Community Action (MMCA) operates the Head Start program, WIC (Women, Infants and Children) nutrition programs, as well as job training and retraining programs, family development and case management programs for low-income residents throughout the Midcoast region of Maine. MMCA through its Keeping Seniors Home (KSH) Program provides weatherization and other services that enable seniors to remain in their homes, while Community Services staff completes a comprehensive survey with seniors that identify other needs and issues.

The Kennebec Valley Community Action Program (KVCAP) provides several energy and housing programs in Lincoln County. These include the Home Energy Assistance Program (HEAP/Wx), Low Income Home Energy Assistance Program (LiHEAP), Department of Energy (DOE/Wx), Community Housing Improvement Program (CHIP), Above Ground Storage Tank (AGST), The Emergency Food Assistance Program (TEFAP), Home Repair Network, Neighborhood Stabilization Program (NSP), Kennebec Valley Home Advisors Program (a fee for services program), Home Buyer Education, MidCoast Green Collaborative, Mortgage Counseling, and home ownership opportunities.

Boothbay Region Community Resources (BRCR), through its Community Navigator, assists people in need by providing funds, information, and referrals in a confidential and collaborative manner. The Community Navigator works within the towns of Boothbay Harbor, Boothbay, Southport and Edgecomb, and utilizes programs and services of existing agencies.

Other housing resources and organizations include Rebuilding Together, the Community Energy Fund of Lincoln County, Habitat for Humanity/7-Rivers, Salvation Army-Boothbay, Coastal Trans, Boothbay Region Food Pantry, and Housing Mortgage Counseling at Coastal Enterprises, Inc.

MaineHousing, also known as the Maine State Housing Authority, are the housing agents for tenant and/or project-based rental assistance providing Housing Choice Vouchers (Section 8 Housing), which includes subsidized rents for qualifying families. Families contribute between 30% and 39% of their income toward rent. Housing must meet Housing and Urban Development quality standards and Fair Market Rent guidelines. Income-eligible individuals who are handicapped, disabled or 62 years of age or older, or income-eligible families of two or more persons.

2. EFFECTS OF LOCAL REGULATIONS ON AFFORDABLE & WORKFORCE HOUSING

Chapter 170 Land Use in the Code of the Town of Boothbay Harbor allows single-family dwellings town-wide, conditional in these two districts: Marine Waterfront and Resource Protection. Modular homes are allowed in all districts except Resource Protection. Modular homes are conditional in the Marine Waterfront District. Boarding houses are allowed in these three districts: General Residential, Downtown Business and General Business. Duplexes are allowed in these districts: General Residential, Downtown Business, Marine Waterfront (conditional) and General Business. Multi-family dwellings and planned unit/cluster developments are allowed conditionally in portions of these two districts: General Residential and General Business. Mobile homes are allowed in these two districts: General Residential and General Business. Mobile home parks are allowed conditionally in portions of the General Residential and General Business District, limited to: land along Route 96, the Middle Road, and Route 27 north of the Route 27/96 intersection.

Table 8.12 Boothbay Harbor Land Use Dimensional Standards

DISTRICT	MINIMUM LAND AREA PER DWELLING UNIT OR USE	STREET FRONTAGE MINIMUM	SIDE AND REAR YEAR SETBACK MINIMUM
General Business	10,000 sq. ft. residential on town sewer & water; 40,000 sq. ft. all other on town sewer & water; 20,000 sq. ft. residential & multi-family unsewered; 40,000 sq. ft. all other unsewered	50 ft.	25 ft. residential; 10 ft. commercial & all other
General Residential	10,000 sq. ft. town water & sewer; 20,000 sq. ft. town water & unsewered & multi-family; 40,000 sq. ft. other	50 ft.	15 ft. on town water & sewer; 25 ft. unsewered
Downtown Business	10,000 sq. ft. on town water and sewer	50 ft.	15 ft. residential; 10 ft. commercial; 15 ft. all other
Special Residential	10,000 sq. ft. town water & sewer; 20,000 sq. ft. town water & unsewered; 40,000 sq. ft. no town water & unsewered	50 ft.	15 ft. on town water & sewer; 25 ft. unsewered
Resource Protection	4 acres	100 ft.	-

Source: Chapter 170 Land Use in the Code of the Town of Boothbay Harbor.

Notes: For mobile home parks, the minimum lot size is 5,000 square feet, with a minimum 25-foot separation between mobile homes. For multi-family units, the planning board may consider a density bonus of six units per acre.

Affordable housing tends to be located on lots smaller than one acre, and/or as part of multi-unit development with connections to sewer or community wastewater systems. Given the availability of town water and sewer, and the relatively small minimum lot size of 10,000 square feet found in many areas, ordinance provisions overall support affordable housing. While mobile home parks are limited, mobile homes are allowed in areas of the community with sufficiently-sized parcels and suitable road access. Multi-unit housing is allowed in more than 80% of the Town. As noted above, Boothbay Harbor has a higher proportion of multi-units than Lincoln County (more than double the percentage), and proportionally fewer mobile homes as compared to the County (less than a third).

State Goal

To encourage and promote affordable, decent housing opportunities for all Maine citizens.

Policies

1. To encourage and promote adequate workforce housing to support the community's and region's economic development.
2. To ensure that land use controls encourage the development of quality affordable housing, including rental housing.
3. To encourage and support the efforts of the regional housing coalitions in addressing affordable and workforce housing needs.

Strategies

1. LAND USE ORDINANCES PROVISIONS

Implementation Strategy

For growth areas identified in the future land use plan, maintain, enact or amend land use regulations to, for example, increase density, decrease lot size, setbacks and road widths, or provide incentives such as density bonuses, to encourage the development of affordable/workforce housing.

Responsibility

Planning Board, Select Board, Town Meeting

Time Frame

2017-2018

Implementation Strategy

Maintain, enact or amend ordinances to allow the addition of at least one accessory apartment per single-family detached residence in growth areas, subject to site suitability.

Responsibility

Planning Board, Select Board, Town Meeting

Time Frame

2017-2018

2. HOUSING COMMITTEE

Implementation Strategy

Investigate creating a community affordable/workforce housing committee, identify potential nonprofit and for profit developers, and create partnerships (possibly with neighboring towns) to explore and develop housing opportunities for both rehabilitation and new construction.

Responsibility

Select Board, Housing Committee

Time Frame

Ongoing

3. LOCAL AND REGIONAL HOUSING ORGANIZATIONS

Implementation Strategy

Support the efforts of local and regional housing organizations in addressing affordable and workforce housing needs, including improving housing conditions through the use of state, federal, nonprofit and private resources.

Responsibility

Select Board, Town Manager, Housing Committee

Time Frame

Ongoing

4. AFFORDABLE HOUSING DEVELOPMENT

Implementation Strategy

a. Seek to achieve a level of at least 10% of new residential units built or placed during the next decade be affordable (housing costing not more than 30% of a household's total annual income).

b. The Boothbay Harbor Planning Board and housing committee will meet with the Boothbay Planning Board to discuss the area's need for affordable housing and potential joint actions.

c. Encourage participation in government and nonprofit programs: Community Housing of Maine; Maine Department of Community and Economic Development Community Development Block Grants; Maine State Housing Authority funds; USDA Rural Development funds and loans; Community Action Agencies; Coastal Enterprises, Inc.; Home Repair Network; Rebuilding Together; housing rehabilitation loans (single-family and multi-family); Low Income Housing Tax Credit; home buyer education; other programs for the construction of subsidized workforce housing within the Town; and other grants to homeowners for improvements to energy efficiency, safety and habitability.

d. Investigate amending ordinances to encourage open space subdivisions, houseminiums and other types of affordable residential development.

Responsibility

Select Board, Economic Development Committee, Housing Committee, Planning Board, Town Meeting

Time Frame

Ongoing

CHAPTER 9 - RECREATION

State Goal

To promote and protect the availability of outdoor recreation opportunities for all Maine citizens, including access to surface waters.

Analyses

1. **Will existing recreational facilities and programs in the community and region accommodate projected growth or changes in age groups in your community?**

Publicly-owned parks and open space areas are shown on Table 9.1. They are in good condition and there are no current plans for expansion. There are also additional parcels under the protection of land trusts. As seen in Table 13.6 of the Land Use Chapter, there are about 175 acres held by land trusts.

Table 9.1 Major Parks and Open Space Areas

FACILITY	ACREAGE	OWNERSHIP
Barrett Park	5+/-	State
Sherman Field	2+/-	Town
Waterfront Park	0.25+/-	Town
Pat's Pond	9+/-	Town

Source: Town of Boothbay Harbor

There are two trends that need to be monitored. First, with the projected aging of the population there may be more need for recreational services directed at the elderly. Two-thirds of the Comprehensive Plan survey respondents indicated that existing recreational services are adequate, but since responses based on age group are not available, additional investigation may be necessary to determine the adequacy of recreational services for the elderly population. Second, the Town is likely to continue to experience the seasonal influx of visitors, which may crowd facilities during the peak months.

2. **Is there a need for certain types of services or facilities or to upgrade or enlarge present facilities to either add capacity or make them more usable?**

Both the major recreation facilities – the schools and the YMCA – undertake periodic improvements or expansions of their facilities and programs. See the Conditions section for descriptions. Planned sidewalk improvements along Route 27 between Boothbay Common and the schools are in MDOT's new work plan, with engineering and construction scheduled for 2015-2016. A walkability audit in 2013 has led to a broad, multi-town project to promote the region and improve accessibility (sidewalks, roads, paths, vistas, etc.).

3. **Are important tracts of open space commonly used for recreation publicly owned or otherwise permanently conserved?**

As mentioned above, there are parcels of permanently protected open space. Given the relatively high percentage of developed land in town, additional open space may need to be conserved if the town is to retain some rural character. The projected rate of land development is discussed in the Land Use Chapter.

4. **Does the community have a mechanism, such as an open space fund or partnership with a land trust, to acquire important open spaces and access sites, either outright or through conservation easements?**

   There are no formal arrangements to conserve open space. While the local land trusts have preserved parcels independent of the town, they work with the public and town officials in implementing their open space plans.

5. **Does the public have access to each of the community's significant water bodies?**

   Public access points are listed in Table 9.2. As noted in the Marine Resources Chapter, these facilities seem adequate for saltwater access. While access for summer seasonal use is sufficient, there is a concern, however, that facilities for year-round residents could be added and/or improved.

Table 9.2 Public Access Points to Water Bodies in Boothbay Harbor

NAME	OWNERSHIP	USE
Brown's Wharf	Private	Recreation
St. Andrew's Hospital	Private	Public safety
Pier 8	Private	Recreation
Fishermen's Coop	Private	Transportation/recreation
Town Fish Pier	Municipal	Commercial fishing/recreation
McKown Point Boat Launch	Municipal	Commercial fishing/recreation
Fishermen's Wharf	Private	Recreation/commercial business
Town landing-Commercial Street	Municipal	Commercial fishing & recreation
The footbridge and town landing	Municipal	Recreation
Barrett Park	State	Recreation
Appalachee Pond	BBRLT	Hiking

Source: Island Institute Public Access Data sheets

6. **Are recreational trails in the community adequately maintained? Are there use conflicts on these trails?**

   The Boothbay Region Land Trust maintains a set of walking trails as shown in Figure 10.4. The trails are well-maintained by staff and volunteers and are widely used by residents and non-residents.

7. **Is traditional access to private lands being restricted?**

   The posting of private lands has increased over the past 30 or 40 years, as neighborhoods have changed, and more residents are concerned about security and privacy.

Condition and Trends

1. A DESCRIPTION OF IMPORTANT PUBLIC AND PRIVATE ACTIVE RECREATION PROGRAMS, LAND AND WATER RECREATION AREAS (INCLUDING HUNTING AND FISHING AREAS), AND FACILITIES IN THE COMMUNITY AND REGION, INCLUDING REGIONAL RECREATIONAL OPPORTUNITIES AS APPROPRIATE, AND IDENTIFICATION OF UNMET NEEDS.

The Boothbay Region High School and Elementary School, on Townsend Avenue, is the center of youth recreation in town. For primary through the upper grades, there are phys ed, league and intramural activities. The major outdoor facilities include 1) the fields behind the Elementary School, which include a playground and practice fields for middle grade sports (soccer, field hockey, and softball), and the youth football league; 2) the Alfred B. Sherman Field (town property), which contains a football field, a small diamond used for softball and Little League, and a larger baseball diamond for junior and high school ball, and two older tennis courts; 3) three

new tennis courts to the west of Sherman Field; and 4) Perkins Field, further west, used for field hockey. The Y, across the street, has been used for some tennis practices and matches. The Harold B. Clifford Playground in Boothbay is the home for girls' soccer games. The cross-country team uses a trail off the Elementary School fields.

The most recent improvement is the new tennis courts which have been funded by a grant. There is a need, as in many communities, to improve the quality of practice facilities. This and other recreation facility projects will occur as community and school fundraising permits.

The Boothbay Region YMCA is a major provider of recreational services for all age groups in Boothbay Harbor. It is based at 261 Townsend Avenue. Facilities include a swimming pool with a party room, gymnasium, sauna, youth/teen center, conference room, and field house with an Olympic-size track and tennis and basketball courts. There is a state-of-the-art fitness facility with free weights. It opened an aquatic center in 2011 with a warm-water therapeutic pool alongside a separate 6-lane, 25-yard lap pool. It also has summer programs. These include Camp Knickerbocker Day Camp, the Y ARTS Theater Camp, Adventure Camps, and Sport Camps.

The YMCA runs a variety of programs. These are summarized in Table 9.3. These programs cover virtually all age groups and ability levels. The Y has active support from the greater Boothbay Region community and appears to meet most recreational needs.

There are also recreational facilities and programs owned and operated by other groups such as Boothbay Region Fish and Game Association, the yacht clubs, and the Boothbay Sea and Science Center. Programs include various ball leagues, hunting and fishing activities, sailing lessons, and community recreation classes. Many of these are privately-operated programs. The Boothbay Region Yacht Club, Downeast Yacht Club, and Hodgdon Yacht sponsor yacht races and other boating competitions for adults and children. Other recreational areas and activities include fishing at Wiley and Knickerbocker Ponds in Boothbay, ice skating, and sea fishing.

Table 9.3 Summary of YMCA Programs, Boothbay Region

TYPE	DESCRIPTION
Youth development	Floor Hockey & Lacrosse
	Basketball Tournaments
	Arts for All
Adult sports	Adult Floor Hockey
	Men's Basketball
	Racquet Sports
Healthy living	Aerobic Dance
	Cardio, Resistance Training, Pilates, Yoga
	Seniors in Motion, Senior Sit & Stretch
	Couch to 5k, cycling, Trek Across Maine-Indoors
	Personal Training and Aquatic Personal Training
Aquatic programs	Youth Swim Lessons
	100-mile Swim Club
	Aquatic Physical Therapy
Active older adults	Y Walk
	Staying on Your Feet Workshop Series

Source: Boothbay Region YMCA

2. INADEQUATE PUBLIC ACCESS TO FRESH OR SALTWATER BODIES

As mentioned earlier, the Town is interested in evaluating the facilities, which provide access to salt and freshwater. One challenge in access to the town's ponds is avoiding threats to water quality. This issue is discussed further in the Water Resources Chapter.

3. LOCAL AND REGIONAL TRAIL SYSTEMS

Please see information in this section on the BBRLT activities and properties. There are no public trails for ATVs and snowmobiles.

4. OPEN SPACES AND FACILITIES

The Boothbay Region Land Trust has maps and brochures of its properties and trails, the Boothbay Region Chamber of Commerce publishes an annual guide including regional trails, and there is a walking tour map of Boothbay Harbor.

State Goal

To promote and protect the availability of outdoor recreation opportunities for all Maine citizens, including access to surface waters.

Strategies

1. COORDINATION WITH OTHER RECREATIONAL SERVICE PROVIDERS

The plan recommends that town staff meet periodically with the YMCA leadership (and any other independent providers of recreational services) to assure there is no overlap of services.

Implementation Strategy

Town staff will meet periodically with the other recreational providers in town to review plans.

Responsibility

Town Staff

Time Frame

Ongoing

2. RETENTION OF OPEN SPACE

Given the limited geographic area of the town and a relatively high percentage of developed land, preservation of open space is important. The plan recommends:

- That Town-owned open space areas are adequately maintained and that the recreation committee explores options to acquire additional parcels and/or develop existing Town-owned properties. Given town budget constraints, priority shall be given to properties or rights to access to property that can be donated to the town or a third party such as land trusts; and

- That the Town work with local land trusts to identify other open space parcels to which at least limited public access can be allowed.

Implementation Strategy

a. Adequate funds are included in the town budget.

b. Town staff so designated by the board of selectmen contacts the area land trusts.

Responsibility

Budget Committee, Select Board, Town Staff

Time Frame

Ongoing

3. EXPAND ACTIVE AND PASSIVE RECREATIONAL ACTIVITIES IN THE COMMUNITY.

Appoint a Recreation Committee or Department to expand, in cooperation with the YMCA and the Public Works Department, active and passive recreation opportunities in the community such as development of additional sidewalks, creation of a trail from the YMCA to the Coastal Maine Botanical Gardens, creation of a trail within the CMP right-of-way and similar improvements.

Implementation Strategy

The Select Board will investigate appointing a Recreation Committee or Department that will work with the YMCA and the Public Works department to improve active and passive recreational opportunities.

Responsibility

Select Board, Recreation Committee or Department, Public Works Department

Time Frame

2015-2016

CHAPTER 10 - TRANSPORTATION

INTRODUCTION

The purpose of this chapter is to plan for the efficient maintenance and improvement of the Town's transportation network in order to accommodate existing and anticipated development within Boothbay Harbor over the next ten-year period. The format of this chapter follows the State Comprehensive Plan Criteria Rule, as amended on 8/6/11. State provisions are italicized.

State Goal

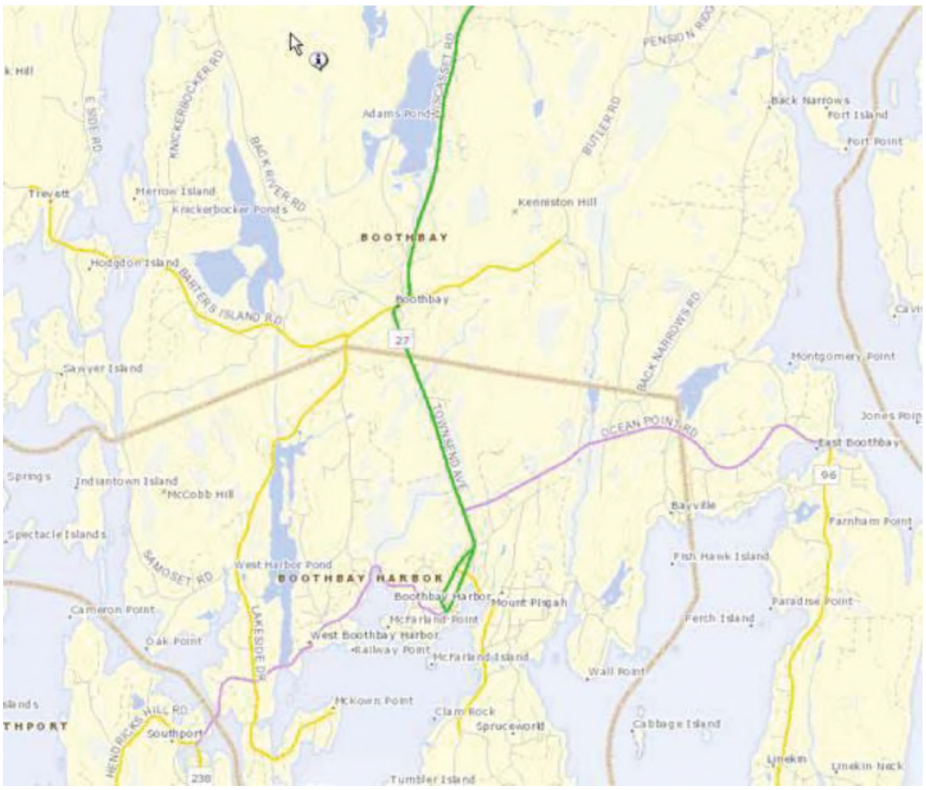
To plan for, finance and develop an efficient system of public facilities and services to accommodate anticipated growth and economic development.

Analyses

1. **What are the transportation system concerns in the community and region? What, if any, plans exist to address these concerns?**

Route 27 is the only state road providing direct access to Boothbay Harbor although several local public roads provide access from Boothbay. In fact, the road network serving both communities is highly interdependent as shown in Figure 10.1.

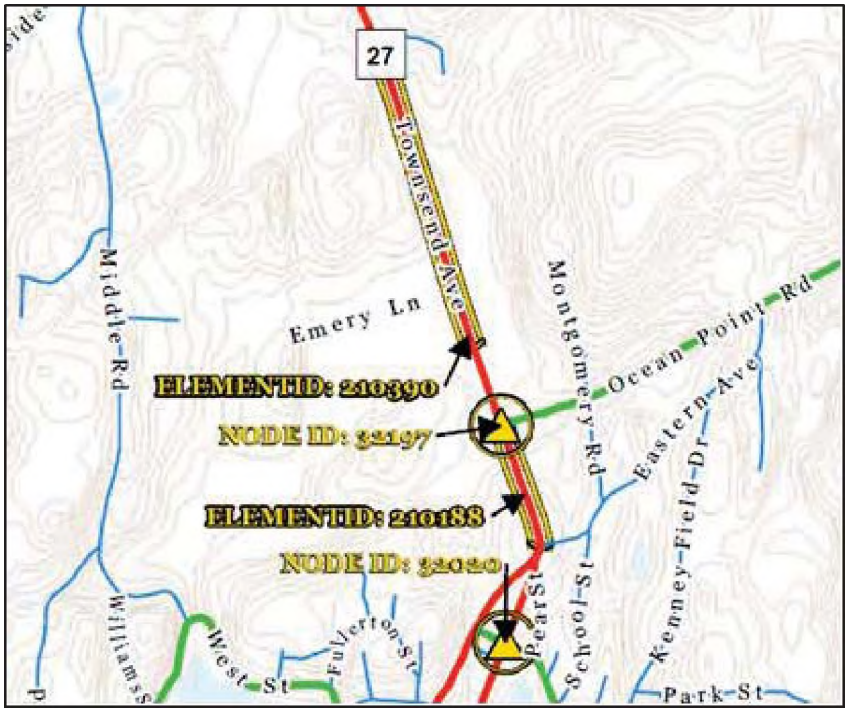
Figure 10.1 Road Interconnections – Boothbay and Boothbay Harbor



Route 27 is also the designated evacuation route for the community. In sum, therefore, Boothbay Harbor's connection to the rest of Lincoln County and Maine is dependent on the condition and function of this state highway.

Figure 10.2 presents top node and link crash locations as identified by MDOT during the period 2008-2010. The node locations are the intersections of Routes 27/96 (12 crashes) and Union Street/Townsend Avenue (7 crashes). The links are that portion of Route 27 roughly between Hammond Lumber and the Meadow Mall (24 crashes) and Townsend Avenue between Route 96 and Eastern Avenue (16 crashes).

Figure 10.2 Top Node and Link Crash Locations in Boothbay Harbor



Source: MDOT

MDOT does not have current plans to improve these intersections or road segments with the exception of engineering for an extension of the Route 27 sidewalk from the vicinity of the school complex to Boothbay Center.

2. Are conflicts caused by multiple road uses, such as a major state or U.S. route that passes through the community or its downtown and serves as a local service road as well?

Route 27, or Townsend Avenue and Oak Street in the downtown, provides direct access to the village. Because of the extensive network of sidewalks and crosswalks, the presence of on-street parking along the streets and the characteristically very low vehicle speeds, cars and pedestrians coexist surprisingly well in the village.

3. **To what extent do sidewalks connect residential areas with schools, neighborhood shopping areas, and other daily destinations?**

As shown in Table 10.1, which is from the Boothbay-Boothbay Harbor Bicycle and Pedestrian Plan, Boothbay Harbor has an extensive network of sidewalks and crosswalks in the downtown and on Route 27. Sidewalk segments total 4.6 miles in length and are served by 25 crosswalks. They connect all major neighborhoods, schools, institutions and commercial areas.

4. **How are walking and bicycling integrated into the community's transportation network (including access to schools, parks, and other community destinations)?**

The communities of Boothbay and Boothbay Harbor completed a joint bicycle and pedestrian plan. Please see http://www.boothbayharbor.org/images/stories/pdf/Bike-PedPlan-12H1.pdf

5. **How do state and regional transportation plans relate to your community?**

MDOT recently completed a Highway Corridor Prioritization (HCP) process for all non-local roads within Boothbay Harbor (local roads were not evaluated because they do not qualify for state assistance). Customer Service Levels (CSLs) were also completed for all non-local roads utilizing the following factors:

- Crash History. This measure includes the two types of motor vehicle crashes most likely related to the highway- head-on and runoff-road crashes. The A-F scale compares these crash rates with the statewide average.
- Paved Roadway Width. This measure compares total paved width (lane plus shoulder) with minimum acceptable widths by Highway Corridor Priority (not new design standards). If a highway segment fails this minimum, the Safety Customer Service Level for that segment is decreased one letter grade.
- Pavement Rutting Safety. This measure looks at wheelpath rutting, since excessive rutting holds water and contributes to hydroplaning and icing in winter. The A-F scale set points vary by Highway Corridor Priority, and are based on hydroplane tests.
- Bridge Reliability. This measure is pass/fail. If a highway segment contains a bridge with a Condition Rating of 3 or less (excluding non-overpass decks), the Safety Customer Service Level is decreased one letter grade. These bridges are safe, but may require increased inspection or remedial work that could affect traffic flow.
- Pavement Condition. This measure uses the Pavement Condition Rating (PCR), a 0-5 scale that is composed of International Roughness Index, rutting, and two basic types of cracking. The A-F scale varies by Highway Corridor Priority.
- Roadway Strength. This measure uses the results of the falling weight deflectometer, a device that estimates roadway strength. The A-F scale is uniform across Highway Corridor Priority, since even low-priority roads must support heavy loads in Maine's natural resource-based economy.
- Bridge Condition. This measure converts the 0-9 national bridge inventory (NBI) condition ratings to pass or fail; it is uniform across Highway Corridor Priority.
- Ride Quality. This measure uses the International Roughness Index (IRI), which is expressed in inches per mile of deviation. IRI is the nationally accepted standard for passenger comfort, and the A-F scale varies by Highway Corridor Priority.
- Posted Road. Each year, MDOT posts more than 2,000 miles of road during spring thaw to protect their longevity, but some posted roads directly affect Maine's economy.

