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Town of Chebeague Island, Maine

Comprehensive Plan

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Volume I: Findings, Goals and Recommendations

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Town of Chebeague Island Comprehensive Plan

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Volume I: Findings, Goals and Recommendations

A FUTURE VISION FOR CHEBEAGUE

In the year 2020 the Town of Chebeague Island has clean waters and shorelands. The rural character of all the islands has been preserved by actively protecting wild areas from development. On occupied islands rural land uses, such as farming and forestry, are encouraged. The public has access to some of the Town's uninhabited islands though some are particularly protected during nesting season so that they may remain the home of nesting seabirds. The Bay provides sustainable economic and recreational benefits to residents and others. Productive, unpolluted clam-flats also provide economic and recreational opportunities. Fishermen control the sale of, and can increase the value of, their products. Public access to the shore has been increased.

Although it is geographically isolated from the mainland in a state with an aging population, Great Chebeague Island sustains a demographically diverse year-round community by providing a varied economic and social life on the island, with access to the advantages of the Portland metropolitan area. A reliable, affordable multi-modal transportation system provides access to jobs, health care, other services and entertainment on the mainland, without encouraging "too much" development on the island. Adequate parking for CTC is available on Chebeague. Up to date communication technology creates more flexible economic and educational opportunities, and binds the extended Chebeague community together.

The island School provides individualized, quality education in multi-age, multi-grade classrooms. Enrollment fluctuates but stays within a range that allows for effective education. Education at the middle school and high school levels on the mainland provides the advantages of larger, more diverse schools. The community supports students who want to participate in extracurricular activities. Freedom of movement and enjoyment of Chebeague's shores and open spaces, coupled with organized recreation and day care provide a safe and supportive environment for children. Taken together, these services and the "village" that provides them have made the island attractive to working families with children.

Working, year-round residents include fishermen, local business owners, artists, crafts people, commuters to jobs on the mainland and telecommuters on Chebeague. The island provides economic opportunities for people of varying ages and socioeconomic backgrounds. Services from health care to recreation, and from car registration to issuing clam licenses are provided on the island. Housing that is affordable and designed to meet the needs of people of various ages is now available.

The population of older residents is made up of retiring baby-boomers who have lived on the island for much of their lives or have been coming to the island as summer people. These residents have time, energy and skills to work with other residents on community projects. The island's health care has kept pace with this growing group, as has the provision of home-care, assisted living and rescue services.

Year round residents define the island's basic values – valuing personal independence, combined with mutual support and cooperation. The island encourages multi-generational interaction. Day to day as well as social activities encourage exchange of ideas and mutual respect. Residents

volunteer with non-profits from the Commons to Chedemption, work on Town committees and celebrate together on the holidays that mark the passage of each year. The rich historical, archaeological and architectural resources of the island are preserved.

The summer population is still largely made up of families with multi-generational connections to the island, who are also committed to helping Great Chebeague remain one of Maine's last viable year-round island communities. Summer people as well as summer businesses providing lodging, meals and activities contribute substantially to the island economy and to its social institutions.

The development that has occurred over the past ten years has been guided to be compatible with existing scale and styles of architecture. Islanders have built onto existing hamlets and have developed new neighborhoods. Renovation and conversions are sensitive to the integrity of the island's vernacular architecture. Zoning is business friendly and supports economic development that is compatible with neighboring residential uses. Despite increased numbers of houses and businesses, residents have worked over the past ten years to improve the quality of the groundwater and the waters of Casco Bay.

Residents work with the Town and island non-profits to enhance the island's infrastructure such as roads, community buildings whether public or non-profit, the cemetery and marine infrastructure. The relationship between the Town and the non-profits in providing services has evolved to take advantage of administrative and operational efficiencies. Environmentally friendly transportation and energy sources are encouraged. Ordinances from parking to zoning are developed by island people and are enforced strictly and fairly.

The Town of Chebeague Island became independent in 2007. We preserve our past and our small-town character as we continue to plan for the Town's future.

PART I:
INTRODUCTION AND SUMMARY

1. INTRODUCTION

Living on an unconnected island is different from living on the mainland. The issue of sustainability is more immediate, both sustainability of the natural environment and the sustainability of the human community. This presents a challenge to islanders to commit to cooperating with each other to create a balance that can support the community, while preserving its environment.

Great Chebeague Island is the largest island in Casco Bay, about 4 miles long and 1.4 miles wide at the widest points. The Town of Chebeague Island (Map 1) covers 12,701 square acres, 10,482 of which are water. It also includes 17 islands – Great Chebeague, Hope, Ministerial, Stave, Stockman, Bangs, Bates, Sand, Crow, West Brown Cow, Little Jewell, Goose Nest, Rogues, Broken Cove and Upper Green, and parts of Jewell and Little Chebeague.

All of the islands are un-bridged. Great Chebeague is served by two ferries. Chebeague and Hope have year-round populations. Only Chebeague has town infrastructure and services. Bates, Ministerial and Stave are privately owned and are occupied only in the summer. The rest are owned by the State or by the Chebeague and Cumberland Land Trust.

History

Long before Europeans came to America, the islands of the Town were occupied by Native Americans who were their first summer residents. They depended on the extensive fish and shellfish resources of the islands, leaving large shell middens along the shore. Indeed more of these sites have been found on Great Chebeague than in any other place in Casco Bay.

“European” settlers came to the islands in the late 1740s. Many came from North Yarmouth and had deep roots in Massachusetts. The new Maine Legislature allowed the Town of Cumberland on the mainland to secede from North Yarmouth in 1821 after the people of Chebeague voted to join Cumberland. From that time until 2007 all of the TOCI islands were part of the Town of Cumberland.

The island residents farmed the land and earned livings on the sea as mariners and fishermen. In the 19th century Bangs, Bates, Ministerial, Stave, Jewell, Crow and Hope Islands supported year-round settlements in addition to Great and Little Chebeague. After the civil War, 40 percent of the Town of Cumberland’s residents lived on the islands. By that time Chebeague had a thriving economy based on rock slooping and fishermen. The mariners from Chebeague built breakwaters, wharves and lighthouses from Eastport to St. Augustine Florida, while clam diggers provided salted bait to the Grand Banks fishing fleet.

As those industries declined, Chebeague sustained its year-round community by adopting new economic activities. During the late 19th and early 20th centuries, Chebeague became a popular summer resort with as many as fourteen hotels and boarding houses. Even so, an outmigration of the islands’ youth began in the 1890s, resulting in a loss of about 40 percent of the population by 1920. Some people moved back to the island during the Great Depression, and the population has been relatively stable ever since.

World War II was a busy time on Chebeague, as the island became one of a string of Casco Bay islands that formed the defense of Casco Bay's large, deepwater harbor, an important staging area for trans-Atlantic convoys. The Army built shore defenses and an anti submarine net between the islands.

After the war, many the soldiers who had gone off to fight did not return to the island, and many of the island girls who had met soldiers stationed on the island during the war, married them and moved away. Islanders worried that the island was facing another period of decline. They organized a variety of efforts to make the island a more attractive place for working people to live, building a new school, recruiting a doctor to live and work on the island, and even trying, unsuccessfully, to get the State to build a bridge to the island from the mainland.

Then, in the 1970s a number of retirees from the mainland moved to the island. Because of improved ferry service it became possible for workers to live on the island and commute to jobs on the mainland. By the 1980s Chebeaguers were glad they had not gotten a bridge, as the pace of development increased.

The year-round population remained stable. Gradually Cumberland ceased to be a community of farmers and became an up-scale suburb of Portland. The major employment on the island continued to be fishing, with a loyal summer community. Each community faced its own, quite different challenges. In 2005 SAD 51 seemed to be moving toward closing the very small and expensive Chebeague Elementary School within the next few years, thereby undermining the survival of the year-round, working community. At that point Chebeague petitioned the State Legislature to allow the island to secede from The Town of Cumberland and SAD 51. In 2006 the Legislature approved the secession of the islands and their incorporation as an independent town. The Town was inaugurated on July 1, 2007.

Why Does the Town of Chebeague Island Need a Comprehensive Plan?

Sustainability is a central theme in this Plan. On an island, clean groundwater is essential for people and animals and is clearly a finite resource that could be made unusable by the residents themselves. For an economy based substantially on fishing, issues such as pollution of the Bay, protection of spawning grounds and nursery habitat for fish and the sustainability of the lobster harvest, the only substantial fishery left, are equally critical.

Since 80 percent of the area of the Town is Casco Bay, planning over the long term for the use of the Bay's waters is as significant to the Town as planning for the land. This is complicated in that the Town's waters belong to, and are largely controlled by, the State. Local planning for inshore/harbor areas is encouraged by the State, but local planning for deeper waters is an unexplored territory. Though the State's waters have traditionally been considered to be a "commons" available to all users, as increasing demand has developed for more diverse uses, from aquaculture to wind-power, the State has been privatizing the bottom by leasing it for specific uses. This is an issue of great concern to the Town of Chebeague Island's fishermen. This Plan encourages Town planning for all of the Town's waters.



Map 1

The year-round working community as it exists now may not be sustainable. The independent Town of Chebeague Island can now keep its island school open and can make schooling on the mainland more convenient, but it must also be able to attract working families who may find it difficult to find jobs on the island that pay enough to afford the high cost of living, especially for housing and transportation.

Somewhat less central to the survival of the year-round community, but quite important to the attractiveness of the island as a summer community, is the issue of maintaining the rural character of the island. After a long period of very low growth from the 1930s to the 1970s, Great Chebeague has seen a burst of growth, particularly in housing construction. Today, 21 percent of all the houses on the island have been built during the past 20 years alone.

Chebeague has always had a dispersed pattern of development, both of houses and of businesses and community institutions. But houses were often grouped into loose “hamlets”, separated by land that was farmed, or, later, by land that had once been farmland, but had now grown up into woods. The substantial growth of the past 20 to 30 years has somewhat blurred this pattern, leaving year-round and summer residents worried about the threat of “development” and the loss of open space and rural character. Of course, this is a case of “we have met the enemy and it is us”. Development is not being done by some impersonal “outside” force, but by year-round and summer residents of the Town. The Comprehensive Plan can propose ways to keep less developed areas rural by encouraging future development to occur in already developed areas.

The Town also needs to have a Town Comprehensive Plan in order to revise the Zoning and Subdivision ordinances that were inherited from the Town of Cumberland. Since these ordinances were originally developed not only to cover the islands but also to regulate development on the mainland, they are, in many cases, more elaborate than the islands need. In other cases they do not adequately deal with issues that this Plan has found are important on the islands.

Now that the islands are an independent town, residents may be willing to tackle planning issues from aquifer protection and land use ordinances, to working to reduce the cost and inconveniences of living on the island, to preserving open space, repairing the roads or planning for the Town’s waters.

Capacity to Implement the Plan

That said, the Town is a small community. Only 333 people live on the island year round. An additional 1,400 people may be on the island in the summer at any given time. Many of the summer residents have been coming to Chebeague all their lives, as their parents did before them, and are active in the community.

The Town staff is minimal, and busy: an administrator, two town clerks, assessor, CEO, harbormaster and road crew. The School District adds a superintendent, three teachers, cook/custodian and bus driver. The Fire and Rescue personnel are all volunteers. In addition the Town has committees staffed by volunteers: Shellfish, Coastal Waters Commission, Planning Board, Board of Zoning Appeals, Ordinance Review as well as Comprehensive Planning. Five

Selectmen and five School Committee members are elected by Town Meeting to run the Town and the School District.

Financial capacity is also limited. When the Town became independent it took on a large load of debt to the Town of Cumberland and SAD 51. The Town has also been committed to keeping taxes low and stable.

Beyond the Town government, the island has more than a dozen non-profit organizations and clubs from the Chebeague Island Community Association to the Yacht Club. These organizations draw their membership and often their board members from both the year-round and summer residents. They provide many services and activities that in other towns may be provided by the Town. Because they draw on both summer and year-round residents, they expand greatly both the personnel base and the fundraising capacity of the island. But their fiscal capacity is also limited because they rely on private donations to fund their day to day operations, and there are many of them asking for support. Though this plan is a Town plan, several sections of this Plan depend on the Town working with and through these organizations for implementation, if the voluntary organizations choose to take on issues raised here.

These constraints have been considered by the Comprehensive Planning Committee in developing its recommendations.

The Plan is a Beginning

This Plan and its many recommendations is a milestone for a Town that has only been existence since 2007. It lays out a series of issues that face the new Town and makes recommendations about ways to deal with them. It is the beginning of the discussion about how the Town might deal with the issues and problems described here. The scope of the Plan is five to ten years. It recommends the creation of several additional Town Committees, related to land use, aquifer protection, open space, historic and archaeological preservation, roads and capital planning, that would work on exploring these issues further and developing additional plans, or policies and ordinances over that period of time. In some cases these committees may work closely with island non-profits.

In order to become Town policies or ordinances the ideas here not only have to be developed in more detail by Town committees, sometimes with the help of outside consultants. In addition, they must be discussed in public meetings, considered by the Selectmen, and, in many cases, brought up for a vote at Town Meeting. During this process, the way an issue has been defined in this Plan may be redefined, based on additional information and public input, and the specific ideas for policy solutions may change from the ones presented here. This Plan is intended to start the discussion.

Past Planning

In 2000 Great Chebeague wrote its first Long Range Plan, which became an element of the Town of Cumberland's Comprehensive Plan. It did not propose significant changes in Cumberland policies or ordinances. But a number of less ambitious recommendations of that Plan were accomplished in the ten years since 2000 both under Cumberland and under the new Town of Chebeague Island:

- Permanent arrangements were made for continued use and maintenance of the Cousins Island Wharf.
- 20 acres of undeveloped land were protected by conservation easements.
- Work began on affordable, year-round housing – one house was acquired.
- A plan was developed for the maintenance and use of Chandler’s Cove Beach.
- A major project to remove junked cars was successful.
- Another, funded by the State, to replace hazardous home heating oil tanks was successful.
- Barriers to the provision of child care were eliminated by the creation of Kids Place.
- Since the Town became independent, tax rates have been stabilized.

Today many, but not all of the issues remain the same as in 2000. In general, the public’s vision for the Town is also quite similar to the vision of 2000. Indeed the recommendations in this Plan ten years later may sometimes sound familiar to someone who knows the 2000 Plan. One difference, however, is that we have slowly growing experience of dealing with problems, and we recognize that the work is hard and has to be on-going.

But the biggest difference is that we are now an independent town, able to work on these issues directly if we so choose. The other side of this is that now that we are independent, these are our issues to grapple with.

The Planning Process

The Town of Chebeague Island became an independent municipality on July 1, 2007. During the transition year of 2006-07 a group of 11 people had worked to develop the Building Codes, and the Zoning and Subdivision Ordinances that would be put before the first Town Meeting that day. By agreement among all the members of the Transition Committee, its various subcommittees were told to work with the Town of Cumberland ordinances and administrative procedures that had been in force on the islands for many years. In particular, a year would have been too short a time to develop and publicly review new ordinances for the Town. Instead, the Transition Land Use Subcommittee reviewed the Cumberland Zoning and Subdivision ordinances, noting issues that would need to be dealt with when the Town would get to a comprehensive revision.

While the 2000 Long Range Plan was adopted as the Town’s Comprehensive Plan at the first Town Meeting, everyone on the Transition Land Use Subcommittee recognized that a new comprehensive plan would be needed before any revision of the land use ordinances could take place. Many of the issues that would be discussed in a new plan would probably be similar to ones in the 2000 Plan. But the new town would have the opportunity and in some cases new powers to look at them differently. So the Chair of the Transition Land Use Subcommittee applied during the transition year for funds from the State Planning Office and for an Island Institute Fellow to support the anticipated comprehensive planning process.

Initially, it was hoped that the planning process might take a year, as had the process for the 2000 Long Range Plan. In the end it has taken three years of hard work by a diligent and committed group. Highlights of the process were:

- In early 2008 the Comprehensive Planning Committee began to meet. Initially 21 people signed up and in a couple of months that had settled down to 17 regular members. By the end of the process the Committee was down to about 10 people.
- The Committee's two initial tasks were (1) to hire a consultant to help us, and (2) to become familiar with the State Guidelines for communities developing comprehensive plans. The consultants hired were Hugh Coxe of New England Planning Concepts and Judy Colby-George of Spatial Alternatives.
- Island Institute Fellow Thea Youngs began to work at the Town office in September 2007. Her task was to develop a GIS system for the Town, starting with maps of Chebeague that had been done by the Town of Cumberland. Her primary responsibility was to work with the Comprehensive Planning Committee to develop maps that would display and analyze data for the plan. She scoured government agencies and private organizations for material, and worked with the group for two years, as well as an additional month in the summer of 2010. Ultimately she developed about 65 fully documented maps.
- The Comprehensive Planning Committee normally met twice a month except in the summer. In the last six months we met every week. As the inventories indicate, some work was done in subcommittees, some by individuals and some by the Committee as a whole.
- The State-required analyses of conditions and trends were often quite elaborate. The State Planning Office (SPO) supports local communities preparing plans by making available to them a wide variety of data collected by the State and Federal governments. As a newly created town, however, there was little data on the TOCI. So the Committee worked with what data was available and collected its own when there was none.

The central element of the State Guidelines is the Future Land Use Plan. The Guidelines assume that towns have a village center, and the Guidelines focus attention on keeping new development there including new public capital investments, to reduce the problem of sprawl. The planning mechanism for this is to have towns designate "growth areas", "rural areas" and "critical natural resource areas".

In the Town of Chebeague Island, however, the most important planning issues are only somewhat related to land use. The preservation of rural character is an issue that many people care about. But the preservation of the year-round economy and community are also important and are only marginally related to land use. Planning for the Town's waters is not something that the state guidelines cover. Committee members also wanted to have chapters in the plan on education and energy which are not included in the State Guidelines either.

Although the Guidelines provide criteria for communities to argue that they should be given an exemption from defining growth and other kinds of areas, at a meeting on Chebeague SPO representatives discouraged us from doing so. A thorough analysis was

done in September 2008 to see if Chebeague met these criteria. It met some but not others, and the Planning Committee decided that the application for an exemption would not be sufficiently strong.

- Through the fall and winter of 2008-09 the Committee worked on 17 inventories that describe all aspects of the Town from its population, to its economy, its natural resources, its land use patterns and its public and non-profit services and facilities. These inventories provided the basic data for identifying planning issues and formed the basis for developing recommendations in each topic area. These inventories are available on the Town website (www.townofchebeagueisland.org) and in the Library.

A public meeting was held on the Natural Resource inventories to see whether the important issues had been identified and covered. The meeting was interesting, and the conclusion was that the issues had been adequately identified. Since the inventories did not make policy proposals, the Committee decided that the results did not justify having similar meetings on the other inventories.

- During the 2008-09 winter a subcommittee developed a survey to be sent to all year-round and summer residents asking them, in a series of open-ended questions on topics such as transportation, land use and town services, what they wanted the Town of Chebeague Island to be like “for the next generation”. The survey report is attached to the inventories and is also available on the Town website (www.townofchebeagueisland.org) and in the Library.

The survey, a *Newsletter* on it distributed to everyone in the community, and a public meeting held in July 2009 formed the basis for the *Future Vision for Chebeague*. It is the starting place for this Plan.

- During the Fall of 2009, with 14 of the inventories completed, the Planning Committee began to work on developing recommendations for each substantive area. This began with an exercise to identify which issues were the most important to deal with. The process of working on the recommendations lasted through the winter and spring of 2010. Some were easy, with fairly obvious recommendations that everyone could agree on. Others took hours of meetings and discussions.
- In late summer of 2010 and through the fall, a series of four public meetings were held on various sections of the plan as their draft recommendations were completed.

Public Participation

Great Chebeague Island has a year-round population of about 333 people, most of whom expect to be involved in making Town decisions. In a crisis more than a hundred people may come to meetings.

Developing a comprehensive plan does not qualify as a crisis. All Comprehensive Planning Committee meetings were open to the public and noticed in the island’s monthly *Calendar*. Occasionally someone not on the committee would attend. There was a constituency of about 30

to 50 people who came regularly to the public meetings held by the Committee. The Committee was unable to consistently involve many young people, the future of the community, in the process. But when meetings covered topics of direct relevance to their lives, some came.

Public Meetings

July 2008	Kickoff meeting
March 2009	Report on Natural Resource inventories and discussion of issues.
July 2009	Report on the survey and Visioning Workshop
August 2010	Two public meetings on the recommendations on Future Land Use
October 2010	A meeting on the recommendations on the Working Waterfront and Town Waters
November 2010	A meeting on recommendations on Maintaining the Year-Round Working Community
March 2011	A public hearing

Each of the public meetings, except the initial one, was preceded by the mailing of a 8-12 page newsletter to all postal patrons about the topic or recommendations being discussed. The meetings on recommendations also ended with a written “exercise” for all participants to give them a chance to tell us their individual reactions to the recommendations. The public hearing was preceded by a 36 page summary of the Plan and its recommendations and residents were asked to give the Committee the priorities they would assign to the various recommendations. All of these reports are included with the inventories on the Town website.

After each of the meetings on recommendations the Comprehensive Plan Committee met to consider changes to the recommendations in light of the meeting and the tabulation of the exercises. In some cases changes were made to the draft recommendations; in others they were not.

In addition to these meetings, information about the Plan and the planning process were communicated through:

- Short updates in the island’s monthly *Calendar*.
- The Town website.

In such a small community developing a comprehensive plan is also not done in a vacuum. Members of the Comprehensive Planning Committee are involved in non-profits and other community organizations which make proposals to the community that are discussed at community-wide meetings. Both the research for and the discussion at these community meetings have been influential in developing recommendations for the Plan.

- In the fall of 2009 there were a number of community meetings as well as Selectmen’s meetings and Planning Board hearings on setting up a day-care center.
- Between February and June 2010 there were a series of community meetings as well as Selectmen’s meetings on the issue of affordable housing.
- In May 2010 there was a public hearing on a Town Road Plan.

Participation by people from the TOCI outer islands:

At the beginning of the comprehensive planning process, a letter was sent to each of the owners of property on Hope, Bates, Ministerial and Stave. One person responded but no one took up the invitation to be involved in the planning process. The final plan is being sent to the same 12 people.

Regional Coordination and Shared Resources

As a Town made up of un-bridged, off-shore islands, the TOCI has relatively few shared facilities with other communities. However, there are two areas of the Town operations which are critically interrelated with services provided on the mainland. One is the School system. The other is the Fire and Rescue service.

The Chebeague Island School serves children through fifth grade. After that they take the ferry to the mainland to attend middle and high school. When Chebeague seceded from Cumberland and SAD 51, the separation agreement with the school district allowed Chebeague children to continue to attend SAD 51 Middle and High Schools until 2014. The new Town of Chebeague Island paid for this education up front when secession occurred.

As the Education chapter in this Plan indicates, the School Committee has contracted with the Yarmouth School District to take the Chebeague students after 2014. Since Yarmouth and SAD 51 both have good secondary schooling, one of the primary reasons for the change is that transportation to and from Chebeague to Yarmouth schools may be easier than to Cumberland and North Yarmouth. The School Committee has made a proposal to begin the transition to Yarmouth in 2011, with the 6th grade, adding a grade each year until the transition is accomplished. This will be voted on at a future Town Meeting.

It is one of the primary jobs of the School Committee to work with the receiving school district, whether Yarmouth or SAD 51, to integrate the Chebeague curriculum with that on the mainland. The social transition from a very small elementary school to a large, suburban one is also something that the School Committee, Superintendent and teachers prepare for carefully. These are both on-going processes.

The Fire and Rescue Department has mutual aid agreements with Long Island and communities on the mainland. As discussed in the chapter on Public Facilities and Services, Long Island has agreed to answer rescue calls for Chebeague's outer islands because the Chebeague ferry leaves from the north side of the island, while the outer islands are largely to the south of Great Chebeague. Long Island has a rescue boat that can more easily reach these islands.

In addition, the Chebeague Island Rescue has an MOU with the Yarmouth Rescue Department to provide mainland ambulance service for patients from Chebeague. These patients are taken by ambulance from wherever they are injured on the island to the CTC ferry. The ferry takes them to Cousins Island where they are met by the Yarmouth ambulance that transports the patient to a hospital in Portland. Occasionally these calls are answered by some other mainland town under its mutual aid agreement with Yarmouth.

One other relationship with a neighboring town has been of critical importance for Great Chebeague. Over the past 20+ years there has been considerable conflict with some of the residents of Cousins Island and with the Town of Yarmouth over the CTC ferry's use of the Cousins Island pier and the parking lot associated with it. Ultimately, as the Transportation to the Mainland inventory relates, State DOT intervened in the conflict, declaring the use of the wharf an essential public service, taking the parking lot by eminent domain, leasing it to the Town, and providing land next to I-295 in Cumberland to the Town of Cumberland for an additional remote parking lot served by a bus to every ferry. These actions have largely resolved the conflicts, at least for the time being. Finally, in the summer of 2010 MDOT improved the road down to the Cousins Island wharf, building a sidewalk and a turnaround for the CTC buses. For this project, the state paid 80 percent of the cost, and the Town, 20 percent or more than \$150,000.

The major common resource for Chebeague is Casco Bay itself. Lobster catchers participate in DMR's Zone F Council. Some islanders work with Friends of Casco Bay on water monitoring.

The Town is a member of GPCOG and the Town Administrator attends its meetings.

Chebeague works actively with the Island Institute and the Maine Islands Coalition. The Institute works with islanders on many issues from schools to timber harvesting. This Plan benefitted from having an Island Institute Fellow who developed most of the maps. In 2009-10 there was also a Casco Bay Island Fellow who helped several islands including Chebeague to develop affordable housing. Over the past few years the Institute has also been closely involved in the creation of the Calendar Islands Maine Lobster Company which was created and supported by local lobstermen and other island residents, and which markets Chebeague lobster products.

The Maine Island Coalition is a lobbying arm of the Institute. A Coalition meeting on May 16 2008 gave an opportunity for people from various islands to exchange information and experiences on preparing comprehensive plans. The Coalition was also involved in the effort in 2009 to get the State Legislature to adopt an energy efficiency/housing/stimulus bond issue that included a program for the creation of affordable housing on unconnected islands.

2. GOALS, RECOMMENDATIONS AND IMPLEMENTATION: A SUMMARY

Goals and Recommendations

This section lists, in Table 1: Goals and Recommendations, all of the goals and recommendations in this Plan. The table also begins to suggest how the recommendations will be implemented. It specifies what priority each recommendation is given (3 is high, 2 is medium, 1 is low). It lays out who is responsible for carrying it out, with the initials of all the organizations listed in the Key at the beginning of Table 1. Finally it indicates what the immediate result should be – an action by the Board of Selectmen, an ordinance, educational materials or whatever. The rest of the chapter provides an outline of the proposed process of implementation and lays out measures for evaluating that implementation, looking both at the immediate output and longer-range “outcomes”.

This section serves as a summary of both the Plan itself, and what is needed to make its implementation a reality. The section and subsection headings in Table 1 are the same as the section and chapter headings in Part II of the Table of Contents to provide easy reference from the table to where the discussion of that issue is in Part II.

Priorities

Table 1 shows the priorities given to the various recommendations by eight of the nine members active on the Comprehensive Planning Committee at the end of the process, four of five Selectmen (one of whom was a selectman, counted only once), and the four members of the public who responded to the request to rate the priorities in the Plan Summary mailing. The method for rating them was simple. Each person was given a copy of the final recommendations and asked to rate each recommendation on a scale from 0 to 3, where 3 was the highest priority, 2 was moderate, 1 was low priority and 0 was that the recommendation should not be implemented. Then the scores for each item were added together and divided by the number of people who responded on that recommendation. The results were displayed and discussed at several regular Planning Committee meetings.

Based on the discussion at the March 2011 public hearing, the low response rate from the public seems to have been a function of the large number and broad scope of the recommendations. Residents said that it was difficult to decide which should have the highest priority for the Town to implement, particularly because cost estimates were not attached to each one. The Summary of the Plan that was publicly distributed also did not provide pros and cons for each recommendation, though in many cases these are discussed in the full Comprehensive Plan. So this was an interesting, but largely unsuccessful attempt to determine how the public would prioritize a set of general recommendations.

On the other hand, members of the Comprehensive Planning Committee have been working on these recommendations for three years, but they are not representative of the community at large. Members of the Board of Selectmen are elected by the public, and work on the issues discussed in the Plan on a day to day basis. They will also be responsible for beginning the process of

implementing the Plan by creating new Town committees and setting them to work on further development of the recommendations made in the Plan.

Given all these caveats at the way the priorities were arrived at, they should be taken with a grain of salt. In addition, initially the priority ratings from this small group of respondents look like a sea of “medium” rankings, with a few “highs” that everyone can agree on like having a thriving island school and fixing the roads.

But looking at the recommendations in the “medium” category that had ratings between 2.0 and 2.5 (Med*) suggests that there are a number of groupings of one or two “high” rankings with a series of others that are related to them that have ratings between 2.0 and 2.5. These are:

- Sustaining the Community. The two overarching population recommendations came out high as did the recommendation on the school. Related to them are somewhat lower scores that indicate:
 - Support for the limited economic development recommendations, though less for farming and forestry,
 - Support for moderately priced housing,
 - Having the Town continue to work with non-profits on public services.
- Revising the existing Zoning Ordinance, along with other land use measures:
 - Revising the Subdivision Ordinance,
 - Preserving open space,
 - Creating activity centers.
- Creating realistic and long-term capital budgets, with specific mention of
 - The Fire and Public Service Departments.
- Carrying out the recently-created road improvement plan with support for:
 - Additional research on options and costs,
 - Improved road drainage.
- Evaluation of changes in the ferry system.
- Reducing threats to the island’s groundwater, surface waters and Casco Bay such as failed cesspools and poor road drainage, and also including:
 - Creating a Town committee that would work on a range of recommendations for protecting clean ground, surface and Bay waters,
 - Exploring the development of an aquifer protection ordinance,
 - Pumping septic tanks,
 - Minimizing impervious surfaces,
 - Prohibiting the aerial spraying of pesticides.

These ratings, of course, were provided disproportionately by residents directly involved with working on Town Policy and cannot be generalized to all the Town’s residents.

Table 1: Goal and Recommendation Implementation Matrix¹

Key to Names of officials and organizations

Town Meeting	TM		
Selectmen	BOS		
Town Administrator	TA	Chebeague Island Community Asso	CICA
Road Commissioner	RC	Chebeague Island Library	CIL
Town Clerk	TC	Island Commons	IC
Public Works	PW	Chebeague Island Historical Society	CIHC
Fire Department	FD	Chebeague Recreation Center	CRC
Code Enforcement Officer	CEO	Historical Society	CIHS
Harbor master	HM	Chebeague Island Council	CIC
Shellfish Warden	SW	Chebeague and Cumberland Land Trust	CCLT
The Planning Board	PB	The Hall	CIHCC
Board of Zoning Appeals	BZA	Chebeague Transportation Committee	CTC
Coastal Waters Commission	CWC	Casco Bay Lines	CBL
Shellfish Commission	SC	Island Trails Association	ITA
Cemetery Commission	CC	Island Institute	II
Ordinance Revision Committee	ORC		

Proposed Committees

Committee on Land Use Ordinance Revision	LUOC	
Aquifer Protection Committee	APC	
Open Space Plan Committee, aka Land and Conservation Committee		OSPC
Historic Preservation Committee	HPC	
Town Road Committee	TRC	
Capital Planning and Finance Committee	CPFC	

¹ In Table III on the pages below, the count of the recommendation has some skips in the sequence. This is because some blank lines in the original spreadsheet were left out in this version.

Table 1: Goals and Recommendations

Section	Subsection	The Goal Is:	Recommendation	Responsibility	Priority	Output
Section 1	Subsection a	Groundwater				
2. Clean Waters	Ground-water	ADEQUATE, CLEAN GROUNDWATER	Create a standing Town Aquifer Protection Committee (APC)	BOS/TM	Med* ₂	ORC
3. Clean Waters	Ground-water	ADEQUATE, CLEAN GROUNDWATER	Explore the development of an aquifer protection ordinance.	APC; consultant / BOS; TM	Med*	Budget item
4. Clean Waters	Ground-water	ADEQUATE, CLEAN GROUNDWATER	Consider application to the Federal Environmental Protection Administration to have the Town's islands designated as a sole source aquifer.	APC/TA	Med	Application
5. Clean Waters	Ground-water	ADEQUATE, CLEAN GROUNDWATER	Continue ongoing public education about groundwater.	APC	Med*	Education materials
6. Clean Waters	Ground-water	ADEQUATE, CLEAN GROUNDWATER	Continue water monitoring around the old dump.	Consultant	Med*	Monitoring; budget item
7. Clean Waters	Ground-water	ADEQUATE, CLEAN GROUNDWATER	Develop a program to make pumping of septic tanks easier and more regular.	APC / TA / ORC	Med*	program; ordinance?
8. Clean Waters	Ground-water	ADEQUATE, CLEAN GROUNDWATER	Do a survey / build a database of septic systems.	APC/consultant	Med	Data base / budget item

² Med* means that the recommendation had an average rating of between 2.0 and 2.5.