Table 10.1 Boothbay Harbor Sidewalks

	Street	SEGMENT From	SEGMENT To	Side	Length	Type	Width	Condition	Street
1	Oak	Townsend	Union	W	820	Concrete	4	G	
2	Oak	Union	West	W	700	Paved/Conc	41703	F-G	
3	Oak	West	Howard	W	450	Paved	5	G	
4	Oak	Howard	McKown	W	140	Paver	4	VG	
5	Oak	West	Howard	E	360	Paved	4	G	
6	Oak	Howard	Townsend	E	130	Paver	5	G	
7	Townsend	Oak	Granary (w/gap)	W	200	Paver	5	G	
8	Townsend	Commercial	Eastern	E	2000	Paver	41737	VG	
9	Townsend	Eastern	S of Ocean Point	E	1020	Paved	41734	F-G	
10	Townsend	S of Ocean Point	Ocean Point	W	200	Paved	5	G	No X-walk
11	Townsend	Ocean Point	School Complex	W	1350	Paved	5.5	G	No esplanade
12	Todd	McKown	McKown	S	430	Pavers	41734	G	
13	McKown	E of Todd	Todd	W	30	Pavers	7.5	G	
14	McKown	E of Todd	Todd	E	120	Pavers	4	G	
15	McKown	BB House	Commercial	S	250	Pavers	8	VG	
16	Commercial	BB House	McKown	W	360	Pavers	41828	VG	
17	Commercial	BB House	Greenleaf	W	420	Stmp Conc	4	VG	
18	Commercial	Greenleaf	Point	W	350	Conc	4	VG	
19	Commercial	Point	Sea	E	520	Paved	41702	F-G	
20	Commercial	Townsend	Wharf	E	130	Conc	2.5-3.5	G	
21	Wharf	Commercial	Wharf	W	100	Paved	4	G	
22	By-way	Wharf	Bridge	E	240	Paved/Pavers	41771	G-VG	
23	Bridge	Townsend	Atlantic		1200	Paved/Wood/Conc/Pavers	41766	VG	
24	Union	Townsend	School	S	720	Paved	41702	P-G	No X-walk
25	Union	School	Atlantic	N	540	Paved	3.5-4	F-G	
26	Kenny Field	N of Union	Union	E	180	Paved	41702	F	
27	Atlantic	Union	Road's End	E	3560	Paved	41703	P-G	
28	Eastern	E of Montgomery	School	W	530	Paved	4	G	
29	Eastern	School	Townsend	S	430	Paved	4	G	

30	Howard	Sea	West	E	200	Conc	3.5-4	F-G	
31	West	Oak	Sherman	S	450	Paved	4.5-5	VG	
32	West	Howard	Fullerton	E	360	Conc	4	VG	
33	West	Fullerton	Village	N	1300	Paved	4	G	No esplanade
34	West	Village	Middle	N	170	Conc	4	VG	No esplan/Xwalk
35	Western	Middle	Old Ice House	N	3420	Paved	41702	F-G	No esplan/Xwalk
36	Western	Old Ice House	Harbor bridge	S	480	Paved	41702	F	No esplan/Xwalk
37	Lakeview	Western	N of Reed	W	420	Paved	4	F	
38	BB House	S of McKown	Commercial	E	210	Pavers/Paved	41737	VG	
39	McClintock	Oak	Townsend	N	340	Paved	3.5	G	
40	Alley	Townsend	Bridge Parking Lot		140	Paved	12	VG	
41	Monument	Howard	Todd		150	Pavers	3	VG	
				Total	28,620 ft.				

- Road segments that are permanently posted get a D, those with seasonal postings get a C.
- Posted Bridge. This measure uses load weight restrictions to arrive at an A-F score that varies by Highway Corridor Priority.
- Congestion Service. This measure uses the ratio of peak traffic flows to highway capacity to arrive at an A-F score for travel delay. Peak summer months are specifically considered to capture impacts to Maine's tourism industry. This scale is uniform across Highway Corridor Priority, since tourist travel is system-wide and sitting in traffic affects customer service similarly on all roads.

See http://www.maine.gov/mdot/about/assets/search/ for Customer Service Levels for non-local roads in Boothbay Harbor.

As shown in Table 10.3, MDOT is responsible for summer maintenance of about 9.5 miles of roads in Boothbay Harbor. Townsend Avenue and Oak Street, which are the busiest roads in the community, are classified by MDOT as Highway Corridor Priority (HCP) 3, which, except for Route 1 (HCP 2), is the highest priority classification in Lincoln County. MDOT maintains these roads to a high standard ensuring that they receive overlays and rehabilitation on a regular basis. Trucks and cars heading to Southport Island generally use either Western Avenue (HCP 4) or Lakeside Drive (HCP 5). These roads do not receive the same level of summer maintenance as HCP 3 highways. For example, Lakeside Drive (HCP 5) will only receive light capital paving and minor drainage work every seven years or so to maintain a reasonable travel surface. In east Boothbay Harbor, Union Street and Atlantic Avenue are also classified as HCP 5 and will receive the same level of state maintenance as Lakeside Drive.

MDOT will continue to rebuild existing roads, as funds are available. However, its top priority will continue to be its pavement preventive maintenance (PPM) program. The condition of a well-paved road tends to be stable for the first 5-10 years. Then, as cracks form and water gets into pavement and base, the rate of deterioration quickens. The PPM program focuses on applying lighter, less expensive pavement treatments earlier and more frequently in a pavement's life, thereby avoiding the point at which the pavement quickly deteriorates and the cost of repair accelerates.

MDOT released its 2012-2015 Statewide Transportation Improvement Plan in October, 2011. The only Boothbay Harbor project listed was engineering associated with extension of the Route 27 sidewalk from the vicinity of the school complex to Boothbay Common

6. What is the community's current and approximate future budget for road maintenance and improvement?

The Town of Boothbay Harbor funds about $150,000 annually for road paving, improvements and related work. The town maintains a record of all past road projects and develops an annual informal plan based, in part, on the age and condition of road surfaces, as described in Table 3. Because unforeseen events, including storm damage, weather delays, rising fuel and pavement costs, etc., can have significant impacts on planned projects, the Town does not prepare a detailed CIP for roads.

7. Are there parking issues in the community? If so, what are they?

8. If there are parking standards, do they discourage development in village or downtown areas?

The Town Code includes minimum off-street parking requirements for a full range of new and expanded residential and non-residential uses. In the Downtown Business District, however, no additional parking is required for changes or expansions of uses that do not involve increases in building footprint. While this provision permits greater flexibility in the downtown areas that have little land available for development of new parking, it can lead to further pressure on the supply of public on- and off-street spaces which are in high demand during the tourist season. A number of private properties in the downtown offer fee off-street parking, and a seasonal trolley (mid-June to Labor Day) is operated by the Rocktide Inn between the downtown and the meadow area, allowing visitors to park away from the downtown. The trolley is funded entirely by the Rocktide Inn and income from advertising on the trolley. With the addition of public funding, the trolley could operate on a longer season and its route might be extended. See Table 10.8 for the number and location of public parking spaces.

9. **Do available transit services meet the current and foreseeable needs of community residents? If transit services are not adequate, how will the community address the needs?**

   There is no fixed route bus system that serves Boothbay Harbor. Coastal Trans, Inc. (CTI) is a private, nonprofit corporation that provides demand response services to Boothbay Harbor residents. CTI also uses volunteer drivers on occasion to reduce transportation costs. These drivers use their own vehicles to transport program-qualified people needing non-emergency transportation. Concord Coach provides twice-daily service both north- and south-bound. The bus picks up and drops off customers at Huber's Market in Wiscasset and on Main Street in Damariscotta but there is no bus service to the Boothbay peninsula. FISH (Friends in Service Helping) provides rides for people in need to and from appointments for medical treatments, dental care, eye care, physical or vocational rehabilitation, or support groups in the Boothbay region. There is no charge for this service, which is provided by volunteers.

   There have been discussions about establishing seasonal bus service from Wiscasset to Boothbay Harbor. Feasibility studies for seasonal bus service as well as seasonal ferry service to Boothbay Harbor are included in the Route 27 Corridor Management Plan recommendations. The plan was approved by the Board of Selectmen and accepted by the Department of Transportation. In the summer of 2014, there was a proposal for a limited summer trolley from Damariscotta to Boothbay Harbor on weekends to coincide with the Maine Eastern Railroad's coastal excursion schedule.

10. **If the community hosts a transportation terminal, such as an airport, passenger rail station, or ferry terminal, how does it connect to other transportation modes (e.g. automobile, pedestrian, bicycle, transit)?**

    Boothbay Harbor does not host a transportation terminal. There are no ferry services in Boothbay Harbor but the community is visited by small cruise ships throughout the summer. There is public access to the harbor from several locations in the community, including locations off Atlantic Avenue, the Fish Pier, Footbridge, and Whaleback Park.

    Boothbay Harbor's waterfront is home to several seasonal scenic cruise businesses, including a spring to fall schedule to Monhegan Island. Small cruise vessels have increased their visits to Boothbay Harbor over the past few years, anchoring off of McKown Point. On the west side of the Harbor is Wotton's Wharf, where cruise passengers are brought ashore.

Other transportation resources include:

- Helipad at St. Andrews Campus for LifeFlight Services.
- St. Andrews also has a dock to handle marine-related medical emergencies.
- US Coast Guard Station on McKown Point Road, responsible for Search and Rescue in a 1000 square mile area of the Maine Coast.

11. **If the community hosts or abuts any public airports, what coordination has been undertaken to ensure that required airspace is protected now and in the future? How does the community coordinate with the owner(s) of private airports?**

    Not applicable.

12. **If you are a coastal community, are land-side or water-side transportation facilities needed? How will the community address these needs?**

    The Route 27 Corridor Management Plan included a recommendation for the Department of Transportation to conduct a feasibility study for establishing ferry service between Boothbay Harbor and other mid-coast coastal communities and for establishing seasonal bus service from Wiscasset.

13. Does the community have local access management or traffic permitting measures in place?

MDOT has adopted an Access Management Rule that controls the development of driveways and entrances on all state and state-aid roads (Table 10.2). A driveway is an access that serves up to 5 dwelling units or other uses that generate less than 50 vehicle trips per day while an entrance includes anything that exceeds these driveway thresholds. Any person proposing a driveway or entrance on one of the state-aid roads must apply for a permit from MDOT. This requirement is in addition to any local permits. All such accesses must meet minimum standards for sight distance, minimum distance to intersections, maximum width, drainage controls, and backing up onto the highway, among others.

Because the Access Management Rule is primarily intended to ensure safe use of and access to roadways, towns are encouraged to adopt similar standards for development on municipal roads. Minimum sight distance requirements, drainage improvements, and width standards are just as important for the safe use of local roads as for state highways. Many of Boothbay Harbor's roads have horizontal and vertical curves that limit visibility of vehicles exiting driveways. Boothbay Harbor has Site Plan Review performance standards that require access to a site to meet certain minimum safety standards as well as provisions mandating minimum sight distance for new accesses, depending on speed limit. The community also has regulations governing the proximity of new driveways to existing driveways or to intersecting road, maximum access grades and other provisions.

Table 10.2 State Maintained Roads in Boothbay Harbor

ROAD	CLASSIFICATION
Townsend Ave. (Rte. 27)	Minor Arterial
Oak Street (Rte. 27)	Minor Arterial
West St. (Rte. 27)	Major Collector
Howard St. (Rte. 27)	Major Collector
Western Ave. (Rte. 27)	Major Collector
Todd Ave. (Rte. 27)	Major Collector
Ocean Pt. Road (Rte. 96)	Major Collector
Lakeside Dr.	Minor Collector
McKown Pt. Rd.	Minor Collector
Union St.	Minor Collector
Atlantic Ave.	Minor Collector

Source: MDOT

14. Do the local road design standards support the community's desired land use pattern?

The Boothbay Harbor Road Standards differentiate road design based upon three categories: public roads, private roads and back lot driveways. Any proposed road or road lengthening that could generate 200 or more vehicle trips per day must have at least two road connections with existing public roads or roads on an approved development plan. Dead-end roads cannot exceed 1,000 feet or serve more than 12 residences. The Standards require, however, that roads shall be designed to discourage through traffic within a subdivision.

15. Do the local road design standards support bicycle and pedestrian transportation?

The Boothbay Harbor Road Standards require that unless sidewalks do not exist on the project site or adjacent properties or if significant pedestrian traffic is not present or is not anticipated in the future, the Planning Board shall require the installation of minimum four-foot wide sidewalks on one or both sides of a road. The following are prioritized project recommendations from the Boothbay-Boothbay Harbor Bicycle-Pedestrian Plan approved by the Board of Selectmen in 2012.

1. Route 27 sidewalk extension between the YMCA and Boothbay Center.
2. Completion of paved road shoulders on Route 96 between Route 27 and East Boothbay.
3. Route 27 bicycle-pedestrian improvements between Boothbay Harbor Village and the Southport Bridge.
4. Route 96 paved shoulder between East Boothbay and Ocean Point.
5. Off-Road Connections between the YMCA and Coastal Maine Botanical Gardens.
6. Route 27 @ School Complex intersection improvements.
7. Route 27 @ Hannaford intersection improvements.
8. Boothbay Common intersection improvements.
9. Route 27 between Boothbay Center and the Edgecomb town line.
10. River Road signage and paved shoulders.
11. Atlantic Avenue sidewalk improvements.
12. Union Street sidewalk construction and Oak Street sidewalk improvements.

Other recommendations from the plan:

- Create budget line items in both towns devoted to summer and winter sidewalk maintenance and repair.
- Prohibit property owners from maintaining their properties in a manner that adversely affects adjacent sidewalks, such as plowing snow onto sidewalks and failing to trim back vegetation overhanging sidewalks.
- As new pedestrian and bicycle facilities are constructed in the community, a formal maintenance policy should be adopted to ensure that the spending of scarce local financial resources on the system will be optimized.
- Fund annual budgets for improvements to existing bicycle and pedestrian facilities and construction of new facilities on Town-owned roads.
- Establish dedicated annual maintenance budgets, including striping of crosswalks, winter maintenance and spring sweeping of Town-owned roads. This could include the purchase of equipment specifically dedicated to winter sidewalk maintenance.
- When any state or state-aid road is reconstructed, the shoulder and travel lanes be sufficiently dimensioned to accommodate pedestrians and bicyclists.
- New bike racks should be installed in locations listed in the bicycle-pedestrian plan.

16. Do planned or recently built subdivision roads (residential or commercial) simply dead-end or do they allow for expansion to adjacent land and encourage the creation of a network of local streets? Where dead-ends are unavoidable, are mechanisms in place to encourage shorter deadends resulting in compact and efficient subdivision designs?

There have been few new subdivisions constructed in the recent past but, with at least one significant exception, those that have been approved did not require creation of road networks. This is principally due to the nature of the terrain and the inability to economically construct street networks. One large subdivision did include an interconnecting road network with small lots but this subdivision was only partially built before it was foreclosed upon.

Conditions and Trends

1. ROADS, BRIDGES, SIDEWALKS, AND BICYCLE FACILITIES

The transportation network is dominated by vehicular traffic traveling on the community's network of public and private roads. The maintenance responsibility for these roads depends on the principal use of the roadway and falls on private individuals, the Town of Boothbay Harbor or the State of Maine. Figure 10.3 presents Boothbay Harbor's public and private road network. As of 2011, there were 43.7 miles of public and private roads in Boothbay Harbor (Tables 10.3 and 10.4). These roads vary in function and character from high-speed arterials to private gravel roadways.

Arterial Roadways

Arterial roadways are defined by MDOT as travel routes that carry high speed, long distance traffic usually with a US Route number designation. In Boothbay Harbor there are 1.97 miles of arterial highway consisting of Townsend Avenue and Oak Street.

Collector Roadways

Collector roadways are defined by MDOT as travel routes that collect and distribute traffic from and to arterials, serving places of lower population densities and somewhat removed from main travel routes. In Boothbay Harbor, the 7.5 miles of collector roadways include West Street, a portion of Howard Street, Western Avenue, Todd Avenue and Ocean Point Road (major collectors), and Lakeside Drive, McKown Point Road, Union Street and a portion of Atlantic Avenue (minor collectors).

Local Roads

Local roads are defined by MDOT as all roadways not classified as an arterial or collector and include 85 roads totaling 22.3 miles in Boothbay Harbor. All local roads are maintained by the town.

Private Roads

Private roads are maintained by individuals, associations or private businesses and total about 11.1 miles in Boothbay Harbor.

The Town of Boothbay Harbor is responsible for summer maintenance of 22.3 miles of roadway, all of which except for Old Ferry Road and Rock Road, are paved. As indicated in Table 10.3, some of these roads have poor travel surfaces due to age, insufficient base material, steep grades and shallow-to-bedrock conditions and maintenance costs will rise with further deterioration.

Based on the comments provided in Table 10.3, it is necessary to reconstruct, rehabilitate or repave a number of local roads. By encouraging or permitting development in areas that are served by adequate roads, increased maintenance costs associated future capital outlays may be avoided or at least delayed. For private roads, see Table 10.4.

As indicated in Table 10.3, all of state and state-aid roads are in good to very good condition with the exception of Western Avenue, which has some areas of surface cracking and poor base, and Atlantic Avenue, which also has some surface cracking. Town roads, however, vary much more in condition. Of the 22.3 miles of town roads in Boothbay Harbor, 2.17 miles are rated as in poor or poor-to-fair condition, 8.83 miles in fair or fair-to-good condition and 11.3 miles in good or very good condition. Poor or fair road conditions appear to be mostly due to surface deterioration as a result of inadequate base, poor drainage, significant horizontal and vertical relief and shallow to ledge conditions. In addition, roads that were formerly limited to seasonal use only are now maintained year-round by the town in order to ensure adequate access for fire and ambulance personnel and to accommodate the increasing number of property owners converting their residences to year-round occupancy.

While these road conditions can be remedied by full reconstruction of the roads and road segments, this is both cost-prohibitive and financially unjustifiable due to very low usage and limited potential for future development on most town roads. Recognizing the challenge of finding appropriate funding to supports roads, the Public Works Department uses its available funds to pave and complete limited drainage improvements on several roads each year.

Figure 10.3 Boothbay Harbor Roads Map

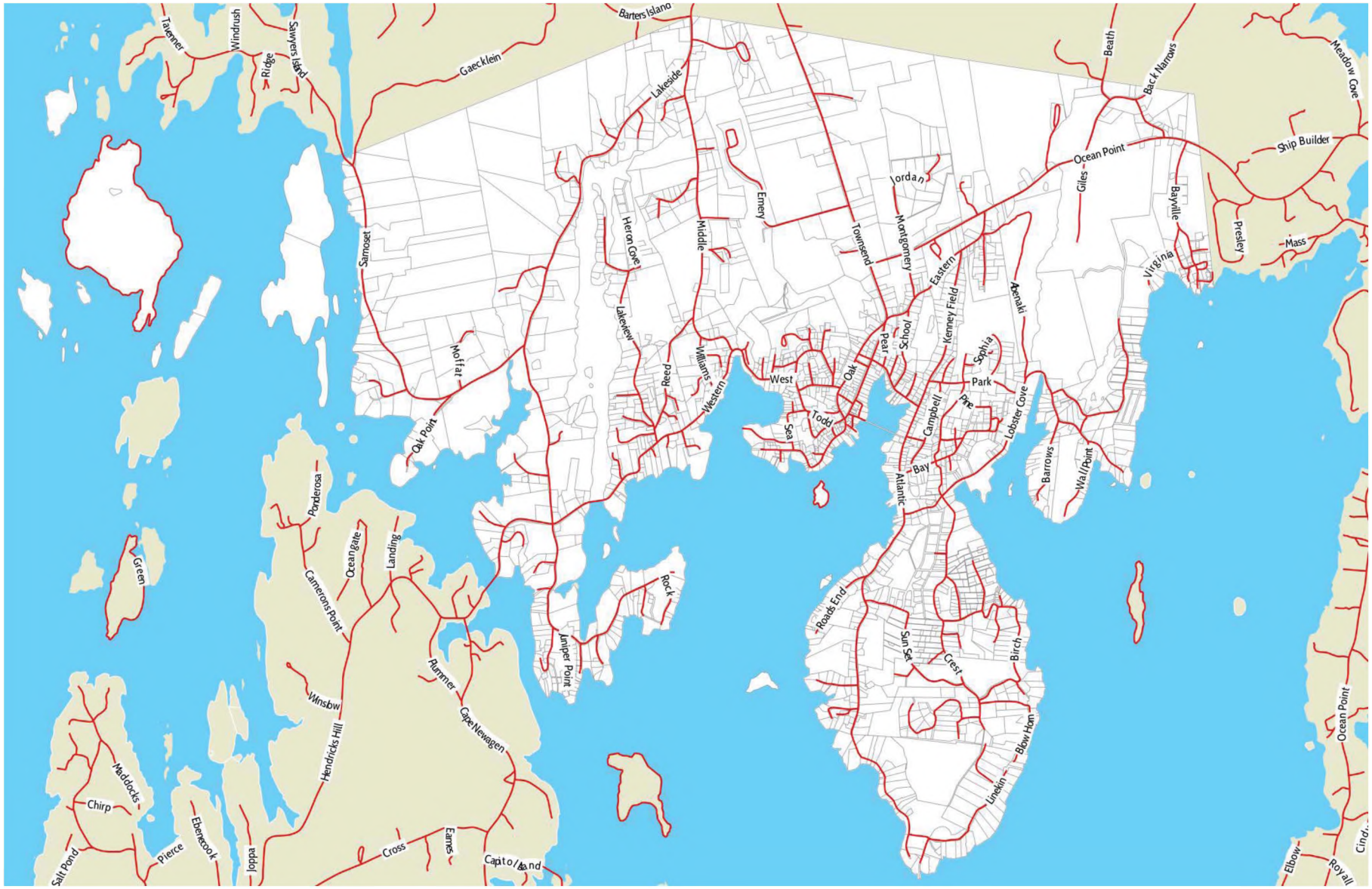


Table 10.3 Boothbay Harbor Public Roads

NAME	FUNCTION	MDOT HIGHWAY PRIORITY CORRIDOR	LENGTH (MI.)	TOWN ROADS (MI.)		COND.	COMMENTS/REQUIRED WORK	ROADWAY CHARACTER/ SCENIC VIEWS
				Summer Maint.	Winter Maint.			
Townsend Ave. (Rte.27)	Minor Art.	3	8218	N*	Y	VG	2-4' shoulders; very good surface; needs center turning lane	
Oak Street (Rte. 27)	Minor Art.	3	2167	N*	Y	VG	Very good condition	Village views
West St. (Rte. 27)	Major Col.	4	1740	N*	Y	G	Good condition	
Howard St. (Rte. 27)	Major Col.	4	420	N*	Y	G	Good condition	
Western Ave. (Rte. 27)	Major Col.	4	5490	N*	Y	F-G	Some cracking; fair-good surface; base deterioration at bridge?	Spectacular water views
Todd Ave. (Rte. 27)	Major Col.	4	485	N*	Y	VG	Very good surface; limited sight distance for entering traffic	
Ocean Pt. Road (Rte. 96)	Major Col.	4	7020	N*	Y	G	Mostly good pavement; wide gravel and paved shoulders in areas; patched cracks	Some rural views to east
Lakeside Dr.	Minor Col.	5	11620	N*	Y	G	Good surface with light pavement cracking throughout	Water views
McKown Pt. Rd.	Minor Col.	5	5330	N*	Y	G	Some parallel cracking	Water views
Union St.	Minor Col.	5	1622	N*	Y	G	Good surface	Views of bay
Atlantic Ave.	Minor Col.	5	5800	N*	Y	F-G	Mostly good surface to Sun Set; some parallel cracking	Views of bay
Atlantic Ave.	Local	5	2652	Y	Y	G	Good surface with little deterioration	
Abenaki Rd.	Local	6	4500	Y	Y	P	Poor, narrow gravel surface; private?	
Andrea Ln.	Local	6	191	Y	Y	G	Good	
Appalachee Rd.	Local	6	2475	Y	Y	G	Narrow; many hor. & vert. curves; generally good surface	
Back Narrows Rd.	Local	6	2103	Y	Y	G	Good surface except parallel cracking; narrow shoulders with drop-off; hor. and vert. curves	
Barter Rd.	Local	6	423	Y	Y	P-F	Poor-fair pavement; part gravel; narrow	
Bay St.	Local	6	1460	Y	Y	F	Narrow; fair-good surface with cracking except to west	Bay view at west end
Bayberry Rd.	Local	6	800	Y	Y	G	Recent overlay	
Bayville Rd.	Local	6	3060	Y	Y	G	Mostly good surface; some parallel cracking; narrow	
Beach Rd.	Local	6	1320	Y	Y	G	Narrow; recent overlay; narrow; hilly	
Beath Rd.	Local	6	1000	Y	Y			
Birch Rd.	Local	6	3160	Y	Y	G	One lane; recent overlay to bridge; deteriorated bridge guardrail	Limited water views
Boothbay House Hill	Local	6	255	Y	Y	F-G	Some cracking with fair-good surface	Water, village views

Bradley Rd.	Local	6	2000	Y	Y	G	Good surface; narrow shoulders with drop-off; hor. and vert. curves	
Breakwater Rd.	Local	6	760	Y	Y	F	Surface deteriorated; narrow; OK for current use	Water views
Bridge St.	Local	6	233	Y	Y	P	Some surface deterioration; mostly ped use and very slowly moving traffic	Bay views
By-Way	Local	6	245	Y	Y	P	One lane; some surface deterioration; mostly ped use and very slowly moving traffic	
Campbell St.	Local	6	2709	Y	Y	F-G	Narrow, mostly OK surface; ? base; hilly	
Commercial St.	Local	6	2430	Y	Y	VG	Very good; partially repaved	Water, wharf views
Crest Ave.	Local	6	4750	Y	Y	F-G	Mostly recent overlay; fair-poor elsewhere	
Crooked Pine Rd.	Local	6	1158	Y	Y	F-G	Narrow; mostly good; some fair surface; hilly	
Eames Rd.	Local	6	204	Y	Y	F	One lane; fair with cracking; limited use	
Eastern Ave.	Local	6	3000	Y	Y	F-G	Fair-good surface; some surface patching; limited areas of parallel cracking closer to town	
Eaton Rd.	Local	6	884	Y	Y	G	Narrow; good surface	Water views
Emery Ln.	Local	6	4270	Y	Y	F-G	F-G with some surface deterioration; base?	
Factory Cove Rd.	Local	6	837	Y	Y	G	Narrow with good surface; OK for current use	Water views, working waterfront
Fullerton Ct.	Local	6	250	Y	Y	F-G	Some cracking; mostly good with some fair	
Fullerton St.	Local	6	1645	Y	Y	G		
Gaecklein Rd.	Local	6	260	Y	Y			
Gilead St.	Local	6	440	Y	Y	P-F	Poor-fair surface; parallel cracking; narrow	
Giles Pl.	Local	6	212	Y	Y	G	Good surface with limited use	
Giles Rd.	Local	6	2640	Y	Y			
Granary Way	Local	6	428	Y	Y	G	Good with very limited parallel cracking	Water views
Hackmatack Rd.	Local	6	320	Y	Y	G	Good	
Harbor Heights Rd.	Local	6	758	Y	Y	F	Narrow; steep in sections; OK for current limited use	
Harris Point Rd.	Local	6	740	Y	Y	VP	Very poor surface; base, shoulder deterioration; very narrow	
High St.	Local	6	372	Y	Y	G	Good surface with limited cracking	Water views
Highland Park Rd.	Local	6	1010	Y	Y	P	Poor surface; little base; much cracking; narrow; hor. and vert. curves	
Hillcroft Rd.	Local	6	1500	Y	Y	P	One lane; poor base and surface	
Hodgdon Cove Road	Local	6	782	Y	Y	F-G	Fair-good surface; some parallel cracking; narrow	
Howard St.	Local	6	1089	Y	Y	G	Some cracking; could use overlay	Village views
Hutchinson Dr.	Local	6	863	Y	Y	G	Good	
Juniper Point Rd.	Local	6	1050	Y	Y	P	One lane; poor base; cracking; surface deteriorated	
Kenney Field Dr.	Local	6	2620	Y	Y	F-G	Fair-good surface with some cracking	
Lakeview Rd.	Local	6	3960	Y	Y	P-F	Poor surface especially towards Route 27; some areas of parallel cracking and poor base	Limited water views