9. Clean Waters	Ground-water	ADEQUATE, CLEAN GROUNDWATER	Institute a Town registration requirement for new and replacement septic systems. Data to be registered should include GPS coordinates and design, and should be comparable to existing data.	APC/TA/ BOS / CEO	Med	Data Base
10. Clean Waters	Ground-water	ADEQUATE, CLEAN GROUNDWATER	Institute a Town well registration requirement for new development. Data to be registered should include GPS coordinates and yield, and should be comparable to existing data.	APC / TA / BOS / CEO	Med*	Data Base
11. Clean Waters	Ground-water	ADEQUATE, CLEAN GROUNDWATER	Remove the current language in the Zoning Ordinance allowing commercial extraction of groundwater.	APC/LUO C/BOS/ TM	Med*	Ordinance
12. Clean Waters	Ground-water	ADEQUATE, CLEAN GROUNDWATER	Replace failed cesspools and other obsolete septic systems in aquifer recharge areas by referring owners to State financial aid programs and/or developing a local one.	APC / TA / BOS	High	Gradual elimination of failed cesspools and septic pits
13. Clean Waters	Ground-water	ADEQUATE, CLEAN GROUNDWATER	Review public or collective well systems to see if they should be registered with the State Public Water Supply Program.	APC/TA	Med	Registration
14. Clean Waters	Ground-water	ADEQUATE, CLEAN GROUNDWATER	The Town should monitor areas where saltwater intrusion into wells along the shore has been occurring, and consider whether to adopt regulations to reduce this risk.	APC	Med	Monitoring/ budget item
15. Clean Waters	Ground-water	ADEQUATE, CLEAN GROUNDWATER	The Town should work with existing volunteers to develop an affordable system for regularly taking junked cars off the island.	BOS/TM/ CEO volunteers	Med	Program

16. Clean Waters	Ground-water	ADEQUATE, CLEAN GROUNDWATER	The use of road salt should be minimized or ended in the most vulnerable aquifer recharge areas.	TA / Road Commissioner	Med*	Reduced use of salt	
17. Clean Waters	Ground-water	ADEQUATE, CLEAN GROUNDWATER	Where higher density development is encouraged in growth areas explore using collective septic systems.	APC/ consultant /BOS/ TM	Med	Research/ budget item	
Section 1	Subsection b	Surface Water					
18. Clean Waters	Surface Water	MAXIMIZE THE ABSORPTION OF SURFACE WATER ON THE ISLANDS	In revising and implementing development regulations, pay attention to minimizing impervious surfaces.	APC / LUOC/PB /CEO	Med*	Ordinance Language	
19. Clean Waters	Surface Water	MAXIMIZE THE ABSORPTION OF SURFACE WATER ON THE ISLANDS	In any aquifer protection and land use ordinances, and in development reviews, encourage the use of natural drainage patterns to protect the bay and recharge the aquifer.	APC /CEO / PB	Med*	Ordinance language & implementation	
20. Clean Waters	Surface Water	MAXIMIZE THE ABSORPTION OF SURFACE WATER ON THE ISLANDS	The Town should develop more drainage easements with land owners to direct stormwater from ditches to wetlands and retention ponds. Retention ponds might also be used for fire ponds if it is feasible to maintain them.	Road Commissioner / property owners / PS	Med*	Enhanced aquifer quality and quantity; capital budget	
21. Clean Waters	Surface Water	MAXIMIZE THE ABSORPTION OF SURFACE WATER ON THE ISLANDS	Increase training of the Town road crew in best management practices for roadwork to reduce sediment in runoff, and provide support in the Town budget for materials to stabilize drainage ditches and slow the flow of stormwater.	TA/PS	High	Stormwater management; budget item	
Section 1	Subsection c	The Waters of Casco Bay					

22. Clean Waters	Casco Bay	HIGH WATER QUALITY IN CASCO BAY	Conduct research to determine whether the nitrogen-fed green algae on Town clam flats and beaches is the result of local runoff.	Consultant	Med*	Research; budget item	
23. Clean Waters	Casco Bay	HIGH WATER QUALITY IN CASCO BAY	Water testing for both bacteria and the physical properties of the seawater should be increased and the results publicized on the island.	SW/ volunteers / Friends of Casco Bay.	Med*	Monitoring / publicity	
24. Clean Waters	Casco Bay	HIGH WATER QUALITY IN CASCO BAY	Continue to monitor any overboard discharge on Great Chebeague, and identify/monitor any that may exist on the outer islands.	CEO / State / HM	Med*	Monitoring	
25. Clean Waters	Casco Bay	HIGH WATER QUALITY IN CASCO BAY	Prohibit aerial spraying of pesticides.	ORC / BOS / TM	Med*	Ordinance	
26. Clean waters	Casco Bay	HIGH WATER QUALITY IN CASCO BAY	The Town should educate the public about the need to keep sediment out of the Bay, especially clam flats. The Town should regulate the cutting of trees along island streams.	APC/BOS /TM/ CEO	Med	Ordinance language	
Section 2	Subsection a	Present and Future Population					
28. Preserving Community	Population	PRESERVATION OF GREAT CHEBEAGUE AS A VIABLE, AGE- AND INCOME-DIVERSE, YEAR-ROUND COMMUNITY.	Carry out the recommendations in the section on Preserving Community.	Everyone	High		

29. Preserving Community	Population	PRESERVATION OF GREAT CHEBEAGUE AS A VIABLE, AGE- AND INCOME-DIVERSE, YEAR-ROUND COMMUNITY.	Develop policies that will retain current young people, and attract individuals and families in the 18 to 40 age group.	BOS/TM	High	
Section 2	Subsection b	The Chebeague Economy				
31. Preserving Community	Economy	ASSISTANCE TO BUSINESSES WITHIN THE NORMAL SCOPE OF TOWN ACTIVITIES	Provide infrastructure that would help significant sectors of the existing economy such as fishing, clamming, construction, and local services.	BOS	High	Program or ordinance
32. Preserving Community	Economy	ENCOURAGEMENT OF NEW BUSINESSES AND THE SURVIVAL OF EXISTING ONES, INCLUDING AGRICULTURE AND FORESTRY, BY CONSIDERING THE IMPACT OF THE TOWN'S VARIOUS REGULATIONS.	Revise zoning provisions on businesses, agriculture, timber harvesting, and other relevant sections, to remove barriers to these economic activities.	LUOC/ BOS/TM	High	Ordinance language
33. Preserving Community	Economy	FAST AND RELIABLE HIGH SPEED COMMUNICATIONS	Work with vendors to make major improvements to internet and cellphone service on the island.	BOS/Chebeague.net	High	Grant applications /legislation capital budget
34. Preserving Community	Economy	INCREASED FARMING AND FORESTRY	Encourage farmers who qualify to enroll in the State Farmland Preservation Program.	BOS/TM/ CICA/ CCLT/	Med	Lower costs for farmers

35. Preserving Community	Economy	INCREASED FARMING AND FORESTRY	Encourage landowners to enroll in the State Tree Growth Program with a management plan for the economic use of trees which the Town will actively enforce.	BOS/TM/ CICA/ CCLT	Med	Lower costs for timber harvesting
36. Preserving Community	Economy	INCREASED FARMING AND FORESTRY	Encourage the Town and the Chebeague and Cumberland Land Trust to acquire property, easements or development rights to land that could be used for farming or forestry and to include these uses in the easement.	BOS/TM/ CICA/ CCLT	Med*	Farm/ forestry land protection
37. Preserving Community	Economy	INCREASED FARMING AND FORESTRY	Explore in more depth the financial viability of combining forestry, animal husbandry and crops that might revive farming in the Town of Chebeague.	BOS/TM/ CICA/ CCLT	Med*	Financial counseling.
38. Preserving Community	Economy	INCREASED FARMING AND FORESTRY	Explore ways to encourage landowners who are interested in a healthy and economically viable forest resource to organize for collective action. Encourage having an overall study of the value and condition of Chebeague's forests.	BOS/TM/ CICA/ CCLT	Med	Coordinated forest manage- ment
39. Preserving Community	Economy	INCREASED FARMING AND FORESTRY	Identify areas of the island where farming and/or forestry could be encouraged, as distinct from areas that should be kept in open space for other purposes, or, which should be open to development.	BOS/TM/ CICA/ CCLT	Med	Criteria for farming and other rural areas in Open Space Plan
40. Preserving Community	Economy	INCREASED FARMING AND FORESTRY	The Town should explore sourcing food and forest resources locally (on Chebeague) as an economic development strategy.	TA/SC/ SUPT/ BOS	Med	Income to farmers; budget items
Section 2	Subsection c	The Cost of Living: Housing, Energy and Transportation				

<p>42. Preserving Community</p>	<p>Cost of Living</p>	<p>REDUCED COST OF LIVING ON GREAT CHEBEAGUE TO MAKE ISLAND LIFE MORE COMPETITIVE WITH THE MAINLAND: HOUSING</p>	<p>Revise the Zoning and Subdivision Ordinances of the Town to make them more suitable for providing moderately priced, year-round housing on Great Chebeague.</p>	<p>LUOC</p>	<p>Med*</p>	<p>Ordinance language</p>
<p>43. Preserving Community</p>	<p>Cost of Living</p>	<p>REDUCED COST OF LIVING ON GREAT CHEBEAGUE TO MAKE ISLAND LIFE MORE COMPETITIVE WITH THE MAINLAND: HOUSING</p>	<p>In the Zoning Ordinance, revision make sure that a range of opportunities are available in the zoning to allow the use of various forms of housing such as accessory apartments and manufactured housing.</p>	<p>LUOC</p>	<p>Med*</p>	<p>Ordinance language</p>
<p>44. Preserving Community</p>	<p>Cost of Living</p>	<p>REDUCED COST OF LIVING ON GREAT CHEBEAGUE TO MAKE ISLAND LIFE MORE COMPETITIVE WITH THE MAINLAND: HOUSING</p>	<p>Encourage low cost availability of lots for income eligible islanders to build their own houses. Use covenants or other mechanisms to keep these lots and houses in a moderate price range when they are later sold.</p>	<p>BOS/TM/ private donors/ CICA</p>	<p>Med*</p>	<p>Housing; capital budget</p>
<p>45. Preserving Community</p>	<p>Cost of Living</p>	<p>REDUCED COST OF LIVING ON GREAT CHEBEAGUE TO MAKE ISLAND LIFE MORE COMPETITIVE WITH THE MAINLAND: HOUSING</p>	<p>Explore the feasibility of renovating existing houses, either available on the open market or in foreclosure, for year-round, moderately priced use.</p>	<p>CICA/ BOS/TM</p>	<p>Med*</p>	<p>Housing</p>

46. Preserving Community	Cost of Living	REDUCED COST OF LIVING ON GREAT CHEBEAGUE TO MAKE ISLAND LIFE MORE COMPETITIVE WITH THE MAINLAND: HOUSING	Explore ways to create more year-round rental units.	CICA / BOS	Med*	Housing
47. Preserving Community	Cost of Living	REDUCED COST OF LIVING ON GREAT CHEBEAGUE TO MAKE ISLAND LIFE MORE COMPETITIVE WITH THE MAINLAND: HOUSING	Over time as moderately priced, year-round housing is created, encourage a mix of lots for people to build on, single-family houses, smaller, apartment-type units and assisted living units of various levels.	CICA / BOS	Med	Housing
48. Preserving Community	Cost of Living	REDUCED COST OF LIVING ON GREAT CHEBEAGUE TO MAKE ISLAND LIFE MORE COMPETITIVE WITH THE MAINLAND: HOUSING	Over time as moderately priced, year-round housing is created, encourage a mix of ownership and rental housing.	CICA / BOS	Med	Housing
49. Preserving Community	Cost of Living	REDUCED COST OF LIVING ON GREAT CHEBEAGUE TO MAKE ISLAND LIFE MORE COMPETITIVE WITH THE MAINLAND: HOUSING	Provide assistance such as financial, technical or legal help, to residents who are trying to buy houses on the island.	CICA	Med	Housing

50. Preserving Community	Cost of Living	REDUCED COST OF LIVING ON GREAT CHEBEAGUE TO MAKE ISLAND LIFE MORE COMPETITIVE WITH THE MAINLAND: HOUSING	Take advantage of all possibilities to reduce the cost of building new housing such as donated land from the Town or from private donors, public grants and low interest loans, while providing attractive and good quality, energy efficient housing.	CICA/ BOS/TM/ private donors	Med*	Housing
51. Preserving Community	Cost of Living	REDUCED COST OF LIVING ON GREAT CHEBEAGUE TO MAKE ISLAND LIFE MORE COMPETITIVE WITH THE MAINLAND: HOUSING	Create at least 3 to 4 year-round, moderately priced housing units over the next ten years that are compatible with island housing scales, settlement patterns and values.	CICA/ BOS/TM	Med*	More moderately priced, year-round housing
52. Preserving Community	Cost of Living	GOOD HOUSING MAINTENANCE AND WEATHERIZATION.	Encourage programs for eligible home-owners, especially the elderly, to get help in the maintenance or renovation of their houses.	CIC/CICA /BOS/ TM/PROP	Med	Program; budget or capital item
53. Preserving Community	Cost of Living	GOOD HOUSING MAINTENANCE AND WEATHERIZATION.	Promote public programs that provide grants or loans to allow residents to make their houses more energy efficient.	CICA/ BOS/TM	Med*	Programs
54. Preserving Community	Cost of Living	PROPERTY TAX RELIEF FOR THOSE IN FINANCIAL NEED.	Explore the development of a local circuit breaker program, subsidized by local tax revenues.	BOS/TM	Med*	Tax relief
55. Preserving Community	Cost of Living	REDUCED COST OF LIVING ON GREAT CHEBEAGUE TO MAKE ISLAND LIFE MORE COMPETITIVE WITH THE MAINLAND: TRANSPORTATION	The Town and CTC should engage in a discussion about ways to reduce the cost of transportation to the mainland by increasing revenues, lowering costs and/or having a Town subsidy.	BOS/CTC	Med*	Joint policy

Section 2	Subsection d	Education				
57. Preserving Community	Education	THRIVING ISLAND SCHOOL	Encourage families that include school age children to live on Chebeague by providing excellent education	Everyone/ CISC/ SUPT	High	More young families
Section 2	Subsection e	Community Services Provided by Island Organizations				
59. Preserving Community	Non-Profit Services	INCREASED ASSISTED LIVING OPPORTUNITIES FOR ELDERS.	Explore ways to make the provision of home care and other such services for the independent elderly more easily obtained on the island.	IC/CIC	Med*	Home care
60. Preserving Community	Non-Profit Services	INCREASED ASSISTED LIVING OPPORTUNITIES FOR ELDERS.	The Island Commons is encouraged to explore expansion of its assisted living facilities as increasing need dictates. This might include housing that is more independent than full assisted living but still provides some services.	IC	Med	Housing
61. Preserving Community	Non-Profit Services	CONTINUED PROVISION OF SERVICES BY ISLAND NON-PROFITS AND CLUBS	The Town (Selectmen and Town Meeting) should continue to consider proposals from non-profits, and perhaps even from clubs, for support in the form of land or financial support for facilities and services that are important for the success of the year-round community.	Non-profits/ BOS/TM	Med*	Capital budget
62. Preserving Community	Non-Profit Services	COST-EFFECTIVE OPERATIONS FOR NONPROFIT FUNCTIONS	The various nonprofits are encouraged to explore ways to join forces with other nonprofits and/or with the Town, to leverage results, and operate more efficiently and effectively.	Non-profits/ BOS/TM	Med*	Improved coordination and efficiency

Section 3	Subsection a	Future Land Use				
64. Future Use of Land and Town Waters	Land Use	SIMPLIFIED LAND USE ORDINANCES DESIGNED TO ACHIEVE TOCI'S GOALS	The Selectmen should appoint a committee -- either ad hoc or a standing committee such as the Planning Board -- to revise the land use ordinances.	BOS	Med	Committee
65. Future Use of Land and Town Waters	Land Use	SIMPLIFIED LAND USE ORDINANCES DESIGNED TO ACHIEVE TOCI'S GOALS	The Town should revise the current Zoning Ordinance inherited from Cumberland to better meet the Town of Chebeague Island's needs and values and to carry out the goals and recommendations of this plan.	LUOC/PB/ BOS/TM	High	Ordinance
66. Future Use of Land and Town Waters	Land Use	SIMPLIFIED LAND USE ORDINANCES DESIGNED TO ACHIEVE TOCI'S GOALS	In this revision, maintain the basic 1.5 acre lot size.	LUOC/PB/ BOS/TM	Med	Ordinance language
67. Future Use of Land and Town Waters	Land Use	SIMPLIFIED LAND USE ORDINANCES DESIGNED TO ACHIEVE TOCI'S GOALS	In revising the land use Ordinances, the Town should consider having only one zoning district on Great Chebeague that would maintain the present zoning practice that allows commercial uses in residential areas as home occupations, home-based occupations or as business buildings reviewed by the Board of Appeals and the Planning Board.	LUOC/PB/ BOS/TM	High	Ordinance language
68. Future Use of Land and Town Waters	Land Use	SIMPLIFIED LAND USE ORDINANCES DESIGNED TO ACHIEVE TOCI'S GOALS	Develop performance standards related to such potential problems as noise, light, odor, traffic and parking to evaluate applications for businesses in residential areas.	LUOC/PB/ BOS/TM	Med	Ordinance language

69. Future Use of Land and Town Waters	Land Use	SIMPLIFIED LAND USE ORDINANCES DESIGNED TO ACHIEVE TOCI'S GOALS	The Town should revise the current Subdivision Ordinances inherited from Cumberland to better meet the Town of Chebeague Island's needs and values and to carry out the goals and recommendations of this plan.	LUOC/PB/ BOS/TM	Med*	Ordinance
70. Future Use of Land and Town Waters	Land Use	1 SIMPLIFIED LAND USE ORDINANCES DESIGNED TO ACHIEVE TOCI'S GOALS	Revise the Zoning Ordinance so that development standards such as setbacks can reflect the particular style of an area's existing development.	LUOC/PB/ BOS/TM	Med* Med*	Ordinance language
71. Future Use of Land and Town Waters	Land Use	PRESERVATION OF CRITICAL NATURAL AREAS, OPEN SPACE, AND RURAL CHARACTER	The Town should develop an open space plan to define critical natural areas and areas for farming and forestry. It should also include a plan for identifying and preserving existing trails on the island, and for creating new ones, where appropriate.	OCPC/PB/ BOS/TM	Med*	Ordinance
72. Future Use of Land and Town Waters	Land Use	PRESERVATION OF CRITICAL NATURAL AREAS, OPEN SPACE, AND RURAL CHARACTER	Zone land (e.g., Roses, Springettes and Bennett Cove ponds), that meets the legal standards for Resource Protection under Shoreland Zoning, as Resource Protection areas.	OSPC/PB/ BOS/TM	Med*	Ordinance
73. Future Use of Land and Town Waters	Land Use	PRESERVATION OF CRITICAL NATURAL AREAS, OPEN SPACE, AND RURAL CHARACTER	Work with landowners to encourage critical natural areas such as upland forested wetlands to be protected by conservation easements or enrollment in the State Open Space Program.	Land-owners/ OSPC/ CCLT/ BOS	Med*	Conser- vation
74. Future Use of Land and Town Waters	Land Use	PRESERVATION OF CRITICAL NATURAL AREAS, OPEN SPACE, AND RURAL CHARACTER	Work with landowners to encourage appropriate use of areas that are suitable for farming or forestry. Productive uses are encouraged. More ideas for how this might be done are found in the Chapter on Agriculture and Forestry.	CICA/ CCLT/II/ Land-owners	Med*	More farming

75. Future Use of Land and Town Waters	Land Use	PRESERVATION OF CRITICAL NATURAL AREAS, OPEN SPACE, AND RURAL CHARACTER	The Town should develop an open-space/recreation impact fee on new development. The money collected by the fee would be used to purchase development rights or land to be kept in open space.	PB or LUOC/ OSPC/ BOS/ TM	Med	Ordinance/Impact fee
76. Future Use of Land and Town Waters	Land Use	PRESERVATION OF CRITICAL NATURAL AREAS, OPEN SPACE, AND RURAL CHARACTER	The Town should consider making a yearly allocation to the Capital Improvement Budget for the purchase of development rights to preserve open space, farmland, shore access and trails in rural areas.	OSPC/ BOS/TM	Med	Capital budget/ open space/trails/farmland
77. Future Use of Land and Town Waters	Land Use	PRESERVATION OF CRITICAL NATURAL AREAS, OPEN SPACE, AND RURAL CHARACTER	The Town should accept private contributions designated for land conservation.	Private donors/ BOS/TM	Med	Land conservation
78. Future Use of Land and Town Waters	Land Use	PRESERVATION OF OPEN SPACE AND RURAL CHARACTER BY CONCENTRATING NEW DEVELOPMENT IN ALREADY-DEVELOPED AREAS	Designate public and non-profit parcels and facilities such as present or possible wharves, or Town or non-profit buildings as “activity centers” or growth areas where the Town expects to spend 75 percent of its growth-related capital expenditures. These may require local, State or Federal funding in the future to be created, renovated or enlarged.	BOS/PB OR LUOC/ TM	Med*	Public Facilities

79. Future Use of Land and Town Waters	Land Use	PRESERVATION OF OPEN SPACE AND RURAL CHARACTER BY CONCENTRATING NEW DEVELOPMENT IN ALREADY-DEVELOPED AREAS	In its revision of the land use ordinances, the Town should encourage somewhat higher density housing in several already-developed and one new hamlet by allowing creation of lots smaller than 1.5 acres.	LUOC/PB/BOS/TM	Med	Ordinance language
Section 3	Subsection b	Historical and Archaeological Resources				
81. Future Use of Land and Town Waters	Historical and Archaeological Resources	GREATER AWARENESS OF CHEBEAGUE'S HISTORY AND THE NEED TO PROTECT ITS HISTORIC RESOURCES	The Town and the Historical Society are encouraged to create a Historic Preservation Committee that would undertake to work with residents and property owners to provide increased protection to historic and archaeological resources.	CIHS/BOS/TM	Low	Committee
82. Future Use of Land and Town Waters	Historical and Archaeological Resources	GREATER AWARENESS OF CHEBEAGUE'S HISTORY AND THE NEED TO PROTECT ITS HISTORIC RESOURCES	The Committee could survey current conditions of Native American sites and educate abutters about the possibility of additional remains of settlement that may be located in the adjacent upland.	HPC/ CHIS	Low	Education
83. Future Use of Land and Town Waters	Historical and Archaeological Resources	GREATER AWARENESS OF CHEBEAGUE'S HISTORY AND THE NEED TO PROTECT ITS HISTORIC RESOURCES	The Committee could research and explore the possibility and potential ramifications of a historic district.	HPC	Low	Ordinance?

84. Future Use of Land and Town Waters	Historical and Archaeological Resources	GREATER AWARENESS OF CHEBEAGUE'S HISTORY AND THE NEED TO PROTECT ITS HISTORIC RESOURCES	The Town and the Historical Society should continue to collaborate on Town projects that depend on historical research.	TA/BOS/CHIS	Med	Research
Section 3	Subsection c	Wharves, Waterfront and the Outer Islands				
86. Future Use of Land and Town Waters	Wharves, Waterfront	ADEQUATE MARINE FACILITIES TO SERVE THE TOWN'S FUTURE POPULATION AND ECONOMY	The Town should do a feasibility & cost/benefit study of the use of Sunset Landing for future marine uses. Such a study should also consider the land use impacts that this change could produce. If a decision is made to make any of these changes, plans need to be made about how the Sunset parcel and surrounding areas will be developed.	TA/Consultant/BOS/ TM	Med*	Study; budget item; capital budget
87. Future Use of Land and Town Waters	Wharves, Waterfront	ADEQUATE MARINE FACILITIES TO SERVE THE TOWN'S FUTURE POPULATION AND ECONOMY	If a decision is ultimately made to build a second wharf on the island, one of the wharves should be made available to fishermen, and equipped with facilities and equipment (such as a hoist) for their use.	BOS/TM	High	Capital budget
88. Future Use of Land and Town Waters	Wharves, Waterfront	ADEQUATE MARINE FACILITIES TO SERVE THE TOWN'S FUTURE POPULATION AND ECONOMY	If the Town decides not to develop Sunset Landing as a marine facility over the next ten to twenty years, it should still retain the land, since it is the only remaining undeveloped large site with deep water access on the island.	BOS	High	No action

89. Future Use of Land and Town Waters	Wharves, Waterfront	MAXIMUM PUBLIC ACCESS TO THE SHORE AND THE WATER FOR RESIDENTS OF AND VISITORS TO THE TOWN.	The Open Space Committee should develop and implement a Public Access Plan, including the utilization of paper streets (refer to related goal under Roads/Running the Town).	BOS/TM/ CWC/ OSPC	Med*	Committee	
91. Future Use of Land and Town Waters	The Outer Islands	KEEPING THE UNDEVELOPED OUTER ISLANDS AS LITTLE DEVELOPED AS POSSIBLE.	Explore the need for and feasibility of wildlife management on outer islands that have introduced species.	CCLT/ITA / STATE/ OSPC	Med	Plan	
92. Future Use of Land and Town Waters	The Outer Islands	KEEPING THE UNDEVELOPED OUTER ISLANDS AS LITTLE DEVELOPED AS POSSIBLE.	Work with the Land Trust, the Island Trail Association, the State and other landowners on issues of general management of the islands and regulation of such uses as camping areas and fires.	CCLT/ITA /STATE/ OSPC	Med	Joint policy	
93. Future Use of Land and Town Waters	The Outer Islands	MONITOR AND REVIEW DEVELOPMENT PLANS FOR THE DEVELOPED OUTER ISLANDS.	The Town should develop a more systematic process for reviewing development proposals from the outer islands. This could include requiring a land use plan for the whole island if significant new development is proposed.	PB/BOS	Med*	Policy or ordinance	
Section 3	Subsection d	Management of the Town's Waters					

<p>95. Future Use of Land and Town Waters</p>	<p>Town Waters</p>	<p>SAFE AND FAIR USE OF TOWN WATERS BY FISHERMEN, RECREATORS, TRANSPORTATION COMPANIES, AND OTHER SERVICE PROVIDERS</p>	<p>The Town should finalize the process begun by decision of the 2010 Annual Town Meeting, of developing a plan for the Town’s waters by developing a plan for near-shore mooring areas and Coast Guard designated anchorages that balances the needs of fishermen, recreational boaters, the Boat Yard and other interested parties. Such a process must not only consider the needs of these various groups but must involve them directly.</p>	<p>HM/CWC/ Coast Guard/ fishermen/ rec boaters/ CIBY</p>	<p>Med*</p>	<p>Plan</p>
<p>96. Future Use of Land and Town Waters</p>	<p>Town Waters</p>	<p>SAFE AND FAIR USE OF TOWN WATERS BY FISHERMEN, RECREATORS, TRANSPORTATION COMPANIES, AND OTHER SERVICE PROVIDERS</p>	<p>The Town should reconstitute the Coastal Waters Commission as a broadly based group of residents who are concerned with the general welfare of the waters of Chebeague.</p>	<p>BOS</p>	<p>Med*</p>	<p>Committee</p>
<p>97. Future Use of Land and Town Waters</p>	<p>Town Waters</p>	<p>SAFE AND FAIR USE OF TOWN WATERS BY FISHERMEN, RECREATORS, TRANSPORTATION PROVIDERS, AND OTHER SERVICE PROVIDERS</p>	<p>The Town should identify and mark the Town boundaries at the Great Bar, Little Chebeague, Jewell Island, Cliff and Hope Islands.</p>	<p>BOS/TA/ Surveyor</p>	<p>Low</p>	<p>Boundary markers</p>

98. Future Use of Land and Town Waters	Town Waters	SAFE AND FAIR USE OF TOWN WATERS BY FISHERMEN, RECREATORS, TRANSPORTATION COMPANIES, AND OTHER SERVICE PROVIDERS	The Town and Harbormaster should provide educational materials on “boating safety, respect and courtesy” to all boaters to make them more aware of possible conflicts among users of the waters.	HM	Med	Educational materials
99. Future Use of Land and Town Waters	Town Waters	INCREASED ROLE FOR TOCI IN STATE DECISION-MAKING ON THE USE OF TOWN WATERS	The Town should consider whether to develop a plan for the use of its waters and bottom. If such a plan is undertaken, its development must also involve the users of the Town’s waters.	CWC/ fishermen / other users of ocean bottom/ BOS/TM	Med*	Plan
100. Future Use of Land and Town Waters	Town Waters	INCREASED ROLE FOR TOCI IN STATE DECISION-MAKING ON THE USE OF TOWN WATERS	The island’s lobstermen are urged to make sure that the TOCI continues to be represented on the Zone F Lobster Council and encourage representatives to work actively for a sustainable lobster harvest and for maintenance of brood stock and protection of juvenile lobsters.	Lobstermen	Med*	Representation on State Policy/implementation Council
101. Future Use of Land and Town Waters	Town Waters	INCREASED ROLE FOR TOCI IN STATE DECISION-MAKING ON THE USE OF TOWN WATERS	The Town should work with other islands and organizations to work with and lobby the State government to attain this goal.	BOS/SC/C WC/II/ Maine Islands Coalition	Med*	More control over use of Town Waters

102. Future Use of Land and Town Waters	Town Waters	SUSTAINABLE USE OF TOWN WATERS	The Shellfish Warden and the Shellfish Commission should continue to actively manage clam flats to maintain and increase productivity.	SC/SW	High	Improved fishing	
103. Future Use of Land and Town Waters	Town Waters	SUSTAINABLE USE OF TOWN WATERS	The Town should consider whether to include additional areas of the Town's shoreline in the Shoreland Zoning Resource Protection Zone.	LUOC/BOS /TM/ Fishermen/ OSPC	Med	Ordinance language	
104. Future Use of Land and Town Waters	Town Waters	SUSTAINABLE USE OF TOWN WATERS	The Town should pay particular attention in the mooring/harbors plan to protecting eel-grass beds.	HM/CWC	Med	Harbors Plan language	
Section 4	Subsection a	Transportation to the Island: Ferries					
105. Running the Town	Ferries	EXPLORATION OF FUTURE RELATIONSHIP BETWEEN TOCI AND CTC AND CBL.	Given Chebeague's dependence on its ferries, the Town should actively work with both companies to insure that its interests are effectively represented in their decision-making.	TA/BOS/ TM/CTC/ CBL	High	Policy	
106. Running the Town	Ferries	EXPLORATION OF FUTURE RELATIONSHIP BETWEEN TOCI AND CTC AND CBL.	The Town should closely follow CTC's reorganization plans and make a decision whether to encourage movement toward CTC becoming a Transit District with a closer relationship with the Town.	TA/BOS/ CTC/TM	Med*	Research; decision	

107. Running the Town	Ferries	EXPLORATION OF FUTURE RELATIONSHIP BETWEEN TOCI AND CTC AND CBL.	If the Town considers providing any additional operating subsidy to CTC to lower parking fees or ferry fares, it needs to consider what impact the subsidy is likely to have on future growth in the Town.	TA/PB/ BOS/TM/ CTC	Med*	Research
Section 4	Subsection b	Transportation on the Island: Roads				
108. Running the Town	Roads	IMPROVED ROADS	Carry out the 2010 Road Plan, and adapt as needed.	TA/BOS/ PS	High	Capital budget; improved roads
109. Running the Town	Roads	IMPROVED ROADS	Develop and adopt road standards for public and private roads.	LUOC and TRC / consultant	Med*	Ordinance
110. Running the Town	Roads	IMPROVED ROADS	Estimate typical cost of possible upgrades, for example, widening substandard roads, paving gravel roads or returning paved to gravel roads. Allocate money for engineering help for this.	TA/TRC /TM/PS/ consulting engineer	High	Budget item; cost estimates
111. Running the Town	Roads	IMPROVED ROADS	Determine what kind of road upgrades residents want to see in light of options and costs.	TRC/BOS/ PS	High	Capital budget; improved roads
112. Running the Town	Roads	IMPROVED ROADS	The Town should evaluate and prioritize drainage areas that need work, and acquire drainage easements when the opportunity arises. Allocate money for a study and engineering help for this.	TA/PS/ consulting engineer	Med*	Drainage easements