Lobster Cove Rd.	Local	6	6390	Y	Y	G	Good surface with limited parallel cracking	Harbor, park views
Logan Rd.	Local	6	530	Y	Y	G	One lane, mostly good	
Maddocks Rd.	Local	6	398	Y	Y	F	Fair surface; shoulder erosion; some surface deterioration	
McClintock St.	Local	6	369	Y	Y	G	Good with limited parallel and perpendicular cracking	Village views
McCobb Rd.	Local	6	571	Y	Y	F-G	Some shoulder deterioration; some cracking; OK for current use	
McKown St.	Local	6	1252	Y	Y	F-G	Fair; shallow to ledge; parallel cracking; surface deterioration	
Middle Rd.	Local	6	6860	Y	Y	F-G	Fair-good; limited areas of cracking; surface deterioration	
Montgomery St.	Local	6	1230	Y	Y	F-G	S of Route 96, horizontal and vertical curves; some parallel cracking; fair-good surface; N of Route 96, good surface	
Nahanada Rd.	Local	6	740	Y	Y**	F	Fair surface to bridge **partial winter maint.	
Oak Lawn Rd.	Local	6	1320	Y	Y	G	Narrow pavement; OK for current use	Pastoral views
Oak Point Rd.	Local	6	1584	Y	Y	F-G	One lane; areas of significant cracking and poor base	Views of cove
Old Ferry Rd.	Local	6	250	Y	Y	G	Gravel	Water views
Paine Rd.	Local	6	365	Y	Y	G	Mostly good; OK for current use	
Park St.	Local	6	2420	Y	Y	F-G	Fair-good to east; significant hor. and vert. curves; shoulder deterioration in areas	
Patton Ln.	Local	6	333	Y	Y	F-G	Narrow; mostly good surface; limited cracking; OK for present use	
Pear St.	Local	6	718	Y	Y	G	Good	
Perkins Rd.	Local	6	330	Y	Y	G	Good	
Pine St.	Local	6	680	Y	Y	F	Very narrow; many curves; fair surface	
Pinkham Cove Rd.	Local	6	286	Y	Y	F	One lane, fair	
Reed Rd.	Local	6	2380	Y	Y	F-G	Fair-good; culvert cover; some areas of parallel cracking	
Roads End Rd.	Local	6	1458	Y	Y	G	Good surface up to wharf	Water views
Rock Rd.	Local	6	929	Y	Y	P	One lane gravel	
Samoset Rd.	Local	6	7600	Y	Y	P	Good with some areas of surface deterioration and cracking	Water views
School St.	Local	6	1606	Y	Y	F	Fair surface with parallel and perpendicular cracking; SW grates depressed	
Sea St.	Local	6	1074	Y	Y	G	Good	Harbor views
Sherman St.	Local	6	374	Y	Y	VG	Very good with recent overlay	
Smith St.	Local	6	298	Y	Y	G	Good	
Snow Hill Rd.	Local	6	310	Y	Y	G	One lane; good surface	
Snow Rd.	Local	6	379	Y	Y	P-F	One lane; fair surface; shoulder deterioration	

St. Andrews Dr.	Local	6	180	Y	N	VG		
St. Andrews Ln.	Local	6	588	Y	Y	VG		
Summit Rd.	Local	6	1732	Y	Y	F-G	Narrow; good surface to the north, poor-fair to the south	
Sun Set Rd.	Local	6	3302	Y	Y	F-G	Good surface with horizontal and vertical curves to 90° curve; fair-poor thereafter; base?	
Tupper Rd.	Local	6	473	Y	Y	F	Fair; narrow	
Union Ct.	Local	6	545	Y	Y	VG	Good, recent overlay	
Wall Point Rd.	Local	6	2376	Y	Y	F	Narrow; base; surface cracking	Water views
Weeks Rd.	Local	6	545	Y	Y	P-F	One lane; severe curves; surface fair	
West St.	Local	6	840	Y	Y	G	Good	Very good water views
Wharf St.	Local	6	164	Y	Y	G	Good	Village views
Williams St.	Local	6	1060	Y	Y	F-G	Fair-good with some cracking	
TOTALS			172,569	122,657	171,889	*Summer maintenance by MDOT generally limited to paving, reconstruction; town performs ditching and other summer maintenance activities		
			32.68 mi	23.23 mi	32.55 mi			

Table 10.4 Boothbay Harbor Private Roads

Abenaki Rd.	4500	Hansen Rd.	560	Ross Ln.	230
Alexander Way	520	Heron Cove. Rd.	1200	Sea View Place	220
Appalachee Rd.	1260	High Ledge Ln.	1800	Secret Cove Ln.	330
Apple Tree Way	790	Hillside Rd.	300	Simmons Dr.	970
Arthur Dr.	600	Hodgdon Cove Rd.	820	Sophia Way	1870
Ava Ln.	230	Jordan Rd.	1010	Spruce Point Hts.	1070
Barrows Rd.	1570	Linekin Rd.	2700	Sprucewold Path	600
Bay Landing Ln.	1000	Lupine Ln.	520	St. Andrews Ln.	560
Bayville Rd.	2850	Massachusetts Rd.	1200	Stonehedge Dr.	340
Bear End Rd.	580	McFarland Point Dr.	1010	Townsend Ledge Dr.	520
Blackstone Rd.	450	Mill Cove Crest Rd.	390	Turkey Hill Rd.	490
Blow Horn Rd.	2100	Moffat Rd.	1350	Village Ct.	520
Briggs Ln.	300	Montgomery Rd.	2400	Virginia St.	970
Cedar Ln.	560	Mountain View Rd.	1050	West Harbor Pond Rd.	970
Central Ave.	490	Old Ice House Rd.	560	Wagner Ln.	490
Chimes Ln.	710	Old Quarry Ln.	600	Warren Ext.	340
Cranberry Rd.	750	Old Stonewall Rd.	2200	Warren Ln.	670
Elvira Rd.	600	Patton Ln.	300	Waters Edge Trl.	260
Giles Rd.	1650	Pennington Ln.	800	Watutka Way	230
Glenside Rd.	710	Pennoyer Dr.	150	Wawenock Trl.	1350
Grand View Ave	2400	Pooler Rd.	560	West Rd.	560
Greenleaf Ln.	210	Powder Hill Farm Rd.	410	Wilder Ln.	1120
Hackmatack Rd.	300	Raccoon Rd.	280	Total - 62870 ft (11.9 miles)	
Hammond Way	370	Roberts Cir.	520		

Route 27 is the only Corridor of Regional Economic Significance in Boothbay Harbor. Boothbay, Boothbay Harbor and Edgecomb completed a Corridor Management Plan for the highway in 2011 (see http://lcrpc.org/uploads/visual_edit/j98218r27plan11g1-2.pdf). The plan included the following Boothbay Harbor-specific recommendations as well as corridor-wide recommendations applicable to Boothbay Harbor:

- Better delineate all crosswalks
- Widen shoulders whenever and wherever possible
- Conduct speed survey
- Improve speed limit enforcement
- Improve drainage and direct away from sensitive areas
- Install context sensitive street lighting in village areas
- Create bus passenger facilities and passenger parking areas
- Conduct feasibility studies for ferry, seasonal bus service
- Develop peninsula shuttle service
- Conduct traffic study to determine locations for turning lanes
- Install landscaped center median where turning lanes not required
- Install sidewalks on both sides of Route 27 from Route 96 to the school complex
- Widen shoulders or install bike lanes to Boothbay Common
- Install landscaping along sides of Route 27 in the Meadow
- Revise Hammond Lumber parking lot to reduce access width

- Add sidewalk from the YWCA to Boothbay Center
- Remove passing zone in Boothbay Harbor and evaluate the appropriateness of all other passing zones in the corridor

While not addressed in the Route 27 plan, two other potential improvements would be the replacement of existing street lighting in the downtown with more period-consistent lumenaires and the creation of a way-finding program to provide better signage for visitors.

Boothbay Harbor has an attractive combination of village, harbor and coastal roadscapes. It is also a very walkable community with 5.4 miles of sidewalks, including a pedestrian walkway across the harbor, and almost four dozen marked crosswalks. Because of its small size (at less than 6.5 sq. mi. it is Lincoln County's smallest organized town) and high population density (342 persons/sq. mi vs. 74 persons per/sq. mi. for Lincoln County as a whole), there are not significant areas of undeveloped land or undivided habitat in the community. The quality and critical nature of this undivided habitat is addressed in Natural Resources Chapter of this plan.

Roads such as Commercial Street, West Street, Western Avenue, Atlantic Avenue, Union Street, McKown Point Road and Townsend Avenue offer motorists attractive views of the inner and outer harbors while Lakeside Drive travels along portions of West Harbor Pond and Samoset Drive presents views of Townsend Gut and the Spectacle Islands. Unfortunately, due to the narrowness and curvilinear nature of many of these roads, it is difficult for motorists to see these visual resources. The strategic placement of turnouts would provide both residents and tourists with opportunities to take pictures and otherwise enjoy the views.

Village streets provide pedestrians with extensive views of the inner harbor and many quaint waterside restaurants, stores and residences. As portions of Boothbay Harbor continue to develop and redevelop in the future, there is potential for some of these views to be lost or adversely affected and it may be advisable for the community to consider some level of protection for its scenic landscape.

Bridges

Table 10.5 lists bridges in Boothbay Harbor, all of which are owned and maintained by the state. No bridge improvements are planned by MDOT at this time.

Table 10.5 Bridges in Boothbay Harbor, 2012

LOCATION	NAME	TOPO FEATURE	OWNER/ MAINTAINER	YR BUILT	CONDITION			
					DECK	SUPER STRUCTURE	SUB STRUCTURE	CULVERT
Samoset Road	McIntyre	Bragdon Stream	Town	1985	N/A	N/A	N/A	6
Lobster Cove Rd	Echo Brook	Echo Brook	Town	1950	6	6	6	N/A
Route 27	Southport	Townsend Gut	MDOT	1939	6	6	6	N/A
Route 27	West Harbor	West Harbor Cove	MDOT	1990	7	7	7	N/A

2. ON & OFF BICYCLE AND PEDESTRIAN ROAD CONNECTIONS

With the exception of road shoulders on Route 27, there are no bicycle facilities in Boothbay Harbor. The town has developed an extensive and well-maintained sidewalk and crosswalk network. A bicycle-pedestrian plan for both Boothbay Harbor and Boothbay was completed in 2012. The plan includes detailed information on the length, condition and composition of all sidewalks in the community along with a prioritized list of recommended improvements. The plan is appended to this Comprehensive Plan by reference and can be accessed at: http://www.boothbayharbor.org/images/stories/pdf/Bike-PedPlan-12H1.pdf

3. MAJOR TRAFFIC HUBS

The most significant seasonal generator of traffic in Boothbay Harbor is related to the tourist industry. The community serves as the principal connector to Southport, East Boothbay and many waterfront communities.

MDOT counts traffic volume on a rotating schedule. Because traffic counts are taken throughout the non-winter months, they must be statistically adjusted so that they can be made comparable regionally and statewide. In addition, peak traffic occurs at different times in different areas of the state. The Department, therefore, applies factors to the traffic counts to produce Average Annual Daily Traffic (AADT). The most recent available counts in Boothbay Harbor are presented in Table 10.6.

Table 10.6 Traffic Counts Boothbay Harbor

ROADWAY	LOCATION	AADT1,2	DIFFERENCE	ROADWAY
		2002	2010	
Route 27	North of Route 96	10,890	10,400	-4.5%
Route 27	Near Southport town line	3,430	3,320	-3.2%
McKown Point Rd	South of Route 27	1,110	1,070	-3.6%
Townsend Avenue (Route 27)	South of Eastern Avenue	6,490	5,750	-11.4%
West Street (Route 27)	East of Middle Street	4,440	4,000	-10.0%
Lakeside Drive	North of Route 27	1,820	1,810	-0.5%
Route 96	North of Eastern Avenue	4,790	4,240	-11.5%
Route 96	Near Boothbay town line	3,920	3,530	-10.0%
Union Street	North of Atlantic Avenue	4,570	3,860	-15.5%
Atlantic Avenue	North of Road's End	1,840	1,380[3]	-25.0%
Oak Street	South of Route 27	4,520	4,040	-10.6%
West Street	North of Route 27	2,090	1,840	-12.0%

1. Average Annual Daily Traffic
2. Source MDOT
3. 2007 Data

Table 10.6 indicates that, overall, average annual daily traffic on selected Boothbay Harbor roads decreased between 2002 and 2010 with some roads such as Atlantic Avenue and Union Street exhibiting significant reductions. While adverse weather conditions or road work could have some effect on traffic counts, the fact that reductions were experienced on most of the roads for which comparable data is available is probably reflective of declines in the local economy. Conversely, as economic conditions improve in the future, traffic on state and local roads will likely increase and potentially accelerating surface deterioration.

Table 10.7 presents traffic counts from permanent MDOT traffic counting stations. They record traffic volumes 24-7 year-round so the AADT at these locations is not estimated but actual. Trends in Boothbay are similar to results from other mid-coast locations. Traffic volumes increased through the 1990s and peaked in the mid-2000s. This pattern is statewide, as shown by the trends in vehicle miles traveled (VMT) during the same period. Statewide VMT peaked in 2006 and has not fully recovered. The 2010 VMT is not much different than the 2000 VMT. The traffic trend on the Boothbay peninsula mirrors the statewide situation. However, as noted above, the reductions in traffic counts on many Boothbay Harbor roads are substantially less that that indicated at the Route 27 permanent traffic counting station, probably reflecting the community's greater susceptibility to economic conditions due to its reliance on tourism.

Table 10.7 Traffic Counts from Mid-Coast Permanent Counting Stations

YEAR	ROUTE 27 BOOTHBAY	ROUTE 1 ROCKPORT	ROUTE 3 TRENTON	STATEWIDE (BILLIONS)
2010	6,540	13,090	13,360	14.5
2005	6,650	13,860	13,640	14.9
2000	6,470	14,500	13,460	14.3
Change 2005-2010	-1.7%	-5.6%	-2.0%	-2.7%

4. DESIGN, CONSTRUCTION, AND MAINTENANCE OF PUBLIC AND PRIVATE ROADS

Boothbay Harbor is concerned that all roadways and bridges be well engineered and built to last so that potential damage will be minimized from flooding and adverse weather and vehicular use. Substandard design or construction will result in higher costs to taxpayers and/or subdivision associations for repair and remediation. Road damage from flooding, adverse weather conditions and from use, especially heavy trucking activity, requires that roads be built to appropriate standards, including sufficient sub-bases, drainage systems and grading. While this may result in higher development costs upfront, in the long term it will reduce costs for taxpayers, residents, and business owners, all of whom depend on the road network.

In 2010 the Town adopted standards for the design and construction of all public and private roads, road extensions and back lot driveways. Road design standards are as follows:

Table 10.8 Town Road Standards

REQUIREMENT	TYPE OF ROAD				
	ARTERIAL	COLLECTOR	MINOR ROAD	PRIVATE ROAD1	BACK LOT DRIVEWAY
Minimum right-of way width (feet)	80	60	50	50	50
Minimum travel way width (feet)	44	22	20	18	12
Sidewalk width	Cross reference § 170-54C(9)				
Minimum grade	.5%	.5%	.5%	.5%	N/A
Maximum grade	5%	6%	8%	10%	12%
Minimum center-line radius (feet)	500	230	150	150	N/A
Minimum tangent between curves of reverse alignment (ft)	200	100	50	N/A	N/A
Roadway crown (inches per foot)	1/4	1/4	1/4	1/4	N/A
Minimum angle of road intersections[2]	90º	90º	75º	75º	75º
Maximum grade within 75 feet of intersection	2%	2%	2%	2%	N/A
Minimum curb radii at intersections (feet)	30	20	15	15	N/A
Minimum right-of-way radii at intersections (feet)	20	10	10	10	10
Minimum width of shoulders (each side) (feet)	5	5	5	3	1

The road standards also include performance guarantees and inspections to ensure that the roads are constructed in conformance with the design standards.

5. MUNICIPAL PARKING

Table 10.9 Public Parking Spaces in Boothbay Harbor

LOCATION	NUMBER	TYPE
Townsend Avenue	54	On-street
Oak Street	49	On-street
West Street	5	On-street
Smith Street	11	On-street
Todd Avenue	7	On-street
McKown Street	11	On-street
Sea Street	7	On-street
Commercial Street	37	On-street
Commercial Street Ext.	4	On-street
By-Way	7	On-street
Howard Street	3	On-street
Oak Street Lot	27	Off-street
Howard Street Lot	72	Off-street
Footbridge lot	66	Off-street

6. AIRPORTS

There are no general aviation airports in Boothbay Harbor although sea planes occasionally use West Harbor Pond. The closest airport that serves the community is the Wiscasset Airport. Other airports are the Maine State Airport in Augusta, the Knox County Regional Airport, the Portland International Jetport and Bangor International Airport. The Augusta, Bangor, Knox County and Portland airports offer scheduled air service. Various improvements are planned at these airports as part of MDOT's Six-Year Plan.

7. BUS & VAN SERVICES

See discussion on Rocktide Inn trolley.

8 MARINE AND RAIL TERMINALS

The Rockland Branch, which is owned by the Department of Transportation and operated by the Maine Eastern Railroad, is the closest railroad to Boothbay Harbor. The railroad provides limited freight service and seasonal passenger rail service between Brunswick and Rockland, with area stops in Wiscasset and Newcastle. Both Wiscasset and Damariscotta have developed plans to create a multi-modal transportation facility. If and when funded and developed, either facility could serve as a base for seasonal bus service connecting to Boothbay Harbor.

If coastal communities identify public ferry service and private boat transportation support facilities (may be covered under Marine Resources with cross reference) including related water-side (docks/piers/ wharves) and land-side (parking) facilities.

There are no ferry services in the community, but there are several local private marine businesses for cruises, excursions, sailing, kayaking, and sportfishing, many of which are located along the Commercial Street waterfront.

9. ENVIRONMENTAL IMPACTS OF TRANSPORTATION FACILITIES

There has been very little development of new roads in Boothbay Harbor in the past 30-40 years. Most of the private roads serving waterfront uses have been in place for many years. The History of Growth Maps presented in the Land Use Chapter demonstrate that most recent residential construction has occurred along the town's public roads as well as private roads along the harbor, river and other tidal waters with the largest areas of undeveloped land between Samoset Road and Lakeside Drive, north of Route 96 and the area south of Route 96 near Meadow Brook. Boothbay Harbor does not have provisions encouraging open space subdivisions, which can be an effective tool in preserving undivided open space when residential subdivisions are developed and reducing the amount of road construction necessary to support new development. A larger minimum lot size in rural areas combined with mandatory open space clustering may be a consideration in the future.

No records are maintained regarding transportation-related wildlife mortality. Given the relatively slow speeds on most town roads due to horizontal and vertical curves and the presence of roadside development, they probably contribute little to wildlife mortality.

Boothbay Harbor's scenic, historic and cultural resources are important to the community and the Boothbay Region Land Trust has been instrumental in preserving and protecting important local and state historic resources as well as providing opportunities for residents and visitors to enjoy these resources. Figure 10.4 presents the community trail network in Boothbay Harbor and Boothbay.

Boothbay Harbor does not specifically exempt from regulation noise generated by transportation activities but it does have regulations that address noise associated with commercial developments. There have been few transportation-related noise complaints over the years.

10. TRAFFIC CONTROL DEVICES

The only traffic control devices employed in Boothbay Harbor are stop signs at all intersections, flashing lights near the school complex and traffic signals at the Routes 27/96 intersection. MDOT has not indicated the need to install additional traffic control devices within the community.

11. LAND USE

Boothbay Harbor has always had a distinct and well-developed village area clustered on both sides of the harbor. Figure 10.5 presents a portion of an 1893 USGS Map showing the road network and locations of principal structures. Almost all residential development in the late 19th century was located in the village or along limited portions of the coastline with very little in the interior of the community. This is typical of fishing communities where fishermen prefer to store live and store their boats and gear close to shore. There was some agriculture in Boothbay Harbor but, for the most part, the community's economy was tied to the sea and to a fledgling summer vacation industry.

Figure 10.4 Boothbay & Boothbay Harbor Community Trails

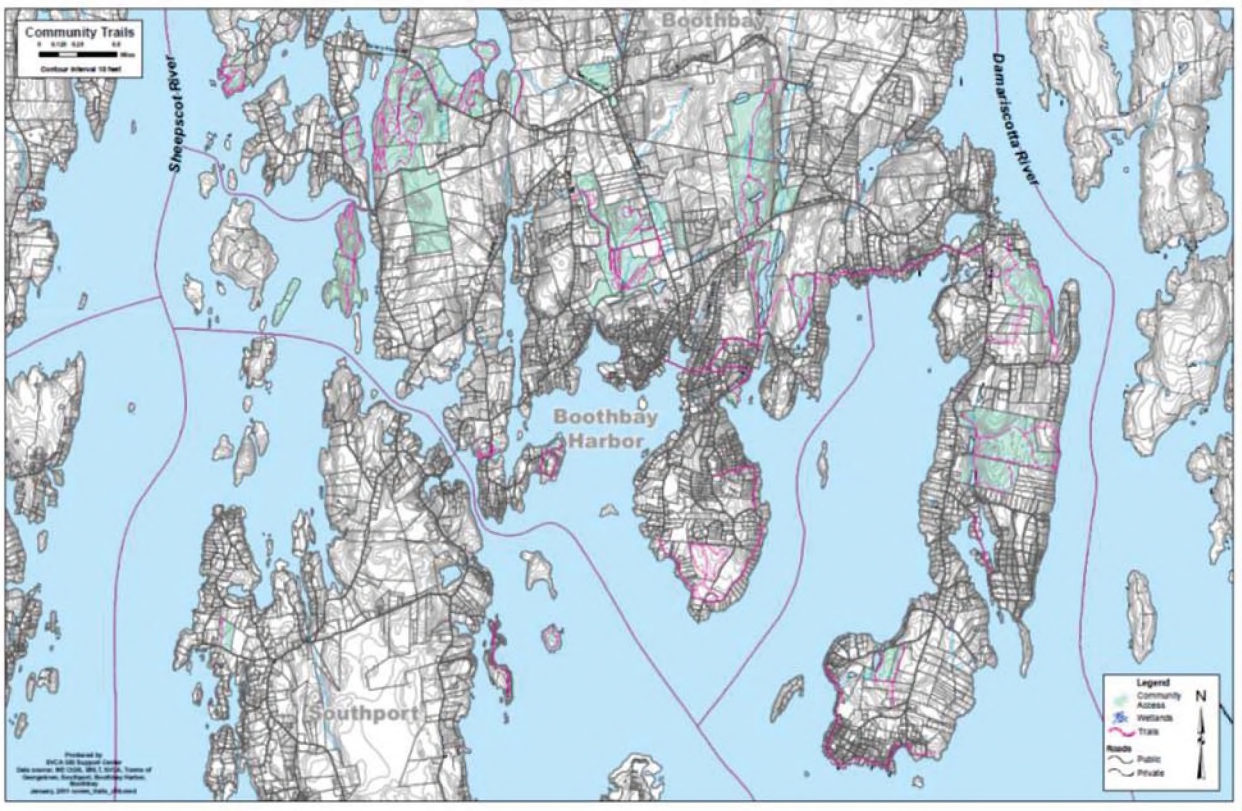


Figure 10.5 1893 USGS Map

As shown on Figure 13.1 presented in the Land Use Chapter, most new development in Boothbay Harbor was located in proximity to the coast at least through the 1970s. By 2007, however, lack of additional vacant available shorefront properties led to new residential growth along interior roads and wooded inland parcels.

Table 10.4 documents that Boothbay Harbor has an extensive private road network with 11.9 miles of private roads. Many of these roads provide access to residences on or within view of the coastline and are for the most part fully developed. Less than half of the 70 private roads in the community exceed 600 feet and the overall average length is less than 900 feet. Almost all private roads have a non-paved surface.

Many coastal residences in Boothbay Harbor have been used seasonally so the private roads are "rested" much of the year. However, with the increasing trend of converting seasonal residences to year-round use, some of these roads are being used, and plowed, year-round so issues such as erosion, runoff, surface deterioration, etc., are no longer only seasonal phenomenon.

As shown in Table 10.10, relative to its size, Boothbay Harbor has substantially more total public road mileage, local road mileage, and summer and winter road maintenance mileage than any of the other Lincoln County communities presented.

12. SCENIC BYWAYS AND SPECIAL VIEWS

There are no scenic byways in Boothbay Harbor. Roads with scenic character are identified in Table 10.3.

13. 2005 REGIONAL TRANSPORTATION PLANNING

The Lincoln County Planning Office (now part of the Lincoln County Regional Planning Commission), the Mid-Coast Council for Business Development and Planning (now the Mid-Coast Council of Governments), and the Midcoast Economic Development District prepared the 2005 Regional Transportation Assessment with the assistance of MDOT. The purposes of the Assessment included:

- Identification and prioritization of major transportation corridors within the MCEDD region
- Inventory of significant land uses, economic conditions and transportation facilities
- Identification of local and regional concerns related to the corridors
- Identification of significant constituencies such as freight carriers, transit riders and business and tourism interests

A wide variety of local officials were involved, and participated in a preliminary prioritization of corridors and objectives of each corridor. The assessment was based on the following assumptions:

1. Maine's population will continue to grow, resulting in more people using the same roads.
2. Migration of people from cities to rural areas will continue, resulting in more frequent and longer trips to work and shop.

Table 10.10 Comparison of Public and Private Road Miles

			Damariscotta	Jefferson	Whitefield	Newcastle	Alna	South Bristol	Nobleboro	Boothbay Harbor
	Land Area[1] mi²		18.1	52.7	46.8	29	20.9	13.2	19	6.5
	All Public Roads	Total miles	26.36	67.21	66.86	53.72	30.42	26.3	36.69	31.8
		Miles/mi²	1.46	1.28	1.43	1.85	1.46	1.99	2.09	4.89
Town Roads	Summer Maintenance	Total miles	15.77	30.7	39.23	28.77	14.76	15.27	25.7	23.2
		Miles/mi²	0.87	0.58	0.84	0.99	0.71	1.16	1.35	3.57
	Winter Maintenance	Total miles	21.75	48.45	58.91	42.16	30.42	26.18	32.69	32.5
		Miles/mi²	1.20	0.92	1.24	1.45	1.46	1.98	1.72	5
	Paved	Total miles	26.36	26.59	28.58	27.38	9.46	15.96	24.43	31
		Miles/mi²	1.46	0.5	0.61	0.94	0.45	1.21	1.29	4.77
	Gravel	Total miles	0	4.19	10.65	4.56	5.3	0.24	1.27	0.3
		Miles/mi²	0	0.08	0.23	0.16	0.25	0.02	0.07	0.05
	Private Roads	Total miles	25.4	53	n/a	n/a	2.22	28.41	36.29	11.9
		Miles/mi²	1.4	1.01	n/a	n/a	0.11	2.15	1.91	1.83
	Ratio of Public to Private Roads		1.04	0.99			13.7	0.92	1.01	2.67

1. Vehicle miles of travel and traffic will continue to grow faster than the population.
2. There will be increased traffic delays and congestion.
3. Insufficient planning will continue to be a problem. Some municipalities have comprehensive plans that designate growth areas on arterials. Other communities have no long-range plans.
4. Public transportation will continue to be absent in many areas.
5. Strip commercial development along Route 1 and some other arterials will result in more curb cuts, turning vehicles, reduced speed limits and more accidents.
6. BIW and BNAS (since closed) will continue, but if not, there could be more traffic resulting from any redevelopment of the properties.
7. Funds for new road construction will be limited.

The significant transportation corridors identified in the Assessment were, in order of priority:

- Route 1 corridor
- Route 24 corridor
- Route 196 corridor
- Route I-295 corridor
- Route 27 corridor
- Route 32 corridor

The only corridor within Boothbay Harbor is Route 27, which is a minor arterial highway.

State Goal

To plan for, finance and develop an efficient system of public facilities and services to accommodate anticipated growth and economic development.

Policies

1. To prioritize community and regional needs associated with safe, efficient, and optimal use of transportation systems.
2. To safely and efficiently preserve or improve the transportation system.
3. To promote public health, protect natural and cultural resources, and enhance livability by managing land use in ways that maximize the efficiency of the transportation system and minimize increases in vehicle miles traveled.
4. To meet the diverse transportation needs of residents (including children, the elderly and disabled) and through travelers by providing a safe, efficient, and adequate transportation network for all types of users (motor vehicles, pedestrians, bicyclists).
5. To promote fiscal prudence by maximizing the efficiency of the state or state-aid highway network.

Strategies

1. ROAD IMPROVEMENT PLAN

Develop or continue to update a prioritized improvement, maintenance, and repair plan for the community's transportation network.

Implementation Strategy

Prepare and annually update a multi-year road improvement program for all roads, to include maintenance, upgrading and rebuilding priorities by year, as well as costs for these projects.

Responsibility

Select Board, Town Manager, Public Works Director

Time Frame

Ongoing

2. STATE AND REGIONAL TRANSPORTATION EFFORTS: INITIATE OR ACTIVELY PARTICIPATE IN REGIONAL AND STATE TRANSPORTATION EFFORTS.

Implementation Strategy

a. Continue to work with Edgecomb, Boothbay and Southport in ensuring adequate state funding for state and state-aid roads that serve multiple communities and implement the recommendations of the Route 27 Corridor Management Plan.

b. Continue to work with Boothbay, Edgecomb and LCRPC in soliciting funding from MDOT to conduct a transit study that would determine the feasibility of establishing seasonal bus service to the peninsula and improvements to the existing privately-funded trolley service.

c. Work with Wiscasset to evaluate the potential for ferry service between the communities and other coastal communities in the mid-coast.

Responsibility

Select Board, Town Manager, Public Works Director

Time Frame

Ongoing

3. AMEND LOCAL ORDINANCES

Maintain, enact or amend local ordinances as appropriate to address or avoid conflicts with:

- Policy objectives of the Sensible Transportation Policy Act (23 MRSA §73);
- State access management regulations pursuant to 23 MRSA §704; and
- State traffic permitting regulations for large developments pursuant to 23 MRSA §704-A.

4. MAINTAIN, ENACT OR AMEND ORDINANCE STANDARDS FOR SUBDIVISIONS AND FOR PUBLIC AND PRIVATE ROADS AS APPROPRIATE TO FOSTER TRANSPORTATION-EFFICIENT GROWTH PATTERNS AND PROVIDE FOR FUTURE STREET AND TRANSIT CONNECTIONS

Implementation Strategy

Amend local ordinances to avoid conflicts with state regulations and to encourage transportation-efficient growth patterns and future street and transit connections.

Responsibility

Planning Board, Select Board, Town Meeting

Time Frame

Ongoing

5. ENHANCE PEDESTRIAN AND BICYCLE FACILITIES

Implementation Strategy

Implement the recommendations of the Boothbay-Boothbay Harbor Bicycle-Pedestrian Plan including enhancements of and extensions to the sidewalk network, improvements to intersections frequented by pedestrians and development of an off-road connection between the YMCA and the Coastal Maine Botanical Garden. Continue to require developments in the vicinity of sidewalks to provide interconnections to sidewalks.

Responsibility

Planning Board, Select Board, Town Manager, Public Works Director

Time Frame

Ongoing

6. IMPROVE TRANSIT SERVICE

Implementation Strategy

Work with Coastal Trans, Inc., and other related organizations to better meet the needs of elderly and disabled residents who lack their own transportation by providing transit services within Town and to regional medical, shopping and other destinations.

Responsibility

Select Board, Town Manager

Time Frame

Ongoing

7. SEASONAL TRANSIT CONNECTION WITH THE MAINE EASTERN RAILROAD

Implementation Strategy

Support a seasonal shuttle service between Boothbay Harbor and the Wiscasset and Newcastle railroad stations to provide tourists, mid-coast residents and local residents with a convenient transit option for travel to and from the community.

Responsibility

Select Board, Town Manager, Economic Development Committee, Chamber of Commerce

Time Frame

Ongoing

CHAPTER 11 - PUBLIC FACILITIES & SERVICES

INTRODUCTION

An analysis of public facilities and services is important for several reasons. First, careful planning of public facilities and services is essential for sound fiscal management. For example, if a street must be torn up to replace an outdated sewer line, this should be coordinated with street reconstruction plans. Second, facility planning needs to reflect population trends. If there is a projected decline in the number of school-aged children, school facilities may need to be consolidated. Third, expansion of utilities and roads may lead to more development in the area where the expansion occurs. Most all of the anticipated growth-related municipal investment will occur in the downtown area (where the Town Office, the Police and Fire Departments, the Library, water and sewer utilities, and a good portion of sidewalks are located) or in other designated growth areas (where the school, ambulance service, and other water and sewer facilities are located).Details on each facility and service are presented below.

State Goal

To plan for, finance and develop an efficient system of public facilities and services to accommodate anticipated growth and economic development.

Analyses, Conditions and Trends

1. TOWN GOVERNMENT

Staffing

Boothbay Harbor has a town manager-selectmen-town meeting form of government. The town manager reports to the five-member board of selectmen. There are 17 paid staff. The town manager, finance director, town clerk, assistant tax collector, code enforcement officer, police chief, police department secretary, and five police officers are full-time staff. There is also a part-time counter support person.

Facilities

Most town government operations occur at the municipal building on Howard Street. In addition to housing the town office, the police and fire departments are located in this building. The approximately 10,500 square-foot facility was built in 1985. The town office portion of the building is approximately 2,900 square feet in size and there is also a 1,260 square-foot meeting room.

This facility has several needs. Overall, it is too small to conduct town government functions. The layout is not well designed. There is no room for storage. The fire department meeting room and police department office are too small. There is no air conditioning. Further details on police and fire protection are discussed in those respective sections.

Future Needs

There are no plans to add additional staff at this time. Any expansions of the facility would be to meet current needs rather than anticipated changes in the town's population.

2. AMBULANCE SERVICE

Current Conditions

Ambulance service is provided by the Boothbay Region Ambulance Service (BRAS); serving the three area towns from 18 Corey Lane in Boothbay. The majority of funding comes from a fee for service with a 12-percent local subsidy. Aside from lacking an adequate vehicle exhaust system, the facility is adequate.

The BRAS service as of January 2013 had 38 per diem employees, with two full-time staff and all the others part-time. The staff consists of Paramedics, AEMTs, and EMTs, operating as two crews of 2 each during the day, and evening and night shifts also with two crews of 2 each. According to BRAS, daytime coverage has not been adequate.

The closing of the Emergency Room at St. Andrews Hospital has changed the demands on the service, and increased the need for additional staff and training. It will be important to track calls and response time, with BRAS now heading to the ER at Miles instead of St. Andrews.

According to a recent status report, a new ambulance was purchased in 2012, at a cost of about $150,000, with $48,000 for equipment/supplies (a defibrillator, a stretcher, and supplies). This was purchased through a combination of fundraising, borrowing, and drawdown from capital reserves.

BRAS budget and taxpayer support is expected to increase, because of fewer transfers and increased staffing. Transfers have been a significant source of revenue for BRAS, and the decrease will, in turn, affect the request to the towns.

Ambulance service equipment is shown on Table 11.2. While there are four ambulances, only three are equipped with defibrillator units. Two of the ambulances will need replacement by 2015.

Future Needs

The major challenge facing the ambulance service is the closure of the St. Andrews Hospital ER. Ambulances travel sixteen miles each way to reach the emergency room in Damariscotta. This increases the time spent in transit. The ambulance will travel through downtown Damariscotta, which is occasionally heavily congested.

The operating and capital costs of ambulance service are projected to increase. Staff hours will increase since each call will take more time. Personnel will require training for the longer period spent on in-transit emergency medical assistance. Equipment will depreciate at faster rates due to increased wear and tear. This means that equipment may have to be replaced more frequently than it has been in recent years. Lincoln County Health Care provided $250,000 to the four towns in 2013 to cover some of the projected increase in expenses. BRAS is tracking requests, transfers, and other information to measure the impact of the ER closure. Other changes include the upcoming community paramedicine program, and the possibility of BRAS providing critical care transport.

Table 11.1 BRAS Call History

YEAR	NUMBER OF CALLS
2004	667
2005	980
2006	1,182
2007	1,051
2008	1,099
2009	1,189
2010	1,174
2011	1,423

Source: Boothbay Region Ambulance Service

Table 11.2 Ambulance Equipment, 2012

TYPE	YEAR	CONDITION	ESTIMATED YEARS OF SERVICE LEFT
Ambulance	2009	New	5
Ambulance	2010	New	7
Ambulance	2006	Remount/ Good	3
Ambulance	2003	Good	2
3 LP 15 defibrillators	2010	New	5

Source: Boothbay Region Ambulance Service

3. FIRE PROTECTION

Current Conditions

A. Staffing

Fire protection is provided by the 23-member volunteer fire department, which operates on an on-call basis. According to the fire chief, this level of staffing is adequate. Staff has been able to comply with all training requirements. The department meets all federal and state operational standards. The department has automatic mutual aid calls for structure fires from the Boothbay and Southport departments. Any additional mutual aid calls are at the chief's discretion.

B. Staffing

The department is housed at the municipal building on Howard Street. There are no branch stations. The fire department portion of the first floor consists of approximately 6,500 square feet and 400 square feet on the second floor. Specific rooms include a 150-square-foot workshop, a 125-square-foot bathroom, a 75-square-foot kitchen, and 325-square foot kitchen. The department reports that these rooms are adequate for its current and anticipated future needs.

The facility has four heated bays. No vehicles are stored outside. These bays meet the department's needs. The fire station complies with all state and federal safety standards.

C. Level of Service Provided

The average response time to a call is five minutes. It takes eight minutes to reach the most remote part of town. The department equipment has difficulty negotiating roads in the Sprucewold area since they are extremely narrow. The department has conducted a fire-wise community program in this area. There have been no problems in reaching newer developments, where the road layout is adequate. Calls for service are shown on Table 11.3. As seen, calls have fluctuated over the years. There is no discernible trend.

D. Water Supply

The department reports that water supply is generally excellent. It would like to have better access to water in the Sprucewold and Grand View Avenue areas.

E. Equipment

The 2013 inventory of equipment is shown on Table 11.4. The only equipment need noted by the department is a mini-pumper to use in reaching rural areas. Otherwise, the department equipment is adequateThe current firefighting arrangements appear adequate for the foreseeable future. As noted above, the department would like to acquire a mini-pumper and improve access to water in the Sprucewold and Grandview Avenue areas. There is no need for a branch station.

Table 11.3 Fire Department Calls for Service

YEAR	NUMBER OF CALLS
2007	345
2008	316
2009	295
2010	325
2011	380

Source: Boothbay Harbor Fire Department

Table 11.4 Fire Vehicles, 2013

TYPE	YEAR	CONDITION	ESTIMATED YEARS OF SERVICE LEFT
GMC	1990	Good	15
Central	2001	Good	25
E-One	2006	Good	35

Source: Boothbay Harbor Fire Department

4. POLICE PROTECTION

Current Conditions

Police protection is provided by the Boothbay Harbor Police Department, which is housed in the municipal building on Howard Street. The police department offices occupy about 932 square feet of floor space. This includes a secretary/sergeant's office (108 square feet), a squad room (125 square feet), the chief's office (100 square feet), and a temporary evidence storage room (100 square feet). There is also a 45-square-foot case storage locker, an eight-square-foot gun locker, a 54 square-foot bathroom, a 70-square-foot record storage/computer room, and a 55-square-foot evidence room.

The facility has several inadequacies. The gun locker is too small. The squad room is also used as a prisoner processing area. The two functions need to be separated. The record storage/computer room is too small.

Staff consists of one chief, a sergeant, a chief's secretary, and five full-time officers. There are also four part-time officers. No additional officers are hired in the summer. According to the police chief, the current level of staffing is adequate and the force has officers with specialized training for its particular needs.

The current inventory of police vehicles is shown on Table 11.4. The number of vehicles is adequate and should continue to be so as long as scheduled replacement continues. The department would like to add AED (Automated External Defibrillator) cardiac units by 2017. It would also like to acquire cruiser cameras and portable radios. Computer car mounts, radar equipment, and body armor will also be needed.

Table 11.5 Police Department Vehicles, 2012

TYPE	YEAR	CONDITION	ESTIMATED YEARS OF SERVICE LEFT
Dodge Charger (chief's car)	2009	Good	2-3
Dodge Charger	2010	Good/very good	2
Ford Explorer	2013	New	4

Source: Boothbay Harbor Police Department

The average response time to a call is four minutes. The department provides 24-hour coverage. Police calls for assistance are shown on Table 11.5. The total number of calls has fluctuated but has shown an overall downward trend. This may be due to a shift in dispatching services from the town to the county. In 2006 there were 6,369 calls compared to 4,634 in 2011.

Table 11.6 Police Calls for Assistance*

YEAR	NUMBER OF CALLS
2006	6,369
2007	6,918
2008	6,307
2009	4,842
2010	4,543
2011	4,364

Source: Boothbay Harbor Police Department
Note: does not include assists to ambulance, fire, and other law enforcement agencies.

5. WATER SYSTEM

Current Conditions

NOTE: This section is partially adapted from the 2009 Master Plan for the Boothbay Region Water District prepared by Wright and Pierce Engineers. Boothbay Harbor is served by the Boothbay Region Water District (BRWD). The district service area includes the towns of Boothbay Harbor, Boothbay, and Southport. The first priority of the district is to assure adequate flows for fire protection. Its second priority is providing potable water.

The Southport Water District merged with the Boothbay Region District in 2012. It applied for grant and loan funding to install 8,000' of main in Southport and an interconnection with BRWD system to service a 500,000 gallon standpipe to be constructed in Southport. It will substantially improve fire protection water flows in west Boothbay Harbor and Boothbay. It will serve new areas in Southport and result in better fire insurance ratings.

Currently the system has a 2-million gallon a day (MGD) capacity and a 1 MGD demand. Flows peak in August. The district must build for 35,000 users but only have 5,000 year-round customers. This is typical of coastal tourist communities and means high stranded costs. Rates are now in the upper 40 percent of rates statewide. About 35 percent of revenue goes to debt service, most of which is for meeting peak service. Rates are expected to be stable through 2017. The district aims to shift to more demand-based rates.

Adams Pond has historically been the primary water supply source for the District. The reported safe yield estimates for Adams Pond has ranged from 0.65 million gallons per day (MGD) to 0.96 MGD. The district has maintained charter rights to use Knickerbocker Lakes as a public water supply source since 1892. Knickerbocker Lakes consist of two interconnecting bodies of water, and is located approximately one mile west of Adams Pond. The reported safe yield estimates for Knickerbocker Lakes has ranged from 1.0 MGD to 1.6 MGD.

The District was granted a Natural Resource Protection Act (NRPA) permit to construct a permanent intake and pump station at Knickerbocker Lakes in June, 2003. The NRPA permit restricts total annual withdrawal from Knickerbocker Lakes to 51.5 MG, and allows additional withdrawals above 51.5 MG under emergency conditions. The intake and pump station was constructed on Knickerbocker Lakes in 2006. The intake pipe extends into the lake approximately 50 feet from the shoreline. The district began withdrawing water from the lake under the current permit in June of 2008.

The water pumped from Adams Pond and Knickerbocker Lakes is treated at the Adams Pond Treatment Facility. The facility was constructed in 1994 and includes a clarification/filtration process as the "core" water treatment process. The facility has the capacity to treat up to 2 MGD.

The Beath Road well provides tertiary backup for extreme droughts or if the primary water supplies are shut down for some reason. It has a capacity of 300-400 gallons per minute and although it is located in the same aquifer as the solid waste facility, there is no evidence of contamination.

About 15 percent of the flow at the wastewater treatment facility consists of backwash waste from the water system. The water district estimates its unaccounted flows are just above 5 percent of total volume. This is considered a very low rate when compared to most water districts.

There are approximately 106 miles of water mains. Seasonal water mains, which serve the summer population, account for approximately 81 miles of the total length of pipe in the system, and the year-round mains account for the remaining 25 miles. The seasonal mains are high-density polyethylene and the majority of the mains lay on the ground or are buried at a shallow depth.

The large majority of year-round distribution mains are 8-inch and 6-inch in diameter. The major spines of the system are 12-inch and 16-inch diameter. The water main upgrades completed since the 1999 master plan have enhanced the capacity and reduce leakage in the system significantly. The majority of the year-round mains in the system are either ductile or cast iron. The system contains approximately 5,000 ft. of 2" galvanized mains, which are targeted for replacement.

The distribution system is separated into two service area zones that contain three water storage tanks. The Mount Pisgah (500,000 gallon capacity) and West Harbor (317,000 gallons) tanks establish pressure and provide storage for the lower elevation pressure zone, which includes Boothbay Harbor and Southport. The Kenniston Hill (500,000 gallons) tank provides storage in the higher elevation zone of the town of Boothbay. Figures 11-1 and 11-2 show the two water distribution service areas.

The district master plan has identified mains that need replacement to upgrade fire pressure flows. This mostly involves replacing tuberculated pipes with new, higher capacity pipes. Some of the mains are over 100 years-old and have passed their design life. For details on the needed replacements, the reader is referred to the master plan. A summary of planned capital investments can be found in Appendix A.

Projected Future Needs

District water use projections estimate that the average-day demand for the year 2030 will be 0.585 MGD. This compares to 0.543 MGD in 2010. The projected maximum daily demand is projected at 1.32 MGD for the year 2030 compared to 1.181 MGD in 2010.

The treatment facility presently has two filtration trains that have a rated capacity of 1 million gallons per day (MGD). Standard design practice is to provide redundant treatment processes to allow the facility to meet the maximum day system demand with one treatment train offline. The existing and projected maximum day demand exceeds the rated capacity of the plant with one clarification/filtration unit offline. This means that the need for additional treatment capacity may be needed.

This and other improvements are in the district's capital improvement plan. Since the plan has a 20-year timeframe and demand projections are subject to change, the plan needs periodic review. As the debt from earlier improvements is retired, it will be easier for the district to assume new debt for future projects. In 30-50 years it is likely that the system will connect with the Wiscasset system, which, in turn, will eventually connect with the Greater Portland system.

Since the district is dependent on surface water sources for its primary supplies, it must monitor water quality in Adams and Knickerbocker Ponds. One potential contamination source is private subsurface waste systems, primarily in the Knickerbocker Pond watershed. The second is phosphorus export. More information on lake water quality can be found in the Water Resources Chapter. Installation of public sewer around Knickerbocker and Adams Ponds are major goals for the water district.

6. WASTEWATER AND SEPTAGE DISPOSAL

Current Conditions

The sewage collection system was initially built in 1963. There were ten expansions in the service area since that time. As seen in Table 11.6, most of the lines are in "excellent" condition.

As of 2012 the system had 1,359 service connections. These included 1,110 residential, 248 commercial/government, and 1 water treatment plant discharge. The system has a design flow of 640,000 gallons per day (gpd) and the average daily dry weather flow is 330,000 gpd. The average winter flow is 250,000 gpd. It increases to 450,000 gpd in the summer and to 2,000,000 gpd during storm events. The district is working with the public works department to address storm water drainage.

Infiltration and inflow (I&I) is a problem for the district during periods of high groundwater and during heavy rain events. A one-inch rain event will double the flow in 30 to 40 minutes. District staff attribute most of the I&I to private sewer lines. The collection system capacity has been exceeded along areas of Atlantic Avenue and Union Street, causing sanitary sewer overflows from the Union Street station. A 2012 overflow was attributed to debris in the line rather than a capacity problem.

The district has seven sanitary overflow points in the collection system, which are allowed through its MEPDES (Maine Pollutant Discharge Elimination System) permit.in wet weather only. Dry weather flows are not permitted. The seven points were designed and constructed between 1962 and 2001. Their purpose was for property protection in the event of power outages and heavy flow periods.

The district has evaluated all its pipes with a television camera. All imperfections have been cataloged and prioritized for repair. The district has performed extensive smoke testing, flow monitoring, storm-flow night-gauging and house-to-house surveys trying to identify the sources of I&I. In addition, the district performs annual manhole inspections and the generated data are collected in a database. The inspections rate each manhole on a series of parameters and a maintenance priority list is developed. The district has 484 manholes in the system and 22 pump stations.

The treatment plant is located at 27 Sea Street. It presently meets all state and federal operating standards and is good condition. The initial plant went online in 1964 and was upgraded to a secondary treatment facility in 1995. The facility will reach its design life in 2015.

Table 11.7 Sewage Collection System

LINEAR FEET	AGE	TYPE	CONDITION
53000	Installed 1963	8" AC Gravity	Good
4000	Installed 1963	10" AC Gravity	Good
3000	Installed 1963	12" AC Gravity	Good
2500	Installed 1963	14" AC Pressure	Good
2300	Installed 1963	6" Ductile FM	Good
3200	Installed 1963	4" Ductile FM	Good
2300	Installed 1966	6" AC Gravity	Fair
500	Installed 1978	8" PVC Gravity	Excellent
250	Installed 1978	3" PVC FM	Excellent
3,800	Installed 1985	8" PVC Gravity	Excellent
1,200	Installed 1985	4" Ductile FM	Excellent
16,000	Installed 1989	8" PVC Gravity	Excellent
8,000	Installed 1989	6" PVC FM	Excellent
40,000	Installed 1994	8" PVC Gravity	Excellent
-5,000	Installed 1994	4" PVC FM	Excellent
2,000	Installed 1994	2" PVC FM	Excellent
38,000	Installed 1996	8" PVC Gravity	Excellent
20,000	Installed 1996	2" PVC FM	Excellent
28,000	Installed 1998	8" PVC Gravity	Excellent
14,000	Installed 1998	3" PVC FM	Excellent
15,000	Installed 2001	3" HDPE FM	Excellent
27,000	Installed 2001	8" PVC Gravity	Excellent
18,000	Installed 2006	8" PVC Gravity	Excellent
3,000	Installed 2006	3" PVC FM	Excellent
17,000	Installed 2007	8" PVC Gravity	Excellent
4,300	Installed 2011	3" HDPE FM	Excellent

Source: Boothbay Harbor Sewer District

The district is planning for major equipment upgrades over the next five to ten years. The Maine DEP is currently developing coastal discharge nutrient limits. If these limits are promulgated, the district will need to install tertiary treatment for the removal of nitrogen and phosphorus. This would occur between 2013 and 2018 and require land for tank storage.

Other adjustments may be necessary due to sea level rise. The preliminary treatment area is at risk. The district will need to raise the elevation of the electronics and pumping stations at Commercial and Union Streets. For information on projected water depths at the facility under various sea level rise scenarios see: http://lcrpc.org/uploads/visual_edit/bbhwestharborvillage.pdf

Financing the capital improvements will be challenging. About 42 percent of current district revenue goes to debt service. There are presently 1,400 ratepayers in the district, which limits the amount each customer can absorb.

The Boothbay Harbor portion of the service area is largely built out. Apart from minor expansions, such as to the Mount Pisgah area, most expansions and new customer revenue are projected to occur in Boothbay. These include a major expansion of water and sewer along the Boothbay portion of Route 27 corridor. If this occurs, the district estimates that between 40 and 60 users would be added to the system. This will be paid for by Boothbay.

Capital Island is planning for the collection of sewage on the island and pumping it across Townsend Gut to connect to the district's system on McKown Point. This connection would add 38 new users. It is presently expected that this expansion would occur in 2013-2014.

Presently, the town's site plan review standards require that a development within 500 feet of a sewer line subject to site plan review be connected to the sewer. The district leadership has proposed amending town land use ordinances to require that any development within 0.5 miles of a sewer line be connected. It would also like to have review standards for single lot development. Another proposed land use ordinance change would be to require that the district is asked for the final sewer bill before a property is sold. The lateral pipe and connection could also be inspected at the time of sale

One challenge facing the district is the condition of private sewer lines. As mentioned above, they are believed to be the major source of infiltration and inflow. The district would like to organize a Realtor® stakeholder group to discuss the status of private sewer lines.

Septage Disposal

The Boothbay Harbor Sewer District collects and treats septage from Boothbay Harbor and surrounding towns. The Facility is licensed to accept and treat up to 6,400 gallons per day of septage.

7. PUBLIC WORKS AND STORM WATER DRAINAGE

Current Conditions

The Boothbay Harbor Public Works Department is responsible for the maintenance of all town ways. It also maintains all public facilities such as town piers, recreational areas, and public buildings. There are five full-time employees and one seasonal full-time person. This staffing is deemed adequate by the department. The department reports no problems with current summer and winter road and sidewalk maintenance arrangements.

Its current $170,000 capital budget is used mostly for roads, sidewalks, and pavement. The Maine Department of Transportation supplies the town with some road construction materials. The procurement process for these materials is sometimes slow.

The current inventory of town equipment is shown on Table 11.7. This inventory should be adequate as long as equipment is replaced when its useful life expires. The department would like to acquire a riding lawn mower and snow blower.

Table 11.8 Public Works Department Equipment, 2012

TYPE	YEAR	CONDITION	ESTIMATED YEARS OF SERVICE LEFT
Chevrolet	2011	Excellent	5
Chevrolet	2009	Good	4
Chevrolet	2013	Excellent	7
Ford 550	2007	Good	4
GMC 8500	1998	Good	3
International 7400	2004	Good	10
International 7400	2004	Good	11
John Deere 544 Loader	1999	Good	7
Hitachi Excavator	1999	Good	5
Case 590 Super N Backhoe	2012	New	20+

Source: Boothbay Harbor Public Works Department

Storm Water Drainage

According to the DEP, there are no Combined Sewer Overflows in Boothbay Harbor. The town, however, faces several storm water drainage problems:

1. The West Harbor causeway has significant drainage problems and the siphon doesn't work. Addressing this problem will involve collaboration with MaineDOT;
2. The area of new sidewalk from the east side of Route 27 from Hammond Lumber to the mall drains poorly;
3. The catch basins on Union Street are only partially operable and need repair;
4. The Atlantic Avenue and Union Street under-drain is in poor condition. The storm water piping and catch basins on Atlantic Avenue need replacement; and
5. The culverts and catch basins on Western Avenue between West Street and Middle Road need to be replaced before the next overlay.

Future Needs

The current public works department appears adequate. The town does not have a multi-year road and sidewalk improvement program. Such a program could complement the capital improvement planning process. It is also important that storm water drainage improvements be included in the capital improvement plan.

A potentially significant future liability for the department is the impact of sea level rise on public roads. Table 11.8 lists public roads that will be impacted under different sea level rise scenarios. While impacts associated with a 100-year storm event are substantial and far-ranging, impacts created during the highest annual tide (HAT) will be more frequent and regular and, therefore, of more immediate concern to the department. For more information on sea level rise in Boothbay Harbor see http://lcrpc.org/boothbay-harbor-sea-level-rise-scenarios

Table 11.9 Boothbay Harbor Public Road Impacts by Sea Level Rise Scenario

	HAT	HAT + .3m	HAT + .6m	HAT + 1m	HAT + 1.8m	100-yr storm	100-yr storm + .3m	100-yr storm + .6m	100-yr storm + 1m	100-yr storm +1.8m
McClintock St.			X	X	X	X	X	X	X	X
Bridge St.			X	X	X	X	X	X	X	X
Wharf St.			X	X	X	X	X	X	X	X
Roads End Rd.			X	X	X	X	X	X	X	X
By-Way				X	X	X	X	X	X	X
Commercial St.				X	X		X	X	X	X
Samoset Rd.				X	X	X	X	X	X	X
Lakeside Dr.				X	X			X	X	X
Sea St.					X		X	X	X	X
Boothbay House Hill					X				X	X
Union St.					X			X	X	X
West St.					X				X	X
Oak Point Rd.					X		X	X	X	X
Landing Rd.					X				X	X
McKown Point Rd.					X				X	X
Breakwater Rd.									X	X
Western Ave.									X	X

HAT = highest annual tide
100-yr storm: February 1978 storm of record

8. SOLID WASTE AND RECYCLING

Current Conditions

Boothbay Harbor is a member of the Boothbay Region Refuse Disposal District. Residents dispose of their solid waste and recyclables at the transfer station located at 119 Country Club Lane in Boothbay. Other district towns are Boothbay, Edgecomb, and Southport. The 3.8-acre site has six roll-off containers of 50 cubic yards each. It presently accepts about 17,000 tons of waste a year. This is triple its initial design capacity. The average person generates four bags of trash a week.

The annual solid waste budget is about $1.5 million. Approximately $0.5 million of costs are covered through revenue and the remaining $1 million is through a subsidy. The subsidy is assessed to member towns through a formula that combines valuation, population, and taxable sale. The transfer station earns revenue from the sale of recycled goods and waste from Richmond, Bath Iron Works, and Richmond. Out of district users pay the facility to handle their wood waste. The facility accepts between 4,000 and 6,000 tons of trees a year at a disposal fee of $26/ton.