113. Running the Town	Roads	FAIR AND COST-EFFECTIVE TOWN POLICIES FOR ACCEPTING AND/OR MAINTAINING PRIVATE ROADS	Develop a policy for maintenance & winter plowing of public and private roads	BOS	Med*	Policy
114. Running the Town	Roads	FAIR AND COST-EFFECTIVE TOWN POLICIES FOR ACCEPTING AND/OR MAINTAINING PRIVATE ROADS	Road standards for various levels of public and private roads should be generally similar.	LUOC and/or TRC	Med	Ordinance language
115. Running the Town	Roads	ACCURATE INFORMATION ABOUT THE TOWN'S ROADS	Compile maps, accurate road descriptions and documentation for all Town roads.	TA	Med*	Data base
116. Running the Town	Roads	SAFETY OF THE MULTIPLE USERS OF TOWN ROADS	Evaluate current locations of street lights and determine, with public input, where there should be more or fewer.	TRC/TA/ BOS/ Public Safety	Med	Research; policy
117. Running the Town	Roads	TOWN DECISIONS ON STATUS OF PAPER STREETS	Act on all possible paper streets before 2017.	OSPC/PB/BOS/TM	Med*	Decisions
118. Running the Town	Roads	TOWN DECISIONS ON STATUS OF PAPER STREETS	Allocate funds for research, survey and legal services	OSPC/BOS/ TM/ consultants	Med*	Research; budget item
Section 4	Subsection c	Public Facilities and Services				
119. Running the Town	Fire and Rescue	ADEQUATE FIRE AND RESCUE SERVICE FOR RESIDENTS OF GREAT CHEBEAGUE ISLAND.	Develop, maintain, and implement a prudent and practical capital equipment plan for the Fire Department.	FD/TA/ CPFC/BOS/ TM	High	Budget items, fire and rescue service

120. Running the Town	Fire and Rescue	ADEQUATE FIRE AND RESCUE SERVICE FOR RESIDENTS OF GREAT CHEBEAGUE ISLAND.	Road standards adopted by the Town must provide for adequate access by fire engines and the ambulance.	FD/TRC/ BOS/TM	High	Ordinance language
121. Running the Town	Fire and Rescue	ADEQUATE FIRE AND RESCUE SERVICE TO RESIDENTS OF GREAT CHEBEAGUE ISLAND.	Provide additional hydrants on existing water sources. Additional fireponds should be added to serve areas now under-served.	TA/FD/PS	Med*	Better fire fighting capacity; capital budget
123. Running the Town	Fire and Rescue	REDUCED RISK OF WILD-FIRE ON THE ISLAND	Educate homeowners about wildfire risks and ways to lessen them.	FD	Med	Education materials
124. Running the Town	Solid Waste	EFFICIENT AND NON-POLLUTING CENTRAL COLLECTION AND COMPACTION OF ISLAND SOLID WASTE.	Develop/upgrade a general maintenance plan and schedule for the facility to keep it appropriately clean, sanitary and safe for users and staff. Such a plan could include mowing the capped landfill, monitoring the wells, providing year-round water supply, washing down the facility, pumping the 1,500 gallon holding tank under the shed and having an eye-wash station.	TA/PS/ Transfer Station Attendant	Med*	Budget item/ Mainten- ance plan
125. Running the Town	Solid Waste	EFFICIENT AND NON-POLLUTING CENTRAL COLLECTION AND COMPACTION OF ISLAND SOLID WASTE.	Provide ongoing education and publicity on recycling and redemption, and continue hazardous waste collection.	TA	Med*	Educational materials; budget items
126. Running the Town	Solid Waste	REDUCED VOLUME OF WASTE MATERIAL	Explore the possibility of town and/or community composting.	Non- Profit/TA/ TM	Med	Compost

127. Running the Town	Solid Waste	REDUCED VOLUME OF WASTE MATERIAL	Explore the use of wood in the brush dump for biomass energy generation on the island.	CICA/BOS/ TM	Med*	Heat
128. Running the Town	Town Office	A TOWN OFFICE THAT ALLOWS FOR EFFICIENT WORK, FACILITIES FOR PRIVATE MEETINGS AND ADEQUATE STORAGE OF TOWN RECORDS.	Identify needs and explore options for better meeting Town Office needs.	TA/BOS/ TM	Med	Capital budget; Expanded Town Office capacity
129. Running the Town	Public Services	EFFECTIVE MAINTENANCE OF THE TOWN'S INFRASTRUCTURE.	Develop, maintain, and implement a prudent and practical capital equipment plan for the Public Service crew.	TA/BOS/ TM	High	Budget items; effective maintenance
130. Running the Town	Cemetery	CEMETERY PLAN ADEQUATE FOR THE NEXT 200 YEARS	The Town and the Cemetery Committee should develop capital & operating plans for the future maintenance and expansion of the cemetery. This should include: accurate maps; new facilities study; water needs study; consideration of green burial options; landscaping plan; gravestone rehab plan; and land needs study.	Consultant/ BOS/TM/ CC	Med*	Plan, map, records, budget items

131. Running the Town	Cemetery	CEMETERY ADEQUATE FOR THE NEXT 200 YEARS	The Town should secure the existing paper records, computerize the cemetery's data so that it can be accessed by both the Town office and the Cemetery Committee, and record important unwritten information, so that the transition from one Committee or administrator to the next can take place routinely.	TA/BOS/ CC	Med*	Cemetery data base
132. Running the Town	Cemetery	CEMETERY PLAN ADEQUATE FOR THE NEXT 200 YEARS	The Town should develop a clear definition of the responsibilities of the advisory Cemetery Committee, any paid employees, and the Town staff.	TA/BOS	Med	Policy
133. Running the Town	Mapping	EXPERTISE TO ACCESS AND CREATE TOWN GIS MAPS	Train Town Staff and others in the community in the use of the Town's GIS maps	BOS/TA/ staff and public	³	Maps/ budget item
Section 4	Subsection d	Fiscal Capacity and Capital Investment				

³ This recommendation was inadvertently left out of the versions of the recommendations that were prioritized by the Planning Committee, the Selectmen and the members of the public.

<p>135. Running the Town</p>	<p>Fiscal Capacity</p>	<p>LONG-TERM CAPITAL PLANNING FOR BOTH EXPECTED AND UNANTICIPATED PROJECTS, EQUIPMENT AND FACILITIES, IN ORDER TO AVOID BORROWING AND BONDING</p>	<p>The Town should work out a realistic capital budget.</p>	<p>TA/TOWN DEPTS/ BOS/ CPFC/TM</p>	<p>High</p>	<p>Capital budget</p>
<p>136. Running the Town</p>	<p>Fiscal Capacity</p>	<p>LONG-TERM CAPITAL PLANNING FOR BOTH EXPECTED AND UNANTICIPATED PROJECTS, EQUIPMENT AND FACILITIES, IN ORDER TO AVOID BORROWING AND BONDING</p>	<p>The Town should identify and take advantage of non-Town (ie, public and private) funding sources for capital projects.</p>	<p>TA/ TOWN DEPTS</p>	<p>High</p>	<p>Funding for capital projects</p>

Timing of Implementation and Allocation of Tasks

Logically, it would seem that the priorities of the recommendations would determine the order in which they are implemented: the most important first. But this is not always the case. Some important issues and ordinances, such as consideration of whether to have an aquifer protection ordinance, will influence how other important issues or ordinances such as the revision of the land use ordinances or the development of an Open Space Plan are dealt with. In addition, some tasks, such as monitoring the wells at the Transfer Station, are routine and ongoing. Sometimes a lower priority task may be sandwiched in between high priority ones, especially if some opportunity such as the availability of a possible grant or interest among volunteers brings them to the fore.

In a small Town that has only been in existence for four years, allocating the tasks of implementing a comprehensive plan is often not obvious. Much of the work that in some communities is done by government employees is done by volunteer committees and non profit organizations. The Town currently has five standing committees and two others are currently being considered by the Selectmen.

Table 2: Existing and Proposed TOCI Committees and Staff

The Planning Board CEO	Standing Committees Proposed in Plan
The Board of Zoning Appeals CEO	Aquifer Protection
The Coastal Waters Commission Harbormaster	Historic Preservation
The Shellfish Committee Shellfish Warden	Land and Conservation Commission
Ordinance Review Committee	
Cemetery Committee	
In review	Temporary Committees Proposed in Plan
Capital Budget Town Administrator BOS	Land Use Ordinance Review Committee
Road Committee Road Commissioner	

These committees work with to the Town Administrator and report to the Board of Selectmen who are responsible for the overall coordination of the Town’s activities. Some of the committees work with a specific Town staff member who can provide some technical assistance on policy and implementation issues.

Table 3: Suggested Timeline for Major Implementation Tasks*

Ongoing project ⇨	End of project ⇨I									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Clean Waters: Create APC ⇨		Exploration of Aquifer Protection strategies		Develop Aquifer Protection ordinance? ⇨I						
Preserving Community: Lower Cost of Living										
Town/CICA Housing: 2 Units	⇨		⇨		2 Units	⇨		⇨	2 Units	
Transportation:	CTC reorganization	⇨	⇨	CTC-Town discussions	⇨		implementation of decisions	⇨		
Land Use:		Create ⇨ revise land use ordinances LUOC			⇨I					
Open Space			create ⇨ develop	Open Space Plan					⇨I	
Paper Streets		Additional research on paper streets/Town acceptance of paper streets								⇨I
Back Shore Neighborhood Plan				appoint committee ⇨	develop plan				⇨I	
Town Waters:	Complete harbors plan	⇨I	Shore land in RP in Open Space Plan		⇨I			Plan for Town Waters and Bottom		
Wharves:			⇨	Stone Wharf studies			⇨		decision?⇨	
Roads:	Capital programming for roads	⇨	road standards in Land Use Ordinance		⇨I	⇨		⇨		

*Most of the tasks shown in this table are those that are within the capacity of the Town to initiate. Non-profits will have to develop their own schedules for areas of the Plan where they may be active.

The Plan suggests three additional standing committees, one on aquifer protection, one on lands and conservation which would develop an open space plan, and one on historic preservation which will explore the possibility of creating historic districts on the island. Revision of the land use ordinances could either be done by an existing standing committee such as the Planning Board, or a temporary committee with a different membership. In addition the Selectmen are already considering the creation of committees on roads and on capital budgeting. The Plan does not suggest any new Town staff. If committees need expert help, the plan suggests hiring consultants.

The School system has a parallel structure of standing committees that answer to the Superintendent and the School Committee. For proposed budget appropriations and ordinances, as well as some other town-wide decisions, Town Meeting is the final decision-maker.

Since this is a plan for the Town, all the recommendations are addressed to the Town. The island has many non-profit organizations that have carried out activities often provided by towns such as recreation, creation of moderately-priced, year-round housing, services for the elderly, and library service. In some cases these non-profits have worked with the Town and in some of these instances joint Town/non-profit committees have been developed to do the work. That is the model being used in this Plan.

Table 3 lays out timelines for the major implementation work of the Plan. More detail is given in the discussion below of each policy area.

Evaluation

This chapter also lays out measures for evaluating whether the goals in each section have been met. Some look at “outputs”, whether a specific task has been accomplished, like the development and adoption of a new ordinance. This is indicated in summary form in the Output column in Table 1.

Other measures focus on the intended “outcomes” of policies. Did the efforts to reduce some of the costs of living on the island actually result in lower costs? Have the implementation of the Plan’s policies increased the preservation of open space? The lists of measures below typically give measures of “the issues or problems”. The reader must infer from the rest of the plan which direction, more or less, is better. Some measures are readily available as a result of the Town’s work or in statistics collected by other organizations such as the Friends of Casco Bay, but some new data may need to be collected, and this needs to be organized.

The maps in the Town’s GIS system, developed by Judy Colby-George of Spatial Alternatives and Thea Youngs, the Comprehensive Planning Committee’s Island Institute Fellow, are an important part of the Town’s planning data base and will be important in evaluating changes from 2011 to 2020. While they are easily accessible to Town staff or citizens in their finished form, there is no mechanism now for the staff or citizens to modify them or create new ones, primarily because very few people on the island have the GIS expertise to do this. When it comes time to evaluate whether the goals and recommendations of this plan have been carried out, new maps will undoubtedly be needed. So developing the capacity, among Town staff or

residents, to use these computer mapping resources that the Town has is one of the recommendations of this Plan under Running the Town.

Explanation of Implementation Timing in Table 3:

Clean Waters

In the past any work that has been done to protect Chebeague's aquifer and its waters has been largely ad hoc. Due to the efforts of geologist Carol White, the work on aquifer protection has been effective and has educated residents about the importance of this resource. The public visibility of the need to protect Casco Bay from pollution is much lower.

There is no Town committee or staff member who is responsible for monitoring the Town's waters other than the Shellfish Warden who tests the Bay's waters for the State to determine whether clamming is safe. An initial recommendation in this area is the creation by the Ordinance Revision Committee and the Board of Selectmen of an aquifer protection or clean waters standing committee which would be responsible for developing ordinances, policies and programs, not only ones suggested in this plan, but also developed as a result of the committee's ongoing work.

The Committee's first responsibility would be to explore whether the Town needs an aquifer protection ordinance. It is asked to report in a year's time whether the research that exists already and whatever other research is required indicates whether this is a good idea, and to provide some examples of such ordinances in other towns. If the Town agrees that an aquifer protection ordinance is needed, then its preparation will probably take at least a year.

A few of the recommendations in the clean waters section are ongoing already, such as monitoring the wells at the Transfer Station. Otherwise, it should be up to the Committee to decide the order in which it will address the Plan's other recommendations.

Evaluation Measures:

Outputs:

- Recommendation on whether to have an aquifer protection ordinance, and then possibly, an ordinance.
- Development of septic system and well data bases.
- Designation of each island as sole source aquifer.
- Increased seawater monitoring.
- Registration of all public wells.
- Elimination of substandard septic systems and junked cars.
- Number of oil spills.
- Number of new drainage easements.
- Implementation of mechanisms for reducing sediment in runoff.
- Restrictions on the use of pesticides.

Outcomes:

- Wells with saltwater intrusion
- Wells with bacteria or e coli contamination
- Wells with pesticides, herbicides or other deleterious chemicals

Stable or improved water quality in island streams and the Bay, including nitrogen.

Preserving the Community

Here the Plan's recommendations are more general and the responsibility for implementing them is much more diffuse. The Comprehensive Planning Committee seriously considered recommending that the Town undertake an active effort to define economic development opportunities and a strategy for working actively to encourage business development. But we concluded that this would be too large a job for the Selectmen alone, even with consultant help, and the Town is too small to hire economic development staff. In addition, at the public meeting on Preserving the Community, attendees argued that reducing the cost of living could draw working people to come to live on the island.

So the primary strategy on economic development is for the Selectmen, the Town Administrator and the Town staff to work on economic development opportunities as they present themselves in the normal course of the Town's work. Improving clamming is an easy example, since there is a Shellfish Committee, a Shellfish Warden and a State program that can support this work.

The one exception to this general guideline is that the Town should actively work with Chebeague.net, and with other potential providers to improve high-speed internet and cellphone service to Great Chebeague.

CICA is interested in working to promote farming and forestry on Great Chebeague and developing more detailed strategies to preserve actual and potential farmland is one of the tasks of the proposed Open Space Plan. As with other non-profits, it can bring proposals to the Town for help with this effort to encourage agriculture.

Similarly, looking for ways to ease the costs of regulation by the Town on homeowners and businesses will be one of the tasks of the Committee revising the Zoning and Subdivision Ordinances. This task should be completed by 2015.

In the area of reducing the cost of living, many of the recommendations logically need to be carried by existing non-profits, with the participation and support of the Town. The task of providing moderate-cost, year-round housing has been done by CICA since 2007, with help from the Town as well as funds from island donors and outside organizations. CICA has been working on implementing the various housing recommendations in the plan. Since 2007 the CICA Housing Committee has provided one rental house and is applying to create two rental duplexes. It expects to continue to add units at this rate.

The Island Commons and the Island Commons Resource Center have been the primary organizations for working with the elderly on the island. It must work out their own plans for providing housing and services for older residents, and may ask the Town for help when it is relevant.

CTC is the transportation provider most used by island residents. It is now in the process of becoming a non-profit, and appears to be interested in having a closer relationship with the

Town. It would be the key player in any effort to reduce the cost of transportation to the mainland.

Evaluation Measures:

Outputs:

- Does the island develop its own lobster license district?
- Are Town regulations on business simpler?
- Evaluation of value and condition of island forest.
- Cooperative arrangements between the Town and non-profits

Outcomes:

- Size of age cohorts in 2020 Census compared with the 2000 Census
- Number of children in Island School
- Average time of transportation from Chebeague to mainland school(s)
- Business growth/formation and loss.
- Quality of internet and cellphone service
- Year-round and seasonal jobs/businesses
- Number of lobstermen
- Acres of land being farmed
- Acres in State Tree Growth Program that are actively managed for forestry.
- Number of moderate-cost, year-round housing units.
- Data on year-round rents and sale prices of houses.
- Number of houses that have energy efficiency renovations.
- Number of houses that have been built, year-round and summer
- Support for independent living
- Cost of ferry tickets
- Cost of parking on the mainland

Land Use

The Planning Board, the Board of Zoning Appeals and the Code Enforcement Officer are currently responsible for land use regulation.

If the Town's primary regulatory efforts focus on protecting the Town's groundwater and Casco Bay, then, as the goal in the Plan indicates, the logic of the Zoning and Subdivision Ordinance revisions is to simplify the land use regulations, which are now quite complex. The Selectmen need to create a temporary committee to undertake this revision. The task could be assigned to the Planning Board or to a temporary ordinance review committee including members of the Planning Board and the Board of Appeals. The process should begin once the development of the aquifer protection ordinance is well along, maybe in 2013. It should be completed by 2015.

Maintaining the rural character of the Town is an important goal of the Plan. But the Plan itself provides only a few recommendations about how this might be done. The decision of what coastal wetlands and steep slopes should be placed in Resource Protection needs to be dealt with soon, since these are actions the Town of Cumberland was supposed to have taken when Shoreland Zoning was initially adopted.

But beyond this, this Plan provides only general guidance. In order to adopt a policy such as an open space impact fee, the Town needs to have an open space plan to specify what areas would be eligible for the funds collected. In addition, the Comprehensive Plan was not able to explore in any depth issues such as preserving existing trails and points of access to the shore. These are all issues that indicate that the Town needs a more detailed Open Space Plan.

The Selectmen are urged to create a standing committee on Land and Conservation to develop such a plan and work on its implementation. In addition to people who may have served on the Comprehensive Planning Committee, it should actively involve members of the Chebeague and Cumberland Land Trust which plays a critical role in protecting open space on the islands. If possible, this plan should not be delayed until the possible aquifer protection ordinance and the land use ordinances have been developed. Its ideas and recommendations should influence those other two efforts. However, the task of finding volunteers to work on three major projects at the same time may be difficult.

Development of a neighborhood plan for the area between North Road and the Back Shore will need to be organized by the Planning Board. The timing needs to be coordinated with decisions about whether to use Sunset Landing for a new wharf, and the research on the status of paper streets in the area.

Evaluation Measures:

Outputs:

Adoption of new land use ordinances. A possible measure of simplification of the ordinances would be the length of the new ordinances.

Adoption of an Open Space Plan

Development of a neighborhood plan for the area between North Road and the back shore.

Completion of reviews of paper streets to be retained, by 2017.

Adoption of mechanisms for building up money to buy development rights for open space.

Money collected for open space protection

Creation of any historic districts

Outcomes:

Acres in conservation easements or from which development rights have been purchased.

Acres placed in Resource Protection zoning

Houses built in growth areas versus other areas of Great Chebeague

Cost of land per acre

Wharves, Working Waterfront and Outer Islands

The major issue of whether to build a new ferry landing is one that probably needs to be explored directly by the Selectmen and the Town Administrator, with the help of consultants. If the Selectmen and Town Meeting decide to undertake this task, the studies, and the physical and financial planning for it are likely to last through this Plan's entire life-span.

The work on a shore access plan needs to be part of, or coordinated with, the development of the Open Space Plan.

Evaluation Measures

Outputs:

- A decision on whether to construct a new wharf.
- Development of a Shore Access Plan
- Maintenance/repair work on the Stone Wharf

Outcomes:

- Number of parking spaces at existing and proposed wharves.
- Number of parking tickets issued.
- Number of barge trips to barging ramps
- Number of protected shore access points
- Protected outer islands without animals that disrupt bird nesting.

Use of Town Waters

Here the Town already has two standing Committees and a Harbormaster/Shellfish Warden. The Coastal Waters Committee needs to be revived. The process of developing a “harbors” plan is already under way.

The issue of whether additional lands along the shoreline should be in Resource protection is one that requires the joint efforts of the Coastal Waters Commission, the Shellfish Committee and the proposed Open Space Plan Committee.

The larger, longer-range issue of whether to develop a plan for the use of the Town’s waters and bottom will rest with the two committees charged with policy for the Town waters and the Harbormaster/Shellfish Warden in conjunction with the Board of Selectmen. This effort can only be undertaken if the groups using the Town waters, such as fishermen, aquaculturists, boaters, and other possible users such as wind energy providers are involved. Since the idea of such a plan is new, to the Town and the State, time will be needed to see if it develops support. So this plan, if it comes to fruition at all, is likely to be developed after 2015.

Evaluation Measures

Outputs:

- Adoption of a harbors plan and regulations to carry it out.
- Participation by people from TOCI in decisions made by the State about TOCI waters.
- Needed legislation passed by Legislature
- Adoption of a Town Waters Plan

Outcomes:

- Number and location of moorings
- Lobster harvest relative to estimated supply
- Clam harvest relative to estimated supply
- Recovery of any other fisheries
- Numbers of baby lobsters

Extent of eelgrass beds
Number of State leases of Town bottom

Running the Town

Capital Improvement Planning

The Town is already moving to improve its capacity to do capital improvement planning and budgeting. The Selectmen are considering the creation of a standing committee to help them and the Town Administrator with developing a realistic capital improvement plan that the Town can afford, given its present heavy debt load.

Evaluation Measures

Outputs:

A more detailed Capital Improvement Plan

Outcomes:

Number of times TOCI borrows money for capital improvements.

Roads

A plan for the repair of the Town's roads has been prepared, though the details need to be worked out as the plan is implemented. Its implementation will be very expensive and will probably be spread out over the life of this Plan.

The revision of the land use ordinances will take up the issue of road standards before 2015.

Evaluation Measures

Outputs:

Road Standards for public and private roads
Database on Town Roads

Outcomes:

Feet/yards/miles of good road maintained
Feet/yards/miles of poor road improved
Feet/yards/miles of new road, private and public
Number of drainage easements acquired
Number of street lights
Number of automobile/bike/pedestrian accidents

PART II:

**DISCUSSION OF ISSUES, GOALS
AND RECOMMENDATIONS**

1. CLEAN WATERS

An island without a supply of clean drinking water is uninhabitable. A fishing community can't sustain itself when the waters it fishes are polluted. This means that clean water – fresh and salt - is the most basic requirement for a town located on a group of islands in Casco Bay.

Chebeague's water resources are made up of three systems. One is groundwater where the central concern is recharge of the aquifer that provides fresh water to the island. The second is fresh water on the surface of the land such as streams, ponds, wetlands and drainage ditches, many of which run off into Casco Bay. Stormwater runoff is the major issue here. The third is Casco Bay. One of the most unusual characteristics of the Town of Chebeague Island is that most of its area is sea rather than land. The town covers 12,701 acres, 10,482 of which are water. The Bay is one of the Town's major resources, one that it needs to protect.

Goals and Recommendations

The Goal is: ADEQUATE, CLEAN GROUNDWATER

Aquifer Recharge and Wells

Recommendation: Create a standing Town Aquifer Protection Committee.

Recommendation: Explore whether to adopt an Aquifer Protection Ordinance based on existing and possible new research on Town of Chebeague Island aquifers. This process should look at existing models for regulation of such issues as movement of surface water, mining of gravel, storage of petroleum, septic systems and sources of toxics including nitrogen. It should evaluate tradeoffs between cost of regulation and benefit to the water supply and the Bay.

Recommendation: Consider an application to the Federal Environmental Protection Administration to have the Town's islands designated as a sole source aquifer.

Recommendation: Remove the current language in the Zoning Ordinance allowing commercial extraction of groundwater. This would not prevent development and use of collective residential wells such as Cart Road Acres, Hamwell and Crestwell.

Recommendation: Review public or collective well systems to see if they should be registered with the Public Water Supply Program.

Recommendation: Continue ongoing public education about groundwater
An informed population is essential to protecting water quality. It is much more effective to prevent problems than to clean them up after they have happened, and first in line in prevention is the ordinary resident. Educate Chebeaguers through the use of public forums, written brochures, the *Calendar* and the island's website. This education should cover:

- The functioning of a sole source aquifer.

- The importance of aquifer recharge areas, and about the way water moves in the ground.

- The state of the water in Casco Bay

- How septic systems work and how they are maintained

How to prevent ground and surface water contamination by: heating oil tanks, junked cars, salt, pesticides, herbicides, medications.

How to have gardens and lawns without pesticides and herbicides.

Erosion Control during Land Clearance

The importance of Shoreland Zoning regulations in reducing runoff into the Bay.

Septic Systems

Recommendation: Do a survey and develop a database of septic systems.

Recommendation: Develop a Town-administered program to make pumping of septic tanks easier and more regular.

Recommendation: Replace failed cesspools and other obsolete septic systems in aquifer recharge areas by referring owners to State financial aid programs and/or developing a local one.

Recommendation: Where higher density development is encouraged in growth areas explore using collective septic systems.

Petroleum Use and Storage

Recommendation: The Town should work with existing volunteers to develop an affordable system for regularly taking junked cars off the island.

The Transfer Station

Recommendation: Continue water monitoring around the old dump.

Salt Intrusion into Groundwater

Recommendation: The use of road salt should be minimized or ended in the most vulnerable aquifer recharge areas.

Recommendation: The Town should monitor areas where saltwater intrusion into wells along the shore has been occurring, and consider whether to adopt regulations in the Aquifer Protection Ordinance to reduce this risk.

Information Registration

Recommendation: Institute a Town well registration requirement for new development. Data to be registered should include GPS coordinates and yield and should be comparable to existing data.

Recommendation: Institute a Town registration requirement for new and replacement septic systems. Data to be registered should include GPS coordinates and design and should be comparable to existing data.

The Goal is to: MAXIMIZE THE ABSORPTION OF SURFACE WATER ON THE ISLANDS

Recommendation: In the aquifer protection and land use ordinances and in development reviews, encourage the use of natural drainage patterns to protect the Bay and recharge the aquifer.

Recommendation: The Town should develop more drainage easements with land owners to direct stormwater from ditches to wetlands and retention ponds. Retention ponds might also be used for fire ponds if it is feasible to maintain them.

Recommendation: Increase training of the Town road crew in best management practices for roadwork to reduce sediment in runoff, and provide support in the Town budget for materials to stabilize drainage ditches and slow the flow of stormwater.

Recommendation: In revising development regulations, pay attention to minimizing impervious surfaces.

The Goal is: HIGH WATER QUALITY IN CASCO BAY

Monitoring:

Recommendation: Water testing for both bacteria and the physical properties of the seawater, perhaps by volunteers, should be increased and the results publicized on the island. The Town should be responsible for testing the water at swimming beaches, at a minimum at Chandler Cove Beach. This effort should include testing of the surface water coming off of Chebeague in streams.

Recommendation: Conduct research to determine whether the nitrogen-fed green algae on Town clam flats and beaches is the result of local runoff, and develop policy to prevent it.

Recommendation: Continue to monitor any overboard discharges on Great Chebeague, and identify/monitor any that may exist on the outer islands.

Reducing Sources of Pollution

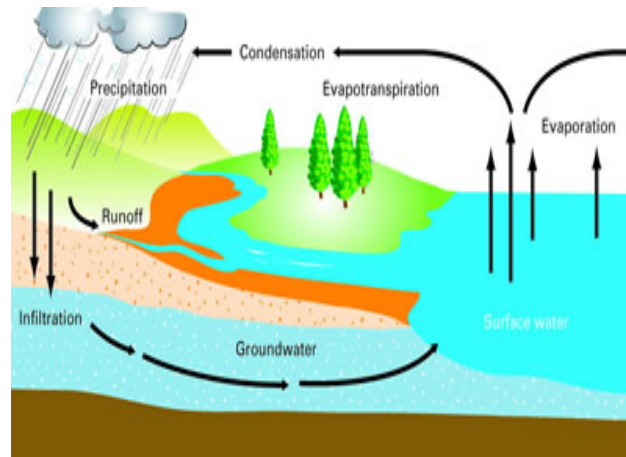
Recommendation: The Coastal Waters and Shellfish Commissions should seriously examine an application and management plan for a boat pump-out barge. This has become controversial, so analysis is necessary to see if it would reduce pollution.

Recommendation: Prohibit aerial spraying of Dimlin for browntail moths.

Discussion

Water is intertwined with many related topics -- climate, vegetation and waste disposal. High quality fresh water supplies are essential to our way of life. And clean ocean water is essential to our economy. Because all of the islands in the Town are served entirely by private wells and septic systems, it is critical to understand the hydrologic cycle which describes how water flows through our environment. It falls as rain or snow. Some is absorbed into the ground. We draw on this groundwater for our drinking water. Some runs off into wetlands, streams or the Bay. Some of the water in these water bodies evaporates into the air. Some water is absorbed by

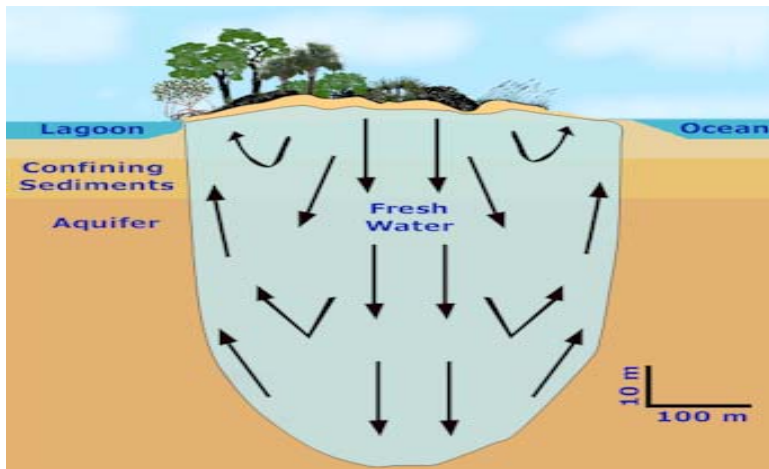
vegetation which also releases water into the air. The evaporated water ultimately condenses and falls again as snow or rain.



The Hydrologic Cycle

a. Groundwater

On the islands, the quality and quantity of fresh water are the big factors. The research shows that on Great Chebeague there is plenty of water for any expected development. So quality is our big concern. This is especially important because all of Chebeague’s fresh water comes from a single source aquifer- a single lens of fresh groundwater water under the island floating on the



An Island Aquifer

heavier sea water surrounding it. Any pollution of the surface or groundwater potentially could damage all of it. Certain kinds of soils, especially sand and gravel, that allow larger amounts of rain and snow to percolate down into the ground are called “aquifer recharge areas”. These particularly need to be protected from sources of pollution.

The major threats to fresh water quality in the Town are:

- Oil and gasoline. Oil in the groundwater is expensive to clean up. The average cost of cleaning up a heating oil tank leak is \$500,000. Despite a state-funded program to replace heating oil tanks with problems, Chebeague has had five significant oil spills in recent years.
- Septic wastewater. In 2000, the water quality of 102 wells on Great Chebeague were sampled, somewhat over-selected for areas that might have problems. Half tested positive for bacteria from things like leaves or a dead mouse, and five, in fairly densely populated areas, tested positive for e coli which comes from septic systems. In 2004 56 wells were retested and a similar though reduced pattern was found.
- Salt: from seawater intrusion which is an issue on Rose, Deer and Division Points. Salt from the roads can also get into the groundwater.
- Toxics: herbicides, pesticides, drugs and chemicals.

Aquifer Recharge

Town residents, and especially residents of Great Chebeague, need to decide how important protection of aquifer recharge is when weighed against other uses of the land.