In late 2013, the District built a new recycling center, 120 x 90 feet, much bigger than the old facility, and located to improve traffic flow and make recycling more convenient. The transfer station has achieved a recycling rate of 65 to 70 percent a year. Less than ten percent (by weight) of the material collected is buried in a landfill. Household waste is hauled to the PERC incinerator in Orrington.

Construction and demolition debris (CDD) is processed in several ways. Demolition wood is ground and sold as biomass fuel. The district recently replaced the horizontal tub grinder at a cost of $700,000. Asphalt shingles, drywall, and glass products are recycled. The remaining CDD is deposited in a 50-yard container and hauled to a landfill.

There are eight full-time staff and two part-time. Transfer station management do not foresee the need for any additional personnel. Operating hours are 8 am to 5 pm, Monday through Saturday April 15-October 15. Off-season hours are 8 am to 4 pm, Monday through Saturday.

Future Needs

Overall disposal costs for material incinerated at the PERC facility are projected to increase from $45 a ton in 2013 to $65 a ton in 2018. This means that the district towns may want to explore other waste diversion (from incineration) options.

9. EDUCATION

Current Conditions

The Rocky Channels School System (AOS 98) serves Boothbay Harbor and the towns of Boothbay, Edgecomb, Southport, and Georgetown. The Boothbay-Boothbay Harbor Community School District (CSD) was originally part of a school union, which consisted of the CSD, Southport, and Edgecomb. In 2010, voters in the towns created the Alternative Organization, allowing the schools to consolidate. In the AOS 98 Plan and the inter-local agreement, Georgetown School Department was allowed to join, and voted to do so in November 2010. Today, each school (Boothbay-Boothbay Harbor, Edgecomb Eddy, Southport, and Georgetown) is governed by a separate school board, and all members of these different school boards are members of the AOS 98 School Committee.

Boothbay Harbor students attend grades K-8 at Boothbay Region Elementary School. The facility has a rated capacity of 600 students and a current (2012-2013) enrollment of 415. The school meets all state accreditation standards and no additional facilities are needed.

Table 11.10 Enrollment Trends in AOS 98 Schools by Resident Town, 2002 – 2013

YEAR	TOWN	K-8	9-12	TOTAL
2002	Boothbay Harbor	174	114	288
	Other Towns	341	204	545
	Total	515	318	833
2003	Boothbay Harbor	167	111	278
	Other Towns	316	189	505
	Total	483	300	783
2004	Boothbay Harbor	150	114	264
	Other Towns	321	171	492
	Total	471	285	756
2005	Boothbay Harbor	139	101	240
	Other Towns	322	174	496
	Total	461	275	736
2006	Boothbay Harbor	133	107	240
	Other Towns	328	168	496
	Total	461	275	736
2007	2007 Boothbay Harbor	131	87	218
	Other Towns	304	190	494
	2007 Total	435	277	712
2008	2008 Boothbay Harbor	118	81	199
	Other towns	300	177	477
	2008 Total	418	258	676
2009	2009 Boothbay Harbor	120	78	198
	Other Towns	298	178	476
	2009 Total	418	256	674
2010	2010 Boothbay Harbor	123	56	179
	Other Towns	292	195	487
	2010 Total	415	251	666
2011	2011 Boothbay Harbor	123	56	179
	Other Towns	267	185	452
	2011 Total	390	241	631
2012	2012 Boothbay Harbor	109	56	165
	Other Towns	272	161	433
	2012 Total	381	217	598
2013	2013[8] Boothbay Harbor	120	54	174
	Other Towns	279	155	454
	2013 Total	399	209	628

Source: Rocky Channels School System, data are for fall enrollment

[8]Projected enrollment, including pre-K

Students in Grades 9-12 attend Boothbay Region High School (schools in Edgecomb, Georgetown and Southport are allowed to tuition their students in grades 7-12 to any state-approved school at the state tuition rate). The High School has an enrollment of 231 and a rated capacity of 300. The school meets all accreditation standards and its facilities are adequate.

Recent enrollment trends are shown on Table 11.9. While there has been some fluctuation in enrollment, there has been an overall downward trend. System-wide there were a total of 833 students in the fall of 2002, compared to 598 in 2012. Enrollment projections indicate an increase to 628 students for the 2013-2014 school year. This may be due in part to the addition of a pre-kindergarten program.

The High School has an ongoing recruitment program to attract and support foreign students, primarily from China at present. Table 11.10 below shows recent enrollment. See Table 11.11 for students going to out-of-district schools.

Table 11.11 Foreign Student Enrollment

SCHOOL YEAR	NUMBER AND CLASS OF FOREIGN STUDENT
2008	1 senior
2009	1 senior
2010	2 seniors
2012	5 juniors, 4 seniors
2013	14 sophomores and juniors
2014	3 sophomores, 1 junior

10. ACADEMIC PROGRAMS

In addition to traditional academic courses and requirements, the High School offers advanced placement, work study/mentorship, early college programs, and vocational courses at the Bath Regional Career and Technical Center.

In the 2012-2013 academic year, 42 students were enrolled in Advanced Placement classes such as Computer Science, AP Biology, Calculus AB, Calculus BC, English Language, English Lit, and US History, and 88 percent of the students passed their AP exams. Juniors and seniors are eligible to participate in an early college program, giving students a chance to take courses not offered in high school and get a start on their college credits. Work study gives students an opportunity to explore a career, earn school credit and connect with a local business or nonprofit.

A. Bath Regional Career and Technical Center

Boothbay Region High School students have the opportunity to combine academics from BRHS with hands-on training in many technical fields at the Bath Regional Career and Technical Center, about 23 miles away. Table 11.13 shows the number of students participating in each of the program areas. Vocational courses offered in Bath can prepare Boothbay Harbor students for careers and/or future education in automotive technology, carpentry, commercial arts, culinary arts, electrical technology, early childhood, cooperative education, engineering graphics and design, health careers, welding and metal fabrication.

Table 11.12 BRHS Students Attending Bath Regional CTC

	FALL 2010	FALL 2011	FALL 2012	FALL 2013
Automotive	2	1	3	5
Carpentry	5	1	2	2
Commercial Arts	3	1	1	3
Composites	2	1		
Computer Technology	1			
Culinary Arts	6	5	4	2
Diversified Food Trades	2	1	1	
Early Childhood	4	1	3	4
Electrical Technology	1	3	3	1
Health Science	2	1	1	2
Welding	4	3	2	
Total	**32**	**18**	**20**	**19**

B. Mentoring Opportunities at BRHS

The High School's mentoring program remains a strong option for students by providing an opportunity to gain crucial firsthand knowledge of a profession. Businesses are approached in the spring once students in the junior class have identified their area of interest. There is an application and review process for students interested in working in the mentor program. In some cases these mentorships have led to long-term employment and recommendations for post secondary study. Here are several of the more recent business partners:

Lincoln County Health
Hammond Lumber
Boothbay Region Elementary School
East Boothbay Landscaping
Hodgdon Yachts
Oasis Day Spa
BRTV
Robinsons Wharf
Town of Boothbay Harbor
Exact Dispensing
Hawke Motors
Marden Buildings
Hampton Inn
St. Andrews Village
Sea Vu Stables
YMC

C. Students and the Local Workforce

Based on school data, the fastest growing occupations in Maine (in terms of actual numbers of new jobs, not percentage of new jobs) are nursing, food prep, retail sales, personal aide, and carpentry. With the exception of nursing, none of these growing professions require two- or four- year degrees. The emphasis on pursuing college degrees may be a factor in sending students initially out of the Maine job market. There are other growing jobs in Maine that require degrees (e.g., physician, accountant, and radiologic technician) but the list is largely dominated by entry-level positions that do not require higher education.

BRCTC has programs in culinary arts, carpentry, nursing, and other fields, and it is an important resource in preparing students for the Maine workforce. Strong enrollment at BRCTC has been hard to maintain recently, however, as students have been encouraged to pursue college prep curriculum and the STEM program has gotten underway.

D. STEM Initiative

The School District will begin the first year of the Boothbay Region STEM Academy this fall (2013). STEM stands for science, technology, engineering and mathematics. This new programming will offer courses and a keystone independent project, which will build a solid foundation for Boothbay Harbor students to successfully pursue post-secondary education and employment in these growing sectors.

The U.S. Department of Commerce estimates that STEM-related jobs will grow at almost double the rate of non-STEM-related jobs. Employees within STEM-related positions earn over a quarter more than non-STEM positions, and the unemployment rates for people with STEM-related training are approximately half of the rates for those with non-STEM related training.

Students wishing to pursue a STEM diploma must successfully complete the following guidelines: 9 credits in Science, with at least 3 credits in a physical science (Chemistry or Physics); 9 credits in Math with at least 3 credits in Algebra 2; a combined 9 credits in Engineering and/or Technology courses. (Examples include robotics, digital literacy, engineering, computer science, etc.), and the completion of a Keystone experience. This could be in the form of an independent study, job shadow, college level course, etc.. The goal of this is to provide a student with an outside experience in a STEM topic that will enhance their learning.

The School is planning to create a Community STEM board, which will include local area businesses. The 2013-2014 school year is the first year that students can graduate with a specially endorsed STEM diploma. Fall 2013 enrollment in STEM classes is 114 students across 8 classes.

11. GRADUATION RATES

The School's graduation rate is very good, slightly less than 85% in 2011-2012. Graduation rates and dropout rates vary slightly from year to year, with many factors affecting these numbers and with occasionally changing data analysis at the state level.

Table 11.13 Graduation and Drop-out Rates

SCHOOL NAME	TOTAL GRADS	GRAD RATE	ENROLLED GRADES 9 - 12	DROPOUTS GRADES 9-12	DROPOUT RATE
2011-2012					
Boothbay Region High School	49	84.88%	217	<10	Not calc.
Lincoln Academy	106	88.33%	498	10	2.01%
Wiscasset High School	32	61.54%	212	21	9.91%
STATEWIDE AVERAGE		**85.34%**			**3.23%**
2010-2011					
Boothbay Region High School	53	88.33%	241	4	1.66%
Lincoln Academy	134	89.33%	549	11	2.00%
Wiscasset High School	34	61.82%	200	23	11.50%
STATEWIDE AVERAGE		**83.79%**			**3.16%**
2009-2010					
Boothbay Region High School	63	85.14%	251	9	3.59%
Lincoln Academy	126	90.65%	553	13	2.35%
Wiscasset High School	52	66.67%	227	20	8.81%
STATEWIDE AVERAGE		**82.82%**			**3.42%**
2008-2009					
Boothbay Region High School	59	83.10%	256	6	2.34%
Lincoln Academy	132	89.19%	578	9	1.56%
Wiscasset High School	61	78.21%	245	14	5.71%
STATEWIDE AVERAGE		**80.40%**			**3.42%**
2007-2008					
Boothbay Region High School	59	89.39%	279	8	2.87%
Lincoln Academy	136	96.40%	599	12	2.00%
Wiscasset High School	70	80.46%	292	16	5.48%
STATEWIDE AVERAGE		**83.53%**			**4.13%**

Source: Maine Department of Education

12. ADULT AND COMMUNITY EDUCATION PROGRAMS

The Adult and Education Community Program is located on the third floor at Boothbay Region High School. The office is open Monday through Thursday mid-September to mid-June, and on a part-time basis in July and August. The program provides educational opportunities for all community members including GED preparation and testing, English as a second language, basic academic and life skills, high school completion, vocational skills, and enrichment and lifelong learning.

A GED (General Equivalency Diploma) is earned by passing a five-part exam. Adult Ed provides GED preparation and testing at various times throughout the year to area residents at least 18 years old. The table below shows the enrollment in different kinds of Adult and Community Education courses over the past few academic years.

Table 11.14 Boothbay Region Adult and Community Education Program Enrollment

PROGRAMS/CLASSES	2010-2011	2011-2012	2012-2013
Academic	9	8	7
GED	3	2	8
Workforce	81	62	86
Enrichment	321	328	295
Online Ed2Go	13	10	7
Total	**427**	**410**	**403**

13. POST-SECONDARY PLANS

Table 11.16 shows the post-secondary schools and majors of the Class of 2013. In the past year, the number of high school seniors applying to colleges and other post-secondary programs has increased due to the expanded effort by BRHS staff to encourage students to explore educational and training options. In 2012, half of the seniors applied to college; last year, almost all seniors – 96% – submitted applications.

Table 11.15 2012-2013 Seniors College Attendance Plans

COLLEGE	MAJOR
SMCC	undeclared
Mount Wachusett Community College	Human Services
Tacoma Community College	
University of Maine Farmington	Psychology
University of Maine Farmington	Secondary Education
Wheaton College	Marine Biology
SMCC	New Media
Suffolk University	undeclared
University of Nebraska Omaha	Sports Broadcasting
University of Maine Farmington	Education
SMCC	undeclared
CMCC	Business
Academy of Art University	Art
University of Maine Orono	Computer Engineering
University of Maine Orono	Library Science
University of Maine Orono	Communications
Empire Beauty School	Cosmetology
CMCC	Medical Assisting
University of Maine Augusta	Criminal Justice
University of Maine Orono	Communications
WORK	
Capilo Beauty School	Cosmetology
SMCC	Health Careers
WORK	
Husson University	Business Management
University of Maine Augusta	Vet Tech
University of Maine Orono	Marine Biology
University of Maine Orono	Engineering
Husson University	Sports Management
Certificate of Attendance	
University of Massachusetts Amherst	undeclared
WORK	
University of Maine Orono	Biology
University of Maine Farmington	Elementary Education
SMCC	Liberal Studies
University of Maine Farmington	Secondary Education
Wentworth Institute of Technology	Computer Science
Iowa State University	Engineering
University of Maine Orono	Liberal Arts
SUNY Fredonia	Secondary Education/Computer Science

COLLEGE	MAJOR
WORK	
Certificate of Attendance	
University of Maine Orono	Business
SMCC	Culinary Arts
Colby College	Music Theory/Literature
University of Maine Farmington	Rehab Counseling
SMCC	Composite Boat Building
SMCC	Computer Technology
WORK	
Bowdoin College	Engineering
University of Southern Maine	Theatre/business
University of Maine Farmington	English
Empire Beauty School	Cosmetology

Future Needs

The School's facilities appear adequate to accommodate anticipated enrollment. The High School was built in 1955, and the Boothbay Region Elementary School opened in 1977. An addition to BRHS was completed in 1995, and both schools upgraded their HVAC systems in 2004. The facilities are well-maintained and are in excellent condition. Currently there are no major plans to address facility issues.

The trend toward decreasing enrollment may mean that per pupil costs could increase. It is not yet clear if enrollment will decrease to where school consolidation is practical or desired by the community.

14. HEALTH CARE SERVICES

Health care services are in a state of transition as this plan is being drafted. St. Andrew's Hospital, located in Boothbay Harbor, has closed its ER. According to hospital officials, this was due both to rising expectations for emergency room standards of care nationwide and declining use of the facility.

The nearest emergency room is now Miles Memorial Hospital in Damariscotta. The St. Andrews emergency room has been replaced with an urgent care center. Urgent care is for patients who need prompt attention for non-life threatening illnesses or injuries. Normally, urgent care patients find their own transportation to seek treatment. Patients with life-threatening conditions such as heart attacks, strokes, and trauma require emergency care. This means that these services must now be sought out of town.

One major challenge facing health care services in the Boothbay Harbor region is adjusting to the needs of an aging population. This means that more home-based care and other services targeted at the elderly will be needed.

Lincoln County Health Care is renovating part of its facility to be the home of expanded rehabilitation services, and is developing new or specialized programs, including community paramedicine and a wound care clinic, for example. A new nonprofit, the Boothbay Region Health and Wellness Foundation, is also providing public education and planning for possible new services.

15. STREET TREE PROGRAM

The town does not have a formal street tree program. An arborist oversees the planting of trees along the sidewalks.

16. LIBRARY

A. Facilities

The Boothbay Harbor Memorial Library was originally built in 1924 with editions in 1966 and 1976. The Library is currently undergoing a major renovation, underway since last fall and likely to re-open in June 2014. This is the first phase of a three-phase renovation project. Prior to this, the last significant change to the Library was the addition of the children's room in 1976.

The renovations will address many issues: need for more space for the growing collection, programming, tasks and offices, information and circulation services, no public bathroom, and other medium and lower-priority needs. The recent improvements include a 500-square foot addition to the first floor on the north (parking lot) side of the building, plus raising the roof to create a usable second story. In this way no part of the original historic structure will be changed.

On the first floor, the design provides an ADA compliant bathroom, a director's office, an enlarged and improved circulation desk, and space for a future young adult room. The stacks will also be ADA compliant, and the entrance from the parking lot much more welcoming, and protected from the weather. Upstairs will be additional stack space, a community meeting room, an additional office, and space for the Library staff.

B. Circulation Trends

Circulation trends are shown on Table 11.17. While there has been some fluctuation, total circulation declined between 42,000 in 2004 and 36,250 in 2011. This decline may be a result of changing technology. Libraries are being used at increasing rates for Wi-Fi, Internet access, and other forms of computer use. Declining circulation of hard copy books may be the result of growing access to eBooks. Many people are unaware the library provides access to several thousand free eBooks. Circulation figures do not reflect the 590 eBooks and audiobooks circulated in 2011.

Table 11.16 Total Library Circulation

YEAR	NUMBER OF VOLUMES CIRCULATED
2004	42,000
2005	40,000+
2006	40.000+
2007	38,000
2008	36,380
2009	35,000
2010	34,663
2011	36,260

Source: Boothbay Harbor Memorial Library

The total number of volumes in the library's collection increased 24,800 in 2004 to 31,583 in 2011 (see 11.18). The library has the Farmer Collection of military history, and the Osgood Collection of Maine and maritime books. The library also has a sizable separate collection of material on the coast of Maine and its maritime history. The library follows guidance from the American Library Association in the development of its collection, and with more space, the Library will now be able to develop a broader and deeper collection.

Table 11.17 Total Volumes in Boothbay Harbor Memorial Library

YEAR	NUMBER OF VOLUMES
2004	24,800
2005	25,600
2006	26,300
2007	26,684
2008	27,653
2009	27,826
2010	30.174
2011	31,583

Source: Boothbay Harbor Memorial Library

The library is open 35 hours a week. Tuesday, Thursday, Friday, and Saturday it is open 10 AM to 4:30 PM and Wednesday, 10 AM – 7 PM. The hours fall within the median for a library serving a population the size of the Boothbay peninsula. However, it would be an improvement if the library were open to 37.5 hours during the peak summer hours, when the population of the peninsula swells.

The library delivers to shut-ins weekly, has weekly children's pre-school story time, monthly author visits, and provides space for a writer's group meeting, a French language group meeting, a book club, and summer band concerts on the lawn. The library co-sponsors the annual Books in Boothbay event for Maine authors; the CLICK program for kids conducts creative programming throughout the year.

The library has inter-library loan delivery on Tuesday, Thursday, and Friday. It both loans and receives well over 100 volumes/week. It currently provides six public Internet stations, and one dedicated catalog search station. If expansion takes place, it would like to add another public Internet station, as well as provide at least one Internet station for young adults.

C. Staffing

The library has four paid staff. These are 40-hour a week director, a children's librarian (29.5 hours a week average), a circulation librarian (31.5 hours a week average), and a programming director (20 hours a week average). The library receives significant volunteer help. Every day volunteers staff the circulation desk and interlibrary loan, and shelve books.

D. Current and Future Needs

With a long-term plan for renovation and expansion already underway, the library leadership will be serving the community's informational needs better, support the community with a new meeting space, and address state library and ADA standards.

The "community room" will allow the library to plan more educational programming, and possibly rent out the space to interested groups, thus providing another stream of revenue. In the future, there may be staff needs as well, including the possibility of adding a cataloging librarian.

State Goal for Public Facilities and Services

To plan for, finance and develop an efficient system of public facilities and services to accommodate anticipated growth and economic development.

Strategies for Public Facilities and Services

In order to ensure that municipal investments in infrastructure are made efficiently and do not result in unforeseen future demand for services in rural, non-growth areas of the community, 75% of new municipal growth-related capital improvements during the 10-year comprehensive planning period shall be made in designated growth districts.

1. TOWN GOVERNMENT

The plan recommends that the town continue to fund a capital reserve fund for replacing the current municipal building with a larger facility that would meet the needs of the town government and fire and police departments. Alternatively, some functions currently located in the municipal building could be moved to a new location.

Implementation Strategy

The select board investigates appointing a facility needs committee with representation from the police and fire departments to determine the specific needs of the users of the current building. It presents replacement options and cost estimates. Voters are asked to place funds in a capital reserve account and other funding sources (such as bonds) are explored.

Responsibility

Select Board, Facility Needs Committee

Time Frame

Report completed by 2017

2. AMBULANCE SERVICE

The plan supports the adjustments to the ambulance service that are necessary due to the closure of the St. Andrew's Hospital emergency room. These could include expanding the paid staff, increasing training, acquiring additional equipment, and developing new programs

Implementation Strategy

The municipal budget committee and board of selectmen should continue to collaborate with the ambulance service leadership to determine if town funds are needed to support the service and recommend any necessary changes to the town budget.

Responsibility

BRAS and Budget Committee

Time Frame

2015-2016

3. FIRE PROTECTION

The plan supports adequate funding of the fire department necessary for effective firefighting and related services. (See also B.1 for recommendation on new municipal building).

Implementation Strategy

This is a continuation of current policy. Capital expenditures would be included in the capital investment plan and operational costs in the annual municipal budget.

4. POLICE PROTECTION

The plan supports the following measures to continue effective police protection:

- Include police capital equipment needs such as scheduled vehicle replacement AED (Automated External Defibrillator) cardiac units in the capital investment plan.
- Assure that non-capital items such as cruiser cameras, portable radios, computer car mounts, radar equipment, and body armor are included in the operating budget.
- Seek police department input for the municipal building needs committee.

Implementation Strategy

This occurs through the regular budget process

Responsibility

Budget Committee and Police Department

Time Frame

2015-2016

5. PUBLIC WATER SYSTEM

The plan recommends implementation of the measures in the water district's master plan to provide adequ ate water for both drinking and firefighting purposes;

Implementation Strategy

This occurs through the regular budget process.

6. WASTEWATER DISPOSAL:

The plan endorses the capital improvements and service expansions planned by the sewer district.

Implementation Strategy

The improvements would be undertaken by the sewer district. (See related goals under Water Resources.)

7. PUBLIC WORKS

The plan supports the continuation of current public works arrangements. In addition to regular replacement of capital equipment, the plan recommends acquisition of a riding mower and snow blower. The plan also supports implementation of a multi-year sidewalk improvement plan and the development of a plan to improve roads that will be impacted by rising sea levels.

Implementation Strategy

All capital improvements would be listed in the capital improvements plan. In addition, a long-term plan will be developed to address sea level rise as roads are reconstructed or replaced in the future.

8. SOLID WASTE AND RECYCLING

The plan endorses measures to maintain the town's high rate of recycling and implement new waste diversion techniques.

Implementation Strategy

Town representatives on the Refuse District work with the members and town officials to continue public education about recycling and to review other facility needs.

Responsibility

Refuse District, Select Board

Time Frame

2015-2017

9. EDUCATION

The plan recognizes the importance of providing its youth with a quality education in a cost-effective manner.

It recommends that the Rocky Channels School System leadership monitor enrollment trends and determine if declining enrollment makes school consolidation necessary.

Implementation Strategy

The board of selectmen or its designee meets biannually with the school system leadership to assess the status of enrollment and if any consolidation of facilities is necessary, cost-effective, and desirable.

Responsibility

Board of Selectmen or designee

Time Frame

Ongoing

10. LIBRARY

In recognition of the importance of good library services to the community, the plan supports the continued renovation/expansion of the Boothbay Harbor Memorial Library.

Implementation Strategy

The Town continues its current support for the library.

Responsibility

Library Board continues to take lead.

Time Frame

Ongoing

CHAPTER 12 - FISCAL CAPACITY & CAPITAL INVESTMENT PLAN

INTRODUCTION

Municipalities must be able to determine the expenditures necessary to provide basic services and the impact that this spending will have on townspeople. The primary funding source for municipal government is property tax revenue. In order to maintain a consistent mil rate year to year, town government must operate in a fiscally responsible manner. Large fluctuations in the tax rate can cause public outcry and can discourage economic development. Although the priorities of the community may change from one election year to another, stable municipal finances are always a fundamental responsibility of municipal government. It is important for Boothbay Harbor to handle diligently all yearly expenditures while at the same time plan for the Town's long-term objectives. As is the case with any business, the physical assets of Boothbay Harbor must be properly maintained through capital reserve accounts to protect the Town's continued economic health. The format of this chapter follows the State Comprehensive Plan Criteria Rule as amended in August 2011. State text is italicized.

The majority of the financial information for this chapter was taken from Town annual reports.

State Goal

To plan for, finance and develop an efficient system of public facilities and services to accommodate anticipated growth and economic development.

Analyses

1. **How will future capital investments identified in the plan be funded?**

   Capital investments will continue to be funded through these means of financing: capital reserve funds supported by property tax revenues town-wide, intergovernmental revenues (State aid), grants and loans from federal, State and private sources, from municipal bonds, and from donations. A potential future funding mechanism to use could be tax increment financing.

2. **If the community plans to borrow to pay for capital investments, does the community have sufficient borrowing capacity to obtain the necessary funds?**

   The community does have sufficient borrowing capacity. In fiscal year 2012, total municipal debt was well below the statutory limits as set forth in Title 30-A M.R.S.A. Section 5702.

3. **Have efforts been made by the community to participate in or explore sharing capital investments with neighboring communities? If so, what efforts have been made?**

   As noted in the Public Facilities and Services Chapter, the Town does cooperate with neighboring communities and with Lincoln County in the provision of services. Services shared regionally include public education, Fire Department mutual aid, the Water and Sewer districts, solid waste management, E-911, and ambulance services. Sharing of other capital investments has not been considered in the recent period.

Conditions and Trends

1. COMMUNITY REVENUES & EXPENDITURES

Total municipal revenues decreased 5.2% over the last five years. Property taxes comprised 86.1% of revenues in 2008 and 87.3% of revenues in 2012 despite declining 3.8% in absolute terms. State revenue sharing decreased from 1.3% to 1.2% of total revenues during the same period. Most sources of revenue, with the exception of health, welfare and recreation and special assessments, decreased in absolute terms over the last five years. These reductions reflect the sustained, overall economic downturn of the last ten years at the national, State and local levels, including lower total employment and lower housing values.

Table 12.1 Actual Revenues for the Years Ending June 30th

CATEGORIES	2008	2009	2010	2011	2012	PERCENT CHANGE
State Revenue Sharing	100,450.72	102,770.94	82,425.90	80,015.01	84,883.73	-15.5%
Homestead Reimbursement	26,445.00	28,317.00	26,882.00	19,679.25	19,432.84	-26.5%
Property Taxes	6,438,628.59	7,048,987.48	6,869,889.84	6,746,450.80	6,195,478.83	-3.8%
Excise Taxes	404,171.03	375,197.15	351,675.10	344,635.98	338,449.92	-16.3%
General Government	438,896.45	336,582.39	321,598.21	386,401.61	381,700.41	-13.0%
Health, Welfare, Recreation	9,149.97	33,740.90	39,482.56	33,815.88	31,524.47	244.5%
Interest	61,890.56	82,244.94	76,726.91	64,995.65	35,203.72	-43.1%
Special Assessments	1,440.00	1,440.00	2,640.00	1,440.00	2,660.00	84.7%
Public Safety	--	3,273.07	6,120.45	6,207.99	2,018.90	--
Public Works	--	--	--	--	3,082.00	--
Capital Expense Grant Funds	--	--	--	21,500.00	0	--
Total	7,481,072.32	8,012,553.87	7,777,440.97	7,705,142.17	7,094,434.82	-5.2%

Source: Town Annual Reports

Total expenditures decreased 5.4% over the last five years. The largest single expense, education (over which municipal government has no control), decreased 8.7% from 2008 to 2012, comprising 35.7% of total expenditures in 2008 and 34.5% of total expenditures in 2012. Public safety increased 17.2% during the same period, comprising 16.3% of total expenditures in 2008 and 20.1% in 2012. This increase reflects a change in accounting, in which wages and benefits are now included in this item.

General government decreased 29.1%, comprising 13.9% of total expenditures in 2008 and 10.4% in 2012. This savings was the result of closing the communications center. Public works increased 37.2%, comprising 7.2% of total expenditures in 2008 and 10.4% in 2012. This increase reflects a change in accounting, in which wages and benefits are now included in this item. Health, welfare and recreation decreased 5.4%, but remained at 7.9% of total expenditures in both 2008 and 2012. County tax decreased 7.3%, comprising 12.8% of total expenditures in 2008 and 12.5% in 2012. Debt service decreased 43.6%, comprising 3.0% in 2008, and 1.8% of total expenditures in 2012.

Of those who responded to the question on taxes included in the public opinion survey conducted for this comprehensive plan, a small majority expressed support for higher taxes to improve or expand just two services: ambulance (53%) and medical facilities (54%). There was no majority support for higher taxes to fund any other services. See the Public Facilities and Services Chapter for more information.

Table 12.2 Actual Expenditures for the Years Ending June 30th

CATEGORIES	2008	2009	2010	2011	2012	% CHANGE
General Government	1,014,788.02	728,974.55	752,893.51	692,868.42	719,923.56	-29.1%
Health, Welfare, Recreation	577,220.01	582,626.20	564,529.45	554,208.00	546,131.68	-5.4%
Public Works	525,642.50	656,065.80	707,238.83	758,488.71	721,206.25	37.2%
Bayville/Isle of Springs	86,546.61	99,320.85	94,943.59	91,547.80	83,166.45	-3.9%
Community School District	2,607,609.00	2,733,698.00	2,518,188.84	2,339,068.84	2,380,125.00	-8.7%
Special Assessments – County Tax	933,809.64	895,113.26	903,027.63	893,399.95	865,852.62	-7.3%
Special Assessments – Miscellaneous	48,562.68	14,000.00	37,755.00	38,755.00	44,218.94	-8.9%
Public Safety	1,187,634.37	1,479,152.36	1,308,716.13	1,369,205.53	1,391,676.37	17.2%
Debt Service	222,350.48	168,185.51	136,080.26	123,554.79	125,360.73	-43.6%
Capital Budget	99,100.07	112,335.91	61,087.87	156,795.31	30,345.19	-69.4%
Total	7,303,263.38	7,469,472.44	7,084,461.11	7,017,892.35	6,908,006.79	-5.4%
Excess (deficiency) of revenue	177,808.94	543,081.43	692,979.86	687,249.82	186,428.03	4.8%

2. CAPITAL FUNDING

Capital investments are funded through capital budget reserve funds supported by property tax revenues town-wide, intergovernmental revenues (State aid), grants and loans from federal and State sources, and from municipal bonds. Non-governmental (outside) funding sources have recently included small gifts and donations from local nonprofits, the Rotary Club and Chamber of Commerce.

3. LOCAL AND STATE VALUATIONS AND LOCAL MIL RATES FOR THE LAST FIVE (5) YEARS

The local valuation of Boothbay Harbor increased 2.6% in the last five years.

Table 12.3 Boothbay Harbor Local Valuations (Real and Personal Property) for the Years Ending June 30th

2008	2009	2010	2011	2012	CHANGE	% CHANGE
574,570,182	578,546,328	582,851,630	586,519,170	589,771,580	15,201,398	2.6%

Source: Town Annual Reports 'Valuation, Assessment and Collections for the year ended June 30th' schedules.

Table 12.4 Boothbay Harbor State Valuations for the Years Ending June 30th

2008	2009	2010	2011	2012	CHANGE	% CHANGE
855,700,000	894,650,000	867,400,000	811,950,000	765,250,000	-90,450,000	-10.6%

Source: Maine Revenue Services.

The State valuation of the Town decreased 10.6% in the last five years. The variance between local and State valuation figures for Boothbay Harbor has decreased over the period; however, a gap remains. It can be explained by the following:

- State valuation figures typically have lagged behind local valuation figures by about two years, that is, the State valuation has been based on sales that occurred in the community about two years earlier.
- State valuations are based on a 100% ratio, while municipal assessments when compared to sales are generally less than 100%.
- The Town may not be assessing all assets that the State values; for example, if the Town chooses not to assess a personal property tax but the State includes it as part of the valuation; and/or the State places a higher valuation on power lines and similar facilities than does the Town.
- The Town's mil rate decreased 5.4% in the last five years.

Table 12.5 Boothbay Harbor Mill Rates for the Years Ending June 30th

2008	2009	2010	2011	2012	CHANGE	% CHANGE
11.10	12.20	11.80	11.40	10.50	-0.6	-5.4%

Source: Town Annual Reports 'Valuation, Assessment and Collections for the year ended June 30th' schedules.

4. MUNICIPAL DEBT COMPARED WITH THE STATUTORY AND MAINE BOND BANK RECOMMENDED LIMITS

Title 30-A M.R.S.A. Section 5702 prohibits total municipal debt outstanding at any time, exclusive of debt incurred for school purposes, for storm or sanitary sewer purposes, for energy facility purposes or for municipal airport purposes, to exceed 7 1/2% of the last full state valuation. Total municipal debt for all purposes cannot exceed 15% of the last full state valuation. From 2008 to 2012, the Town did not exceed the State statutory limit. The Town's long-term liability for fiscal year 2012 was $772,864 in governmental activities and $143,776 in business-type activities. Long-term debt in government activities included notes on a fire truck, and a refinance note.

The Maine Bond Bank has no set policy on the amount of total debt a municipality can or should have outstanding other than to be sure that the municipality is in compliance with the provisions of Maine law regarding limitations on local debt. The Maine Bond Bank looks at outstanding debt, both direct and contingent, from such perspectives as debt per capita, percentage of operating budget to debt service, and total debt among other factors.

5. CAPITAL INVESTMENT PLAN

The comprehensive plan must include a capital investment plan that:

- Identifies and summarizes anticipated capital investment needs within the planning period in order to implement the comprehensive plan, including estimated costs and timing, and identifies which are municipal growth-related capital investments;
- Establishes general funding priorities among the community capital investments; and
- Identifies potential funding sources and funding mechanisms.

For (1) through (3), see the table below titled Boothbay Harbor Capital Investment Plan Summary 2014-2024.

A. Purpose and Definition

The purpose of a capital investment plan (CIP) is to establish a framework for financing needed capital investments. A CIP guides budgeting and expenditures of tax revenues and identifies needs for which alternative sources of funding such as loans, grants or gifts will be sought.

Capital investments include the repair, renewal, replacement or purchase of capital items. Capital investments differ from operating expenses or consumables. The expense of consumables is ordinarily budgeted as operations. Capital investments generally have the following characteristics: they are relatively expensive (typically having an acquisition cost of $5,000 or more); they usually do not recur annually; they last for several years (often having a useful life of three or more years); and they result in fixed assets. Capital items can include equipment and machinery, buildings, real property, utilities and long-term contracts and are funded through the establishment of financial reserves.

Capital investments are prioritized each year in the budget process based on the availability of funds and the political will of the community. A complete CIP describes expected yearly investment and allows for both changes in priorities and reduction of available funds. The CIP is intended to prevent a large capital investment from occurring in a single fiscal year. The unexpected purchase of a sizeable investment can overburden the tax rate and cause large fluctuations in tax bills from year to year. The annual provision for eventual replacement of capital investments depends on the useful life of the capital investments. It is important that capital investments be financially accounted for each fiscal year, minimizing later expenses.

For the purposes of this plan, the total costs have been recognized with an indication of the expected period for each item that is desired based upon priority ratings. Each year the Town Manager drafts a capital investment plan that will provide for a yearly allocation of available funds. The Budget Committee and Select Board review the funding requests and recommend projects to be included in the annual Town budget.

B. Funding Priorities

The capital investments identified below in Table 12.6, the 2014 Capital Investment Plan, are color-coded by department. The items in yellow are regarded as critical needs for 2014. The priorities are reviewed annually and adjusted if there are emergencies. Not included in the plan is an approximate $150,000 annual expenditure by Public Works for road-related repairs and improvements. Also not included in the plan are water-, sewer- and refuse-related capital improvements, which are funded separately by the districts. The Town funds capital projects primarily through annual Town meeting allocations, reserve accounts, and grants (for example, the energy-efficiency grant). Projects referenced in this Comprehensive Plan and existing reserve accounts are the basis for this capital investment plan and have been incorporated into the table below. As well, state and federal mandates necessitating some of these projects have been noted in the table. The need for each project is shown in parentheses.

Table 12.6 Boothbay Harbor Capital Investment Plan Summary 2014-2024

Depart	Type	Year Purchased/ Last Maintained	Description	Purchase or maint. cost	Assumed Inflation 3.0%		Fiscal Year					Beyond Five Years	
					Life Expectancy (years)	Replacement cost ($000)	2014	2015	2016	2017	2018	When	Amt
Police	Vehicle	2013	Ford Explorer	$30,000	4	$34				$34			
Police	Vehicle	2009	Dodge Charger	$27,000	4	$30	$30						
Police	Vehicle	2010	Dodge Charger	$27,000	4	$30	$30						
Public Works	Vehicle	1998	GMC C8500 Dump truck	$64,000	19	$112				$112			
Public Works	Vehicle	2004	International 7400 Dump Truck	$105,590	14	$160					$160		
Public Works	Vehicle	2005	International 7400 Dump Truck	$113,750	15	$177						2020	$177
Public Works	Vehicle	2006	Ford F550 Dump Truck	$48,000	9	$63		$63					
Public Works	Vehicle	2013	Chevrolet Silverado	$40,000	7	$49						2020	$49
Public Works	Vehicle	2013	Chevrolet Silverado	$45,000	7	$55						2020	$55
Public Works	Vehicle	2011	Chevrolet Silverado	$40,000	7	$49					$49		
Public Works	Equipment	2005	Hitachi Zbox Excavator	$89,000	12	$127				$127			
Public works	Equipment	1998	Kubota 4wd Tractor w/plow	$10,500	15	$16	$16						
Public Works	Equipment	1999	John Deere 544HL Loader	$110,000	17	$182			$182				
Public Works	Equipment	1996	Case 580 SL Backhoe	$75,000	15	$117	$117						
Fire	Vehicle	1990	GMC Topkick Pumper	$186,000	30	$451						2020	$451
Fire	Vehicle	2003	L-1 E-One Pumper/Ladder	$391,000	30	$949						2033	$949
Fire	Vehicle	1998	HMC Pumper/Ladder	$201,000	30	$488						2028	$488
Fire	Vehicle	2000	GMC Sierra 3500	$11,685	30	$28						2030	$28
Fire	Vehicle	1985	Chevrolet P/U truck-rarely used	$12,000	30	$29		$29					
Mun. building	Vehicle	2007	Crown Victoria	$20,328	4	$23	$23						
Mun.	Structure	2004	Fish Pier Boat Ramp - replace	$27,000	20	$49						2024	$49
Mun.	Structure	2004	Fish Pier -replace	$80,000	15	$125						2019	$125
Mun.	Structure	2001	Whale Park Pier - replace	$191,215	30	$464						2031	$464
Mun.	Buildings	2008	Fish Pier Marine repair- Roof	$4,000	25	$8						2033	$8
Mun.	Buildings	2010	Fish Pier Atlantic Edge - Roof	$4,500	25	$9						2035	$9
Mun.	Float	2012	Pump Out Float	$26,000	20	$47						2032	$47
Mun.	Boat	1991	Harbor Master Boat-Steigercraft	$20,000	30	$49						2021	$49
Mun.	Outboard	2013	Harbor Master Yamaha F115	$11,000	10	$15							
Mun.	Buildings	2006	Public Works Garage	$687,000	50	$3,012						2056	$3,012
Mun.	Buildings	1968	Public Works-Old/Cold storage-replace	$50,000	50	$219					$219		
Mun.	Buildings	1985	Town Office/Fire Station-new	$2,300,000	50	$10,083						2035	$10,083
Mun.	Buildings	1985	Town Office/Fire Station-roof	$10,000	20	$18	$18						
Mun.	Buildings	2010	Town Office/Fire Station-generator	$18,000	20	$33						2030	$33
Mun.	Buildings	2010	Town Office/Fire Station-furnace	$27,000	20	$49						2030	$49
			TOTALS				$235	$92	$182	$273	$428		$16,125

Source: Town Office

State Goal

To plan for, finance and develop an efficient system of public facilities and services to accommodate anticipated growth and economic development.

Policies

1. To finance existing and future facilities and services in a cost-effective manner.
2. To explore grants available to assist in the funding of capital investments within the community.
3. To reduce Maine's tax burden by staying within LD 1 spending limitations.

Strategies

1. INTER-MUNICIPAL PARTNERSHIPS

Implementation Strategy

Explore opportunities to work with neighboring communities to plan for and finance shared or adjacent capital investments to increase cost savings and efficiencies.

Responsibility

Select Board, Town Manager, Public Works Director

Time Frame

Ongoing

2. CAPITAL INVESTMENT PLAN PURPOSE AND DEFINITION

The purpose of a capital investment plan (CIP) is to establish a framework for financing needed capital investments. A CIP guides budgeting and expenditures of tax revenues and identifies needs for which alternative sources of funding such as loans, grants or gifts will be sought.

Capital investments include the repair, renewal, replacement or purchase of capital items. Capital investments differ from operating expenses or consumables. The expense of consumables is ordinarily budgeted as operations. Capital investments generally have the following characteristics: they are relatively expensive (typically having an acquisition cost of $5,000 or more); they usually do not recur annually; they last for several years (often having a useful life of three or more years); and they result in fixed assets. Capital items can include equipment and machinery, buildings, real property, utilities and long-term contracts and are funded through the establishment of financial reserves.

Capital investments are prioritized each year in the budget process based on the availability of funds and the political will of the community. A complete CIP describes expected yearly investment and allows for both changes in priorities and reduction of available funds. The CIP is intended to prevent a large capital investment from occurring in a single fiscal year. The unexpected purchase of a sizeable investment can overburden the tax rate and cause large fluctuations in tax bills from year to year. The annual provision for eventual replacement of capital investments depends on the useful life of the capital investments. It is important that capital investments be financially accounted for each fiscal year, minimizing later expenses.

For the purposes of this plan, the total costs have been recognized with an indication of the expected period for each item that is desired based upon priority ratings. Each year the Town Manager drafts a capital investment plan that will provide for a yearly allocation of available funds. The Budget Committee and Select Board review the funding requests and recommend projects to be included in the annual Town budget.

The capital investments are identified in Table 12.6, the 2014 Capital Investment Plan.

CHAPTER 13 - EXISTING LAND USE

INTRODUCTION

An understanding of land use trends is essential in planning the future of the Town. A review of recent trends helps identify potential inadequacies in the current land use ordinances. Additionally, it may also help the Town determine if growth patterns are consistent with Boothbay Harbor's vision. Problems in specific parts of Town should also be analyzed.

State Goal

None required.

Analyses and Overview

The 1996 Comprehensive Plan provided an overview of land use patterns in Boothbay Harbor that is still largely valid today. The Town has a total land area of 3,650 acres or 5.8 square miles, and comprises approximately one percent of Lincoln County's land area. Including open water, the total area is 9.2 square miles (5,894 acres). Boothbay Harbor is situated on the tip of the peninsula created by the Sheepscot River to the west and Damariscotta River to the east and the Atlantic Ocean to the south. There are also three small peninsulas within Boothbay Harbor, Juniper Point, McKown Point, and Spruce Point. Boothbay Harbor is located approximately 10 miles down the peninsula from the intersection of U.S. Route 1 and 27.

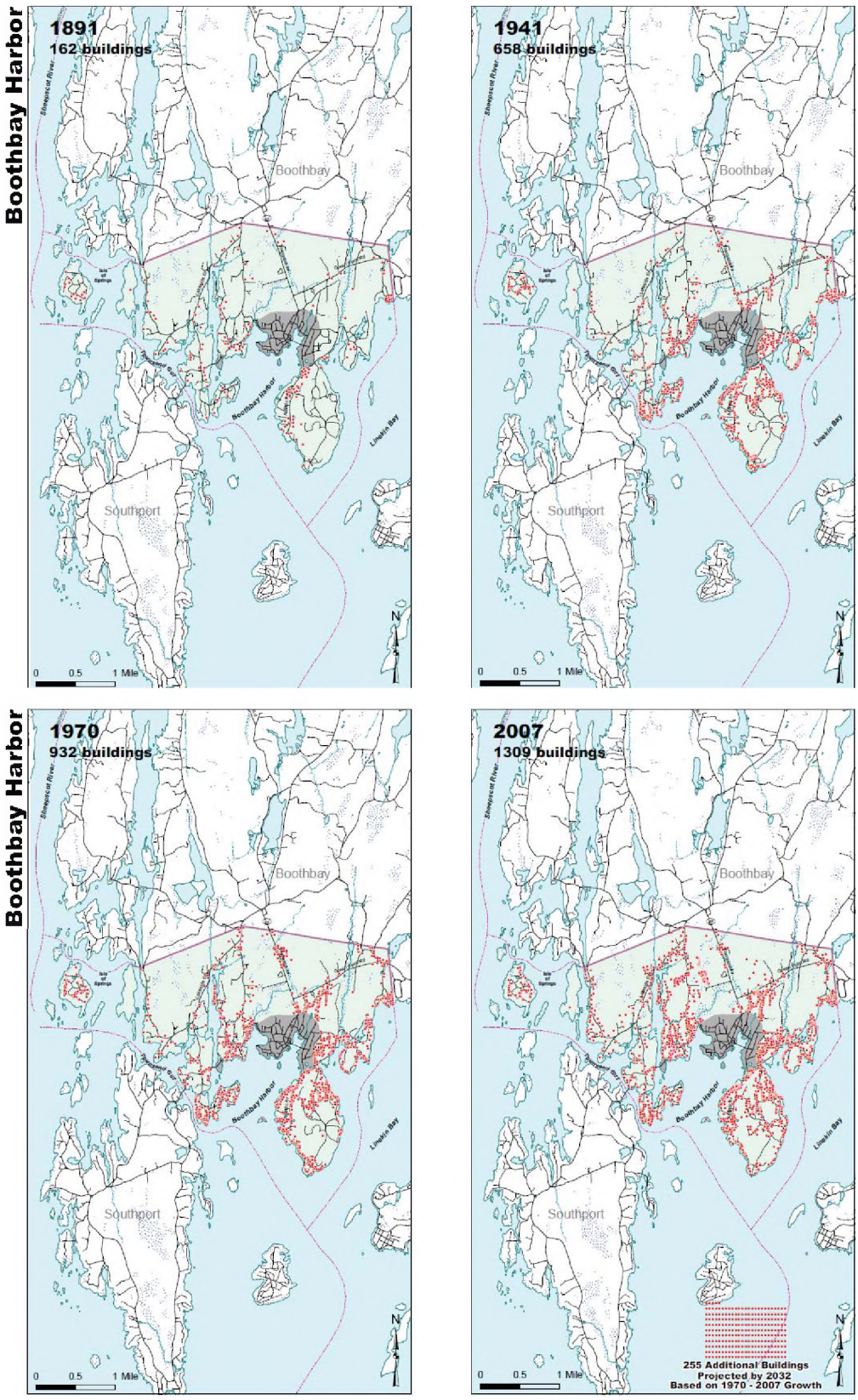
To the west of the Boothbay Harbor peninsula are several islands in the Sheepscot River. They include Powderhorn Island, Ram Island, Isle of Springs, Spectacle Islands, Indiantown Island and several smaller islands. Boothbay Harbor, in the center of the peninsula, is a large and well-protected harbor. The harbor has substantial depth and is free of shoals and ledges, an essential ingredient to a working waterfront.

Boothbay Harbor has a variety of water bodies. They include several coves: Hodgdon Cove on the west side of the peninsula; Townsend Gut, the waterway between the Towns of Boothbay Harbor and Southport; Mill Cove in the center of Boothbay Harbor; Lewis Cove and Lobster Cove on the east side of the peninsula; West Harbor Pond, a man-made pond created by damming the entrance into the harbor; Appalachee Pond, a small man-made pond in east Boothbay Harbor; Campbell Creek, which drains into West Harbor Pond from Knickerbocker Lake (once known as Campbell's Pond) in Boothbay; and Meadow Brook, which originates in Boothbay Harbor and empties into Hodgdon's Cove.

Historical Trends

The map series shown on Figure 13.1 shows the shift in land development patterns between 1891 and 2007. Since the late 19th century, Boothbay Harbor has primarily been a residential community with an economy based on tourism, shipbuilding and fisheries. Initially, the area by the inner harbor was the most densely developed. This was the area where commerce and business were conducted and where water-dependent industries were located.

Figure 13.1 Boothbay Harbor Non-Village Residential Development 1891-2007



The maps show several development trends. One is the emergence of a second home market that started just before the turn of the 20th century and resulted in the construction of many dwellings, lodges, and resort-style facilities on Juniper Point, McKown Point, Bayville, Spruce Point (including Sprucewold), Isle of Springs, and in the Appalachee Pond/Lewis Cove area. The second is increased development of shorefront properties. Once lightly developed, there are now high concentrations of development along most of the shore.

A third trend is the gradual spread of new houses along the primary roads in town. A fourth is more home building occurring along secondary roads. These include roads leading to the shore from the primary roads and those that go into the still largely undeveloped interior portions of the town. As a result, development is no longer concentrated in the village/harbor area. The Town has experienced sprawled development in most areas accessible by road. This makes it challenging to manage future growth since the large tracts of undeveloped land are not readily accessible. It also poses problems for traffic management due to the large volume of curb cuts.

1. Is most of the recent development occurring: lot by lot; in subdivisions; or in planned developments? Is recent development consistent with the community's vision?

According to data provided by the Code Enforcement Officer's office, permits for 33 new dwellings were issued between 2007 and 2012. Twenty-one of these were on individual lots and 12 in subdivisions or planned developments. Planning Board records indicate that five subdivisions were approved between 2000 and 2012, creating 76 lots, of which 15 were built upon as of mid-October 2012 (see Table 13.2).

Table 13.1 Number of Permits for New Residential Construction

YEAR	# OF PERMITS
2000	N/A
2001	N/A
2002	6
2003	22
2004	15
2005	20
2006	17
2007	3
2008	9
2009	12
2010	7
2011	7
Total	**118**

Source: Town Meeting Reports

Table 13.2 Summary of Subdivision Activity, 2000-2012

YEAR	SUBDIVISION NAME	# OF APPROVED LOTS	# OF LOTS BUILT UPON AS OF OCT. 2012
2000	----	----	---
2001	---	---	---
2002	---	---	---
2003	---	---	---
2004	High Ledge	14	0
2005	Gray Ledge/Spruce Point Estates	5/18	3/7
2006	Sunset Terrace	14	0
2007	Mt. Dora	14	1
2008	---	---	---
2009	---	---	---
2010	---	---	---
2011	---	---	----
2012	Spruce Point Woods	11	14
Total		**76**	**15**

Source: Planning Board and Assessors Records

2. What regulatory and non-regulatory measures would help promote development of a character, and in locations that are consistent with the community's vision?

As a Town with a high density of development when compared to most small Maine towns, Boothbay Harbor may want to explore measures to retain some land in an undeveloped state. This could involve working with area land trusts to identify key conservation parcels. It could also entail encouraging open space subdivisions or houseminium developments (multiple single-family detached structures on a common parcel) that preserve common areas of land while having homes on smaller individual lots.

Concurrently, it may want to review its policies toward maintaining the viability of the downtown. If the downtown is to remain pedestrian friendly, it is important to ensure that sidewalks continue to be adequately maintained, as recommended in the Boothbay-Boothbay Harbor Bicycle-Pedestrian Plan (see the Transportation Chapter for an inventory of sidewalks and for recommendations from this plan). While essential in commercial areas, it is equally important to provide quality bicycle and pedestrian opportunities on high-density residential streets in the village area. There are technical assistance resources such as the Maine Downtown Center that can offer advice on how to keep downtowns viable.

Given the high density of development, the large amount of shorefront property, and the town's dependence on surface water sources for drinking water, adequate regulation of non-point pollution is very important. The tendency in recent years toward more intense storm events means that assumptions used in designing storm water runoff infrastructure need to be reviewed. Similarly, sea level rise and storm surges may require other changes to land use ordinances. For example, greater structure setbacks from the water or an increase in the minimum floor elevation may be advisable. For information on the potential impact of rising sea levels on Boothbay Harbor, see http://lcrpc.org/boothbay-harbor-sea-level-rise-scenarios

3. Is the community's administrative capacity adequate to manage its land use regulation program, including Planning Board and Code Enforcement Officer?

Boothbay Harbor has a full-time Code Enforcement Officer who meets all state certification standards. The Planning Board has a good understanding of Town ordinances and relevant state laws. The Town appears to have the capacity to manage development adequately. There are no present plans to hire a town planner. If the pace of development increases, one option would be to contract for part-time professional planning services. It may be a number of years, if ever, before this option is contemplated.

4. Are floodplains adequately identified and protected? Does the community participate in the National Flood Insurance Program? If not, should it? If so, is the floodplain management ordinance up to date and consistently enforced? Is the floodplain management ordinance consistent with state and federal standards?

Boothbay Harbor adopted an updated version of a floodplain management ordinance on May 7, 2011. According to the State Floodplain Management staff, this ordinance was compliant with the requirements of the National Floodplain Insurance Program. It contains major updates that have occurred in the state model since the Town last revised its floodplain ordinance. There are a few minor editorial changes suggested by the Floodplain Management staff. These suggestions focus on definitions and some cross-references in the text.

Conditions and Trends

1. Existing land use map

The zoning map is shown in Figure 13.2 below. As seen in the estimated acreages shown in Table 13.3, the Residential zone accounts for about 86 percent of the Town's land area. The next largest zone is Business, which accounts for about 9 percent of the land area. There is no distinction between residential uses in the rural and built-up areas except those based on the minimum lot sizes determined by the presence of water and sewer. These are discussed in the following paragraphs.