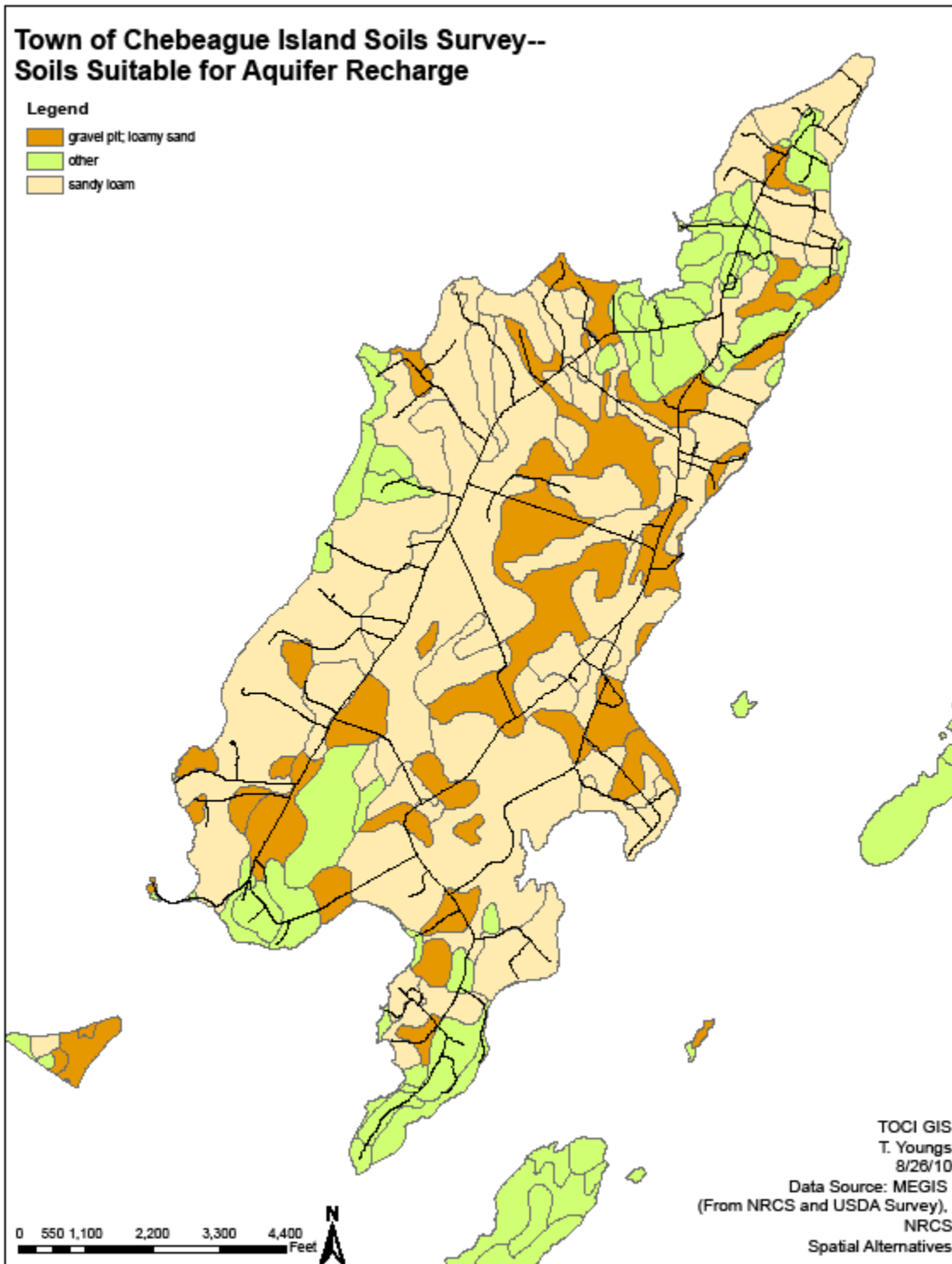
Great Chebeague Island and all the other inhabited islands of the Town have sole source aquifers. Waste that we put into the ground through septic systems, the old dump, spills of things like oil and gasoline can percolate into the groundwater which is also our only source of drinking water. Gravely or sandy soils allow percolation of rainwater and snowmelt to occur faster, and hold the water; this is what it means to be an “aquifer”. As Map 1 indicates these gravely and sandy soils are widespread on Great Chebeague. This means that protection of aquifer recharge areas is a concern, not just in specific areas, but all over the island. The Plan recommends exploring the creation of an aquifer protection ordinance for the entire Town.

Such an ordinance would need to address all the threats to the groundwater listed above: petroleum products, septic waste, salt and toxics. Two more specific issues would also need to be addressed. One is housing and commercial development. This plan recommends defining a large “rural” area in the center of the island, several “growth” areas in which slightly higher density development will be allowed, as well as the basic 1.5 acre development area. Development will continue to occur on the island. Even the “rural” area now has, and will continue to allow development. Because of the widespread distribution of aquifer recharge areas, development of any aquifer protection ordinance would need to evaluate regulations for septic systems and stormwater management measures when development occurs.

Another issue an aquifer protection ordinance would need to address is the mining of gravel. Gravel soils are not only valuable for aquifer recharge, they can also be mined and used for road and other kinds of construction. The island has had a number of gravel pits, particularly near the center of the island. The primary reason for gravel extraction on the island is that gravel, though cheap, is expensive to transport. At the moment the Town brings out truck-loads of gravel, and the barge trip by itself costs \$500.

Gravel extraction is an industrial process that may introduce pollutants into the remaining sand and gravel. But mining gravel poses a more basic problem for aquifer recharge by removing the gravel that filters and holds the water. Once the gravel has been mined and used on roads,

Map 1:



driveways, in septic systems and in construction, it no longer lies in sub-surface layers that provide aquifer recharge. If all the gravel on the island were mined (something that is unlikely) the ability of the ground to hold and supply water would be significantly reduced.

Many other unbridged islands are recognized by the Federal government as sole source aquifers. Most have some form of aquifer protection. It is also important to continue to educate residents about where their drinking water comes from and how it can be kept clean.

A number of other recommendations are made here related to collecting data on wells and septic systems, replacing cess pits which are now illegal but continue to be used, and improving the maintenance of septic systems – an advantage for both the public and the homeowner whose system will last longer.

b. Surface Water

The sources of pollution listed above are threats to the well-water we draw from the aquifer and use at home. In addition, because stormwater runs off over the land picking up oil, salt, herbicides, pesticides and soil, the quality of the islands' waters affect marine resources, especially in-near shore areas.

- Pathogen contamination, can result in shellfish closures.
- Toxic runoff– such as spraying of dimilin to control brown tail moths – can harm marine organisms.
- Excess nutrients may increase the incidence of red tide and other algal blooms
- Sediment in runoff may smother marine life but also nourishes mudflats.

Recharge of the island's aquifer depends on having rainwater permeate into the ground. The longer the distance that rain and snow-melt flow along the ground, the more they are likely to pick up pollutants. This can be minimized by:

- Minimizing “impervious” surfaces such as roads and parking lots which collect pollutants that are then picked up by runoff.
- Slowing runoff down so that sediments can settle out, often carrying other pollutants with them.
- Maintaining vegetated buffers that slow and treat runoff as it trickles through them.

c. Surface Water and Casco Bay

Inevitably some surface water runs off into the Bay as stormwater. The issue with stormwater is that it must be not be allowed to pollute the Bay.

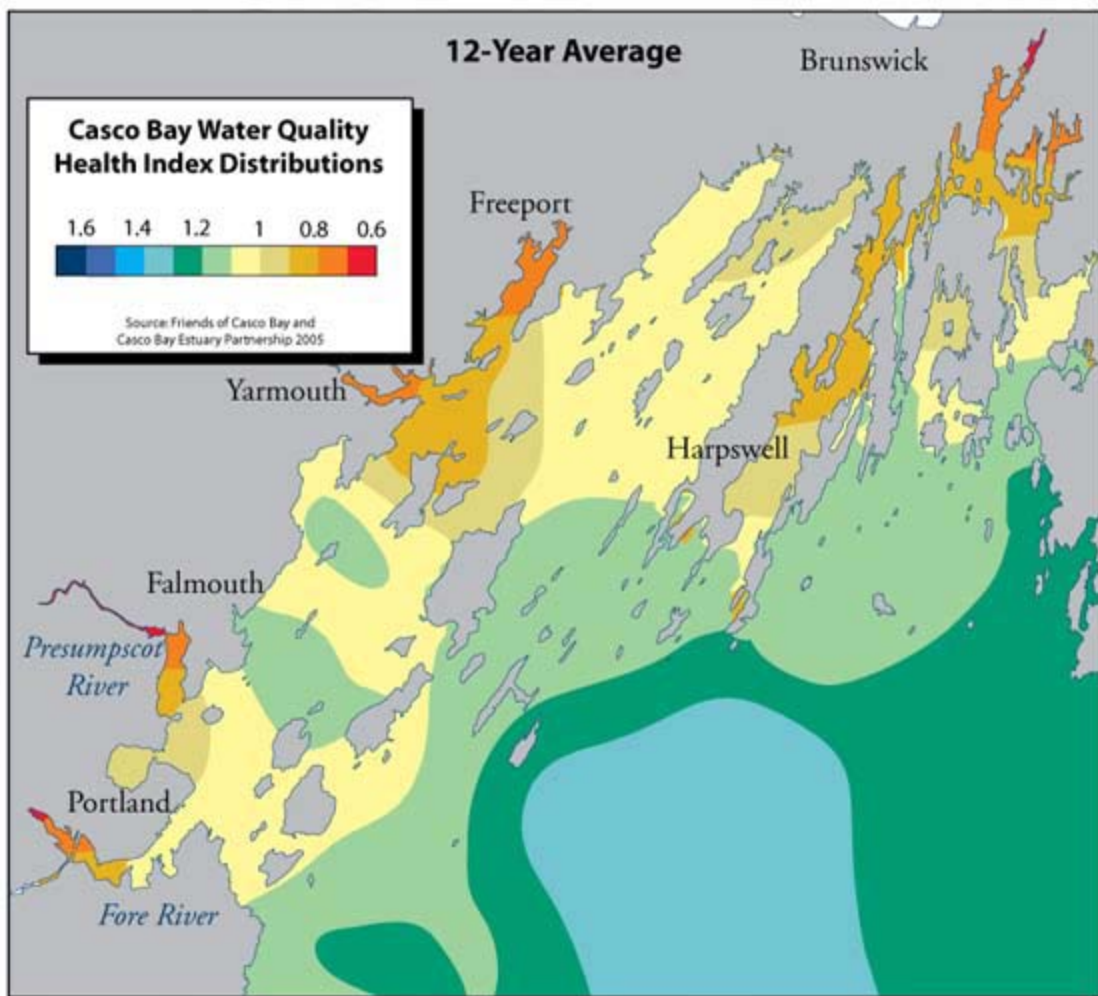
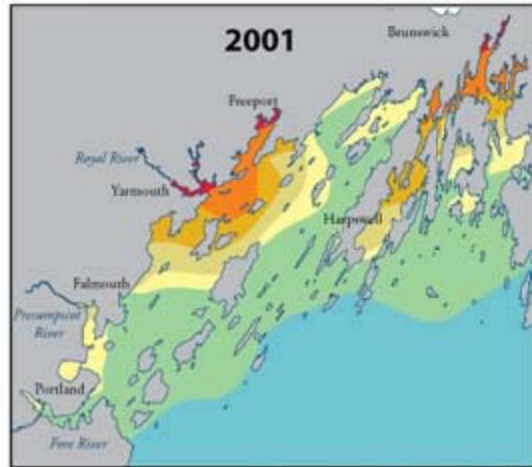
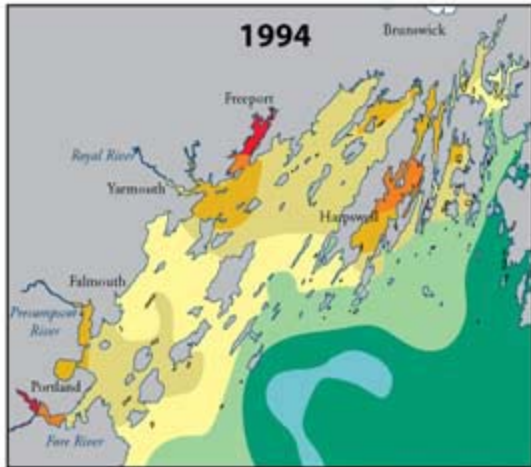
Unlike much of the open Atlantic, the Gulf of Maine is a very productive “garden” rich in microscopic, single-celled phytoplankton. These phytoplankton are eaten by zooplankton or tiny animals, which, in turn, are eaten by larger fish and shellfish. Shoreline areas, including islands, are particularly productive areas. Large tides create more intertidal habitat for animals like clams and mussels. Water near the shore where waves break is more oxygenated. And the shore itself creates areas where there can be up-wellings of nutrient-rich deeper water.

The down side of this high marine productivity is that it can be, in effect, too productive. Nutrients such as nitrogen are necessary for photosynthesis. However, if too many nutrients flow into the Bay from sources such as sewage treatment plants, farm fields, fertilized lawns and street runoff, photosynthesis can run amok, producing large amounts of phytoplankton and green algae. When these plants die, they are attacked by bacteria that consume much or all of the dissolved oxygen in the water, killing all other forms of life. This is called “eutrophication”.

The water quality monitoring done by Friends of Casco Bay throughout the Bay from 1993 to the present, including on Chebeague, indicates that the water quality of the Bay is generally good. There is relatively little sign that there are enough nutrients flowing into the Bay to cause eutrophication. But there is a lot of variation in water quality seasonally, over the years, and in different parts of the Bay. To capture this variation FCB developed a Casco Bay Health Index (Map 2) based on water monitoring readings all over the Bay between 1993 and 2004. The two variables used in the index are the dissolved oxygen saturation and the clarity of the water. The index has a range from .60 to 1.35.

Chebeague’s location in the center of Casco Bay means that it serves, to some extent, as a dividing line between the more polluted waters toward the mainland and the less polluted water out to sea. Much of the pollution of the Bay comes from sources on the mainland such as sewage treatment plants, farm and construction runoff, and road runoff. But even birds and fishing activities on the water can result in pollution. In late summer Chebeague’s most productive clam beds have areas covered with green algae. This algae kills the marine animals beneath it. This is a sign of nitrogen pollution from waste-water treatment plants and fertilizers. Some of this may reach Chebeague from the mainland. But Chebeague is also putting fertilizer into these waters. The Town of Chebeague Island should do what it can to reduce sources of pollution on the islands and in the water itself.

Water, both fresh and salt, is one of the Town’s most precious resources. Understanding the island’s water resources and their issues, monitoring the condition of the resource, and planning to preserve water quality will insure that good water and healthy upland and marine resources are available in the future.



Map 2

2. A Sustainable Community

The human community of Great Chebeague has existed for more than two centuries. It has had periods of growth and decline in its population, and of prosperity and depression in its economy. In these ups and downs the people and the economy have changed, adapted and survived. In 2010 the Town has come through a period of growth and now is caught in a major national recession. Recent growth in the population has primarily occurred among people over the age of 65, while younger people who would make up the future workforce and the island's young families have not been recruited as successfully.

This section is made up of five chapters. A discussion of the Town's changing population defines the issues here. Jobs and the economy are the subjects of the second chapter. The third is concerned with the cost of living. The fourth and fifth chapters focus on the many local services that make the Town a good place to live.

Both year-round and summer residents are strongly committed to maintaining an age-diverse, year-round, working community. But actually making this happen will take work on a number of fronts:

Most working people who live on Chebeague also work on the island or on its waters. If young people are not staying on or coming to the island, it is in part because it is difficult to find jobs that are satisfying, well-paying enough to provide year-round income and that provide benefits that are required to support a family.

The cost of living on the island is also high. The cost of housing has been bid up by the attractiveness of the island to summer people and retirees from away. Year-round working island families find it difficult to compete in this market. And because many basic supplies such as food, gasoline and heating oil, have to be brought to the island by boat, their cost is higher than on the mainland. People, also have to come by boat which means paying boat fare and keeping at least one car on both the island and the mainland.

Even with the high costs, what islanders do have is an exceptional quality of life. The setting of the island in the Bay is beautiful, the island still feels rural and holds to traditions that enable residents to get to the shore and to many other lovely places. The island has a strong sense of community with widespread volunteering that provides a surprising number of services for such a small place. The economy, both on the island and on its waters, is largely based on small businesses and self employment. Every summer the pace of life quickens as lobstering begins and the island population grows with the arrival of hundreds of summer residents, many of whom have been coming to the island for several generations. For many of these people, Chebeague is the common home to which family members from all over the country can return.

2.a. PRESENT AND FUTURE POPULATION

Towns develop comprehensive plans in part because their populations change over time. Planning for future growth is common, but other kinds of demographic changes also require planning responses. Changing population patterns are even more important on an unconnected island because it is more self-contained than many communities on the mainland.

Like the rest of the country, Chebeague has come through a building boom during the last two decades. The impact of this growth on Great Chebeague is primarily experienced in the number of people on the island in the summer, and in the number of places that used to be undeveloped that now have houses.

On the other hand, the size of the year-round population has been fairly stable at about 330 people. It may be growing slowly. Over the past 20 years Chebeague has seen growth in its older population. More important though, at the same time, it has not been replacing its year-round working population. If these two patterns continue, the nature of the community will change significantly. It might well survive as a year-round community, but it would not look like the Chebeague we know now. Chebeague seceded from Cumberland in significant part because SAD 51 would not guarantee the continuation of the Chebeague School which is essential to maintaining a year-round working community. But young families are also needed to sustain the school.

Goals

The Goal is: PRESERVATION OF GREAT CHEBEAGUE AS A VIABLE, AGE AND INCOME-DIVERSE, YEAR-ROUND COMMUNITY.

Recommendation: Carry out the recommendations in this section on Preserving Community.

Recommendation: Develop policies that will retain current young people , and attract individuals and families in the 18 to 40 age group.

Discussion

The Year-Round Population

Counting people in a small place is tricky. Population may go up and down from year to year based on individual people's life choices. In a large place these many decisions "average out" into a longer-term trend. In a small place, however, you may be left wondering whether a 20-person difference up or down over ten years is "significant" or not.

Total Residents: There are a variety of past and current population counts for Great Chebeague Island and for the Town. A 2008 count of residents by the Comprehensive Planning Committee identified 333 people.

Households: The number households seems to have gone down a bit. There were 170 on Great Chebeague in 2000, and 163 for the whole Town in 2008. The household size has also gone down, from 2.09 in 2000 to 1.98 in 2008.

Age: This is where the greatest change is being seen in the Town. The U.S. Census gives counts of population by age for Great Chebeague for 1990 and 2000 and the 2008 Planning Committee count for the whole Town provides a figure for the number of children.

- Compared with the state as a whole, Chebeague has had a smaller proportion of children in its population for many years. Between 1990 and 2008 about 19 to 20 percent of the population were children under the age of 19, compared with 26 percent for the state as a whole.
- The most striking difference between 1990 and 2000 is the decline of in the proportion of year-round residents between the ages of 18 and 29. In 1990 they made up 13 percent of the total population. But by 2000 they made up only 5 percent. This is the age group of people starting new careers and households on the island. In both decades the largest group in this age group is the people from 25 to 29; but in 1990 this included 23 people, while in 2000 it included only 12.

What seems to be happening is that the young people of 1990 are growing older but are not being replaced in sufficient numbers. So, in 1990 there were only 36 people between the ages of 35 and 44. In 2000 there were 56 people in this age group largely because the larger 25-35 cohort aged into the 35-44 age group while the 15 19-24 year-olds moved up into the 25-34 cohort. The problem is that in 2000 the 19-24 year old cohort had only 7 rather than 15 people in it.

Since the 2010 Census will be available fairly soon, it is important to see if this really is a trend.

Chebeague is also getting greyer. In 1990 there were 76 residents over the age of 65. In 2000 there were 88, and the proportion of the population over 65 in 1990 was 22.5 and 25 percent in 2000. This compares with 14 percent of the state-wide population that was older than 65 in 2000. Not only are life-long residents getting older, but since 1990 and especially since 2000 there has been an influx of people, many of whom used to be summer residents, who now have come to live year-round on Great Chebeague. In the future, as the baby boom generation begins to reach retirement age in about 2011, this trend may become stronger.

Population Projection: Probably the year-round population is growing slowly. The Greater Portland Council of Governments used its PACTS transportation econometric model to produce a population forecast for the Town based on the number of building permits for year-round houses issued between 2000 and 2006. This produced a growth rate of eight to nine people every five years or 4.3 to 4.9 percent. This projection has the advantage of being in the middle of the other “growth rate” estimates. In 2018 it is projected to be about 370 or 36 more than in 2008.

The Summer Population

Most of the information on the Town’s population relates to year-round residents. However, the summer population is an important element of the Town’s economy and social life, and is a major user of Town services.

The size of the summer population on Great Chebeague is difficult to estimate in a way which suggests its impact on the island. Summer people own 63 percent of the houses but some of these houses are not occupied all summer. Estimates suggest that at any given time during the summer there may be as many as 900 to 1,400 additional people on the island. An average of 1,700 in July and August is a reasonable estimate.

The only indicator that we have for projecting the increase in the summer population is the number of new summer houses built during the past 20 years. Ten-year projection of that number would suggest that about 100 more summer people would be on the island at any given time if the household size were 3. This would maintain the ratio of summer people owning about 63 percent of island houses which has existed since 1988 and seems to be a workable pattern.

The gradual increase in the summer population will have some impact on things like roads and the capacity of services from the Library to the Transfer Station. On the other side, however, the summer people who own 63 percent of the houses pay taxes that support public facilities and services. They also donate to building and operating funds of non-profits such as the Library, the Rec Center, the Commons and the Historical Society, enabling the island to have more extensive services than the year-round population of 333 could support. And the increase in summer ferry passenger traffic provides the critical mass necessary to operate the CTC ferry, its parking lots and bus system year-round.

Conclusion

The goals of this chapter set the stage for the remaining chapters in this section which deal with the ways that the Town of Chebeague Island may be able to shape its population over the next ten years. The first looks at the economy and how it might be made more attractive to working families. The second deals with the cost of living, focusing particularly on housing and transportation, two of the aspects of the high cost of living on the island that might be able to be changed at least to some degree. The third describes the critical role in the community played by the Chebeague Island School and secondary education on the mainland. The final chapter reviews the many non-profit services provided on the island and the ways in which they serve both working families as well as retirees and the elderly.

2.b. THE CHEBEAGUE ECONOMY

The greatest strength that Chebeague has in attracting and keeping residents is its quality of life – the beauty of the island and its sense of community. There is a certain amount of inconvenience that comes with living on an unconnected island, especially with children in school on the mainland. People make their own decisions about the balance between the advantages and the inconvenience that they can live with. Reducing the inconvenience would encourage people to come and to stay. On the other hand, the cost of living – for housing, transportation, energy and services -- is not just a “hassle” but a real limiting factor to people’s ability to live on the island.

The majority of working people who live on the island also work on the island or its waters. So income for living here comes from jobs here. If the year-round, working community is to survive there has to be a better fit between the money earned on the island and the cost of living here.

This is a difficult problem to solve, and one that the Town has little leverage over. Most decisions about economic activity are made by individuals and businesses. The Town can only attempt to make the “economic environment” a bit “friendlier” for jobs, especially those that have good pay and benefits. There are two ways it can do this:

- One is to try to make sure that Town policies and regulations do not create unnecessary barriers to the creation of businesses and jobs.
- The other is to actively promote economic development of some kinds.

The latter strategy generally takes more time and money to do than the former. Given that the Town of Chebeague Island has limited staff capacity and a constrained budget, the people who attended the public meeting on the economy, and the Planning Committee both felt that it does not make sense to recommend putting considerable time and energy into traditional economic development studies and policies, such as creating a loan fund or making subsidies available to businesses, at least at this point. The one exception to this would be trying to encourage the improvement of internet and cellphone service on the island since they have become essential to economic activity.

In general, however, it may make more sense for the Town to focus on trying to reduce the cost of living on Chebeague to make living on the island more competitive with living on the mainland. This is dealt with later in this section. It is also important for the Town to make sure that its policies and regulations do not discourage businesses to be created on Chebeague

Goals and Recommendations

The Goal is: ASSISTANCE TO BUSINESSES WITHIN THE NORMAL SCOPE OF TOWN ACTIVITIES.

Recommendation: Provide infrastructure that would help significant sectors of the existing economy such as fishing, clamming, construction and local services.

The Goal is: ENCOURAGEMENT OF NEW BUSINESSES AND THE SURVIVAL OF EXISTING ONES, INCLUDING AGRICULTURE AND FORESTRY, BY CONSIDERING THE IMPACT OF THE TOWN'S VARIOUS REGULATIONS.

Recommendation: Revise zoning provisions on businesses, agriculture, animals and timber harvesting and other relevant provisions to remove barriers to these economic activities.

The Goal is: FAST AND RELIABLE HIGH SPEED COMMUNICATIONS

The Town should work with vendors, including chebeague.net, to make major improvements to internet and cellphone service on the island.

The Goal is: INCREASED FARMING AND FORESTRY

Recommendation: Shape Town policies so that they encourage commercial agriculture and forestry including allowing for the infrastructure they require.

Recommendation: Explore in more depth the financial viability of combining forestry, animal husbandry and crops that might revive farming on Great Chebeague.

Recommendation: Identify areas of the island where farming and/or forestry could be encouraged, as distinct from areas that should be kept in open space for other purposes, or which should be open to development.

Recommendation: Explore ways to encourage landowners who are interested in forestry to organize for collective action. Encourage having an overall study of the value and condition of Chebeague's forests.

Recommendation: Encourage landowners to enroll in the State Tree Growth Program with a management plan for the economic use of trees which the Town will actively enforce.

Recommendation: Encourage farmers who qualify to enroll in the State Farmland Preservation Program.

Recommendation: Work with the Chebeague and Cumberland Land Trust to acquire property, easements or development rights to land that could be used for farming or forestry and to include these uses in the easement.

Recommendation: The Town should explore sourcing food and forest resources locally on Chebeague as an economic development strategy.

Discussion

Economic activity within a community is usually divided into "export" activities that bring money into the community "from the outside" and "service" activities that circulate money

within the community. Unconnected islands are different from mainland economic communities in being physically isolated from the mainland, in having clearly defined boundaries and in having a limited population base. In the world of unconnected islands Chebeague is medium-sized. It is also located conveniently close to Maine's major metropolitan area as are Long and Peaks.

In the Portland Metropolitan area, however, it is comparatively isolated; more so than Peaks, though less than Long. It is more cumbersome and more expensive to get to than mainland towns like Cumberland or South Windham that are the same geographical distance from Portland.⁴

By and large export "industries" are less limited by the constraint of the small population on Chebeague. Lobstercatchers or a business like Miller Designs are not limited in what they can sell to the island population since they primarily sell to buyers on the mainland or including other states and other countries.

On the other side, local service providers are generally limited to what they can sell to people on the island. A winter population of 333 is not large enough to sustain many of the businesses and non-profits on Chebeague. However, the increase of population to about 1,700 in the summer is sufficient. A larger year-round population might stimulate additional businesses, but in the visioning survey this was only mentioned by a handful of people as a policy option.

Table 1 shows estimated employment on the island by industry sector. These sectors are not mutually exclusive. For example, education and health are both professional fields but are listed under these categories rather than "professional/scientific". The numbers were compiled on the island and are not from the census. The census data on employment by industry is based on the information from the 1 in 6 people who get the long form. This is too small a sample to be able to generalize to the total island population. The table also includes a number of people who live on the mainland but do most or all of their work on Chebeague as do some fishermen and contractors.

The Chebeague Economy in 2008

On Chebeague the major export "industries" are fishing and summer visitors (including the construction, gift shopping, meals, lodging, services like the boatyard, and recreational activities like golf that are consumed by summer them). These industries use Chebeague's natural resources as their inputs: natural beauty and marine resources. Both vacationing and fishing are largely seasonal.

In addition, one of the primary strategies for making a living on Chebeague where many jobs are seasonal, is to work at several jobs. Six people on the Zone F lobstering list are also on the list of homebuilders on Chebeague, for example. So by counting jobs, the table double counts people with more than one job.

⁴ The distance is about 6 miles. A 20 minute door-to-door drive from Portland to Cumberland is equivalent to an hour's trip to Chebeague, which also involves 2-3 changes of "transportation mode (car to boat for example), and an additional cost beyond the cost of driving of \$5.25 for parking and ferry fare.

Table 1: Employment by Sector, 2008⁵

Sector	People who live & work on Chebeague	People who live on Chebeague & work on the mainland	People who work on Chebeague and live on the mainland
Agriculture & forestry	2		
Fishing	70		5
Quarrying	1		
Construction	14	1	7
Manufacturing	8		
Wholesale Trade	1		
Retail Sales	7	2	
Transportation	13 ⁶	2	
Maintenance	7		2
Information	5		
Finance & Insurance	0	3	
Real Estate	1		
Professional, Scientific & Technical	3	14	
Education	7	4	8
Health	6	4	1
Food & Accommodation	16		18 ⁷
Management of companies	1	1	1
Arts	2	1	
Recreation	3		
Other service (cleaning, car repairs, gasoline, propane etc.)	12	1	2
Public service	10	1	3
Totals	189	34	47

Island Export Industries*Fishing*

Fishing is obviously the most common occupation, and as an export industry, is a major contributor to the island economy.

⁵ Many of the jobs on the island are part-time and/or seasonal, while jobs on the mainland are more likely to be full-time year-round.

⁶ CTC has an additional 11 employees who do not live on Chebeague and who work on the mainland.

⁷ 11 of these live during the summer in Chebeague Inn facilities on the island.

State-wide the lobster fishery boomed starting in about 1990 as ground-fishing and other kinds of fishing declined, and no limit was set on the number of traps a lobsterman could have. In 1973 the number of fishermen in Maine with a majority of their income from lobstering was 2,500. By 1998 it was 5,500. The lobster catch increased from about 28 million pounds worth about \$112 million in 1990 to the peak of about 93 million pounds in 2010 with a value of \$308 million.

Throughout this period of change, Chebeague reflected the state-wide pattern. The number of lobster licenses issued to Chebeaguers increased steadily from 49 in 1990 to 63 in 1996. In 2000 Chebeague had 54 licenses and 45 lobster boats, fishing an estimated 35,000 traps.

The dramatic increase in lobster landings was not only due to an increase in the number of lobstercatchers. Changes in technology also encouraged more intense fishing effort. Larger, faster boats with more electronic gear including GPS and more allowed lobstermen to increase the number of traps they fished and to shift traps from place to place more easily to take advantages of changes in migration patterns. The size of traps also increased from one-parlor to two. These changes in technology made lobstering more capital intensive and harder for young fishermen to enter because of the cost.

On Chebeague the number of the largest lobster boats with more than one crew member grew in use during the 1990's from 1 in 1990-91 to 10 in 1995-96. These boats allow lobstermen to follow the migrating lobsters out further to sea in the winter. Perhaps because they also involve higher costs of operation, the number declined gradually to 5 in 2007-08.

The rise in the numbers of lobstermen and the number of traps through the 1980s and 90s, increased the pressure on the lobster resource. In 1995 the State adopted a limit of 1200 traps per lobsterman, which may have actually encouraged more widespread adoption of the "more efficient" technologies, since the law did not limit the number of people who could get lobstering licenses. The State did, however, divide the coast of Maine into seven lobster "zones" in which fishermen would play an active role in the management of the resource.

Chebeague is in District 3 of Zone F and it has a representative on the Zone F Council elected by the lobstermen on. Communities such as Harpswell, with more fishermen, have several representatives. In Zone F the total number of traps per license was reduced to 800 by the year 2000.

Local councils including the one in Zone F have also reacted to the boom growth by adopting stringent requirements for entry into the fishery, allowing only one new lobster license for every 4,000 trap tags retired. People who want to become licensed lobstercatchers must serve an apprenticeship as a sternman. It may take as long as 10 years to get a license, and when they get one, initially they can only have 300 trap tags. Given the capital costs of going into lobstering, this number of traps may be enough traps to support a family down east, but it is not enough in Casco Bay.

On Chebeague this restriction in the issuance of licenses, combined with the gradual aging of the large cohort of lobstermen from 2000 have reduced the number of lobstermen, and particularly

those younger than 50, significantly.⁸ In 2010 there were only 34 lobster licenses issued, 22 fewer than in 2000. Nine of these 22 people no longer lobstering from Chebeague, still live on the island but have retired or given up lobstering. Three died. But ten others moved off the island including seven who gave up lobstering as well. Only two new people on Chebeague became license-holders between 2000 and 2010, and one of them was among the ten people who later left the island.

The lack of recruitment of young lobstercatchers means that in 2010 only 8 (26 percent) of the license holders were under the age of 50 compared with 35 (67percent) of the license holders in 2000. Many of the baby-boom lobstermen are likely to think of retiring within the coming ten years, and without further recruitment of younger fishermen, the number of lobstercatchers will decline dramatically. This shows the impact on Chebeague's major industry of the decline in young people on the island described in the chapter on Population.

So why does Table 1 still show 70-75 island people involved in fishing? Of the 34 licenses, 27 were licenses for a boat with a sternman, and 5 other boats that fish in deeper waters have two additional crew. Most of the crew members live on Chebeague during the summer and some, year-round.

Lobster Landings

There is no source of data on lobster landings for the whole town. However we do have information from 2004 to 2007 for Dropping Springs Lobsters, LLC. This "coop" includes 18 of Chebeague's lobstercatchers. They have a float near the Boatyard (at Dropping Springs) where they buy lobsters. Non members can sell to the coop, and in 2007 18,400 pounds were sold by non members. Members of the coop landed a yearly average of 326,330 pounds of lobsters between 2005 and 2007, worth an average of \$1,389,300 per year. Of this gross, about 73 percent went to expenses, particularly bait, for a net of \$375,111. Dropping Springs has one full-time employee during the season with several part-time helpers.

Though one of the major expenses for the lobstermen is bait, not all the money spent on bait is lost to Chebeague. Dropping Springs Lobsters, LLC has spun off a bait business that also sells both to members and non-members. It employs a manager throughout the year and two to three part-time workers in the summer.

Chebeague's lobster industry was hard-hit by the economic crash of 2008. This experience prompted the lobstermen to work on strategies for gaining more control over the marketing of, and adding more value to the price of their product. They have established the Calendar Islands Maine Lobster Company to process, brand and directly sell their product. This represents a significant change in the financing of the fishery. Chebeague lobstercatchers are all individual entrepreneurs. The processing and marketing company, however, requires investment not only from the lobstermen, but from outside investors as well.

This new business seems to be taking off successfully. It is not the role of this Comprehensive Plan to recommend what Calendar Islands should do, but it can recommend that the Town, island voluntary associations, and the Island Institute which has also been involved, support these

⁸ This information on the current lobstermen was provided by Jeff Putnam.

efforts whenever possible. It might also provide a model for cooperative efforts among small entrepreneurs in other areas of the Chebeague economy.

Another opportunity is also opening for more local control of the lobstering industry. Until this year, the state did the reallocation of lobster licenses which meant that if three lobstermen on Chebeague were to retire their licenses, the young lobstercatcher allowed to get a new license might not be from Chebeague.

However, the 2009 Legislature passed a law that allows islands to opt for a new, island-specific waiting list and reallocation process. If 10 percent of the lobster-license holders on an unconnected island petition the DMR Commissioner, and two thirds of its license holders vote in support, the Commissioner can set up a limited entry, island-specific zone. The vote would also suggest the number of licenses required on the island. The Commissioner can accept or reject that number based on consultation with the lobster management zone council for that area. Such a system could help keep young or potential lobstermen on the island or attract new ones. The Chebeague lobstermen have begun the process of petitioning DMR to create a Chebeague zone.

So lobstering is one of the Town's two major "export industries". More than that, however, the lobstercatchers define much of the way of life and identity of the Island. Dropping Springs and Calendar Islands lobster companies are the latest effort to work together to increase the profit from lobstering. The possible reduction of entry of young lobstercatchers has been seen not just a problem for the current lobstermen, but as a problem for the whole community.

Clamming

Clamming is no longer a major direct contributor to the Chebeague economy. It currently provides income to some fishermen, and now that there is very little scalloping in the winter, if additional licenses were available, it might play a larger role, particularly if the general economy is in recession. Clamming is also one element in the Town's vacation economy.

Summer Residents and Visitors

Since the first "recreators" began to come to Chebeague in the 19th century, vacationers have been a changing and significant part of the island's export economy. It is also a seasonal "industry". It is also one that can fluctuate from year to year, though having many "summer natives" whose families have been coming to the island for generations, moderates this problem.

Food and accommodations which is substantially an "export" industry employed 34 people in 2008. The pattern of ups and downs in this sector shows the impact on island employment. The Chebeague Inn has recently had several changes of ownership. In the past, as the table indicates, it generally hired as many as 14 year-round and summer residents, and used more than a dozen island suppliers of goods and services. But these jobs cannot be counted on. The Inn was closed altogether for the summer of 2007, and the most recent management has hired few islanders. In addition, in 2008 both bed and breakfast inns on the island closed. The Orchard Inn reopened under new management for the summer of 2009 but closed again.

The Boatyard serves both fishers and vacationers in different ways year-round. It is in the process of rebuilding and has added a building that includes a new year-round gift shop and the Post Office.

Retail sales and jobs also are also more numerous in the summer. The pattern of several small eateries and gift shops has been stable for many years, though their ownership and location on the island changes. The major retailer on the island is Doughty's Market which is open all year round but does much more business in the summer.

Construction is also substantially an export industry. The construction of summer houses between 1998 and 2008 continued to grow, reaching 3.9 houses per year which translates to a growth in the summer population of about 15 percent. Indeed, so many houses were being built (5.5 per year including year-round houses) that many people hired builders from the mainland.

The primary economic advantage of the summer residents and visitors is that they bring a lot of income into the island economy, not just for obvious things like gifts and meals, but also to support island non-profits with both volunteers and money.

The economic problems associated with this area of the economy are that jobs are often seasonal and some do not pay very well. Since there are not a similar number of winter-only jobs, people who can find jobs in the summer may not be able to put together a reasonable year-round income.

While the basis of Chebeque's summer economy is vacationers who own homes on the island and there is a feeling that "day-tourists" should not be encouraged, the real issue here is "what kind of day-tourism?" Low impact visits like the people who come out to walk, bike or play golf, who come to a program at the Historical Society, or who enjoy themselves on the Town's waters may be quite different from the loud-voiced tourists in Hawaiian shirts of people's fears.

Retirees

Retirees are also, in a way, an export "industry". Even life-long island residents bring in income from Social Security. People who move to the island in retirement often bring pension or other income as well, most of which comes "from away". Some retirees are snowbirds who go south or simply to the mainland in the winter, but many live on the island year-round.

The services that particularly serve the elderly on the island are provided by non-profits such as the Island Commons which are dealt with in the chapter on the Cost of Living. Retirees often volunteer for the non-profits as well, creating a universe of work parallel to the regular economy.

Manufacturing

There is a small amount of hand manufacturing of craft goods such as jewelry, wooden objects, and boats, much of which is sold off the island. These rely somewhat but not completely on raw materials that have to be brought from the mainland. Other inputs that could be grown locally and used in small-scale manufacturing would include wool and food products grown on Chebeague and processed here. It is a short step from crafts to arts – painting, sculpture and literature, for example, that would not require a lot of imported materials. Selling local products

on the internet and shipping them from Chebeague would require bringing in shipping materials, so smaller would be better, though if the value added to the initial inputs is substantial, the cost of imported inputs might be less an issue than the hassle of getting things to the island.

Agriculture and Forestry

The Town of Chebeague Island has only one commercial farm and one commercial timber harvesting business now, so farming and forestry are a very small part of the present economy. On the other hand, having more farming and forestry on the island would accomplish two important goals in this plan: creating jobs and preserving the island's rural character. It could also be an additional export industry. Reviving agriculture and timber harvesting may be a long shot for Chebeague, but they could work together to help to keep the island community sustainable in human and environmental terms.

A more detailed discussion of how the combination of forestry and farming might work to create jobs and income is found at the end of this chapter.

Jobs on the Mainland

The income people earn on the mainland comes back to Chebeague, and commuters probably spend a similar proportion of their income on the island as people who work on the island do. Typically, jobs on the mainland are full-time and year-round, so they provide a more stable source of income than many island jobs do.

CTC sells commuter ticket books which primarily are bought by people working on the mainland. The number of commuter books sold has declined very gradually from 35 in 2000 to 26 in 2008. In Table 1, 34 jobs are shown as work on the mainland.

There are also several telecommuters on the island. Many respondents on the survey suggested that this would be a particularly appropriate growth area for jobs on the island. But the current examples suggest that people who already have jobs that use the internet extensively may then be able to live on the island, but there may not yet be a significant number of employers looking for new employees who work from home. In addition, Chebeague's internet service, while "high speed" is not sufficient

Service Industries

Service businesses typically do not bring in money from outside of the community but provide services needed by island residents, circulating money within the community. This is the case of "taking in each other's laundry." The section on summer residents and visitors has indicated that this is not a clear-cut line in a place like Chebeague, since the income from summer people allows for the survival of service businesses that probably couldn't survive on the demand of 333 year-round residents alone.

Even so, businesses that operate year-round are the base of Chebeague's service economy: groceries, heating/cooking fuel (including wood which is the only one produced locally), gasoline, taxi service, car repair, island delivery, internet, housing construction, landscaping and lawn/tree-work. In recent years the creation of non-profits like the Library, the Commons and the Rec as well as the creation of the Town government have generated a variety of new year-

round service jobs. While the Post Office, the Town and the Island School always employed some island people, they now employ more, and are more conscious about doing so.

Of course, to the extent that the island depends on bringing workers *from* the mainland to provide goods and services out here, we are also losing income. Some fairly basic services such as car repair and furnace maintenance depend in whole or in part on people who come out to the island. They are shown in Table 1. Many other workers are brought out to do specific jobs such as construction, either for a period of days or months; while some come out, sometimes to provide services to several clients for just a single day. These latter services range from septic system pumping to piano tuning.

Ownership of Businesses and Employment

Chebeague's economy has many small entrepreneurs and organizations and two larger companies, one local and the other not. It has a number of incorporated businesses, including non-profits, and self-employed people – the mix of the two is difficult to pin down. The Census says that in 2000 Chebeague had 74 self-employed workers in their own businesses compared with 77 wage and salary workers and 25 government workers. As indicated above, these extrapolations from the long form are probably not very accurate, but this gives some idea of the nature of the employment. Fishermen are largely self-employed. Most of the island contractors work alone or with a single helper. By contrast, in Cumberland County as a whole only 15 percent of workers are self-employed.

Looking at incorporated business, the 2006 ZIP Code Business Patterns indicated that ZIP 04017 had 17 establishments with 62 employees. This listing does not include self-employed people. At the large end of the incorporated businesses are the CTC with 25 year-round employees (12 full-time) and operating expenses of \$977,000; and the Chebeague Inn with 30 full and part-time summer, and two year-round employees. The former is owned by stockholders, mostly on Chebeague. The latter is owned by a family from the mainland.

Chebeague's Role in the Portland Metropolitan Economy

Chebeague has always been part of the Portland metropolitan area even when that economy was much smaller than it is now. However, since the 1960s, as the metro area has grown in population and area, and ferry routes on Casco Bay have changed, Chebeague's focus has shifted away from downtown Portland, particularly to the suburban areas to the north – Falmouth, Cumberland, of which Chebeague was a part until 2007, and Yarmouth.

Being close to Portland and other parts of the metro area is clearly an advantage to Chebeague. Frequent moderately convenient ferry service to a metropolitan center for work, entertainment and services attracts residents. Among all the 14 unattached islands in Maine, total ferry trips per person in 2005 were highest for Peaks, Long and Chebeague because of this. This is also probably why Chebeague has the largest proportion of elderly people of any of the islands except Great Cranberry. Retired people do not have to make the daily commute to the mainland, but they can easily go when they want or need to.

Chebeague also contributes to the Portland area. The Island Institute's study of the cumulative economic impact on Cumberland County of all of the year-round Casco Bay Islands estimates that

the approximately 2,200 households who reside on the islands for some or all of the year account for approximately \$64 million in consumer spending. That is one measure [of

Cumberland County Full Employment Forecast for 2025

Municipality	2000 jobs	2025						
		Manufacturing	Residual	Trade	Services	Total	Net change	% change
Brunswick	16,816	650	1,068	3,778	13,784	19,280	2,464	15%
Cape Elizabeth	1,987	57	183	256	1,621	2,117	130	7%
Cumberland	1,603	48	313	137	1,564	2,061	459	29%
Falmouth	6,013	197	1,137	1,243	4,764	7,341	1,328	22%
Freeport	8,564	316	479	6,048	3,858	10,701	2,137	25%
Gorham	5,756	569	1,190	810	4,072	6,641	885	15%
Gray	2,667	151	734	713	1,427	3,025	358	13%
New Gloucester	866	71	258	123	1,422	1,875	1,008	116%
North Yarmouth	523	18	223	31	303	575	52	10%
Portland	94,916	3,612	16,324	12,102	77,624	109,662	14,745	16%
Pownal	181	16	54	24	124	217	37	20%
Raymond	1,383	401	121	187	890	1,599	216	16%
Scarborough	13,594	670	3,474	3,647	10,339	18,130	4,536	33%
South Portland	30,137	2,288	4,103	8,899	21,091	36,380	6,244	21%
Standish	2,465	265	430	461	1,637	2,794	329	13%
Westbrook	13,253	2,277	3,292	2,069	7,188	14,827	1,573	12%
Windham	6,664	284	801	2,122	4,741	7,948	1,284	19%
Yarmouth	4,597	431	1,121	1,179	2,504	5,236	639	14%
Rest of County	6,769	618	982	1,484	4,799	7,882	1,113	16%
Cumberland County	218,753	12,939	36,287	45,313	163,751	258,290	39,537	18%

Source: University of Southern Maine's Center for Business & Economic Research and Greater Portland Council of Governments

the size of the islands' economies.] The approximately 180 enterprises – businesses, non-profit entities and government agencies – that operate on and around the islands employ nearly 800 people and generate “sales of nearly \$70 million. [An estimate of the direct and indirect impacts of this economic activity indicates] that the total economic impact on the Greater Portland economy from the island economy amounts to \$116

million in business sales, supporting over 1,650 jobs earning total income of just over \$50 million. These figures indicate a sales multiplier for island economic activity of 1.6, an employment multiplier of 1.4 and an income multiplier of 1.5.⁹

This report did not explore economic differences among the islands. It emphasizes the seasonal nature of the islands' populations and spending patterns. About 36 percent of the estimated \$64 million spent by island households in the County in 2007 was spent in the July-September quarter. The major employers for all the islands are fishing (employment of 110 people) and construction (employment of 125 people).

Though Portland is the state's major city, farming, forestry, fishing and tourism are all still important sectors in the Cumberland County economy and these sectors have continued to grow, though not as much as growth in retail and service jobs. One of GPCOG's goals is to support working farms, forests and waterfronts. Moreover, the agriculture, forestry and marine/aquaculture sectors are seen as future technology-based economic clusters in which geographically concentrated knowledge, innovation and entrepreneurship drive the development of new business forms that are environmentally sound and sustainable. If Chebeague chooses to focus on making continued use of its natural resources it may be able to take advantage of County services such as its revolving loan fund and Micro-Enterprise Centers intended to strengthen new and expanding micro-enterprises (businesses with fewer than 5 employees).

Finally, GPCOG's regional job forecast for 2025 indicates that Chebeague would be in a favorable position to take advantage of future job growth on the mainland. This forecast was done before the 2008 recession began and before Chebeague became a Town, but it still may be useful in thinking about trends that might affect Chebeague.

The major one is that the projection estimates that when the economy grows again, there will be fairly substantial growth in jobs in the Portland-North area. Falmouth, Cumberland and Yarmouth are expected to see growth particularly in service jobs, while, as one might expect, Freeport may have more growth in the trade sector.

In the normal course of its business, and as it works on the high cost of living on the island, the Town can help the economy develop even though it does not have the capacity to mount a major economic development effort. The Comprehensive Planning Committee, however, makes one exception to this general approach. The Town should work actively to improve its telecommunications. In this fast-changing field, that has become central to much economic activity, the Town should not allow itself to fall further behind. Having good internet and cellphone service could help to alleviate a number of the weaknesses of Chebeague's economy without physically connecting it to the mainland.

Agriculture and Forestry?

The islands that make up the Town of Chebeague Island had many active farms in the 19th century, two of which lasted into the 1960s. Great Chebeague, in particular, has good soils, with large areas classified as "farmland of state-wide importance". But essentially both farming and

⁹ Planning Decisions, Inc. *An Economic Inventory and Impact Analysis of the Casco Bay Islands*. Rockland ME: the Island Institute, Oct. 1 2008.

forestry have declined over the 20th century to almost nothing. Most, but not all, former farm fields have grown up in woods and houses.

Even so, even Great Chebeague, the most developed of the islands, still feels rural, and residents said in the planning survey that they wanted to maintain this rural character. So it seems reasonable to try to encourage a revival of farming and forestry as forms of economic development that may be well-suited to the island.

There is a lot of interest nationally in small farms now. It goes with the growing interest in eating seasonally and locally. It would certainly be possible to grow vegetables and fruits on plots of one to ten acres. Vegetables grown outdoors and in greenhouses, cows, sheep, goats, chickens, turkeys, orchards of apples and peaches, small fruits like raspberries, blueberries, strawberries and maybe cranberry bogs would all be feasible crops. These could easily be sold on the island, but with Portland a short boat trip away, growing for restaurants and farmers markets could create a new export industry.

The benefits of farming and forestry could include employment and income, the availability of local food and energy sources, and reduced shipping costs for food and fuels. Farming and forestry could provide mechanisms for fire control – firebreaks, fire ponds and the addition of equipment that could be used for fighting fires. They would provide more open space and wider views and could encourage clustered neighborhoods, with buffers and windbreaks. They could also encourage soil enrichment and a more varied, healthier flora and fauna.

Suitability of the Land for Farming

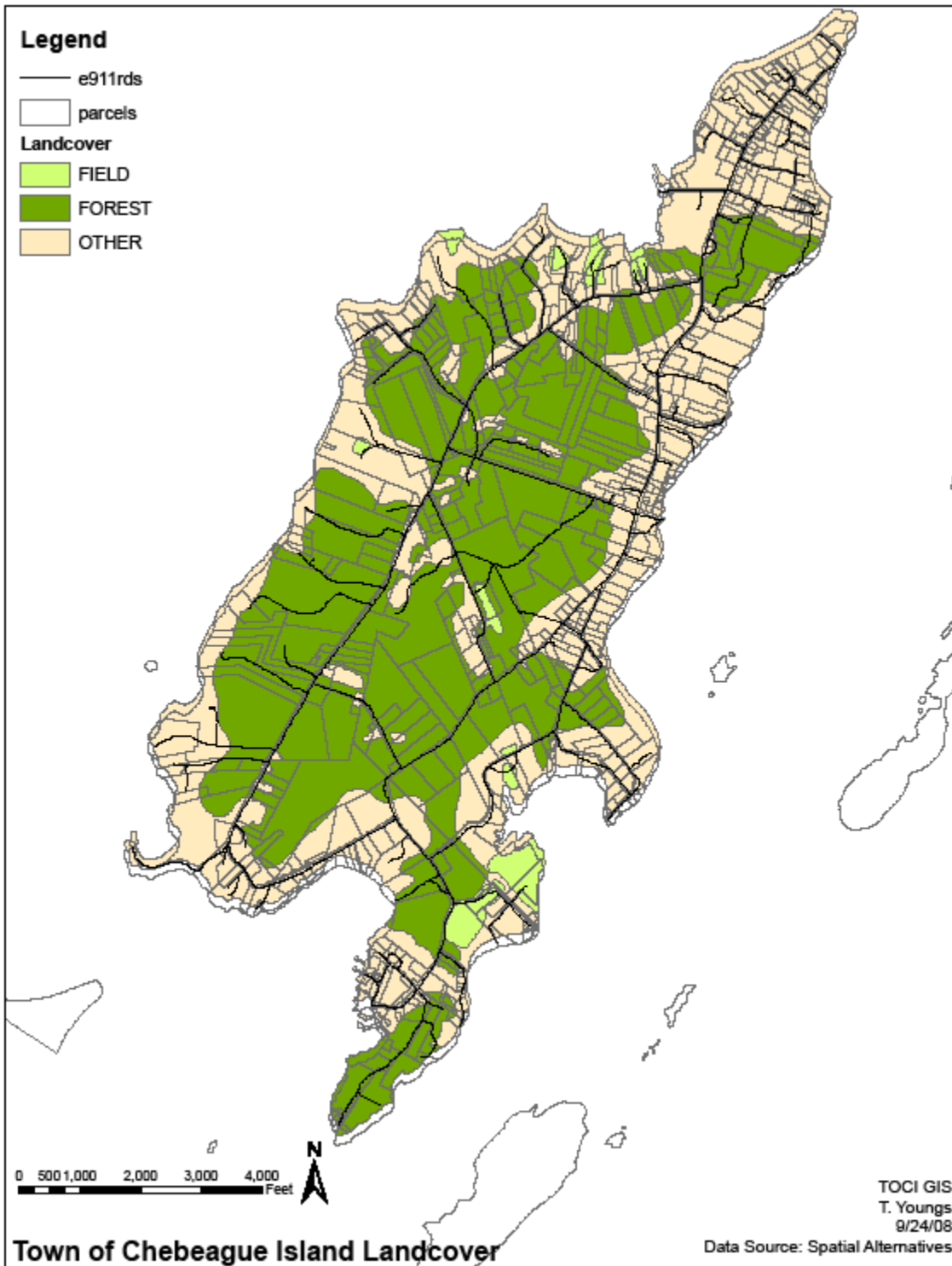
Because of the moderating effect of the Bay's waters, Chebeague is two growing zones warmer than areas at the same latitude but inland. This means that the growing season is longer. Fields with a southern exposure also get stronger light. It is now also becoming more common to grow crops in hoop houses that can go through the winter.

The fairly general information in Map 3 about Chebeague's soils indicates that there is good farmland on the island though not all of it could easily be used. This is unusual for a Casco Bay island. Most of the others have very sparse soil.

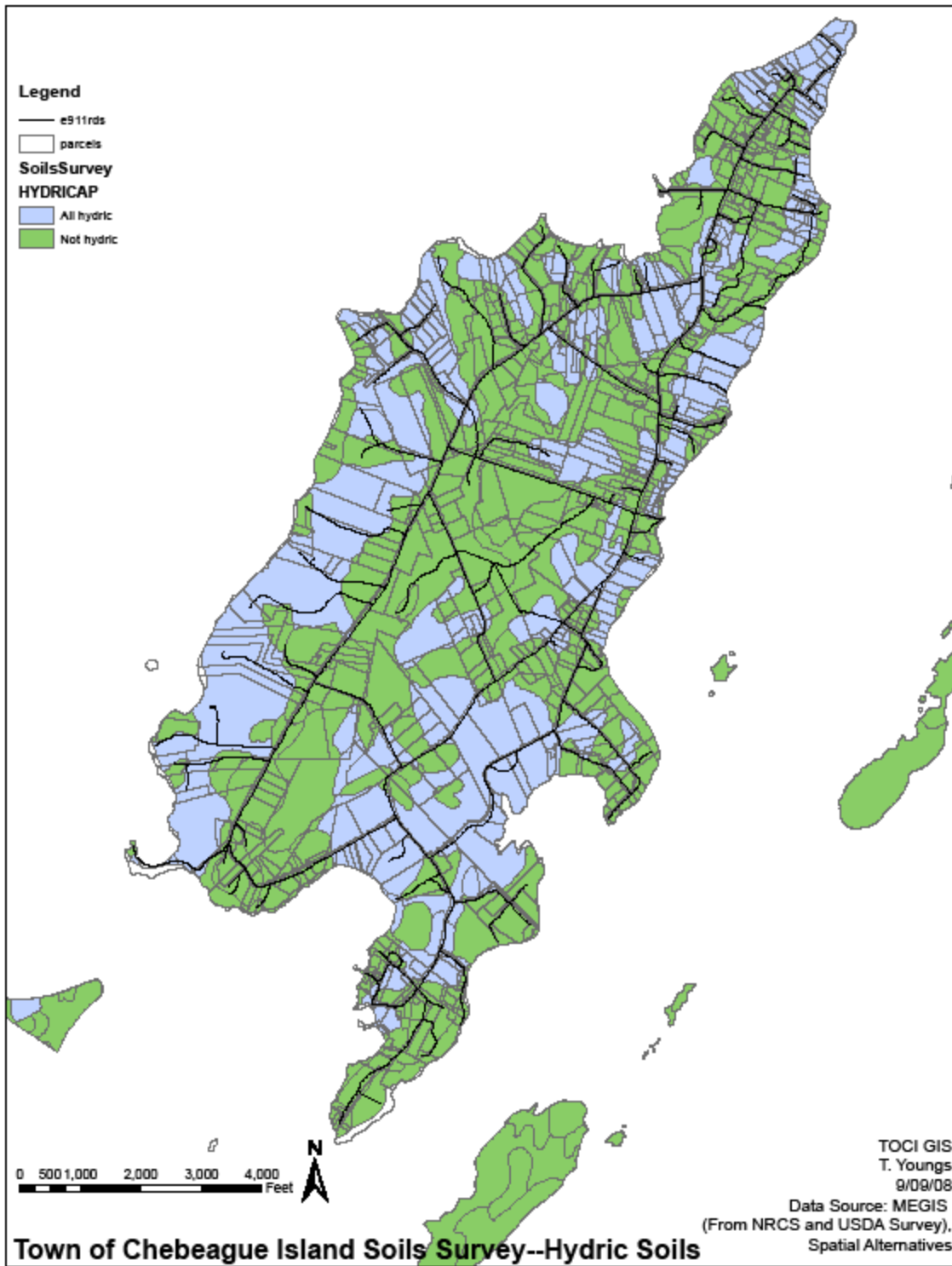
Map 2 does indicate that the island has a great deal of hydric soil which would normally be considered too wet to farm. But there still is a lot of non-hydric soil on the island is along the spine in the middle of the island between North and South Roads that is "farmland of state-wide importance. This area in the middle of the island is also somewhat less developed and still has sizeable parcels by Chebeague standards. This suggests that this area could be farmed. It has been designated as "rural" in the future land use plan which would encourage it to be used for farming.

Barriers to Farming

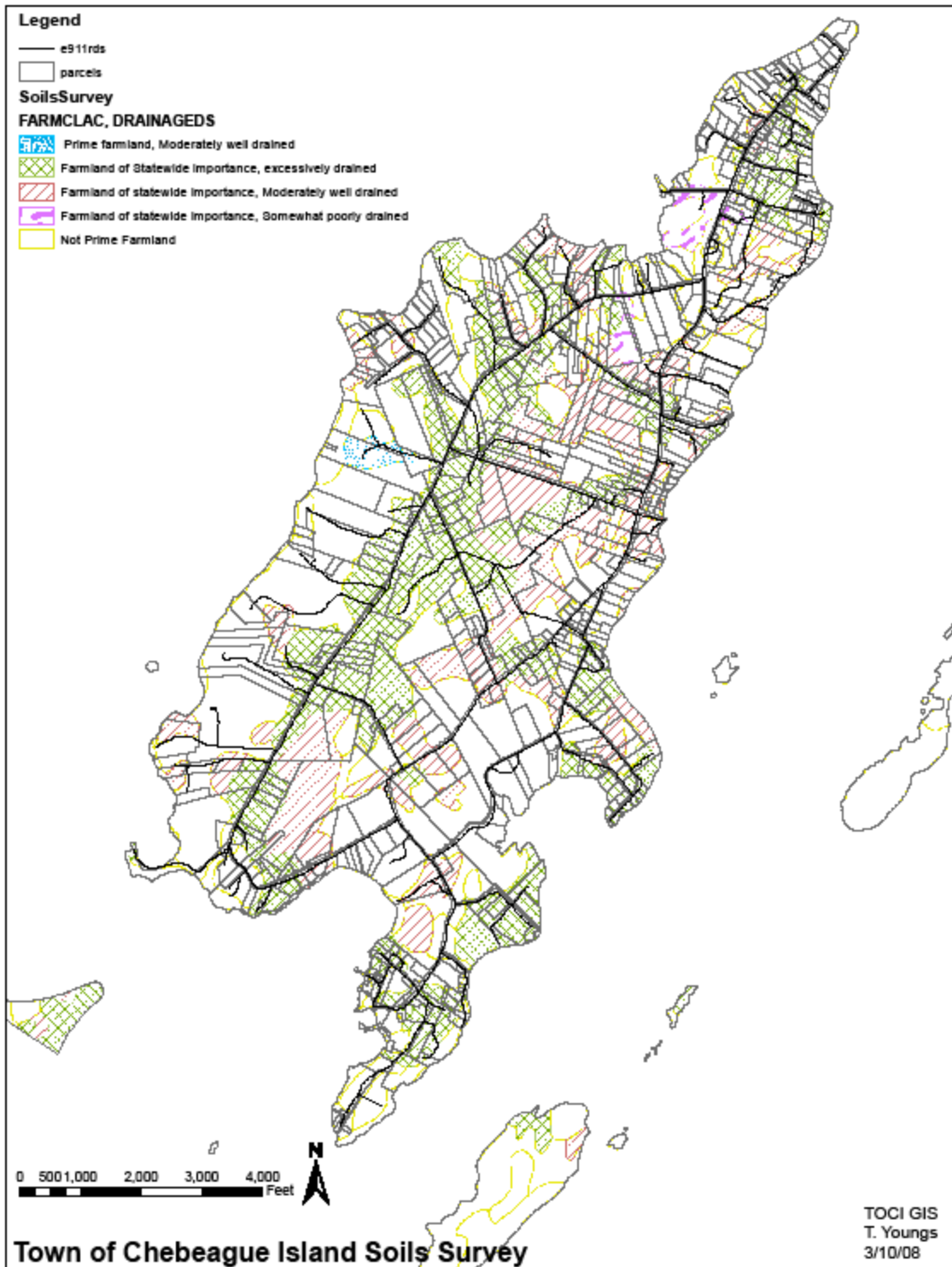
Two basic factors have contributed to the loss of farm and forest land, and neither one is likely to be changed. The first is the subdivision of the land into many small parcels which makes modern "industrial" farming impossible. The second is the zoning of all land for 1.5 acre residential/commercial lots, something this Plan recommends should continue.



Map 1: Landcover



Map 2: Hydric Soils on Great Chebeague



Map 3: Soil Suitability for Agriculture

Chebeague does have some land that was farmed in the past which is still open. These areas also have suitable soils for farming. However they demonstrate several other difficulties in reviving farming on Chebeague. The first is that since land on the island has come to have value largely for housing, it is very expensive for growing crops or pasturing animals. Moreover, these open fields belong to individuals and organizations like the Land Trust who are not farmers.

However, as the land cover map (Map 1) shows, that most of the island, and especially the central area where there are good soils and less existing development, is covered with trees. Two sizeable fields in this area with land of statewide importance have recently been cleared for farming -- the Bisharat field and Second Wind Farm/Durgin land. A few crops can be grown on forested land, and work is being done on exploring this. But farming normally requires open fields, and cutting trees is hard work. Stumps are not allowed in the brush dump. Even when the land is clear it must be prepared for growing crops. The whole process is expensive and time-consuming.

Farming also requires investment in land, buildings, machinery and animals/plants/seeds. If farmers wanted to process farm goods – for example milk into products like cheese – additional equipment would be needed. Farming cannot be economically viable unless the profits are commensurate with the investment required.

A Way Forward?

Scale: As the introduction to this discussion indicated, there is a lot of interest now in quite small farms growing produce for local sale. Chebeague could not grow commodity corn or soybeans on huge fields. But why should it? Commercial farming today does not necessarily require large acreage. The State's Farmland Preservation Program, which parallels the Tree Growth Program, only requires five contiguous acres in land that is used for farming. The real test is that the land must provide the owner with \$2,000 gross income from farming per year.

Agriculture and timber harvesting are still allowed in the Town's current zoning districts and animal husbandry is allowed as a special exception. Both are done on a small scale even now, and retaining them in a revised land use ordinance would not be unreasonable.

Ownership: It is possible for an island farmer to buy land at the price it would sell for housing. But it may not be essential. If the Town and Land Trust are successful in preserving open space, it may be possible to include provisions in conservation easements that allow for the rental of the land for farming. Much of the area in the center of the island that has good farmland has been designated in this Plan as "rural" and designated as an area suitable for public and private conservation efforts and expenditures.

Cost of living: The cost of living on Chebeague is also high because of high costs for housing, energy and transportation. This Plan suggests ways in which these costs might be reduced.

Investment: The Amish manage with less land because they have less capital investment that has to be supported from the revenue generated by the land. In addition, income can be increased by growing high value, perishable crops close to a large market in Portland – peaches or asparagus rather than corn or soybeans. This is similar to the logic of lobstering for shedders.

The Forest Cover: Timber harvesting, grazing and tillage can be seen as a continuum. Land that was used for crops and grazing in the past has grown up into forest. It can go the other way as well. Trees cut to clear land would have economic value if forestry were viable economically on the island (see below on forestry). When forest is cleared it leaves an open area full of stumps, treelets and brush, not ready for growing crops. Animals such as sheep and goats (which even eat bittersweet) can make scrub land into pasture, even with the stumps. Grazing improves pasture. Ultimately, with stump and rock removal it can then become crop land if the soils are adequate and water is available. This continuum suggests that forestry, animal husbandry and production of fruits and vegetables could all be pursued simultaneously if other barriers to renewed farming and forestry were reduced.

The grazing land required per animal depends both on the animal and on the nature of the soil and its moisture. Two animals per acre might be in the ballpark, but it is important to understand that this requires four times the basic amount of land so the animals can be moved around to avoid over-grazing in any given area. Also fencing is required and electric fencing does not work on the thick coats of sheep unless it is raining. On the other hand, Chebeague has no predators that would bother ruminants – no coyotes; and foxes mostly eat rodents.