Figure 13.2 Existing Land Use Map

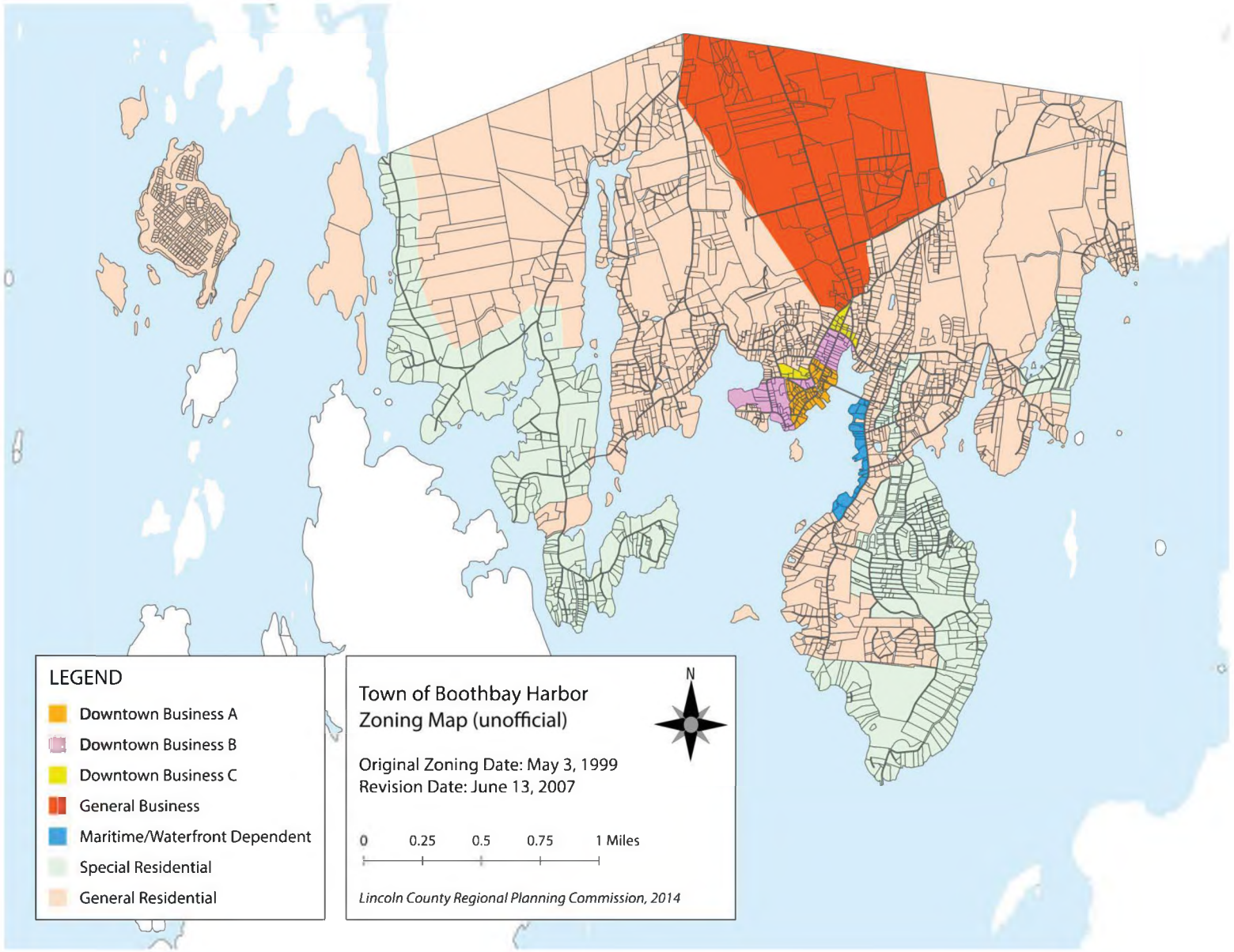


Table 13.3 Boothbay Harbor: Estimated Acreage of Zoning Districts

ZONE-TYPE	ESTIMATED ACREAGE	PERCENT
Business	325	9%
Marine/Water Dependent	15	<1%
RP	145	4%
Residential	3160	86%
Total Land Area	**3,650**	**100%**

Source: GIS Analysis of Zoning Map

2. A summary of current lot dimensional standards

Current lot dimensional standards are found in Table 13.4. Minimum lot sizes range from 10,000 square feet for lots with town water and sewer to 20,000 square feet for lots with town water only. Lots with neither town water nor sewer have a minimum lot size of 40,000 square feet unless in the Resource Protection zone. That zone has a four-acre minimum. There is no low density rural zone.

3. A description or map identifying the location of lots and primary structures created within the last ten years. Include residential, institutional, commercial, and industrial development.

As seen in Figure 13.3, recent development has occurred in a relatively scattered manner across the Town. Although data are only available for the period 2007 to 2012, it is clear that the trends apparent in Figure 13.1, in which most of the 33 units of new residential development have taken place away from the downtown, continue. There were only three units of commercial development during this time period.

About 914 acres in town are already developed, 26 percent of the land area, and 16 percent of the total Town area (see Table 13.5 and Figure 13.4). About 340 acres (9.6 percent of the land area) consist of impervious surface (see Figure 13.5). The acreage of lands subject to development constraints is discussed below.

The tax-exempt and tax-sheltered acreage (468 acres or 13 percent of the total land area) is shown in Table 13.6 and Figure 13.6. These are from the Assessor records and include some developed land. The roughly 174 acres held by land trusts is unlikely to be developed. The land held in tree growth is subject to withdrawal from that classification, albeit with a tax penalty.

Table13.4 Boothbay Harbor Lot Dimensional Standards by Zoning District

		GENERAL RESIDENTIAL	SPECIAL RESIDENTIAL	DOWNTOWN BUSINESS	MARINE/ WATER DEPENDENT	GENERAL BUSINESS	RESOURCE PROTECTION
Minimum lot size/dwelling unit or use	Town water & sewer	10,000 sf	10,000 sf	10,000 sf	10,000 sf	Residential 10,000 sf; all other 40,000 sf	4 acres
	Town water only	20,000 sf	20,000 sf			Residential 20,000 sf; all others 40,000 sf	4 acres
	No Town water/sewer	Multi-Family 20,000 sf; all others 40,000 sf	40,000 sf			Multi-Family 20,000 sf; all others 40,000 sf	4 acres
Minimum street frontage	50 feet	50 feet	50 feet	50 feet	50 feet	50 ft	100 feet
Minimum setback from centerline of public road or right-of-way 25 feet wide or greater	Town water & sewer	30 feet	30 feet				
	Town water only	60 feet	60 feet				
	No Town water/sewer	60 feet	60 feet				
	Residential			30 feet[A]	30 feet[A]	30 ft south of Routes 27/96; 300 feet north of Routes 27/96[B]	
	Commercial			25 feet[A]	25 feet[A]	60 ft[A,B]	
	All other			30 feet[A]	25 feet[A]	60 ft[A]	
Minimum side and rear yard setback or setback from centerline of right-of-way less than 25 feet in width, whichever is greater	Town water & sewer	15 feet[C,H,J]	15 feet[D,H,J]				G
	Town water only	25 feet[C,J]	25 feet[D,J]				
	No town water/sewer	25 feet[C,J]	25 feet[D, J]				
	Residential			15 feet[J]	15 feet[J]	25 ft[D,F,J]	
	Commercial			10 feet[E,J]	10 feet[J]	10 ft[D,J]	
	All other			15 feet[J]	10 feet[J]	10 ft[D,J]	

Notes

1. Plus the width of any sidewalk.
2. The minimum residential setback south of Routes 27/96 intersection is 30 feet; the minimum residential setback north of Routes 27/96 intersection is 300 feet. The minimum commercial setback south of Routes 27/96 intersection is 40 feet.
3. Existing structures made nonconforming to the side and rear yard setbacks by the adoption or amendment or an ordinance may continue construction at the existing setback, provided that the new construction does not decrease the existing setback, and with site plan approval.
4. Side and rear yard setbacks shall be either the dimensional requirements shown above or the height of the building, whichever is greater.
5. In Subsection A(1) only, the side or rear yard setback requirement may be relaxed through a site plan review permit, provided that this relaxation is accompanied by the complete (throughout the entire structure) installation of a state-approved sprinkler system and state-approved minimum one-hour complete firewall on the affected setbacks.
6. Fifteen feet with Town water and sewer.
7. Minimum side and rear yards. There shall be a minimum of 100 feet between principal structures. This applies to any building on the same lot or adjoining lots.

8. Does not apply to the McKown and Juniper Point Special Residential Districts.
9. The side and rear yard setback shall not be applicable to common docks where the application is made by both abutters.
10. The side yard setback shall not apply to residential docks or piers of four feet in width or less.
11. The minimum lot size along the eastern side of Sprucewold and the West Harbor Special Residential District shall not be reduced by the installation of Town water or Town sewer. The minimum land area shall remain 40,000 square feet. The eastern side of Sprucewold shall be the area along the eastern side of Crest Avenue from the intersection of Lobster Cove Road to the intersection of Blow Horn Road and Crest Avenue. The West Harbor Special Residential District shall be as defined in § 170-26B(2) of the Boothbay Harbor Land Use Code.

Figure 13.3 New Construction 2007-2012, Boothbay Harbor

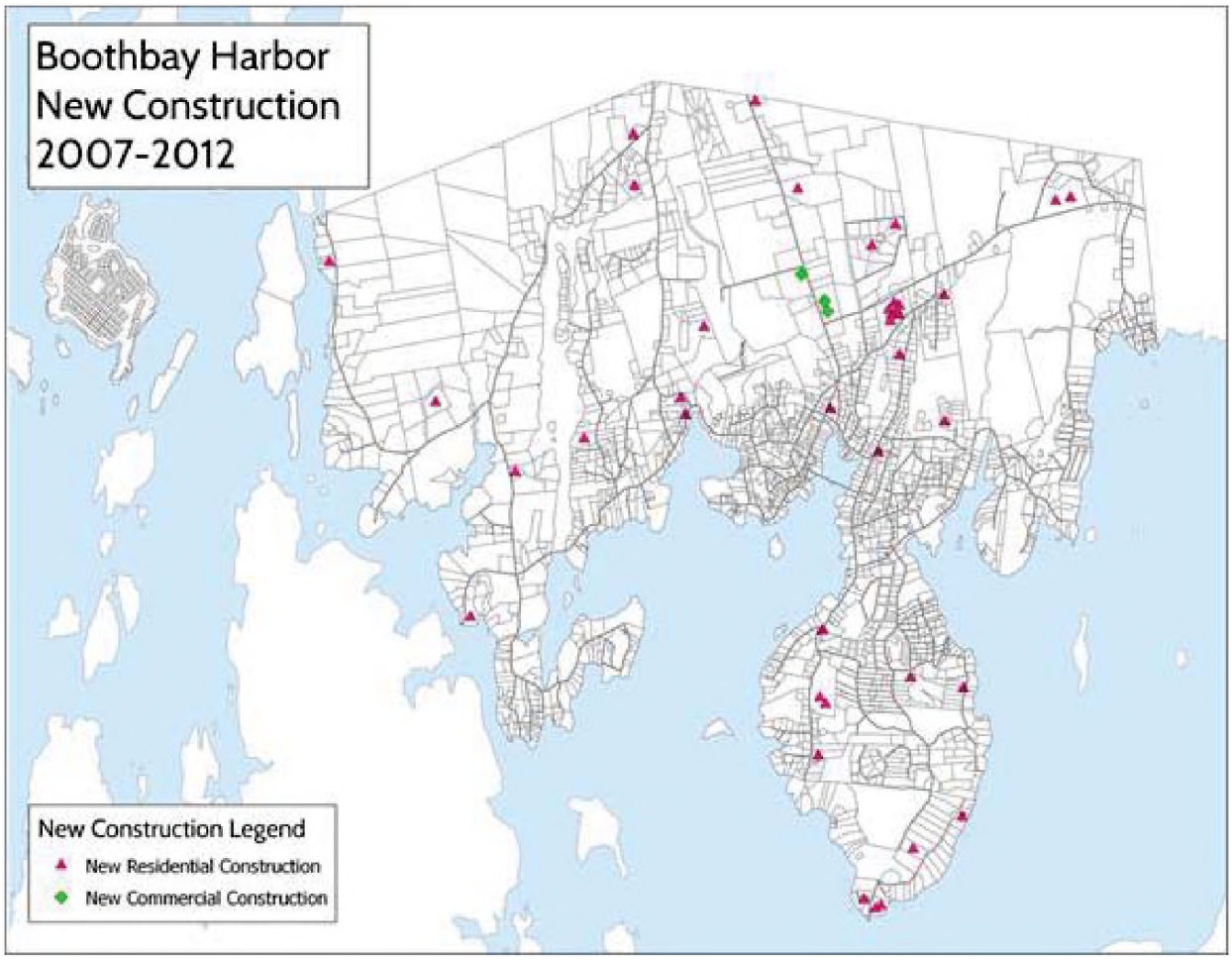
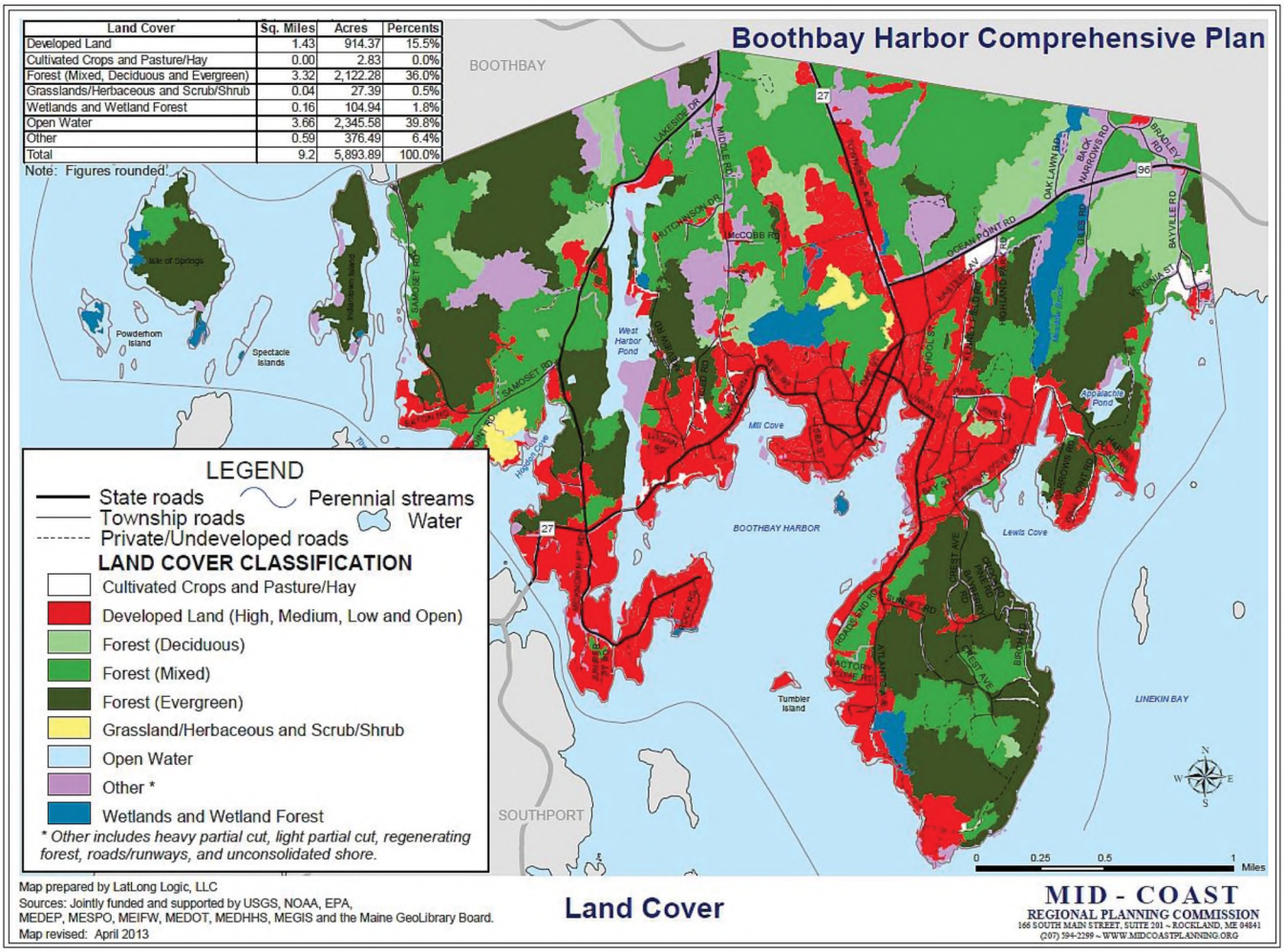


Figure 13.4 Boothbay Harbor Land Cover



Land Cover	Sq. Miles	Acres	Percents
Developed Land	1.43	914.37	15.5%
Cultivated Crops and Pasture/Hay	0.00	2.83	0.0%
Forest (Mixed, Deciduous and Evergreen)	3.32	2,122.28	36.0%
Grasslands/Herbaceous and Scrub/Shrub	0.04	27.39	0.5%
Wetlands and Wetland Forest	0.16	104.94	1.8%
Open Water	3.66	2,345.58	39.8%
Other	0.59	376.49	6.4%
Total	9.2	5,893.89	100.0%

Table 13.5 Land Cover Analysis, Boothbay Harbor

LAND COVER TYPE	SQUARE MILES	ACREAGE	PERCENT
Developed Land	1.43	914.37	15.5%
Cultivated Crops and Pasture Hay	0.00	2.83	0.0%
Forest (Mixed, Deciduous, and Evergreen)	3.32	2,122.28	36%
Grasslands/Herbaceous and Shrub/Scrub)	0.04	27.39	0.5%
Wetlands and Wetland Forest	0.16	104.94	1.8%
Open Water	3.66	2,345.58	39.8%
Other	0.59	376.49	6.4%
Total	**9.2**	**5,893.89**	**100%**

Source: LatLong Logic, LLC and Mid-Coast Regional Planning Commission, 2012

There is also land that is not developable due to land constraints such as steep slopes, flood plains, very poorly drained soils, and ownership by Water District. These are shown on Figure 13.7. According to this analysis about 2,144 acres or 57 percent of the land area does not have development constraints.

One implication of the high percentage of developed land is that at least some future development will involve redevelopment of existing parcels. This is already occurring both in shoreland areas and along the Route 27 corridor. This trend needs to be reflected in town land use ordinances. It is also important to review development trends in various parts of town. These are discussed below.

Figure 13.5 Impervious Areas

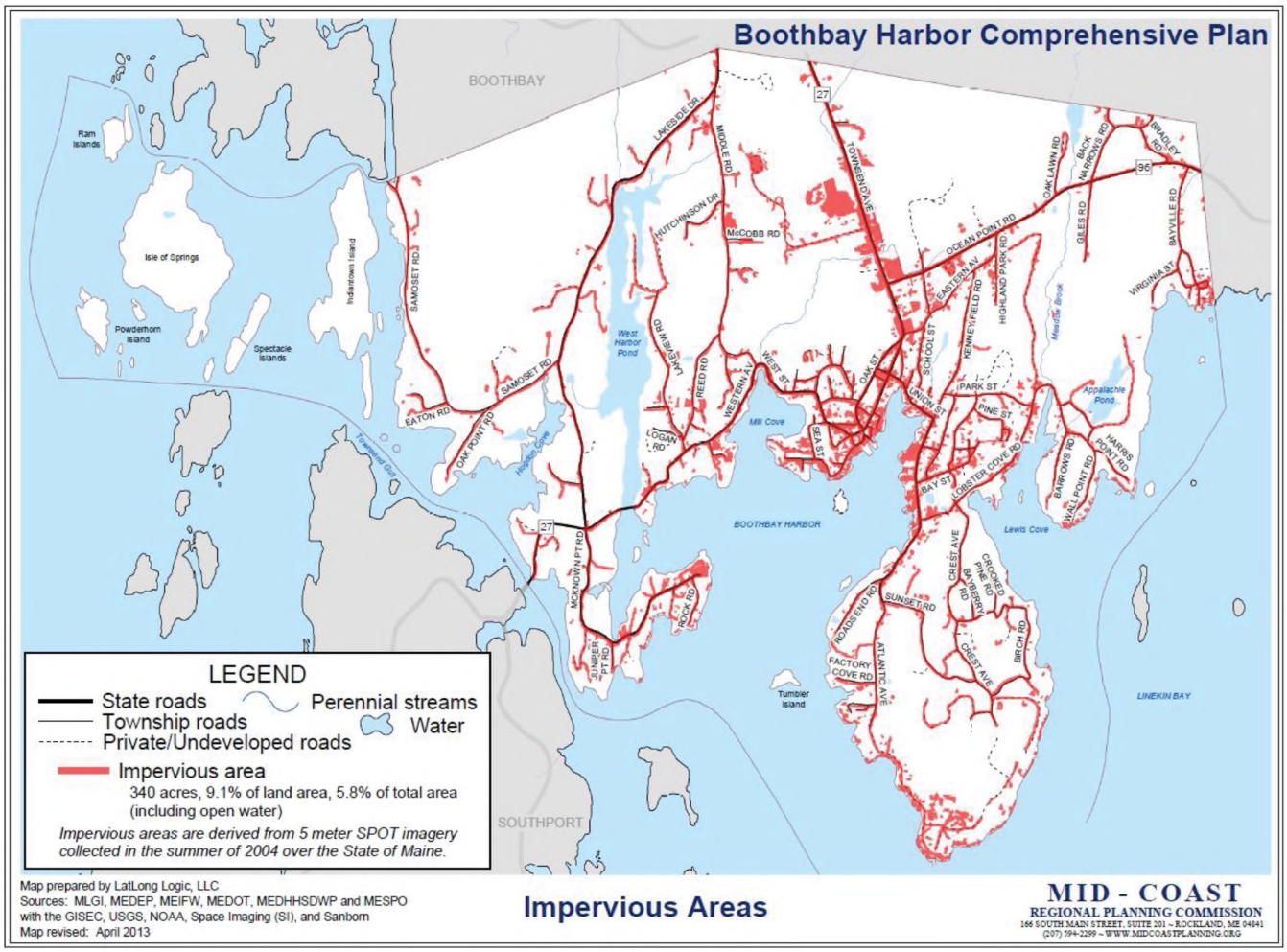


Figure 13.6 Tax Exempt Properties

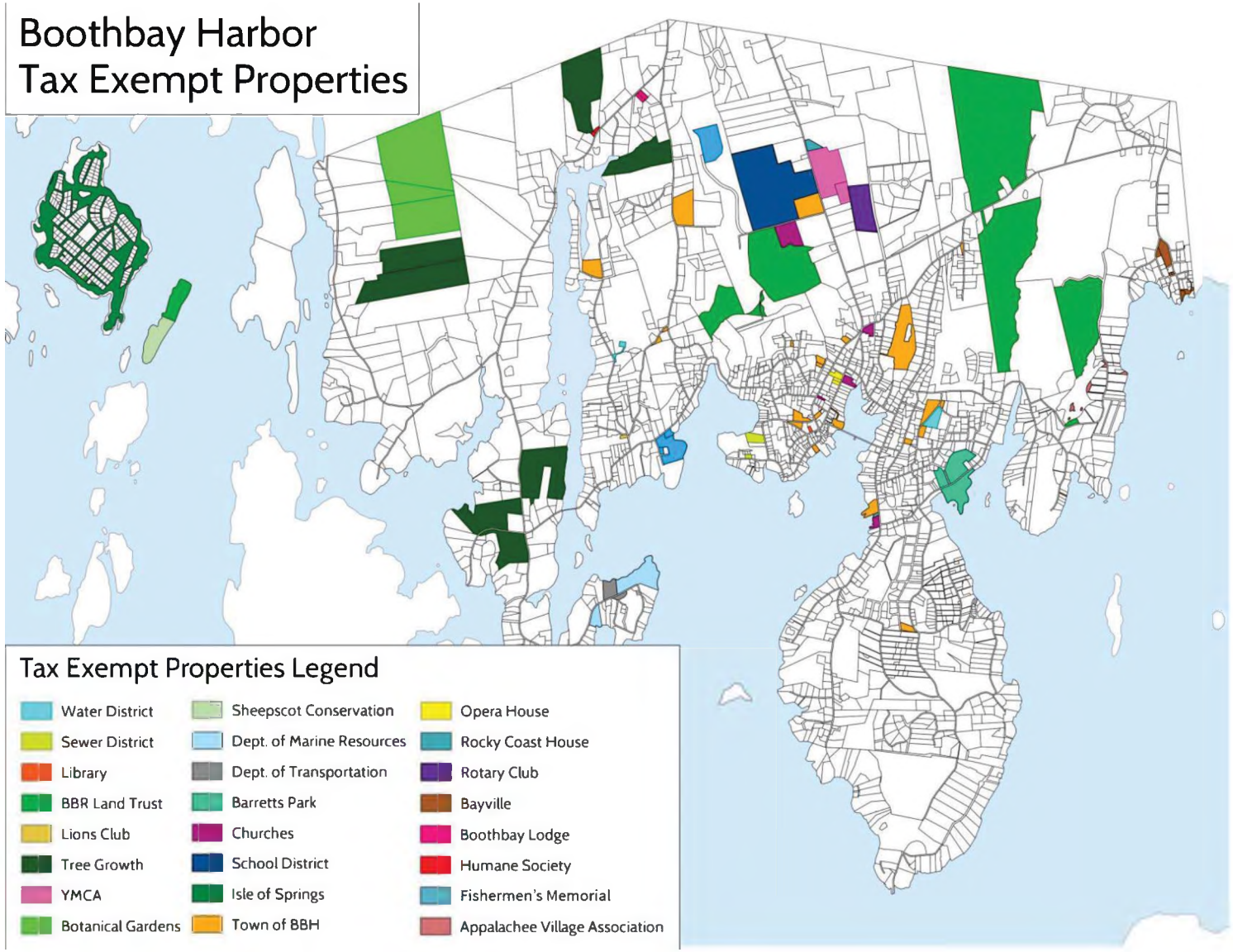
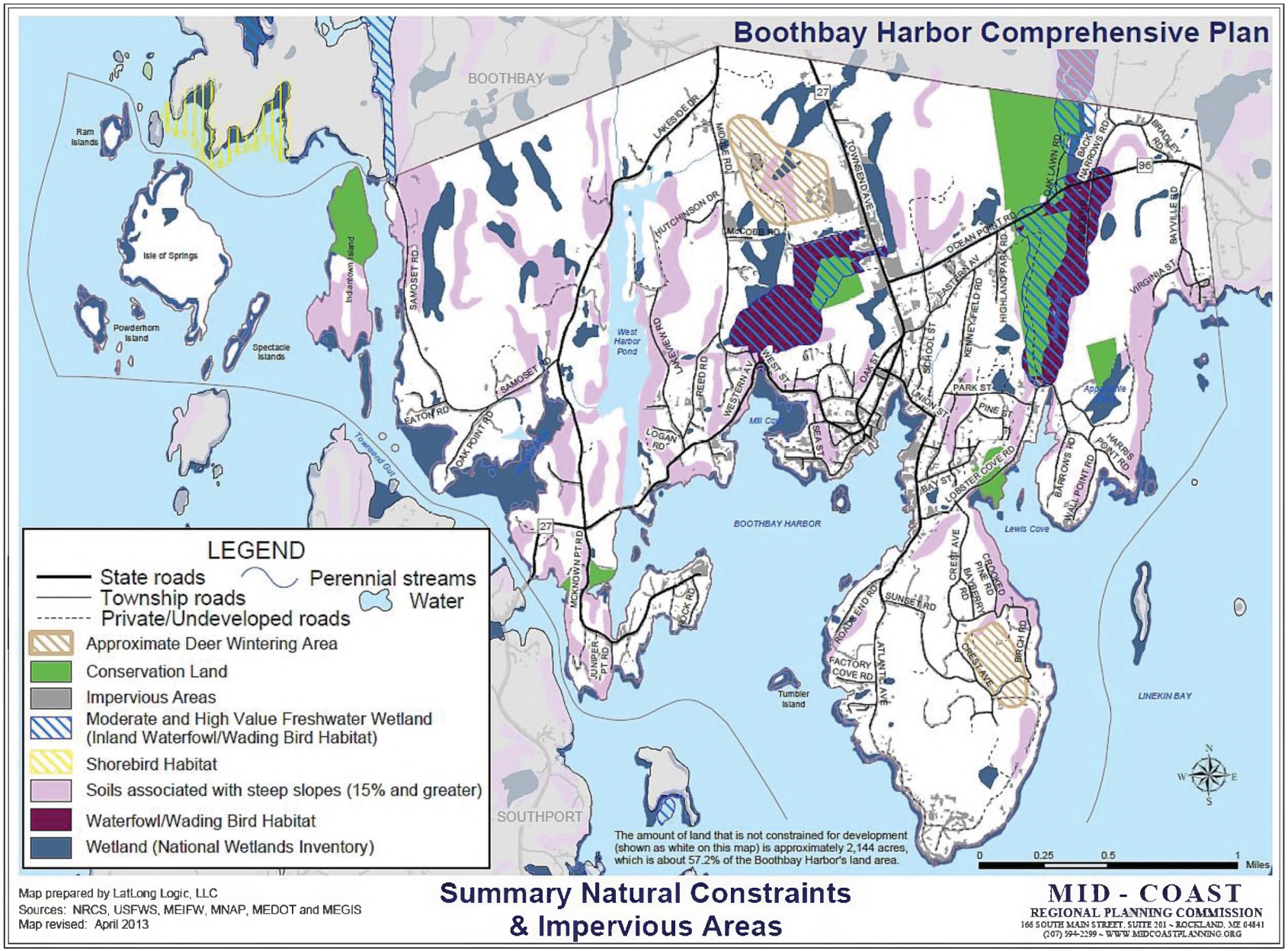


Figure 13.7 Land Development Constraints, Boothbay Harbor



DEVELOPMENT TRENDS

A. THE DOWNTOWN

In the downtown area there has been a continued shift from residential uses to B&Bs and retail uses. While many of these uses are for the most part seasonal, the downtown is also the center of the community, with the Library, Post Office, Town Offices, churches, banks, hardware store, and other year-round business.