Possible Problems with Farming

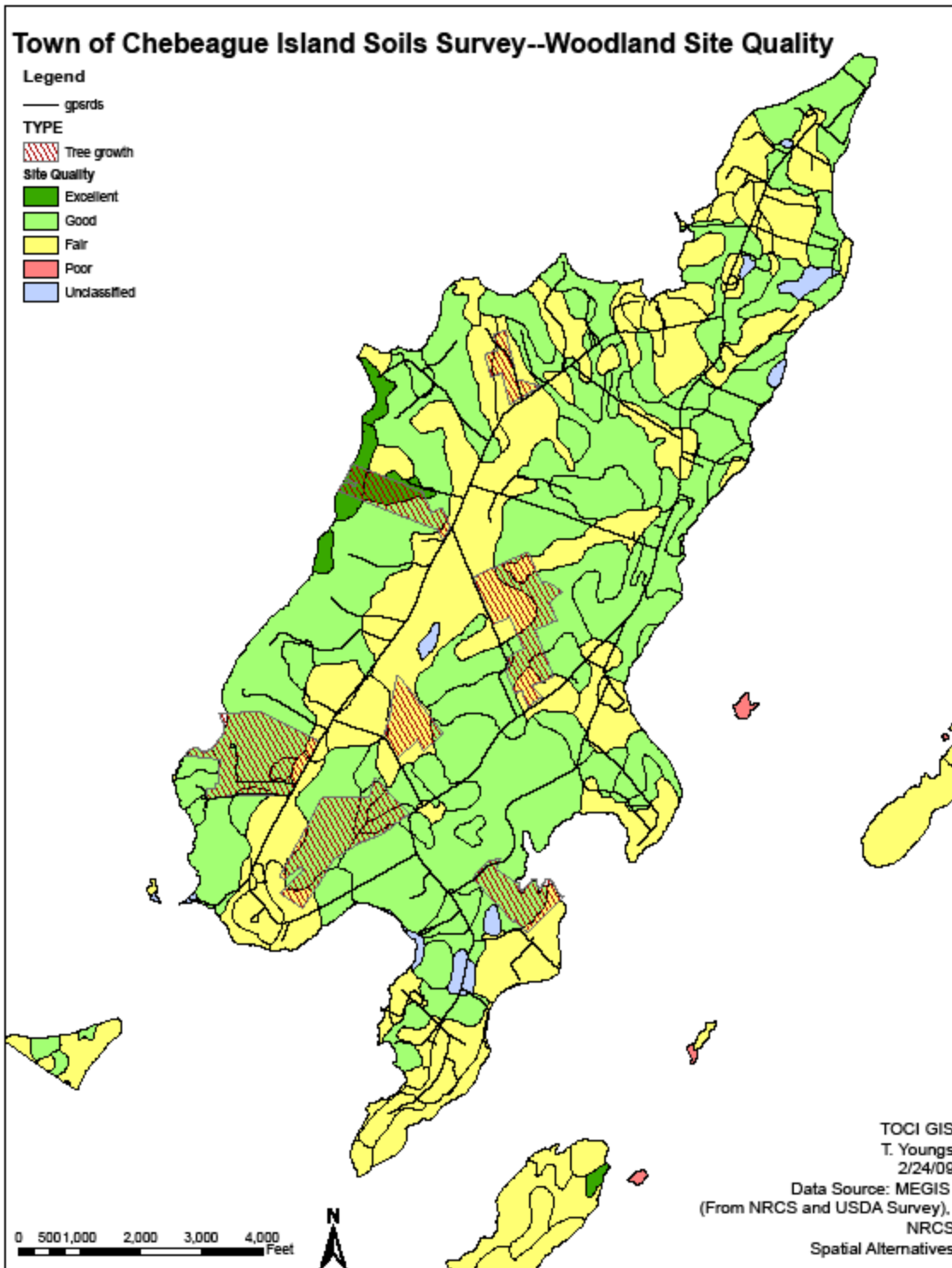
Farming would certainly bring with it some possible problems that would have to be dealt with: stormwater runoff that may be polluted, and conflicts with neighbors over farming noise and smells are cases in point. Clearing land for pasture and crops could change the look of the island considerably. New visitors are often quite surprised to see so few trees in pictures of Chebeague during its farming days.

But probably the major issue with the idea of returning to farming is simply finding people who are willing to do the hard outdoor work that is involved. There seems to be some renewed interest in farming among young people. And there are immigrant groups coming to Maine now who have been farmers. Would the island be welcoming of these possible new residents?

Forestry

The State Forester who came to look at Great Chebeague's forest said that the best use of the land would be for agriculture. And, as was already indicated, having some timber harvesting capacity on Chebeague is probably essential to any revival of farming. Beyond that, does Great Chebeague have forest suitable for making a living from forestry? Normally the minimum size for a viable logging operation is 400 acres and requires a pulp mill. Chebeague clearly does not have this amount of forested land in single ownership, and probably would not want this kind of forestry anyway.

At this point there is relatively little use of the island forest resources. Trees are mostly cut to clear land for building and for landscaping, or they fall down in storms. Chuck Varney has been milling wood and it has been used for sheds, houses, wharves and benches. Local wood is used for boats, floats, pilings, breakwaters and small wharves. But most people who build, buy their wood on the mainland because even adding the transportation cost, it is still very cheap.



Map 4: Soils Suitable for Tree Growth

The Wood Resource

As Maps 3 and 4 indicate, soils that are good for growing crops are also generally good for growing trees. Because of this much of Great Chebeague is now wooded. Most of this is second growth – white and Norway pine, spruce, yellow ash, white birch, swamp and some sugar maple, horse chestnut, and beech -- between 50 and 100 years old. On the mainland the trees could live longer, but in the island climate, the limit is about 100 years. Much of the wood on the island is ready for harvest.

The value of the wood on Chebeague is unknown. Better information about the value of the trees on Great Chebeague and what they might be useful for is essential for making decisions about whether some land is better for farming than for tree growth, what kind of harvesting might make the most sense and how the land might be managed as forest over time.

Possible Uses

As with agriculture, it would only be practical to try to encourage forestry as a form of economic development if it could be done profitably on a relatively small scale and would not require the product to be transported to the mainland unless it had a high value. Possible uses of wood on the island include:

- Firewood

- Chipped or pelletized wood for larger-scale wood boilers – large, efficient, wood-burning furnaces, public and private.

- Timbers for timber-framing on the island – maybe even as kits.

- Oak skidders for lobster traps.

For export to the mainland:

- High-end products such as sculptures and decorative bowls and implements, made from wood would be possible to export to the mainland

Forestry could also produce jobs from the planned management of woodlands. Few Chebeague residents know how to manage a forest, and there is little labor on the island to do the management or cutting. On Cliff and Long, after the Patriot's Day storm, the people who cleaned up the downed trees came from the mainland. A walk through the woods on Chebeague suggests that there is a lot of waste of wood resources and missed opportunities for income generation and energy production on the island.

Issues

Land in State Tree Growth: A number of Chebeague residents do have land in the State's Tree Growth Program which could be an encouragement for commercial forestry but does not work that way now. The program allows land-owners to pay property tax on forest land at its value for timber harvesting rather than its value for development. The program requires that all enrolled parcels be 10 acres or larger and requires owners to have a management and harvest plan prepared by a registered forester for their land. It must be reregistered every ten years. The purpose is to produce a continuous harvest of trees. There is no minimum income requirement for this forestry as there is for the State's agricultural land protection program, but the owner is supposed to cut a certain number of cords of wood, as defined in the harvesting plan.

As a way of preserving open space or of creating income, this program, as it works on Chebeague now is weak. No areas are really harvested according to the required Tree Growth Plans. In part this is because monitoring of the plans is a local responsibility and has never been done. But more important, it is difficult for land owners to do the harvesting and to get the wood off the island.

In addition, owners can always take their land out of the program, after the payment of a penalty. Because of this, the program is often criticized as simply a way for landowners to save money on their taxes while they wait for a profitable development opportunity to materialize. This may well be true for some owners, but perhaps not for others who may simply want to keep their land undeveloped. In either case, they do not have to actively manage or harvest their forest.

Organization: A major problem with encouraging forestry on Great Chebeague is one of organization. With forest land divided into many small parcels, held by hundreds of people on and off the island, it is very difficult to “manage” the forest for production. It would be necessary to work together proactively to manage forest resources all over the island. No single land owner or individual has enough land, control or capital to make forestry work. Organizing a steady supply of wood for whatever use, would be difficult.

Harvesting: Timber harvesting is hard on the land and can result in severe erosion. The people who do it must be knowledgeable and monitored to insure that fairly complex Best Management Practices are used. In the Shoreland Zone, which comprises 18 percent of the land on Great Chebeague, harvesting of trees is especially severely limited in order to reduce runoff and erosion by protecting the vegetative cover of the land. Conserving the natural beauty of the forest is also a purpose of the law. Logging is very highly regulated and cutting and trimming of trees for other purposes is strictly regulated even if, as some coastal bluffs erode, falling trees can increase the erosion.

Investments: Depending how wood was used, it could also be useful to have a registered, fully operational sawmill on Chebeague. At the moment the Zoning Ordinance allows only temporary sawmills. There is one existing fixed sawmill and one small mobile one on the island now. There is also a need for special equipment that would make selective cutting more efficient. If dimensional lumber were to be produced, it might also be necessary to have a kiln for drying it.

Another option would be to have a mill that produced wood pellets.

A substantial income from forestry would be required to make this equipment economic, and given the sizes of forest holdings, no single person would make such an investment. However, possibly a town-supported, cooperatively owned sawmill might have a chance of working.

Forest as a Fire Hazard

Since 1985 there have been seven forest fires on Chebeague, burning a total of 2.8 acres. They were caused by burning debris, by children, and by an out of control campfire. Blown-down trees, particularly since the Patriot’s Day storm in 2007, are common, and there is public discussion of the danger of forest fire. On the other side, the state forester said that because of

the island's damp marine climate, the danger of fire is not as great as has sometimes been feared because dead trees are broken down fairly quickly by lichens and mosses.

Thea Youngs' 2008 analysis of the danger of wildfire on Great Chebeague, described more in the chapter on Public Facilities, found an average risk at the low end of the "high" rating, where the ratings ranged from low to very high. Some of the rating depended on how difficult it would be to fight fires on the island, and the rest depended on the nature of the vegetation and the construction of the houses.

Agriculture, Forestry and the Vacation Economy

Beside the presence of Casco Bay, the woods and fields and the still-rural character of Chebeague today are some of the most attractive aspects of the island as a tourist destination. Farming would not be incompatible with tourism and could be stimulated by the increased demand for local food in the summer. Forestry on a non-industrial scale is probably also compatible with tourism. In both cases long-time summer people, like year-round residents would have to get used to having more open fields; fields that are used for crops or animals and not just cut in the fall to keep them from growing up in trees.

An important issue here is to identify what land is most valuable for different uses. What land is economically valuable for farming or forestry; what needs to be protected as critical natural resources, and what land is primarily valuable as "scenery". This seems particularly to apply to forest, but can apply to open land as well. At one level the ordinary second-growth woods hide many of the houses that have been built over the past 30 years. At another level, particular undeveloped areas are special to many people: The walk through the dark conifer forest on Deer Point accentuates the emergence onto the bare rocks and pounding surf at the end of the path. The long view to the water across the Higgins field changes with the seasons. The ranks of tall trees along Roy Hill Road, that then give way to a long view down the hill and out over the water to Little Mark Island, are a constant pleasure winter and summer. Parker's Woods, and the dark forest leading down to the open marsh at Springettes sometimes have an almost spooky feeling of mystery.

Summary of Chebeague's Economic Strengths and Weaknesses

Location: Chebeague is isolated by having no bridge or car ferry connection to the mainland. This is an advantage for maintaining the island's traditional life-style, and particularly for tourists and retirees. It is a disadvantage because of the cumbersomeness and higher cost of transporting goods to and from the island, as well as commuters to the mainland and people who provide services to the island. It is also isolated from modern communication technologies.

It has the advantage of being located in the State's largest metropolitan area, with a commute to the mainland that is short for an unconnected island.

Scale: The island population is very small in the winter and, though five times larger in the summer, is still relatively small for supporting a wide range of enterprises. This also means that in many areas there is little competition because the population is not large enough to support more than one business. However, this small size is a benefit in maintaining the strong sense of community which is a drawing point for residents.

Seasonality: A major issue about work on Chebeague is that much of it is seasonal, with far more jobs available in the summer and fall than in the winter. The population swells with summer visitors, the lobstering season is in full swing and so is the construction season. Some businesses, like lobstercatchers, visitor accommodations and food and gift shops make most of their income during the summer. The small amount of farming on the island is also concentrated in the summer. This seasonal pattern is not a problem as long as families make enough in the summer to last through the winter, but many summer jobs are not high-paying, and income from lobstering is subject to fluctuations.

Ownership and control: Most of the enterprises on the island are owned by island people either through self-employment, stock ownership (CTC), cooperative ownership (Dropping Springs LLC) or as local non-profits. The one exception is the Inn.

Raw materials and resources: Chebeague is well situated to continue to use its marine resources. The population of lobsters seems to be healthy, but demand and price can fluctuate widely. In general, wild fishing is probably really in decline but fish farming might not be. On land it has the advantages of good land for farms and forestry, and a great deal of natural beauty. Land and wood may be old-fashioned, but they still exist. Natural beauty and rural character draw both summer people and year-round residents. Fishing, farming and tourism can easily be complementary.

Conclusion

If Chebeague has an image of new young families coming out here to live **and work** on the island, they have to have jobs on the island. Possible growth areas might include traditional occupations in fishing, farming and forestry and construction. Less traditional sectors that might grow given population trends and developing technologies are: telecommuting, low impact day-tourism, services for retirees and the elderly.

Alternatively or in addition, members of some working families might live on the island and work on the mainland. Commuting to jobs on the mainland brings money into Chebeague's economy and does not seem to deter people from participating fully in the community. Jobs in the Portland North communities, many of which would be year-round, would be fairly easily accessible to commuters from Chebeague.

2.c. THE COST OF LIVING: HOUSING, ENERGY AND TRANSPORTATION

Living year-round on an unconnected island appeals to some people and not to others. Being able to get in a car and go anywhere you want – to the supermarket, to a restaurant and a movie, to the hardware store to get two screws for your current project -- at nearly any time of the day is essential to some people, but not to others. Even so, this does not mean that people who choose to live on Chebeague don't care about the complications of living on the island. When the financial cost of living on the island is also higher than living on the mainland, even someone who loves island life may have second thoughts. And for someone thinking of moving to Chebeague, the two taken together may seem daunting.

Chebeague also faces a mis-match between the incomes of some of its year-round residents and the costs of living on the island. The two major issues here are the cost of housing, including the cost of energy, and the cost of transportation to the mainland. In the case of housing, the problem is not very different from that faced by many communities on the mainland. But on the mainland families with lower incomes can search for lower cost housing by looking further out in the metropolitan area, and can choose housing units other than single-family houses that have to be bought. These choices are not available to people with modest incomes who want or need to live on Chebeague.

The cost of transportation is another matter. Chebeague is quite unusual in having a private ferry service that has to cover a substantial part of its costs through fares and paid parking on the mainland. For a Chebeague resident, a trip to the mainland is obviously more complicated than getting into the car outside your house and driving to wherever you want to go any time you want. Taken together, the cost of the transportation and the cumbersome nature of the trip, make island life less attractive than the mainland, unless there is a strong incentive to live on Chebeague.

These cost of living issues were raised by year-round residents in a 2005 Housing Study. One of the questions asked whether any of the problems on a list of 16 issues were so serious that it would make living on the island difficult. Residents who responded, cited property taxes and heating and utility costs as their highest cost concerns (51 and 33 percent, respectively) while the cost of the ferry and parking was the third highest concern (23 percent). In addition, 15 percent of respondents mentioned the current cost of their mortgage, while 10 percent cited the problem of having to own cars on both the island and the mainland. Lack of suitable housing on the island ranked 9th and the cost of rent ranked 12th, mentioned by 7.5 percent of people.

None of these problems were cited by more than half the survey respondents, suggesting that people generally manage to live with them. But reducing these cost of living problems may be possible.

In fact the new Town administration and Town Meeting have stabilized tax rates. At some point the Town will need to have a comprehensive revaluation of property, but because the housing bubble burst in 2008, housing values may not be rising as much as they did in the 1990s and 2000s. These two factors may be reducing some of the problem of the high cost of property

valuations. In any case, if valuations do increase, the Town administration can keep taxes constant by decreasing the tax rate.

Even so, though the new Town has kept tax rates from rising very much, taxes can still be a problem for homeowners with low incomes, many of whom are elderly. Probably the most effective way to reduce living costs for this group would be to expand the State property tax refund by adding a local contribution.

But the costs of housing, energy and transportation remain issues. They place Chebeague, even with its natural beauty, supportive community and high quality of life, at a disadvantage compared to the mainland as a place to live.

Goals and Recommendations

The Goal is: REDUCED COST OF LIVING ON GREAT CHEBEAGUE TO MAKE ISLAND LIFE MORE COMPETITIVE WITH THE MAINLAND.

Housing

Recommendation: Chebeaguers should create 3 to 4 year-round, affordable housing units over the next ten years.

Recommendation: Revise the Zoning and Subdivision Ordinances of the Town to make them more suitable for providing affordable housing on Great Chebeague.

Recommendation: In this revision make sure that a range of opportunities are available in the zoning to allow the use of various forms of housing such as accessory apartments and manufactured housing.

Recommendation: Explore the feasibility of renovating existing houses, either available on the open market or in foreclosure, for year-round, moderately priced use.

Recommendation: Take advantage of all possibilities to reduce the cost of building new housing such as donated land from the Town or from private donors, public grants and low interest loans, while providing attractive and good quality, energy efficient housing.

Recommendation: Encourage the availability of low cost lots for income eligible islanders to build their own houses. Use covenants or other mechanisms to keep these lots and houses in a reasonable price range when they are later sold.

Recommendation: Explore ways to create more year-round rental units.

Recommendation: Over time as moderately priced, year-round housing is created, provide a mix of ownership and rental housing.

Recommendation: Over time as moderately priced, year-round housing is created, provide a mix of lots for people to build on, single-family houses, smaller, apartment-type units and assisted living units of various levels.

Recommendation: Provide assistance such as financial, technical or legal help, to eligible residents who are trying to buy houses on the island.

The Goal is: GOOD HOUSING MAINTENANCE AND WEATHERIZATION

Recommendation: Encourage programs for eligible home-owners, especially the elderly, to get help in the maintenance or renovation of their houses.

Recommendation: Promote public programs that provide grants or loans to allow residents to make their houses more energy efficient.

The Goal is: PROPERTY TAX RELIEF FOR THOSE IN FINANCIAL NEED

Recommendation: Explore the development of a local circuit breaker program, subsidized by local tax revenues.

The Goal is: REDUCED COST OF LIVING ON GREAT CHEBEAGUE TO MAKE ISLAND LIFE MORE COMPETITIVE WITH THE MAINLAND.

Transportation

Recommendation: The Town and CTC should engage in a discussion about ways to reduce the cost of transportation to the mainland by increasing revenues, lowering costs and/or having a Town subsidy.

Discussion

Housing

Both the nature and the cost of the housing on Chebeague are deterrents to encouraging young people to remain or come to live on the island. There is very little rental housing and house prices are high. The recommendation priorities shown in Chapter III indicate strong support on the Planning Committee for providing more moderately priced year-round housing. While there are many questions from residents about the present efforts to do this, they have so far accepted them.

The State's goal for providing moderately priced housing is to have 10 percent of all new, year-round housing be in this price range. For Chebeague this would mean that over the next ten years only 2 to 3 year-round rentals or houses selling for less than \$200,000 need to be provided. But to house a new generation of Chebeague workers, more units than this will be needed.

Young individuals and families are not the only residents who have housing problems on Chebeague. The elderly do as well. Some are related to income, but some are simply a function

of aging. Though these issues are somewhat tangential to the rest of this chapter, they will be dealt with briefly in the text and recommendations.

Current Housing on Chebeague

In 2008 Chebeague Island had an estimated 468 dwelling units.¹⁰ Of these, 170 or somewhat over a third (36 percent) are occupied year-round. There are a few year-round rental houses, but probably well over 90 percent of these year-round homes are owned by their occupants. The other 298 houses on the island are summer houses meaning that they are occupied between one month and 6 months of year. The percent of the housing stock that is made up of houses owned by non-year-round residents has been fairly stable at about 63 percent since 1988. Seven of these summer houses are rented out in the winter to people living on the island in the winter, but these renters have to find other accommodations in the summer when the owners come to use the houses.

The outer islands have at least six houses. Those on Bates, Ministerial and Stave are summer houses, while Hope Island has several year-round residences.

In the past, the market for year-round housing was largely independent of the summer-house market. Summer houses were just that – basically unfinished inside and uninhabitable in the winter. Year-round houses were more substantial, could be heated, and had adequate water and sanitary facilities to be occupied year-round. Each served a different group. There was land for both and the prices of both were moderate. This situation lasted through a long period between about 1930 and 1980 when Chebeague saw very little construction of new houses.

In the 1970s, however, the rate of construction of both year-round and summer houses began to increase. That decade it rose to about two houses a year, and then to three per year in the 1980s. As Table 1 shows, between 1988 and 1998, 43 houses were built. So far in the first decade of the 21st century the rate has again increased to 5.5 houses per year. Some of this growth also results from the number of summer people, and others, who are deciding to retire year-round to Chebeague.¹¹ Thirty nine were summer houses¹². These recently constructed summer houses are more likely to be fully winterized but “cottages” continue to be built. Of the 16 year-round houses, 7 were built by year-round, working age residents. An additional 8 were built by people retiring to the island after working careers elsewhere.

¹⁰ Counting houses in a small place produces more uncertainty than counting in a large one where missing data makes relatively little difference. The 2000 census reported Chebeague Island as having 499 housing units, and a count that same year based on the Town of Cumberland assessment records found 400 housing units. The estimated number of units given in Table 1 for 1988 and 1998 used the 2008 CPC total of 468 dwelling units and then subtracted the number of new units that were added to the tax rolls in each ten-year period.

¹¹ In addition, the increase can be explained in part by the 12 houses granted building permits in the single year of 2001. This was the result of an effort by the Town of Cumberland to adopt a growth cap for the island based on its historic rate of 3 houses per year. Faced with a yearly cap that might slow down their plans, summer and year-round residents alike who had been thinking of building, rushed to get on a waiting list to build 23 houses. In the end the Cumberland Town Council let all applicants who were ready to proceed have building permits. Twelve of the 23 applicants were ready.

¹² Whether a house is characterized as “summer” or “year-round” here is not based on its construction and whether it is habitable in the winter. Instead it is based on whether the *Chebeague Directory* shows only a Chebeague address or also shows another address in some other part of the country.

This means that at least since the 1990s, the strong demand for summer houses has driven the market for year-round houses as well. These houses are part of an up-scale national market for scenic waterfront houses and house sites. Like other unconnected islands from Martha's Vineyard to Penobscot Bay, Chebeague has become a desirable place to live, not only for people with long-term connections to the community, but also for people from all over the country who like the idea of living on a Maine island, whether in the summer or year round in retirement.

Table 1: Projection of Number of Housing Units on Chebeague Island

Type Unit	1957	1988	1998	2008	20 year average	2018
Year Rd Houses	96	133	148	64	1.55/yr	181-190
Other Yr rd	?	4	6	6	.10/yr	10
Summer Houses	224	233	259	298	3.25/yr	330
Percent Summer	70%	63%	63%	64%		
Totals	320	370	413	468	4.9/yr	521-530

As a result of this growing housing boom, over the past 20 years Chebeague's property and housing values have risen substantially. The increase in assessed values on Chebeague between 1998 and 2003 was 67.7 percent. This followed an even larger increase between 1990 and 1998. The average increase for the entire Town of Cumberland was 67.8 percent, and Chebeague's increase was proportionately more than the increase on the mainland.

In the past the conversion of year-round to summer houses and vice versa had been fairly common, and had not been a significant issue. Now, however, modest year-round houses that might have been affordable are being sold to summer people, particularly if they have a water view.

This rise, of course, has created wealth, as land and housing values have increased. But for a middle income fisherman or teacher, the cost of housing over the past 20 to 25 years has probably increased faster than incomes. A careful comparison of the cost of building the same house by a person with the same job as an SAD 51 teacher in 1976 and 2010 indicates that while the teacher's salary has increased 372 percent, the cost of building the house has increased 750 percent. This means that a 30 year mortgage on this house today, even at a lower interest rate than in 1976, would consume 39 percent of the teacher's income compared to 27 percent in 1976.

Not surprisingly, the 2000 Chebeague Long-Range Plan identified the price of land and houses as a problem that was discouraging new, young and working people from coming to live year-round on the island. Today the problem is even greater. Inheritance of land and houses has helped some existing year-round and summer families stay on the island by making their housing affordable, but family land is also increasingly limited.

Year-Round Incomes and Housing Prices

Chebeague's year-round population has relatively low incomes. If most residents didn't already own their own homes, often with no mortgage, they would not be able to buy into the present housing market. This is exactly the issue faced by young people wanting to establish themselves on the island. In addition, most of the housing available is owner-occupied single-family houses, and the rental houses that are available cost more than some residents can afford.

The 2000 Census found that Chebeague's year-round median household income was \$32,188. Married couples did the best, at \$51,172. Female headed households had \$41,719, while non-family households had a median income of only \$21,250. In the 2005 housing survey the median non-elderly household income was \$52,500 for a family of 3. The median for people over 65, however, was only \$26,250. Putting the two groups together gives an overall median income of \$42,500.

No "typical" household on Chebeague could afford to buy a house on the Island. In 2005 the median price for a non-waterfront house was \$279,000, higher than the price in Cumberland County as a whole, while median income, at \$32,188, was considerably lower than the County median. On Chebeague, to have a reasonable cost (one third of a family's income spent on housing) a house could not sell for more than \$123,000 to \$211,000 depending on family size.

In addition to the basic cost of buying a house, energy costs are also an issue for people of modest incomes. Rates for electricity are the same as those on the mainland, so the case for producing local energy with wind turbines or biomass is not strong unless other island goals are also met. Heating oil, kerosene and gasoline which have to be brought out, cost more. The Island Council has a program for helping residents with their heating costs. But the basic problem is that most of Chebeague's houses are old and draughty. Programs like PACE that provide loans for home weatherization and pay for themselves in energy savings, are needed on Chebeague.

Rentals

Younger people are more likely to rent housing. While Great Chebeague has a substantial supply of fairly expensive summer rental properties, it has very little rental housing for people who want to live year-round on the island. Instead, some year-round residents rent winterized summer houses in the winter and then move in with relatives or friends, or live in tents in the woods during the summer. But this moving to and fro is disruptive, especially to a young lobsterman whose busy season is in the summer or someone who works for a business that primarily serves summer people.

A monthly rental at 50 to 60 percent of the median family income would be between \$375 and \$450 including utilities. This is lower than the \$650-\$800 per month rent that the winter rentals of summer houses go for, though some smaller or substandard houses and apartments may have rents this low. In any case, finding this housing is not easy. It requires local knowledge and often a willingness to move in the summer, all of which may deter young people from trying island life.

Since Chebeague needs to attract young people, couples and families to keep its year-round economy going and to maintain its elementary school, the lack of inexpensive, year-round

“starter” apartments and rental houses is a significant problem. The additional number of these units need not be large. The Chebeague Housing Study found that four respondents indicated an interest in year-round rental housing over the next five years (in 2005) and an additional seven indicated an interest in the somewhat longer term.

The Elderly

The median income for Chebeague is \$32,188 in large part because the incomes of many of its elderly residents are low. In the 2005 Housing Study the median income elderly respondents was \$26,250. However, most older people own their own houses, and in 2000 73 percent had no mortgage. In this regard their housing is much more secure than that of young people.

But some of Chebeague’s elders have more house than their incomes can support. Chebeague’s year-round housing stock was largely built for families with children (and in some cases, families with summer boarders). Now almost 80 percent of year-round households have no children. Generally the condition of year-round housing on Great Chebeague is good. However, home maintenance is an issue for low income elderly. Even among residents who own their houses free and clear, 40 percent still pay more than 30 percent of their income for housing. This means that at least some owners, probably many of them elderly, do not have sufficient funds to maintain their houses.

The Island Commons has explored somewhat whether it would be possible to work with PROP to have a low interest loan and grant home repair program on Chebeague. However, the initial response was not encouraging since elders in such a small community also do not want to be identified as needing financial assistance.

Weatherization would also produce savings in the cost of housing, though low income elders may be reluctant to take advantage of loan programs, even if energy savings are equal to the cost of the loan.

Finally, if given a choice between staying in their familiar family house and moving to a smaller housing unit, most elderly people would choose to stay where they are. But as older people become frail, they need increasing help to remain at home. Some can be helped by family members who live on the island. But otherwise it is difficult to get home-care providers to come regularly to the island.

Chebeague does have a 7 person assisted living facility, the Island Commons, and when older people, whatever their incomes, reach the point where they cannot live in independently any more, they can often stay on the island by going to the Commons, which has established a reputation as a comfortable and caring place. When Chebeaguers need more care than can be provided by assisted living, they must go to a nursing home on the mainland.

With the baby boom beginning to retire, and the likelihood that additional summer people will retire to the island year-round, the need for additional assisted living care seems certain. The 48 year round residents who were ages 65 to 74 in 2000, when the Island Commons was built, are already ages 73 to 82, while the 33 who were 75 to 84 are already 83 to 92. The two largest

single age groups in the Chebeague population in 2000, with 30 people in each, will be in their 70s by 2018.

Meeting Chebeague's Housing Needs

Work on meeting the unmet housing needs of Chebeaguers has been done by two island non-profits. Even though Chebeague is now an independent town, the Town government is small, has many tasks to undertake, and has chosen not to undertake the job of working on inexpensive, year-round housing.

The Island Commons not only provides assisted living itself, but the Island Commons Resource Center works to provide a broader range services to older people on the island. The Commons explored PROP housing maintenance program and has been discussing other ways of meeting the housing needs of older residents.

The Chebeague Island Community Association (CICA) Housing Committee has been working since 2006 to meet the housing needs of younger individuals, couples and families, assuming the work done since 2002 by the Cumberland Islands Committee. In 2004 the CIC applied to the CDBG Program for a planning grant to study the demand for such housing in more detail. This study, Mayberry and Hemminger, *Chebeague Housing Study: Final Report*, was completed in December 2005, and laid out a five-year strategy for providing 12 moderately priced housing units for rent and sale. This goal has not been met.

CICA's initial "pilot" project in 2007 was to purchase a three-bedroom house with assistance from the Genesis Fund, the Island Institute and donors on Chebeague. Renting this as a modest, year-round house has worked well, but the group has learned that the number of people on the island needing such housing at any given time is small and that a variety of kinds of housing options such as small rental units, or lots available for people to build their own houses, are needed in addition to rental houses.

In the fall of 2009 CICA began to explore building year-round rental housing on property owned by the Town. In early 2010 the Maine State Housing Authority announced a \$2 million grant program to provide assistance to multi-family rental housing on unconnected islands. The June 2010 Town Meeting voted in favor of developing a proposal to build a rental duplex on a Town-owned site near the School and the Rec Center.

Possible Housing Futures

Fully 21 percent of all the houses on Great Chebeague and Hope Islands have been built in the 20 years between 1988 and 2008. Will construction of houses continue at this pace? A slow economy has certainly reduced the recent rate of construction. On the other hand, the impending retirement of the baby-boom generation may counter this somewhat, as some long-time summer residents may have been preparing for some time to retire year-round to Chebeague.

The increase of anywhere between a low of 35 houses or highs between 53 and 62 houses over the next ten years, shown in Table 1, is what market demand might produce if the economy bounces back. This would accommodate projected year-round and summer population growth, assuming that the composition of the population remains as it is. If the construction patterns also

remain the same as they have been, then the new houses would probably be like those built in recent years – all owner-occupied, large summer houses, houses for retirees “from away”, fairly large speculative houses not on the shore, and a few modest houses for year-round working families. Apartments, duplexes and year-round rental units are not very likely. But the Commons, the year-round rental house and the proposed rental duplex are a small start toward a more diverse and reasonably priced housing market.

Transportation

Getting to and from the mainland is one of those aspects of life on Chebeague that is both complicated and expensive, and, as a result, can be a deterrent to having families stay on or move to the island. Of course the cost and multi-modal nature of the trip is also one of the things that residents count on to reduce development pressure on the island. But for people with modest incomes the cost can be a substantial burden.

This discussion focuses entirely on CTC because it has the shorter trip and is the major source of transportation to the mainland. It is also locally owned, so the possibility of affecting its operations is somewhat more likely.