B. THE HARBOR

There has been an expansion of retail and services along waterfront. This has reduced opportunities for new marine uses and limited the expansion of existing marine uses. Some marine-related uses, such as Bigelow Laboratory, have relocated due to the lack of space for expansion.

C. OTHER SALTWATER SHORELAND AREAS

Most of the shorefront is presently developed. Smaller seasonal cottages and residences are being torn down and replaced with larger residences. Seasonal homes are being converted to year-round occupancy. This has meant that roads that were previously used mostly on a seasonal basis are now being used year-round. This could pose access problems since the roads were not designed or built for use during winter conditions.

D. FRESHWATER SHORELAND AREAS/LAKE WATERSHEDS

As mentioned in the Water Resources Chapter, the town has phosphorus control standards in its land use ordinances. There is still the risk of some non-point pollution occurring. Continued residential development in Boothbay has occurred in the watersheds of Knickerbocker and Adams Ponds, which provide drinking water supplies for Boothbay Harbor. Development in these watersheds needs to be monitored carefully.

E. ROUTE 27 CORRIDOR

Some existing uses along this corridor have been recently enlarged (such as the YMCA and Meadow Mall) but very little additional developable acreage is available. This means that future development will be mostly redevelopment of already developed parcels. The existing pattern is typical strip development that has minimal, if any, reflection of Boothbay Harbor's sense of identity. This may mean that current development review standards requiring architectural harmony need to be strengthened.

F. ROUTE 96 CORRIDOR

There has been little development along this corridor in recent years. No development problems have been noted.

Boothbay Harbor has a Land Use Code that includes town-wide zoning, shoreland zoning, and floodplain, subdivision, and site plan review standards. This Code includes requirements for vegetative buffering, architectural harmony, preservation of natural features, and water resource protection. Overall, the Code protects residential uses from the adverse effects of adjoining multi-family and non-residential uses. There are standards for light industry while heavy industry is prohibited.

The Code lacks detailed standards to manage light pollution. As mentioned above, storm water runoff standards may have to be revised. The Town may also want to review its design standards to determine if they are adequate to promote development consistent with the Town's historic character. The development seen along Route 27 indicates that some revisions to these standards may be needed.

The public opinion survey indicated respondent preferences on land development. The most commonly preferred location for residential development (57 percent of respondents) was "anywhere in town." There was greater diversity of opinion on retail and service development. Thirty-five percent favored their location anywhere in town while 36 percent preferred that they locate in specially designated areas. Opinions were divided on cluster housing: 38 percent favored this type of housing, 38 percent were opposed and the rest were undecided.

Future Land Use Needs

Projected new land use acreage is summarized in Table 13.6. The population projections developed by the former State Planning Office indicated a modest decline in year-round population by 2023. If accurate, this would mean no increase in the number of year-round dwellings. To allow for unforeseen population growth and the construction of seasonal homes, this plan projects an additional 100 units of housing, amounting to 100 acres, assuming one acre per unit. Lots with public water and sewer can be as small as 10,000 square feet so that some new units may be built on smaller lots. Given the trend of most new residential construction occurring in rural areas, the majority of residential development is projected to occur on lots of at least one acre.

Table 13.6 Projected New Land Use Acreage, Boothbay Harbor, 2023

CATEGORY	ADDITIONAL ACREAGE
Residential	100
Institutional	---
Commercial	50
Industrial	25
Estimated total new land	175
Developed land 2012	914
Estimated Developed Land 2023	1,089

Source: Analysis by Comprehensive Plan Consultant

No increase in institutional acreage is foreseen. This is based on changes at the St. Andrews Campus and the projected decline in school enrollment. Given the volume of commercial uses in a resort community, this sector is likely to remain active. Some new commercial uses are likely to be replacement of current uses due to turnover. Commercial acreage is projected to increase by no more than 50 acres. Industrial growth is expected to be modest and a maximum of 25 additional acres is projected. These projections mean that 175 additional acres will be developed in the next 10 years.

This represents a 16-percent increase over current (2012) development. The Town would have nearly 1,100 acres of developed/protected land. This is about 51 percent of the 2,100 acres of land not subject to development constraints. These projections should be considered the highest case scenario, allowing for ample unanticipated growth.

Table 13.7 shows land uses allowed in each zoning district. Rather than group land uses into broad categories, the zoning standards specify a range of sub-categories. For example, commercial uses include banks, automotive dealerships, banks, and campgrounds. This gives the Code Enforcement Officer and Planning Board greater flexibility in reviewing development proposals.

The Town needs to determine if any of these permitted uses are still appropriate for the given zone. This should be done concurrently with a review of the boundaries of the current zoning districts. This review will be one of the factors used in formulating the Future Land Use Plan.

Table 13.7 Table of Land Uses

Open Space Uses	GR	SR	DB10	MW	GB	RP
Accessory use or structure	C	C	C	C	C	C
Agriculture	P				P	P
Animal husbandry13	P				P	
Individual private campsites	Y	C			Y	P
Earthmoving activities of less than 100 cubic yds but greater than 10 cubic yds	C	P	P	P	Y	P
Earthmoving activities of more than 100 cubic yds	P	P	P	P	P	P
Farm uses and structures	C				P	
Outdoor conservation and recreational uses not operated for profit	P	P	P	P	P	P
Forest management, except timber harvesting	Y	Y	Y	Y	Y	Y
Roads, driveways and parking areas	Y	Y	Y	Y	Y	P
Nonresidential	P	P	C	P	P	P
Timber harvesting	Y	C			C	P
Fire prevention activities	Y	C	Y	Y	Y	P
Wildlife management practices	P	P				P
Water-Oriented Uses						
Accessory uses or structures	C	P	C	C		
Aquaculture uses. No processing or storage	P		P	C	P	
Aquaculture products, processing, warehousing, sales (retail, wholesale)				P		
Boat building and repair, commercial operations-	P		P	C		
Boathouses	C	C	C	C	C	
Breakwaters and causeways	P	P	P	P		P
Marinas			P	P		
Marina expansion		P[12]	P	P		
Piers, docks and wharves	C[16]	C	C[16]	C		C
Seafood products, processing, warehousing, sales (retail, wholesale)				P		
Tour or charter boat operations			C	C	C	
Residential Uses						
Accessory structure	C	C	C	C	C	C
Residential association uses or structures	C	P	C		C	
Boardinghouses	C		C		C	
Duplexes	C		C	P	C	
Home occupations	P		C	P	C	
Manufactured housing exclusive of mobile homes (modular)	C	C	C	P	C	
Mobile homes	C				C	
Mobile home parks	P[2]				P	
Multifamily dwellings	P[1]				P	
Planned unit/cluster developments	P				P	
Single-family dwellings	C	C	C	P	C	P
Commercial Uses						
Accessory uses or structures	P		C	P	C	
Adult business establishment and adult entertainment					P	
Auction barns			C		C	
Automotive body shops	P				P	
Automobile repair service shops	P		P		P	
Automobile sales			P		P	
Banks and financial institutions			C		C	
Bed-and-breakfasts	P		P		C	
Camping and tenting areas					P	
Child-care facilities	P				C	
Commercial farms, gardens, nurseries and greenhouses	P		P		C	
Commercial gymnasiums, fitness centers			P		P	

Commercial Uses (cont.)	GR	SR	DB10	MW	GB	RP
Funeral homes	P		C		C	
Gasoline service stations			P		P	
Commercial kennels					P	
Laundromats, dry cleaning			C		C	
Lumber yards					C	
Micro-breweries			P	P	P	
Motels, hotels, inns		P[4]			C	
Neighborhood grocery stores	P		C		C	
Outdoor recreational uses operated for profit				P	P[8]	
Parking areas/lots	P	P	C	P	P	P
Parking facilities	P		C		C	
Printing facilities					P[11]	
Professional uses	P		C	C	C	
Recreation facilities (indoor)			P		P	
Resort areas	P				P	
Restaurants			P	P	C	
Retail establishments			C[5]		C[5]	
Service establishments			C[5]		C[5]	
Shopping centers					P	
Theaters			P[7]		P[7]	
Veterinary clinics	P[13]		P[13]		P	
Wholesale establishments			C[5]		C[5]	
Wireless communications facilities			C		C	
Wireless communications towers					P	
Industrial Uses						
Accessory uses and structures			C		C	
Automobile graveyards and junkyards					P	
Firewood processing					P	
Fuel storage					P	
Light industry			P[6]		P[8]	
Recycling facilities					P[14]	
Redemption facilities	P				C	
Warehousing					P	
Institutional and Public Uses						
Accessory uses and structures	C	C	C	P	C	
Cemeteries	P				P	
Churches	C		C	C	C	
Community service organizations	C		C		C	
Health clinics (do not include marijuana or methadone clinics or dispensaries)	P		P		P	
Hospice	P		P		P	
Hospital	P		P		P	
Marijuana or methadone clinics or dispensaries						P
Municipal, county, state and federal uses and structures not otherwise listed		P[3]	C	C	C	
Nursing homes	P		P		P	
Private schools	P				C	
Public recreation	P		P	C	P	P[9]
Public school	P				C	
Social and fraternal organizations	C		C		C	
Yacht clubs (private and nonprofit)	P		C	P		
Other Uses						
Public utilities, uses and buildings	P		P	P	P	
Public utility lines and stations	C	P	C	C	C	
Public utility lines and substations	C	P	C	C	C	P

NOTES

1. Except within 500 feet of the high-water mark and in areas zoned Resource Protection.
2. Only in areas set forth in Article IV.
3. In the McKown and Juniper Points Subdistrict only.
4. The construction, operation or use of land and structures known as the "Spruce Point Inn" Map No. 1, Lot No. 17, and the multifamily development project known as "Spruce Point Ocean Houses," Map No. 1, Lot No. 17A, of the 1990 Tax Maps, only.
5. Except those listed as requiring site plan review.
6. Only industrial uses which are functionally water-dependent, except sea products processing.
7. Except drive-in theaters.
8. North of Routes 27-96 intersection.
9. Provided that such facilities are nonstructural.
10. In the Downtown Business District, the following uses shall not be permitted:
    a. Within 75 feet of the normal high-water mark, the conversion of an existing building to a hotel of any size or the expansion of a nonconforming use.
    b. The projection of second-floor overhangs into required setbacks.
    c. The expansion or construction of structures constructed out over the water that are not marine-related.
11. Does not include businesses offering photocopy/computer services, which are covered under service establishments.
12. Provision restricted to Blake's Marina.
13. No outside facilities. Editor's Note: See also § 170-32, Animal husbandry.
14. Meeting the definition of light industry.
15. (Reserved)
16. See § 170-101B (7), Shoreline zoning, for size and height standards.

CHAPTER 14 - REGIONAL COOPERATION

INTRODUCTION

Regional cooperation and coordination are two of the most important considerations in the comprehensive planning process. This is particularly important for Boothbay Harbor and its neighbor Boothbay, since these towns "grew up together" and, until 1889, were a single community. Indeed, it is not possible to travel to Boothbay Harbor by automobile without utilizing Boothbay's highways and roads. The towns share medical, educational, recreational, and solid waste, water and sewer services with residents of both communities crossing town boundaries many times a day.

The following discussion highlights several regional considerations. For additional information and recommended implementation strategies, see the respective chapters.

Land Use Planning and Ordinances

The Boothbay Comprehensive Plan was prepared in 1993 (three years before the previous Boothbay Harbor plan), and was found consistent by the State Planning Office in 1996. Boothbay is currently in the process of updating its plan. On May 23, 2013, the Boothbay and Boothbay Harbor Comprehensive Plan Committees held a joint meeting to discuss issues of mutual interest, including economic development, and two members of the Boothbay Committee have occasionally attended Boothbay Harbor Comp Plan Committee meetings to keep their Committee apprised of topics of interest.

Boothbay has two land use zones bordering Boothbay Harbor – Village, which is roughly adjacent to the Harbor's General Business district, and General Residential, which is adjacent to the Harbor's General Residential and Special Residential districts. Minimum lot size and frontage requirements are presented in Table 14.1.

Table 14.1 Boothbay and Boothbay Harbor Dimensional Requirements in Adjacent Zoning Districts

TOWN	ZONING DISTRICT	MINIMUM LOT SIZE	MINIMUM FRONTAGE
Boothbay Harbor	General Business	10,000 sf res[1]	50 ft
Boothbay	Village	20,000 sf	100 ft
Boothbay Harbor	General Residential	10,000 sf[2,3]	50 ft
Boothbay Harbor	Special Residential	10,000 sf[2,4]	50 ft
Boothbay	General Residential	40,000 sf	100 ft

1. Without either town water or sewer - 20,000 sf
2. With only town water - 20,000 sf
3. Without either town water or sewer - 40,000 sf except multi-family - 20,000 sf
4. Without either town water or sewer - 40,000 sf

Local Economy

The majority of jobs and services within the two communities are located within Boothbay Harbor, especially given the many retail businesses tied to the tourist industry. Most restaurants, attractions, accommodations, and shops in the Harbor, however, are seasonal. Another strength of the town has been Lincoln County Health Care (the St. Andrews Campus and St. Andrews Village). In Boothbay, major employers include Hodgdon Yachts, Washburn and Doughty, and Bigelow Laboratory for Ocean Sciences. Many individuals live in one community and work or own businesses in the other.

Education

AOS 98 serves Boothbay Harbor, Boothbay, Edgecomb, Southport, and Georgetown. Both the Boothbay Region Elementary School and the Boothbay Region High School are located on Townsend Avenue in Boothbay Harbor. In addition, Southport, Edgecomb, and Georgetown have their own elementary schools.

Recreation

The central location for organized non-school recreational activities for both Boothbay Harbor and Boothbay residents is the Boothbay Region YMCA. It has adequate capacity, facilities, and programming to meet the needs of most residents.

Public Facilities

Boothbay and Boothbay Harbor operate separate fire departments. Boothbay Harbor has a police force while Boothbay relies on the Lincoln County Sheriff for police protection. Emergency dispatch is through the County's 911 operation. The towns (along with Southport) share an ambulance service, which is housed in Boothbay. Until recently, St. Andrew's Hospital in Boothbay Harbor provided full hospital services but has now been converted to an urgent care center. The communities share a library, public water, public sewer, and waste disposal services.

Transportation

Route 27 is the central artery serving both communities. As noted previously, it is not possible to drive to or from Boothbay Harbor without using Boothbay's transportation infrastructure.

Natural Resources

Both communities share extensive coastal shore frontage. Boothbay's tends to be in residential use with some exceptions such as Bigelow Lab, the East Boothbay shipyards on Route 96, the Botanical Gardens, and tourist accommodations. Boothbay Harbor's shoreline supports most of the peninsula's fishing industry as well as extensive lodging, restaurant, resorts, residences and other facilities catering to tourists and seasonal residents.

Boothbay Harbor is much smaller and more densely developed than Boothbay. Boothbay has more extensive woodlands and undeveloped land. Adams and Knickerbocker Ponds, which supply water to the Boothbay Region Water District, are located in Boothbay while West Harbor Pond is located in Boothbay Harbor.

The Boothbay Regional Land Trust maintains extensive land holdings, easements and trail systems in both communities.

Housing

The supply of affordable housing is crucial to the future economy of the peninsula. Boothbay Harbor has a relatively limited supply of easily developable land for housing. Boothbay, on the other hand, has more land suitable for typical suburban or rural residential development, although one limiting factor may be lack of access to public sewer.

APPENDIX A: Boothbay Region Water District

Proposed Capital Improvements 2013

PROJECT	DESCRIPTION	DATE
Southport Interconnection and Water Tank Replacement Project	8,000 of 12" and 8" main as well as installation of a new pre-stressed concrete standpipe equal to Mt. Pisgah Standpipe	In process
Paine Road Water Main Replacement Project	500 ft 6" HDPE + 1 hydrant	September 2013
Oak Street Water Main Replacement Project	2,100 ft of 8" water main	FY 2014
Sophia Way - Highland Park	800 ft. 8" HDPE	September 2014
Industrial Park Boothbay	5,200 ft 12"/8"	TBD
Hendricks Hill	1,000 ft 8"/6"	FY 2015
Galvanized Main Replacement	1,100 ft 8"	FY2016
Sprucewold Phase 1	2,000 ft 8" Sunset to Crest	FY 2016
Pisgah Tank Exterior Coating		FY 2017
Sprucewold Phase II	2,000 ft 8" & Booster Pump Station Lobster Cove up Crest	FY 2017
Atlantic Ave Upgrade	3,600 ft 12"	FY2018
Sprucewold Phase III	Connect Phase I to Phase II	FY 2018
West Street Upgrade	850 ft of 8"	FY 2019
Campbell Street Loop	600 ft 8" HDPE	FY 2019
Galvanized Water Main	850 ft 8"HDPE	FY 2020

APPENDIX B: 2013 Community Survey

Do you live in Boothbay Harbor? *(% of only those responding to question)*		
Yes	124	74%
No	42	25%

Do you own or rent your BBH Residence? *(% of only those responding to question)*		
Own	105	88%
Rent	14	12%

What kind of dwelling do you live in? *(% of those responding; % exclude 'other')*		
Apartment	11	9%
Single-Family House	99	84%
Mobile Home	4	3%
Condominium	4	3%

How long have you lived in BBH? *(% of those responding; % exclude 'other')*		
Less than 1 year	12	10%
1-5 years	17	14%
6-10 years	15	13%
11-20 years	33	28%
21+ years	43	36%

Are you a seasonal or year-round resident? *(% of only those responding to question)*		
Seasonal	11	10%
Year-round	104	90%

Do you plan to make Boothbay Harbor you permanent residence? *(% of only those responding to question)*		
Yes	7	54%
No	6	46%

What is your employment status? *(% of only those responding to question)*		
Employed in BBH	53	43%
Employed outside of BBH	6	5%
Retired	38	31%
Unemployed	7	6%
Disabled	3	2%
Business owner in BBH	15	12%
Business owner outside of BBH	1	1%

Do you work out of BBH as any of the following? *(% of all survey respondents)*		
Commercial Pilot	0	0%
Merchant Marine	1	1%
Fisherman	2	2%
None (note – this includes those who do not work out of town)	128	97%

During the next five years, do you expect to (choose all that apply): *(% of all survey respondents) People may select more than one checkbox*		
Move from BBH	11	7%
Build a residence in BBH	5	3%
Sell your home	12	7%
Buy a residence in BBH	8	9%
Sell undeveloped land within BBH	0	0%
Subdivide land in BBH	3	2%
Start a business in BBH	6	7%

Would you support higher local taxes to improve or expand services of facilities? *(% of only those responding to question)*	Yes	No
Fire Protection	34 47%	38 53%
Recreational Facilities	26 33%	43 67%
Ambulance	39 53%	35 47%
Road Maintenance	33 49%	35 51%
Snow Removal/Sanding	17 29%	41 71%
Medical Facilities	38 54%	33 46%
Police Protection	23 43%	41 57%
Code Enforcement	13 22%	47 78%
Public Access to the Shore	30 42%	41 58%
Town Docking Facilities	25 38%	41 62%
Library	31 46%	36 54%
Town Office	7 13%	49 87%
Youth Services	27 44%	34 56%
Elderly Services	26 41%	38 59%
Solid Waste Disposal	14 26%	39 74%
Public Water Service	17 30%	40 70%
Public Sewer Service	22 39%	36 61%
Pedestrian Facilities	36 49%	37 51%

Please check your opinion of the following *(% of only those responding to question)*	Adequate	Needs Improve-ment	Not Sure
Fire Protection	113 77%	15 10%	19 13%
Recreational Facilities	92 66%	38 27%	10 7%
Ambulance	96 69%	20 14%	24 17%
Road Maintenance	101 69%	40 27%	6 4%
Snow Removal/Sanding	126 88%	7 5%	10 7%
Medical Facilities	60 42%	57 40%	27 18%
Police Protection	130 90%	9 6%	6 4%
Code Enforcement	95 65%	29 20%	23 15%
Public Access to the Shore	68 46%	68 46%	12 8%
Town Docking Facilities	66 45%	54 37%	27 18%
Library	102 70%	34 23%	10 7%
Town Office	125 85%	9 6%	13 9%
Youth Services	61 42%	40 28%	43 30%
Elderly Services	61 42%	43 29%	43 29%
Solid Waste Disposal	115 79%	10 7%	21 14%
Public Water Service	112 76%	15 10%	20 14%
Public Sewer Service	100 69%	15 10%	30 21%
Pedestrian Facilities	52 36%	72 50%	20 13%

Do you feel that any of the following is a problem? *(% of only those responding to question)*	Job Opportunities		Affordable Housing		Summer Traffic		Property Taxes		Public Transportation		Health Care Services		Population Growth		Drinking Water		Air or Water Quality		Parking		Public Restrooms	
Yes	128	*82%*	111	71%	87	58%	55	38%	98	63%	90	60%	43	29%	19	13%	10	7%	93	62%	62	43%
No	29	*18%*	44	29%	64	42%	89	62%	57	37%	61	40%	103	71%	127	87%	134	93%	56	38%	82	57%

Do you feel that the town government is responsive to your needs? *(% of only those responding to question)*		
Yes	105	*74%*
No	37	*26%*

SCHOOLS

Do you have children of school age? *(% of only those responding to question)*		
Yes	25	*15%*
No	139	*85%*

Do they attend schools in Boothbay Harbor? *(responses are only from those with school age children)*		
Yes	19	*76%*
No	6	*24%*

Do you feel local schools are adequate? *(responses are only from those with school age children)*		
Yes	17	*74%*
No	6	*26%*

GROWTH			
In the next ten years, would you like Boothbay Harbor's population to: (%of only those responding to question)			
	Stay the same	*40*	*42%*
	Increase	*54*	*57%*
	Decrease	*1*	*1%*

If population growth does occur, should town ordinances encourage any of the following types of housing? *(% of only those responding to question)*	Yes	No	Undecided
Single-family houses	125	9	19
	82%	6%	12%
Duplexes	79	37	30
	54%	25%	21%
Apartments	97	30	21
	66%	20%	14%
Affordable Housing	105	22	27
	69%	14%	17%
Mobile Homes or Individual Lots	33	87	26
	23%	60%	17%
Cluster (or open space) Housing	56	56	34
	38%	38%	14%

If BBH continues to grow, where would you prefer to see most of the development take place? *(% of only those responding to question)*	Anywhere in Town	In Specifically Designated Areas	Close to the Village	Nowhere in Town	Undecided
Residential	56	18	13	1	11
	57%	18%	13%	1%	11%
Retail & Service	33	34	21	0	6
	35%	36%	22%	0%	7%
Light Manufacturing	15	63	1	8	10
	15%	65%	1%	8%	11%
Industrial	10	61	2	12	11
	10%	64%	2%	13%	11%
Marine-Related	36	44	3	1	12
	38%	46%	3%	1%	12%

State law requires the town to permit mobile home parks, but it does give towns some discretion as to where they may be located. In which of the following areas of town do you think that mobile home parks should be allowed? Please check only one. *(% of all responses except "other")*			
	Anywhere in town	18	13%
	In remote areas	27	19%
	Along major roads	13	9%
	Anywhere except near built-up residential areas	15	10%
	In as few places as possible	63	44%
	Adjacent to commercial areas	8	1%

Should historically significant structures in Boothbay Harbor be protected? *(% of only those responding to question)*			
	Yes	132	82%
	No	9	6%
	Undecided	20	12%
Should Boothbay Harbor enact measures to preserve traditional views to the harbor from major local roads such as Townsend Avenue, Commercial Street, Union Street, Atlantic Avenue, West Street, or Western Avenue? *(% of only those responding to question)*			
	Yes	129	81%
	No	8	5%
	Undecided	23	14%

Would you support policies that promote harbor development for the following: *(% of only those responding to question)*	Commercial Fishing		Recreational Boating		Marine Support Services		Multi-modal Transportation Hub		Fish Processing		Residential		Cruise Ships		Aquaculture	
Yes	140	83%	136	81%	144	86%	69	41%	104	62%	110	65%	103	61%	109	65%
No	6	4%	9	5%	4	2%	35	21%	27	16%	28	17%	25	15%	21	13%
Undecided	13	8%	12	7%	10	6%	47	28%	26	15%	13	8%	25	15%	23	14%

TOURISM Tourism is a key part of Boothbay Harbor's economy. Do you feel this sector should be strengthened? *(% of only those responding to question)*			If yes, how can it be strengthened?	Job training for tourist businesses		Business planning/ financing assistance		Improved transit parking		Improved marine water quality		Different marketing/ promotion efforts		Develop new sectors, ie. eco/ cultural tourism		Improved facilities for boaters	
Yes	126	80%	Yes	90	69%	98	74%	116	87%	72	56%	103	78%	111	82%	103	77%
No	15	10%	No	18	14%	17	13%	10	7%	26	20%	12	9%	7	5%	14	10%
Undecided	15	10%	Undecided	23	17%	17	13%	8	6%	31	24%	17	13%	17	13%	18	13%

Do you feel the proposed off-shore pilot wind energy project will bring new jobs and economic activity? *(%'s of only those responding to question)*			
	Yes	88	57%
	No	27	17%
	Undecided	40	26%

Do you feel the proposed off-shore pilot wind energy project will minimize environmental impacts in acceptable ways? *(%'s of only those responding to question)*			
	Yes	81	53%
	No	25	17%
	Undecided	46	30%

How important is maintaining small town way of life in Boothbay Harbor? *(%'s of only those responding to question)*			
	Very Important	144	91%
	Not very Important	13	8%
	Unimportant	1	1%

APPENDIX C: Boothbay Harbor Comprehensive Plan

Public Participation Summary

An ad was published in the Boothbay Register in July, 2012, soliciting members of the public to submit applications to serve on the Comprehensive Plan Committee. Notices were posted at the town office and published in the Boothbay Register for both Public Informational Meetings and notice for the Public Hearing was posted at the town office and on the town's website and published in the Boothbay Register at least 30 days prior to the hearing. Notices for all other meetings were posted at the town office. All meetings of the Comprehensive Plan Committee were open to the public. Printed copies of the draft Comprehensive Plan were available at the town office and digital copies the plan were available on the town and LCRPC websites.

Boothbay Harbor Comprehensive Plan Meetings					
Meeting Date	Regular Committee Meeting	Public Informational Meeting	Community Visioning Meeting	Selectmen's Meeting	Public Hearing
10/24/2012	X				
11/29/2012	X				
1/3/2013	X				
2/7/2013	X				
3/7/2013	X				
4/11/2013	X				
5/9/2013	X				
5/23/2013	X				
6/13/2013	X				
7/24/2013	X				
8/21/2013	X				
10/3/2013	X				
10/24/2013			X		
11/3/2013	X				
12/5/2013	X				
1/9/2014	X				
3/19/2014	X				
4/10/2014	X				
5/8/2014		X			
5/22/2014	X				
7/14/2014				X	
9/24/2014		X			
2/26/2015					X
TBD 3/2015				X	

APPENDIX D: Periodic Evaluation of the Plan

Every five years the Planning Board will evaluate the degree to which the future land use plan strategies have been implemented. The Board will work with the Town Administrator to determine the percent of municipal growth-related capital improvements that have been made in growth areas and determine the amount and location of new development that has occurred in designated growth and rural areas. Finally, the Board will update the amount of critical natural resource and critical rural land that may have been protected by acquisition, easements or other measures during the previous five-year period. The results of the Planning Board's evaluation will be presented to the Select Board for its consideration.