The transportation is costly for island residents. Because the CTC ferry is passenger-only and there is no public transit at the mainland end, individuals and families must have at least two cars, one on each side of the water. Many have considerably more – a truck and a car on the island, and cars for several family members on the mainland, for example. Even if the island cars are old, as many are, the cost of registering, maintaining and running cars on both sides of the water is obviously greater than it would be on the mainland. In addition, parking for one car for a year in one of the CTC lots costs \$600 or \$675 per year.

A year-round working family – two adults, one commuting to the mainland, two cars, two pre-school children -- probably spends a minimum of \$3200 a year on parking and tickets, and \$4,000 would not be surprising. But the direct cost to a family is not the only one. If they want to invite their mainland friends or relatives with two kids for a visit, they are either asking them to pay or paying for them \$47 per day (\$62 for two days). And, of course this cost applies to any visitors to the island. One of the survey respondents said s/he now doesn't invite people out to the island but only goes to the mainland to visit them.

CTC already has four different rates for adults and three for children, not counting the contract with the School District which provides for school transportation. Commuters and year-round residents have the lowest fares. And the problem of reducing the cost of transportation further is a difficult one because the revenues from the transportation system are not making anyone rich. CTC is formally a “for profit” company, but it must pay for the services it provides out of the revenues it takes in, and it is lucky to break even several years in a row. It is always searching for the balance between providing satisfactory service and keeping its costs down. It already subsidizes the fares with revenue from its parking and barging operations. It is provided with boat mooring and automobile parking at the Stone Wharf, but as a for-profit company, does not qualify for any state or federal subsidies.

At this point CTC and the Town are two entirely independent organizations. There is a more detailed discussion of CTC and of the Casco Bay Lines, as well, in the chapter on Ferries. CTC is a for-profit company but it is moving toward restructuring itself to become a non-profit. This would allow it to apply for State and Federal funds to support its operations. It could, of course, go further and become a local transit district or a department of the Town, and the Town could even subsidize its operation. If the cost of transportation is an issue the Town decides to take on, discussions with CTC about these possibilities will obviously be necessary.

However, CTC would bring to this discussion a certain amount of negative public opinion, some dating back to its early years of operation. Neutralizing this baggage, perhaps by the involvement of a neutral third party, might be possible in order to get fair and rational discussion of the costs and benefits of the options under discussion. Whatever options might be considered in the future, the cost of running the transportation system will not somehow magically disappear.

Conclusions

The costs of housing, including energy and taxes, and of transportation are not the only higher costs that Chebeague residents live with. Anything that is brought out to the island to be sold is likely to be more expensive simply because of the transportation. Things bought on the mainland and delivered on the island have the same added cost. Having service-people come out to fix an appliance, tune a piano or do any other kind of work has to take into account the extra charges for the ferry fare and the time taken by the call.

Residents can minimize these costs by carrying their own groceries out from the mainland, or by buying goods produced on the island, producing their own or hiring island workers to provide services. But housing, energy and transportation are the big-ticket items that may make the difference between being able to live on the island or not. They may also be issues that the Town and its non-profits can do something about.

2.d. EDUCATION

Comprehensive Plans do not usually deal with education, aside from assessing the adequacy of school facilities. In the Town of Chebeague Island, however, the Chebeague Elementary School is one of the cornerstones of the community. It is both an indicator of the health of the year-round working community and a potential or actual attraction for young families to live on the island. The combination of elementary education in a small personalized educational environment close to home, and the education offered by fairly easily accessible high-quality suburban middle and high schools on the mainland is highly unusual. Through their education, Chebeague students can prepare themselves for life as a fisher on Chebeague, or for a wide range of careers on the mainland.

The centrality of the school to the community was illustrated in 2005. The impetus for Chebeague's secession from the Town of Cumberland and SAD 51 was a proposal by SAD 51 to move the third to fifth grade classes of the Chebeague Elementary School to the mainland. While this proposal was later withdrawn, the School Board would give Chebeague no assurance that its school would remain open. Indeed, as a small, high-cost school, it seemed likely to be closed at some point in the future.

When unconnected islands lose their elementary schools, they can no longer survive as "real" year-round communities. The Chebeague School was one of only 14 remaining island schools in Maine. This argument convinced the Legislature that Chebeague had a legitimate reason for secession, and at the first Town of Chebeague Island Town Meeting in July 2007, the voters elected its first five-person School Committee.

During the secession and transition processes a great deal of work was done on the island to develop plans for the new town's school system. They had the help of an educational consultant and information from other, similar school districts. This Chapter is based substantially on this work. The School Committee has continued this work. It is not the role of the Comprehensive Planning Committee to make recommendations to the School Committee except to emphasize the important role of the island school in maintaining the year-round, working community.

Goals and Recommendations

Goal: A THRIVING ISLAND SCHOOL

Recommendation: Encourage and attract families to Chebeague that include school age children.

Discussion

The Town of Chebeague Island School Committee and Superintendent run the Chebeague Island School. The School has three classrooms: PreK, K-2 and 3-5. The Pre-K program was added when the School District became independent. The staff consists of the same two full-time teachers who taught in the school before secession, two ed techs, a cook/custodian and a bus driver. Subjects such as art, physical education and music are provided by visiting staff. The administrative staff is a part-time Superintendent/Principal and a part-time secretary.

The school building was built in 1953. It has had only minor renovations since that time, but over the years has been well maintained. It has capacity for 60 students. It has 4 classrooms, two small spaces for working individually with students, a very small office, a kitchen, bathrooms, a boiler room and a storage closet. The Town owns a school bus that picks up children all over the island before school and takes them home afterward. It is also used for many field trips on the island. The School Committee has a Facilities Plan.

There is a playground behind the school. The School also has a vegetable garden tended by the children and several adult volunteers. It provides food for the school lunches. The school leases the Chebeague Recreation Center and its pool, built next to the school in 1997, for physical education and after school activities. It also uses Volunteer Field on the other side of the school building. Its school library is the Chebeague Island Library.

The school has had a long history of support by members of the community. There are regular volunteers helping out in the classroom, assisting with projects and providing logistical support to the school staff.

When students reach sixth grade, they begin to go to school on the mainland. As a part of the Town of Cumberland, they went to SAD 51's Greely Middle and High schools. The secession agreement provided that Chebeague children would continue to attend SAD 51 schools for 7 years. At independence, the Town of Chebeague Island made a lump-sum payment to pay for this education.

Having children in school on the mainland makes daily life more complex for families. In the 2005 Housing Study's question about factors that create serious problems for living on the island, the fourth most pressing problem, cited by 28 percent of respondents, was the distance to schools for after-school activities, while 13 percent considered the more general fact of having middle and high school kids attending school on the mainland to be a problem for living on the island. There has been an effort with SAD 51 to arrange additional transportation so that children can participate in sports and other extracurricular activities, but even with this, parents must often make extra trips to the mainland. For some families, the extra effort and cost that this requires has led to the decision to leave the island.

In 2010, after considerable research into various mainland school districts, the School Committee decided to contract with Yarmouth School District. The middle and high schools are excellent academically. The decision is also expected to reduce the hassles for parents of having children involved in extracurricular activities and sports, since Yarmouth already provides transportation to Cousins Island which is part of the Town. In addition the Yarmouth school officials appear to be welcoming, and interested in integrating the Chebeague students into their schools.

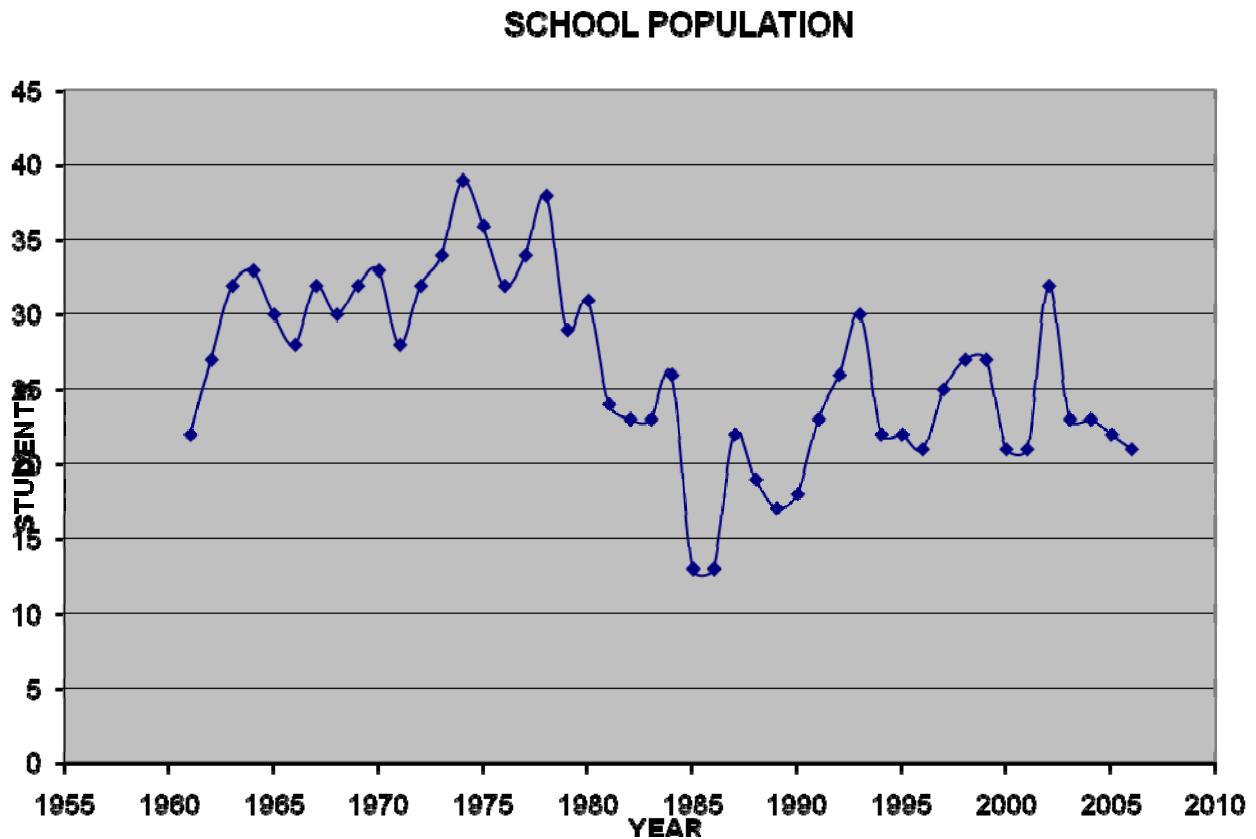
The School Committee and the community are now involved in a discussion about whether the transition to the Yarmouth schools will begin in 2014 when the agreement with SAD 51 ends, or will begin in 2011 with the 6th grade. This decision will ultimately be made by Town Meeting.

The transition from a small elementary school on the island to a fairly large middle school on the mainland has been a major change for the Chebeague students since the Chebeague High School

was closed in 1956. The School Committee has worked on a program to improve the transition to SAD 51. Such a program with the Yarmouth schools may do more to introduce the Chebeague students and the mainland class they will join to each other and their communities. But the social part of the transition is only one element. It is essential that children finishing the Chebeague Island School be well prepared academically for the classes they will enter on the mainland.

The program of the Chebeague School has not changed dramatically since secession. The curriculum of the Chebeague school had already been coordinated with that of SAD 51 on the mainland, and the school staff have worked to meet the requirements of Maine Learning Results. As the children switch to the Yarmouth schools, the curriculum will be revised to provide a smooth transition from Chebeague to Yarmouth's middle school.

Graph 1



School Enrollment

Overall, the proportion of the population on Chebeague that is at or younger than school age has remained about the same at 19 to 20 percent in ten-year population counts. But this masks considerable volatility in the number of children in the Island School. The whole island school system has fewer than 50 students for PreK through high school, and fewer than 25 in the elementary school. This means that small changes from year to year in the number of families and their children can create considerable fluctuation in the school population. Overall, however, changes in the

Chebeague Elementary School population have mirrored demographic changes in the wider society.

Donna Damon developed a tabulation and graph of the Chebeague Elementary School population (K – 6) since 1960 based on school end-of-year photographs (Graph 1) The numbers of children are only comparable from year to year between 1964 and 2005. In 1964 the Junior High students (grades 7-8) were switched to the mainland, and in 2005 the 6th grade was also shifted to the mainland.

The U.S. baby-boom is considered to have begun in 1946 and ended in 1964. These baby boom children hit elementary school in 1952, with the last group entering in 1970. Chebeague's peak school population was 39 in 1974, in the middle of the last cohort of boomers.

Nationally and on Chebeague the birthrate declined in the latter half of the 1960s and the first half of the 1970s – the kids who reached school age between 1970 and 1982. The Chebeague School had its low point in enrollment at 13 students in 1985 and 1986.

Since then the baby boom “echo” raised the birthrate again, almost to the peak it had reached in 1964, with the high occurring about 1990. These children reached school age about 1996. On Chebeague the pattern since 1986 has been less clear, with many ups and downs. However the general pattern is similar, with the average number of students per year from 1987 to 1997 at just over 22 compared to 31 for 1960 to 1974, and the low of 13.

Nationally, virtually all the growth in the school-age population in the future is expected to be among immigrant families. In Maine, enrollment has gradually been declining for ten years. Maine's birthrate is predicted to decline, though southern coastal areas may be continue to have net in-migration and some increase in births. The current recession certainly makes these predictions less certain. The Maine Department of Education reports that enrollment has been declining slowly over the past ten years and this trend is expected to continue.

Superintendent Bump Hadley's projection into the future of the elementary school population, based on children currently living on the island, shows a slight decline. But it is always important to remember that with such small numbers of students, the addition or departure of one family with several children in the school can make a noticeable difference in enrollment.

For educational reasons it is useful for an elementary school to have a large enough enrollment to have at least one child in each grade so that each classroom has a group of children. If the number of children fell below the minimum required to sustain several grades, then the community could consider, as Islesboro has, recruiting some children from the mainland.

But more fundamentally, if enrollment were to fall to this level, the problem would be a more general one of sustaining the year-round working population. And from that point of view, having a small elementary school with very individualized teaching, linked to larger, academically challenging middle and high schools conveniently located on the mainland is probably a draw for young families.

The Comprehensive Planning Committee urges the School Committee to carry out the mission of the Chebeague Island School, and to work to make the experience of mainland schooling a positive one for both students and their families. Excellent schooling can be a powerful tool for maintaining Chebeague's year-round, working community.

2.e. COMMUNITY SERVICES PROVIDED BY ISLAND ORGANIZATIONS

A Community Rich in Voluntary Organizations

Chebeague is a small community that is always somewhat isolated and sometimes completely cut off from the mainland. So islanders are pretty self-sufficient. They also have a strong sense of community that values the independence of people but is very supportive when there is need. This has led to the creation of many social and service-providing organizations over the years (Table 1). Since WWII, and especially since the 1980s many of these organizations have been formally-created 501(c)3 non-profits.

Table 1: Chebeague Non-Profits and Private Clubs

Non-Profits:

The Island Commons
Island Commons Resource Center
The Chebeague Recreation Center
Kids Place
Sanford's Pond
The Chebeague Parents Association
The Chebeague Island Library
The Chebeague Island Hall and
Community Center
The Chebeague United Methodist
Church
The Ladies Aid Society
The Chebeague Historical Society
The Museum of Chebeague History
The Chebeague Island Council,

The Health Clinic
Chedemption
The Chebeague Island Community
Association
Year-Round Housing Committee
The Stephen Ross Scholarship Fund
The Chebeague and Cumberland Land
Trust
The Recompense Fund

Private Clubs providing recreational services

The Golf Club
The Yacht Club
The Sailing School
The Tennis Club

This wide variety of community organizations, services and activities raise several issues. One is what services are available and what gaps in services may need to be filled. This, however, is primarily an issue for the various organizations themselves, though as the goal above indicates, the Town can be supportive and collaborative in filling gaps. (Appendix 1 lists the evaluation by each organization of its facilities.) The other issue that is discussed, but not fully resolved here, is what should the relationship between the Town and these non-profits be?

Goals and Recommendations

The Goal is: INCREASED ASSISTED LIVING OPPORTUNITIES FOR ELDERS

Recommendation: The Island Commons is encouraged to explore expansion of its assisted living facilities as increasing need dictates. This might include housing that is more independent than full assisted living but still provides some services.

Recommendation: Explore ways to make the provision of home care and other such services for the independent elderly more easily obtained on the island.

The Goal is: CONTINUED PROVISION OF SERVICES BY ISLAND NON-PROFITS AND CLUBS TO CONTINUE TO PROVIDE SERVICES PARTICULARLY FOR CHILDREN AND FAMILIES, AND THE ELDERLY

Recommendation: The Town (Selectmen and Town Meeting) should continue to consider proposals from non-profits, and perhaps even from clubs, for support in the form of land or financial support for facilities and services that are important for the survival of the year-round community.

The Goal is: COST EFFECTIVE OPERATIONS FOR NON-PROFIT FUNCTIONS.

Recommendation: The various non-profits are encouraged to explore ways to join forces with other non-profits and/or with the Town, to leverage results, and to operate more efficiently and effectively.

Discussion

Map 1 includes all the non-profits and clubs that have facilities. Some such as the Scholarship Fund and the Yacht Club have none. Those that do are located all over the island. The Hall, Health Clinic and Library are co-located in one building, and the School, Rec Center and Kids Place are grouped on adjoining lots.

All of these organizations involve many year-round and summer residents as board members, regular volunteers, participants in fund-raising events, simply as members and, of course as donors. Even in winter, weekday evenings on the island are filled with organizational meetings. The non-profits are social as well as service-providing organizations. Christmas parties, lectures, fairs and other social and fund-raising events are held throughout the year.

These organizations provide a number of services, such as recreation programs and library services, that in other communities are provided by the Town. Their non-profit status on Chebeague was partly a response to gaps in Town services on the island.

Because Chebeague is a boat and car trip away from services on the mainland, the facilities and services available on the island are particularly helpful in meeting the varied needs of residents, particularly for children, their families and the elderly, but, in fact, for everyone.

Services Available

Many island non-profits – the Church, the Library, the Recreation Center and the Health Clinic, the Hall -- serve all age groups and both year-round and summer people. But there are two groups, children and the elderly, that are the particular focus of some organizations because they are more in need of services and less able to get to the mainland. So the Commons provides

Map 1:



assisted living to the elderly and the Island Commons Resource Center provides information about services to the elderly. Kids Place provides day care for children.

Because the Town has been a summer vacation destination since the 19th century, and the population in the summer is about five times larger than in the winter, the island has also created and supported a wealth of recreational and cultural opportunities which are generally available to everyone. And, because the island is more isolated than most places, especially in the winter, islanders tend to rely on their own resources and services for physical recreation and intellectual stimulation.

Even so, it is still fairly easy for residents to take advantage of the many cultural and recreational opportunities available in the Portland metropolitan area as well. And middle and high school students are involved in things like plays and athletics at schools on the mainland.

Children

Children are a natural focus of any small community, and Chebeague is very family-oriented with more multi-generational families than many communities on the mainland. Children are also key to the survival of Chebeague's year-round working community. If families can't work and provide their children with a good life including education, recreation, health care, and social and family networks, they won't be willing to live on the island. Families with two working parents are much more the norm now than a generation ago, and keeping all these balls in the air is a significant challenge to island parents, especially once their children reach middle school and go to school on the mainland. In addition, though kids on Chebeague may be somewhat sheltered from some of the problems of modern life, they do exist on the island.

So island residents have responded with a wide variety of organized activities for children both young and older including:

- Kids Place provides day care from infants to older children after school. This fills what had previously been a gap in services for children on the island.
- Rec Center Teen Center provides a place for teens to gather (free) and organizes a variety of activities on the island and the mainland.
- The pool at the Rec has swimming lessons.
- Camp Chebeague has many different activities from soccer to crafts to Lobster Camp -- for year-round and summer children.
- The sailing school teaches kids beginning and more advanced sailing skills.
- Sanford's Pond, created by Sanford Doughty but now partly maintained by the Rec Center, provides skating in the winter (free including equipment).
- The Library welcomes all children and maintains a substantial collection of children's books and videos. In addition they have story hour, and in the summer activities ranging from magic shows to a Harry Potter sleepover in the Library (free). They are also the library for the school.
- The Golf and Tennis Clubs have lessons and clinics for children.
- The CPA, the Church and other organizations hold a variety of seasonal children's parties (free).
- In the summer the Rec Center produces children's theatre productions at the Hall.

Even given all of these services and activities, however, there are still some children who may be in need. Their parents have problems finding jobs, housing that they can afford, and a number of the organized activities for children outside of school cost money. Jobs may be the best help for these families, but the children still need day care and other activities.

These, of course, are organized activities. The year-round and summer children also have the whole island to explore and play in from the shore and the intertidal, to forests that crawl with salamanders and provide homes for deer and foxes. Here the island's isolation is a boon. The community watches its kids, drives carefully when they ride their bikes on the island roads. Fathers and grandfathers teach them to hunt. Mothers make up treasure hunts in the woods. Swimming, picnics, excursions in boats, sledding at the Durgin's Hill or on the golf-course seem to compete successfully with the internet.

The Elderly

The elderly make up a disproportionately large share of Great Chebeague's population. In 2000 a quarter of Chebeague's year-round population was over 65. Chebeague's median age in 2000 was also the highest of any of the unconnected islands, ten years higher than North Haven's.

Many of these older people have lived on the island all their lives. The rest usually have some long-time connection to the island – they grew up here or came in the summer – and have decided to live year-round on the island in retirement. It seems likely that both groups will grow in the immediate future, since the babyboom generation has begun to reach retirement age.

As residents age, they tend to develop a complex of problems that need attention. Some elderly are in poor health, but even those with few health problems are likely to need to be monitored for medications they take or for chronic but not health-threatening conditions. For most there comes a time when driving a car, particularly on the mainland, becomes problematic so getting care on the mainland becomes more difficult. Almost all older people prefer to go on living on their own in their own homes as they always have. This can often be done with support from family members or from home care services. But not all older residents have family on the island and getting home care providers to come out to Chebeague is difficult. Home maintenance and the cost of energy can also be difficult for elders to deal with.

The underlying problem for some of these people is income. The median household income on Chebeague in 2000 was \$32,188. However, non family households had a median income of only \$21,250. Of these 65 households, 33 (51 percent) had householders who were 65 years or older. Of these elderly households, many were people living alone.

As with children, Chebeaguers have developed a number of services that particularly help older residents including:

- The Health Clinic which provides blood testing and the services of a physician's assistant one morning a week.
- The Island Commons which provides assisted living care to 7 people as well as some day care. The Commons also organizes a monthly "Senior" luncheon which was so

- Heating assistance provided through the Island Council.

On the planning survey there was some interest in providing Town support to the Clinic so that it might have more hours or more staffing by a doctor or physician's assistant. Several of these people particularly mentioned the need among the elderly as a reason for the Town to be more involved. However, an effort to establish a Town Health Committee failed for lack of volunteers.

Cultural Activities and Resources

Great Chebeague not only has many physical activities for residents and visitors, it also provides a wide range of cultural and intellectual activities and events which center on the Library, the Hall, the Museum of Chebeague History and the Church.

The Library is open for at least some hours, six days a week. It has a good collection of popular books and videos, and materials for children, since it also serves as the school library in the winter. In 2008 it had 14,500 patrons and lent out 16,000 books and videos. Almost 4,000 used the public computers and many others use the Library's wireless internet connection. It can easily get books through inter-library loan. It sponsors a poetry group, a movie series and art exhibits by island artists.

The Chebeague Island Historical Society produces an extensive new exhibit on some aspect of Chebeague history almost every year at the Museum of Chebeague History. It also has monthly lectures, workshops, a newsletter and in 2009 revived the tradition of the summer House Tour, showing historic and new houses. The Historical Society has also sponsored a series of trips, organized by Suhail Bisharat, to Egypt, Jordan, Turkey and New York City exploring the history and arts of these countries.

Other cultural activities include:

Plays and musicals at the Hall

Lectures on ecological, artistic and travel topics

Music, both classical and popular, instrumental and vocal.

Art Exhibits at the Library, the Boat Yard's upstairs gallery and the art gallery at the Stone Wharf.

Some of these events are produced as fund-raisers for island non-profits. But many are simply the regular program activities of these organizations. Since the Hall, the Parish House and the Rec all have kitchen facilities, meetings are commonly accompanied by refreshments or even full-scale meals.

The Relationship between the Town and the Non-Profits

When Chebeague was part of Cumberland, the division between services provided by the Town and those provided by voluntary organizations was fairly clear-cut and stable. The Town provided public health and safety services (fire, police, rescue, solid waste disposal). The school district provided education. Non-profits provided anything else that residents wanted. In cases

where the Town provided some service on the mainland but not on the island, the Town would provide some support to a comparable non-profit, i.e. the Library and the Recreation Center.

Chebeague citizens' support of their non-profits and clubs is shown by their buildings and other facilities. The island has far more free-standing buildings for non-profits and clubs than it does for businesses. The Church, the Parish House and the Hall were the first generation in the 19th century. The Grange and the Doctor's House were the second, along with the Golf Course and Club. Buildings for the Library and Health Clinic, the Commons, the Recreation Center, the Historical Society and Kids Place have all been created since the 1980s. The only one that has ceased to exist is the Doctor's House which was sold when medical practice had changed so much that it became impossible to recruit a doctor to live in the house and to practice on the island. At that point the Town also ceased to provide money toward the doctor's salary. The money from the sale later helped to fund the present health clinic, and helps to pay for its operation.

Each organization has raised money from year-round and summer residents to create its building, and is responsible for maintaining and staffing it. Most depend heavily on volunteer staff, but many now have some year-round paid staff. The School District pays for services it uses at the Rec Center. The Town, which uses the Hall for many of its public meetings, has continued the practice begun by Cumberland of providing annual support to the Library for the maintenance of the Library/Clinic/Hall building and now also pays the Hall for its use for meetings. Otherwise the non-profits raise operating and capital money from community fund-raisers and annual appeals.

Donations, of course, are voluntary, whereas if the facilities were owned and the services were provided by the Town, they would be paid for through taxes. There are both advantages and disadvantages of having organizations largely run by volunteers. Some people think it would be easier and more efficient to fund services out of taxes (as well as state, federal and private grants), while others think that it is good for people to be able to support the services they want in particular. The need to keep all of these organizations operating does place a heavy burden on the people who are willing to volunteer, though for some organizations the burden is significantly shared by summer people. Despite the challenges, these organizations provide programs and services that help to sustain a diverse, year-round community

Now that the Town is independent, it would be possible to change the balance between public and voluntary services. The line is already getting more blurred. Non-profits make proposals for services or facilities that have to be approved by the Selectmen and/or Town Meeting. This plan for the Town recommends that when a non-profit undertakes a project that requires help from the Town in terms of resources such as money or land, that the project be developed by a joint Town/non-profit committee.

On the other hand, at this point in the TOCI's evolution, the Town's administrative capacity to provide additional services is severely limited. Moreover, supporting services voluntarily does seem to be more acceptable to residents for now than doing it through taxes, though some residents complain about the multiplicity of organizations, the burden of having to recruit volunteers for boards for all of them, and their multiple requests for money. Since the number

and variety of the organizations was, in part, a response over time to the lack of island services provided by Cumberland, it is possible that over the coming years a gradual process of rationalization of the organization of services will take place, not only between the non-profits and the Town but between the non-profits themselves.

The balance between the island's new government and its voluntary organizations is very much a work in progress. The Plan simply recommends that the Town and the non-profits work together to maintain and improve the island's services.

3. FUTURE USE OF THE TOWN'S LAND AND WATERS

Compared with the issues related to maintaining a balanced population that can sustain the year-round working community, land use is a secondary concern for the Town. Moreover, the Town of Chebeague Island covers 12,701 acres, 10,482 of which are water. The land area of the Town is spread out between 14 islands and parts of two others. Some are rock outcrops, or are less than an acre in size. The largest island, Great Chebeague itself, is only 1,926 acres. The waters of Casco Bay are central to the economy and to the identity of the Town.

This means that for planning purposes, the Town of Chebeague Island must consider not only the way its land is used, but also how its waters are used. This section is made up of four chapters. They divide up the territory and planning issues into roughly three areas: the land, the water and the interface between them, with two chapters on the land – one on future land use and the other on historical and archaeological resources. These are all tied together by the Future Land Use Map on pages 117 and 127, and the Future Use of Town Waters Map on page 171 which represent the goals in these chapters in graphic form.

The single goal that ties all these chapters together is the idea of guiding ongoing, sustainable use of the Town's land and water, while maintaining its rural character.

Preserving the Rural Character of the Town

Most residents, both summer and year-round, think of Chebeague and its larger town as a rural place and want to keep it that way. In a survey for the 2000 Long Range Plan, preserving the rural character of the island ranked second of 19 specific issues asked about, with a score of 6.34 where 7.00 meant the Town should give the issue “a great deal of attention”. Growth and development” ranked as the most important issue in an open ended question, mentioned by 48 percent of respondents. In this plan's survey, 41 percent of all respondents spontaneously wrote about preserving open space of all kinds. The islands' natural resources – the ground and surface water, the Bay and the land – lie at the heart of this image of the Town as a “rural” place. More than 20 years of steady growth in the number of houses on the island makes this an issue high on many residents' agendas.

What does it mean to say that a place is rural? Does this mean it is a pristine wilderness? Since the Town's islands have been occupied by whites for more than 200 years and by the Abenaki Indians before them, the islands clearly have not been a wilderness for hundreds of years. Does it mean that the islands' natural resources such as the land and the water produce income? This is certainly the case with the Bay's waters. Lobstering, clamming and sometimes scalloping or fishing for pogies remain central to the Town's economy. On the other hand, the land now has less value for growing crops, grazing animals or logging trees than it has for house-building, so farming and tree harvesting make up only a very small portion of the island's economy. But open space and the island's rural character are essential to vacationers who are another pillar of the Town's economy.

“Rural” means freedom of movement, of access to woods and fields, for work or pleasure. It means being able to work in and on the Town's waters. It means having views of the ocean or

being able to get to the shore even if you don't own it. It means being able to go to another island for a picnic.

Why is "rural character" important in the Town of Chebeague Island? This is one of the characteristics that attracts people to live here year-round and to come to enjoy recreation in the summer. People want to be able to walk in the woods and see the flora and fauna that live there. They want historic trails to be preserved, not closed off. In addition, the relatively low average density of development has also saved taxpayers money by making it unnecessary for the Town to develop expensive urban infrastructure such as water lines, sewers, treatment plants, and engineered storm-water collection systems. The Bay's waters still provide livelihood to some island residents, and preservation of open land could provide more.

Planning to keep the use of the land and the water sustainable over time is critical to a Town with clear limits on its resources.

3.a. FUTURE LAND USE

Maintaining the rural character of the Town's islands is a central goal of this Plan. How can this be done in the face of continued development pressure? The short answer is two-fold. One, residents must define areas of the islands that they want to see remain substantially rural, and work with land owners to keep them that way. Second, development, primarily of houses, will continue, so the challenge is to encourage it to occur in areas that are already developed rather than in areas that are still mostly undeveloped.

Chebeague has never had a plan that designated areas on a map for different kinds of land uses. It has never needed one. It does have areas zoned on a map for residential and business uses (Map 1), but, as will be explained below, these do not reflect much difference in actual use. In fact, Chebeague's land use – mostly residential with some businesses and public facilities mixed in – is fairly uniform. The one difference that people notice is that some areas are more developed than others, so that some parts of the island are almost like villages, while others seem quite rural. This diversity in the landscape is something that residents, both year-round and summer, value. New development will continue to occur and this distinction may be increasingly blurred. However, shaping where development goes is possible, and that requires a map showing where it should go.

This chapter makes recommendations on future land use in various areas of the Town. The first sections describe the land use patterns that have developed in the past, that exist now and may occur over the next ten years. The second looks at the central land use issues the Town should deal with. The third describes how the Comprehensive Planning Committee developed criteria for growth and rural areas and developed strategies for encouraging new development to locate in the former and not in the latter.

The result is a Future Land Use Map (Map 2) and these recommendations for getting to it.

Goals and Recommendations

The Goal is: SIMPLIFIED LAND USE ORDINANCES DESIGNED TO ACHIEVE THE TOCI'S GOALS.

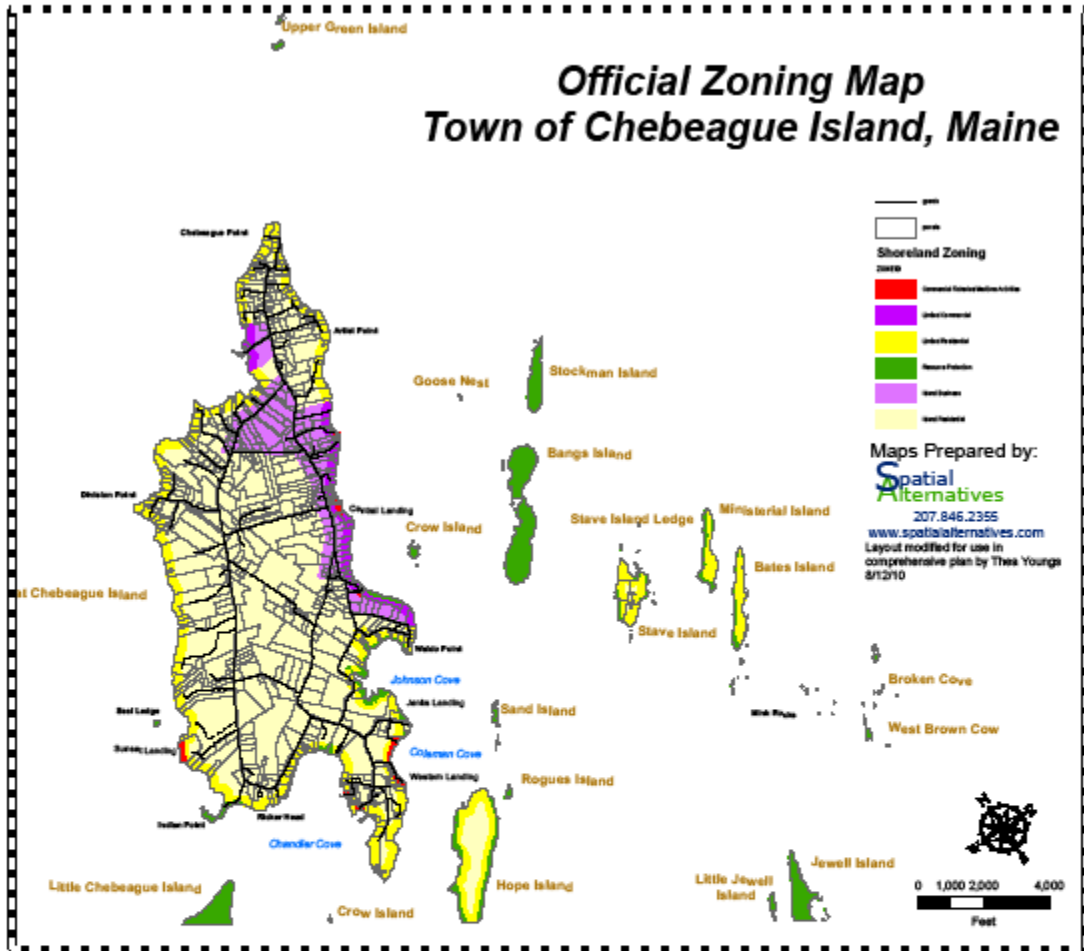
Recommendation: The Selectmen should appoint a committee – either an ad hoc or a standing committee such as the Planning Board – to revise the land use ordinances.

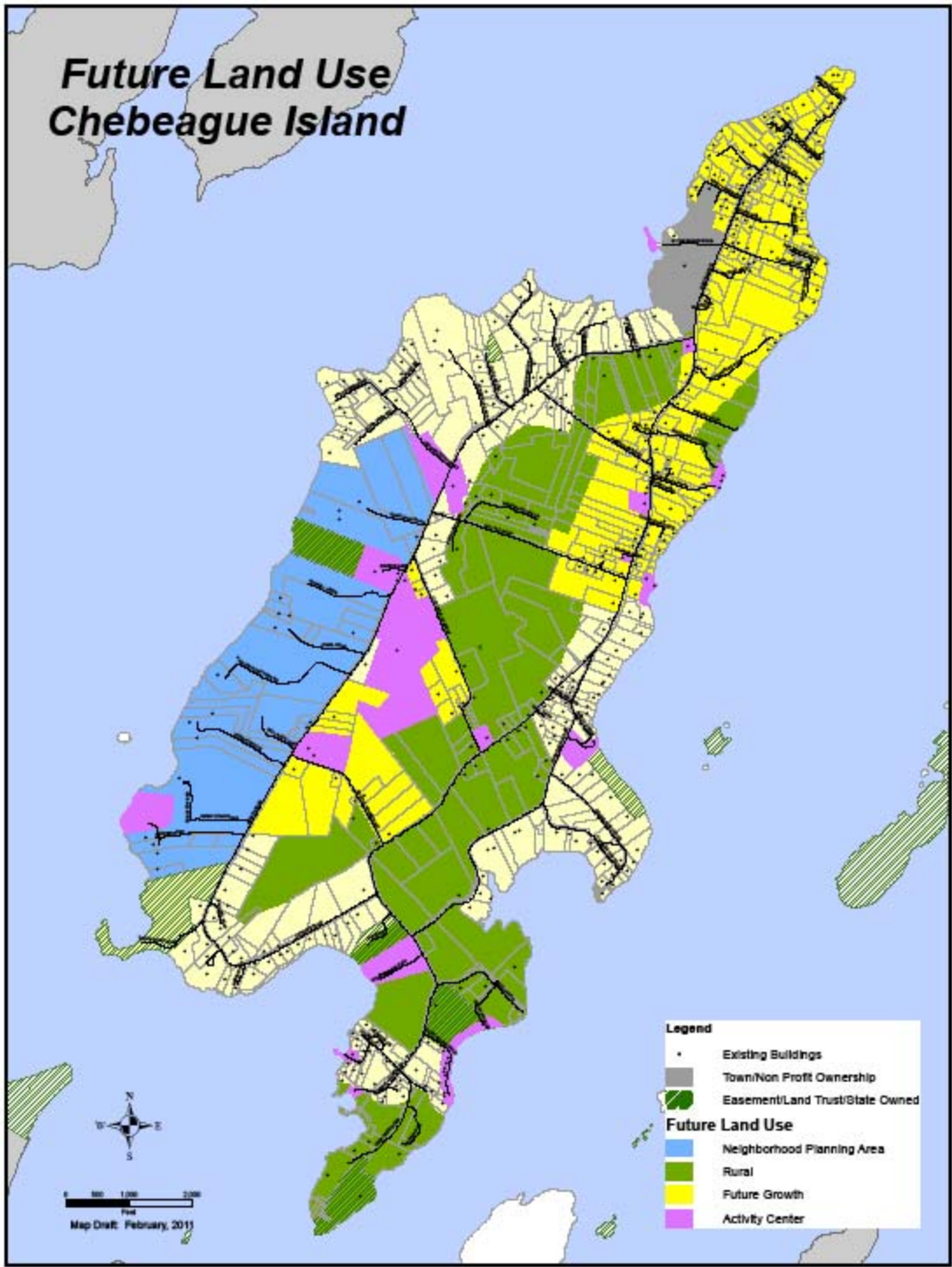
Recommendation: The Town should revise the current Zoning Ordinance inherited from Cumberland to better meet the Town of Chebeague Island's needs and values and to carry out the goals and recommendations of this plan.

Recommendation: In this revision, maintain the basic 1.5 acre lot.

Recommendation: In revising the land use Ordinances, the Town should consider having only one zoning district on Great Chebeague that would maintain the present zoning practice that

Map 1:





Map 2

allows commercial uses in residential areas as home occupations, home-based occupations or as business buildings reviewed by the Board of Appeals and the Planning Board.

Recommendation: Any single zoning district proposal should develop performance standards related to such potential problems as noise, odor, light, traffic and parking to evaluate applications for businesses in residential areas.

Recommendation: The Town should revise the current Subdivision Ordinance inherited from Cumberland to better meet the Town of Chebeague Island's needs and values and to carry out the goals and recommendations of this plan.

Recommendation: Revise the Zoning and Subdivision Ordinances so that development standards such as setbacks can reflect the particular style of an area's existing development.

The goal is: PRESERVATION OF CRITICAL NATURAL AREAS, OPEN SPACE AND RURAL CHARACTER.

Recommendation: The Town should develop an open space plan to define critical natural areas and areas for farming and forestry. It should also include a plan for identifying and preserving existing trails on the island, and for creating new ones, where appropriate.

Recommendation: Zone land (including Springettes and Bennett Cove and Rose Point) that meets the legal standards for Resource Protection under Shoreland Zoning, as Resource Protection areas.

Recommendation: Work with landowners to encourage critical natural areas such as upland forested wetlands to be protected by conservation easements or enrollment in the State Open Space Program.

Recommendation: Work with landowners to encourage appropriate use of areas that are suitable for farming or forestry. Productive uses are encouraged. More ideas for how this might be done are found in the Chapter on Agriculture and Forestry.

Recommendation: Explore having the Town adopt an open-space/recreation impact fee on new development. The money collected by the fee would be used to purchase development rights or land to be kept in open space.

Recommendation: The Town should consider making a yearly allocation to the Capital Improvement Budget for the purchase of development rights in rural areas.

Recommendation: The Town should accept private contributions designated for land conservation.

The goal is: PRESERVATION OF OPEN SPACE AND RURAL CHARACTER BY CONCENTRATING NEW DEVELOPMENT IN ALREADY-DEVELOPED AREAS.

Recommendation: Designate public and non-profit parcels and facilities such as present or possible wharves, or Town or non-profit buildings as “activity centers” or growth areas where the Town expects to spend 75 percent of its growth-related capital expenditures. In the future, to be created, renovated or enlarged, these may require local, State or Federal funding which must be spent in growth areas.

Recommendation: In its revision of the land use ordinances, the Town should encourage clustering of housing in several already-developed and one new hamlet by allowing development on lots smaller than 1.5 acres.

Discussion:

Evolution of Land Use Patterns on Great Chebeague

In the 19th century, Great Chebeague developed as a community based on fishing, farming and maritime trade. Toward the end of the century it also became a destination for summer vacationers. These economic activities were rural in character, and used the natural resources of both land and sea.

Chebeague Island has never had a single central village, around a harbor, for example. The island is large enough so that it was difficult to walk to a single central “town” area. In the 19th and first half of the 20th centuries there were multiple stores, schools, churches and wharves located in different parts of the island so that people could walk to them. In the 1950s Town services on the island expanded, and Cumberland simply located facilities on land that the Town happened to own or was able to buy. Typically these were not built in existing population areas. As a result, the pattern of decentralized facilities and separate neighborhoods has been built into the physical fabric of the island.

Residential Development

Houses tend to be located in “hamlets” or neighborhoods where the density is greater than the surrounding areas. These came about in several different ways. Some were the result of families dividing farms up among later generations. These more populated areas also sometimes became sites for businesses, local community buildings and/or a private or a steamship wharf. Hamlets like this include the East End and The Center, Coleman Cove and Chandler’s Cove.

Other settlements were formal subdivisions. Early in the 20th century there were a number of subdivisions such as Cottage Road and the Massachusetts Colony, largely on the shore, for summer houses. Since WW II there have been four major subdivisions: Cart Road Acres (1972), Division Point/Division Shores (1975), Rose Point (1989) and School House Road (1990). These later subdivisions were not intended primarily for summer houses. But all except School House Road have shore lots, though in Cart Road Acres they could not be developed initially.

Over the past 50 years, these hamlets have become less clearly defined, and the rural areas between many of them have become at least partly developed. In addition, previously little-developed areas like the Back Shore and Deer Point have seen quite a lot of building, often on fairly large lots.

The distinction between built up and more rural areas has also been blurred by the increase in lot sizes. In the developments between 1900 and 1920, lot sizes could be as small as one fifth of an acre, though few areas were built out fully to this density. When Cumberland first adopted zoning in 1949 the lot size on Chebeague was 6,000 square feet. It increased to 1 acre in 1959, and to 1.5 acres in 1984.

Commercial Development

The basic land use pattern on Chebeague is that most structures are either houses or buildings for public and non-profit organizations. This does not mean that Chebeague is just a residential community. In fact, on Chebeague 85 percent of the jobs held by islanders are jobs on the island or its waters. There simply is not much physical separation of commercial and residential land uses. Most businesses are located at or in their owner's house. The island has only five businesses where the building for the business is not at the owner's house.

Just over 10 percent of the houses (48) are used as home-based construction and fishing businesses where the worker keeps materials and tools at the house but does most of the business off-site. One of the most important provisions of Chebeague's Zoning Ordinance is the one that allows, as permitted uses in both the Business and the Residential Zones,

“uses related to commercial fishing, including storage and repair of traps, seines, boats and other equipment, the keeping and cooking of fish for sale at retail on the premises, and fish processing as a home occupation. (Sec 204.1.A.4.)

Another four are regular home occupations where the work is done in the house. Finally, three other businesses are in separate buildings on the owner's house lot.

This mixture of residential, commercial and institutional uses survives despite the formal division of the island into residential and commercial zoning districts. The reason is two-fold. One is that any use allowed in the Island Business zone is also allowed in the Island Residential with approval from the Board of Appeals and a site plan review by the Planning Board. The second is that Chebeaguers value businesses on the island and have simply developed a fairly high tolerance for mixed uses unless the conflict from such things as noise, traffic or odors are extreme.

Rural Areas

Chebeague is not a farming community now. However, most residents, both summer and year-round, think of Chebeague and its larger town as a rural place and want to keep it that way. Currently there are a number of conservation easements on parts of the shore. Some privately owned areas are still quite rural. The central upland along the spine of the island is fairly sparsely developed. Some of it is in the State's Tree Growth Program, which provides temporary protection. The same pattern of sparse development, and some Tree Growth protection is also characteristic of much of the area between North Road and the back shore.

The current land use pattern is shown in Map 3. In most land use maps houses are shown in yellow, and commercial areas are shown in red. In this one, however, houses that are also businesses are shown in orange. This shows

Map 3

Town of Chebeague Island 2008 Land and Economic Use

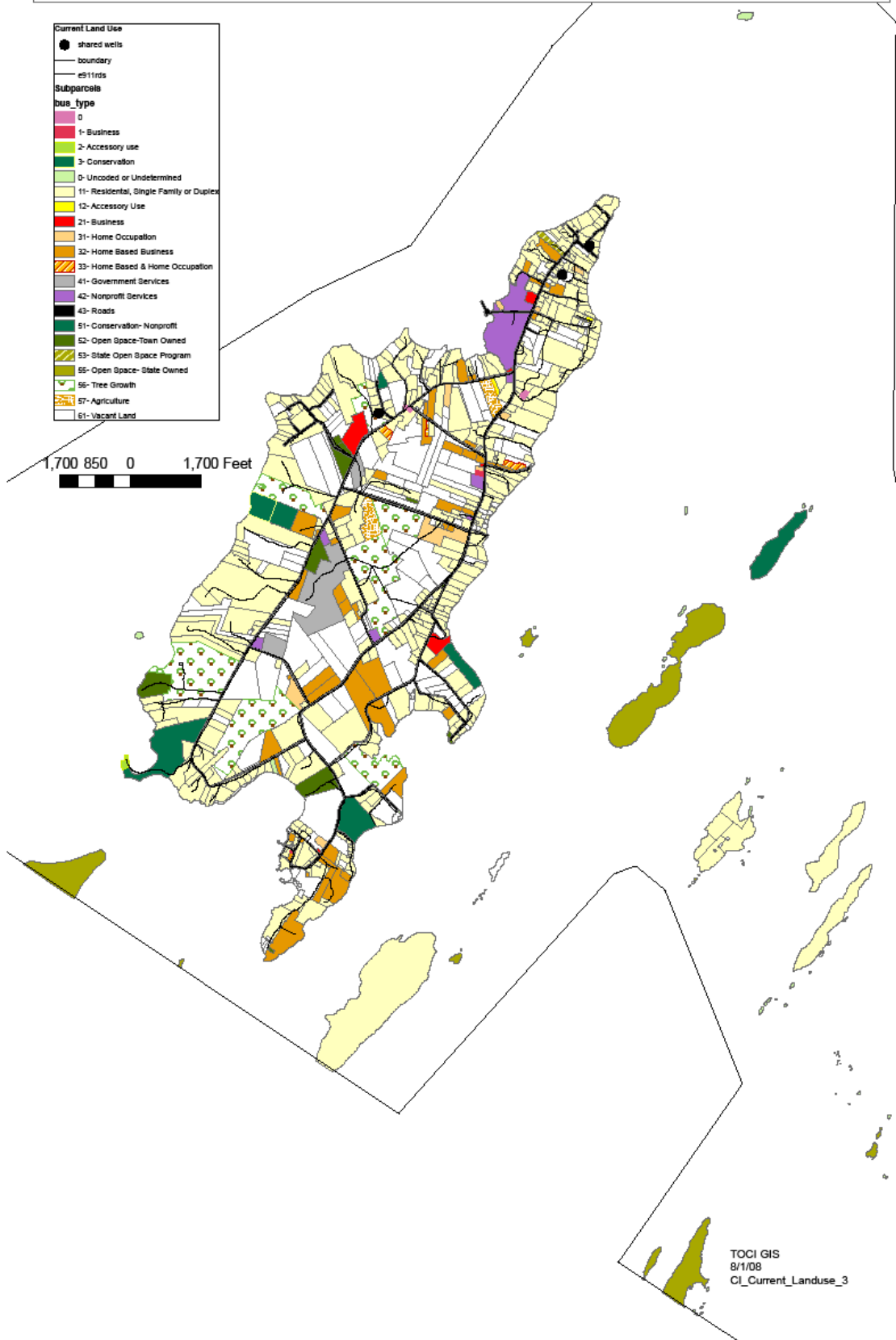


Table 1: Past and Projected Land Use on Great Chebeague Island

Type Use	1957	1988	1998	2008	20 year average	2018
HOUSING						
Year Round Houses	96	133	148	164	1.55/yr	181-190
Other Yr-Rd Housing	?	4	6	6	.10/yr	10
Summer Houses	224	233	259	298	3.25/yr	330
Total	320	370	413	468	4.9/yr	521-530
COMMERCIAL/ INSTITUTIONAL						
Free-standing Commercial Buildings	?	6	8	11	.25/yr	13
Institutional/ Public Buildings	7	7	10	12	.25/yr	14
Total	7+	13	18	23	.50/yr	27
PROTECTED OPEN SPACE						
In acres	0	16 ac	43 ac	95ac	3.95 ac/yr	210 (@121%)

clearly how housing and commercial uses are intermixed on Great Chebeague.

Recent Development Trends

Chebeague has about 490 houses, businesses and public or non-profit buildings. It also has some land uses, like the wharves and the gravel pit, that have no buildings. The great majority (95 percent) of the buildings are houses.

As Table 1 shows, the most apparent trend over the past 20 years is the growth in the number of houses. In the 1960s the rate of construction averaged one house per year. In the 1970s it rose to two; in the 1980s, to three and in the 1990s to 3.5. Between 1998 and 2008 it reached 5.5 per year due in part to an artificial “boom” created by an unsuccessful effort in 2001 to institute a 3 houses/year cap on building. Fully 21 percent of all the houses now on Great Chebeague and Hope Islands have been built in this 20 year period. The houses built between 1998 and 2008 consumed 203 acres of land or about 11 percent of the island land area.

Where has this housing been built? Over the past 20 years almost half of the houses built have been on the shore. Of the 55 houses built since 1998, a quarter were built in Chebeague’s five

post-war subdivisions, while the other three quarters have been on existing single parcels. The construction in these subdivisions has meant that four of them are now largely built out. In the absence of new subdivisions, an even larger proportion of new construction will occur in the future on single lots or two-lot divisions.

Also during the 20 years since 1988, 71 acres of open land on Chebeague (and another 16 on Stockman Island) have been protected by conservation easements. The Town also owns protected open space at Chandler's Cove Beach.

Projecting Future Development

In this plan expected development over the next ten years is simply a projection of what has happened in the recent past. This is shown in Table 1. Given the current state of the economy, however, this amount of growth is probably excessive.

Chebeague has had considerable development over the past 20 years, and especially over the past ten years. If this were to continue, the projected development of houses and businesses between now and 2018, shown in Table 1, would require an additional 12 percent of the area of the island. In terms of rural land, if the past is any guide, about 115 more acres of protected open space might also be created.

Many residents say that they would like all new development to be stopped altogether. But they also would like to be able to have their children and grandchildren have places on Chebeague, and they like seeing new young families. They may even be pleased to have friends, who fall under the islands' spell, build summer houses or move to the island year-round. As Pogo said "We have met the enemy and it is us."

And, even if the current recession means that development over the coming ten years does not continue at 5.5 houses a year as it has over the past ten, the respite will not last long. While it does, Chebeaguers have the opportunity to decide what areas of the Town should be kept rural, and how to develop mechanisms to discourage development in these areas, while allowing it to occur in already built up parts of the islands.

Land Use Issues

The Town has two major land use issues reflected in this chapter's recommendations. The first is that when Chebeague became a town in 2007, it inherited zoning and subdivision ordinances from the Town of Cumberland that are, in many provisions, not a good fit for the island. These ordinances were in force on all the islands from the time that Cumberland initially adopted zoning in 1949. But as mainland Cumberland became increasingly suburbanized the ordinances were revised and adapted to deal with issues and conditions that primarily affected the mainland. In some cases, such as the adoption of higher standards for private roads, the islands were simply exempted from the new standards and given their own. In other cases, such as the housing setbacks and public road standards, the mainland pattern was applied to the island without considering whether it would be suitable or not. Now that the Town of Chebeague Island is independent, it can develop land use ordinances that meet its needs.

The major *substantive* land use issue facing the Town, as has been indicated already, is the gradual loss of undeveloped land. The island's perceived rural character has largely been

preserved because so many of the houses are on lots larger than the 1.5 acre minimum, deep in the woods or along the shore, so they aren't visible from main roads. Even so, the increased demand for land has meant that land that was "rural" in the memory of current residents has become developed. Areas along the shore like Division Point and Rose Point, where residents used to picnic in summer, and hunt in the fall, were subdivided in the 1970s and 80s and are now nearly built out. Since the rusticators arrived in the 19th century and Chebeague gradually ceased to be an island of farms, shore land has always been more desirable and more expensive than land inland. This led to a pattern in which houses ringed the shore, while the hills in the center of the island served as a largely wooded, less developed island-within-an-island.

But as shore-front lots have become scarcer, and land values and taxes have risen, some year-round residents who used to live on the shore have moved inland. Now even some summer people are doing the same. Inland "rural" land is increasingly valuable for development.

The loss of rural places has encouraged a greater interest in protecting valued places, especially ones on the shore, like Indian and Deer Points, by placing them under conservation easements. But, as long as the strong demand for land for housing continues, the island's rural character will gradually decline. This would be a significant loss, and one that could not be undone. All residents, year-round and summer alike, value not only Chebeague's waters and beaches but its woods and fields. Year-round residents choose to live on this unconnected island in part because its economy is still based on the use of natural resources, and in part because of its natural beauty. Everyone sees this as an essential aspect of life here, just as they accept the freedom of access to all parts of the island.

Revision of the Land Use Ordinances

The Current Zoning and Subdivision Ordinances are unsuitable to the island for somewhat different reasons. The Zoning Ordinance last had a major revision in 1984. Since then it has grown one amendment at a time, with an occasional whole new section for something like tower antennas. This has resulted in an ordinance where the Chebeague-only version (without all the zoning districts that exist only on the mainland) is 188 pages, with inconsistencies created by adding amendments without revising other related sections.

The Subdivision Ordinance was written for a rapidly-developing suburban town with many fairly large subdivisions. Moreover, Cumberland has also had both engineering and planning staff for many years, so the requirements for reviews are fairly complex. Cumberland, however, had no aquifer protection ordinance, so Chebeague inherited nothing on this except a brief section in the Zoning Ordinance

The Town of Chebeague Island, on the other hand is small. Its only relevant staff is a code enforcement officer. It has had only five subdivisions that required Town review since WWII. The island has two zoning districts which, as was indicated earlier, differ very little in actual practice. It also has a sole source aquifer and aquifer recharge areas scattered all over the island.

So one of the reasons for developing a comprehensive plan is to lay the groundwork for a revision of both land use ordinances and the creation of a new one covering aquifer protection. Most sections of the Plan have recommendations about issues that should be considered in the

ordinances, and many other recommendations would shape the content of the three new ordinances. The overall goal for this work is to make the land use ordinances simpler than they are now and more attuned to island needs and values.

The Plan makes no detailed recommendations about the form the revised Zoning and Subdivision ordinances should take: Should the zoning be form-based (specifying the mass of buildings, coverage of lots and relationship of buildings to the street), based on performance criteria (any use, residential or commercial, is allowed as long as it will meet certain criteria for size, number of cars, noise level and other criteria related to “neighborhood” impacts), or should it stick to the traditional pattern of enumerated uses (residential district A allows single family houses, duplexes, churches, schools, and nothing else) that the present ordinance uses. Should the Town continue to have any subdivision ordinance at all? Chebeaguers generally identify “subdivisions” with large-scale development and are generally against them. But modern forms of subdivision regulation can insure more orderly, compact development, things recommended in this Plan. Some, such as conservation or cluster subdivisions can also help to preserve public open space and may be able to reduce housing costs.

The decisions about the forms the new ordinances will take need to be made by the committees that develop them. The recommendation about the aquifer protection ordinance does suggest that it use performance criteria, but, again, it will be largely up to the Aquifer Protection Committee to decide how the new ordinance should be organized.

However, the Comprehensive Planning Committee does recognize that the existing basic land use laws have shaped development on the islands for 60 years, so that they have become part of the fabric of life that property owners take for granted and plan on. Changing the ordinances inevitably will create uncertainty and could be disruptive. In order to reduce this problem, the Committee has adopted three principles that it has used in its own planning process and proposes should also apply to the process of developing new land use ordinances:

- Minimizing changes in the Town’s existing zoning.
- Encouraging land use changes to occur voluntarily rather than making them mandatory.
- Treating all landowners fairly.

In line with the principle of minimizing changes in the Town’s existing Zoning, the Plan also recommends maintaining

- The present basic minimum lot size requirement of 1.5 acres.
- The present pattern of allowing a mixture of housing, business and public institutions.

The latter recommendation actually requires simplification of the existing zoning to make this more straightforward.

One change that will not take place in the Zoning Ordinance is modification of the Shoreland Zoning provisions. This is an aspect of the current zoning that some residents might also wish to see simplified. But the Shoreland Zoning provisions are set by State law and are an important protection for both the natural environment and the marine uses of our valuable and fragile

coastline. They may be made more strict, but they cannot be weakened. Indeed, one of the Plan recommendations is to bring the TOCI into full compliance with the Shoreland Zoning requirements.

Preserving Rural Character While Allowing for Continued Development: Defining Future Land Use Areas

The amount of new development shown in the projection of future development on the island, above, may not come to pass. But development will continue, and is needed in order to sustain the year-round, working community. So how can development continue to occur without eating away at the islands' rural character?

The principles of minimizing changes in the zoning, making change voluntary and treating all land-owners fairly were important to the process of defining areas that will be encouraged to remain predominantly rural and areas where additional development will be encouraged to locate. They also shaped the tools that are being recommended to encourage this pattern to develop.

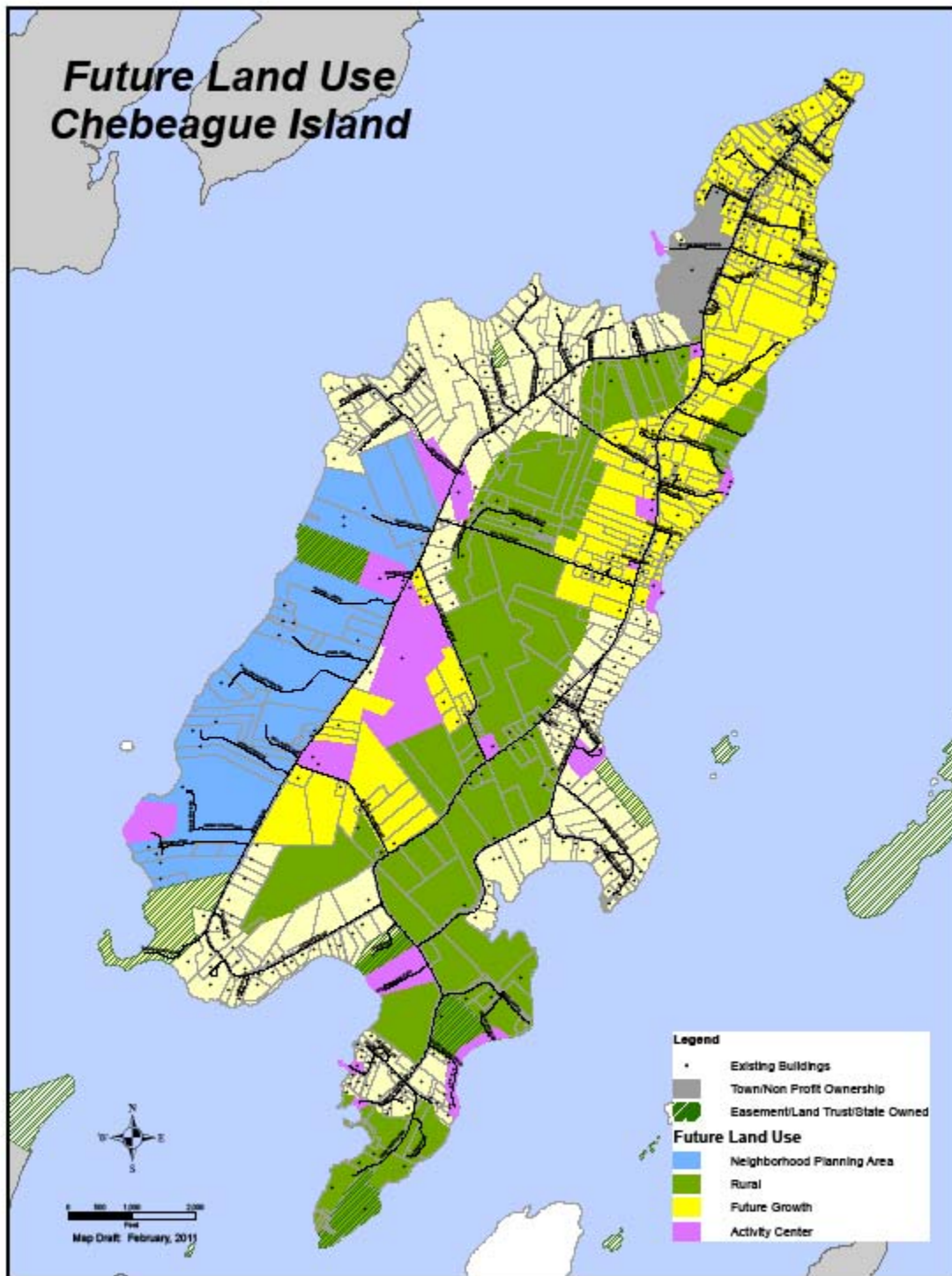
This plan envisions keeping the area along the central spine of Great Chebeague fairly rural, as it is now. New development would not be prohibited there, but public money to preserve open space would be allocated to discourage it. On the other side, the logic of the Plan is to encourage future development, whether housing or Town facilities, to take place in areas that are already developed, or in a single new "hamlet". These areas are already served by roads and community facilities.

The result is shown, here again, in the Future Land Use Map (Map 2). The five kinds of areas shown on the map were arrived at by looking primarily at two factors that suggested which areas should remain rural and where new development might be encouraged to go. One was the present use of the land. Existing buildings, and land that is already protected by Town, State or non-profit ownership or conservation easements, are shown on Map 6 a few pages on, in grey and green, with the rest of the island shown as the basic, buff colored 1.5 acre zoning area that exists now. The other factor guiding development was the various characteristics of the soils and land that constrain development (Map 5).

Existing Development: There are relatively few large undeveloped, *unprotected* parcels of land (for example, larger than 30 acres) left on Great Chebeague. The largest undeveloped areas in the Town are the undeveloped outer islands that are owned by the State or the Chebeague and Cumberland Land Trust. And there are also several sizeable parcels on Great Chebeague that are protected by conservation easements. These provide a start to preserving rural character. But a closer look at Map 4 shows that there are significant areas, particularly in the center of the island and on the North Shore that are still relatively undeveloped and that have no protection from development now.

On the other side, most of the developed areas are named and recognized "neighborhoods", or as we have been calling them "hamlets" – The East End, The Center, Central Landing/Massachusetts Colony, Rose and Waldo Points, Coleman Cove, West End/Chandler's Cove, Cottage Road and Division Point. The only areas that have a significant number of houses

Map 2:



but no specific name are the area around the Church and up Littlefield Road, and the area along North Road from the Historical Society to Firehouse Road.

Densities in these neighborhoods are not very high; only the West End/Coleman Cove area reaches one house to the acre when summer houses are included. Indeed, areas like these, as well as the East End and the Massachusetts Colony, that were developed before zoning came into existence often have the highest densities on the island. Since 1959 the minimum lot size has been one acre or greater. So many of Chebeague's "hamlets" are hardly urban, and still contain land that might be developed.

Constraints on development:

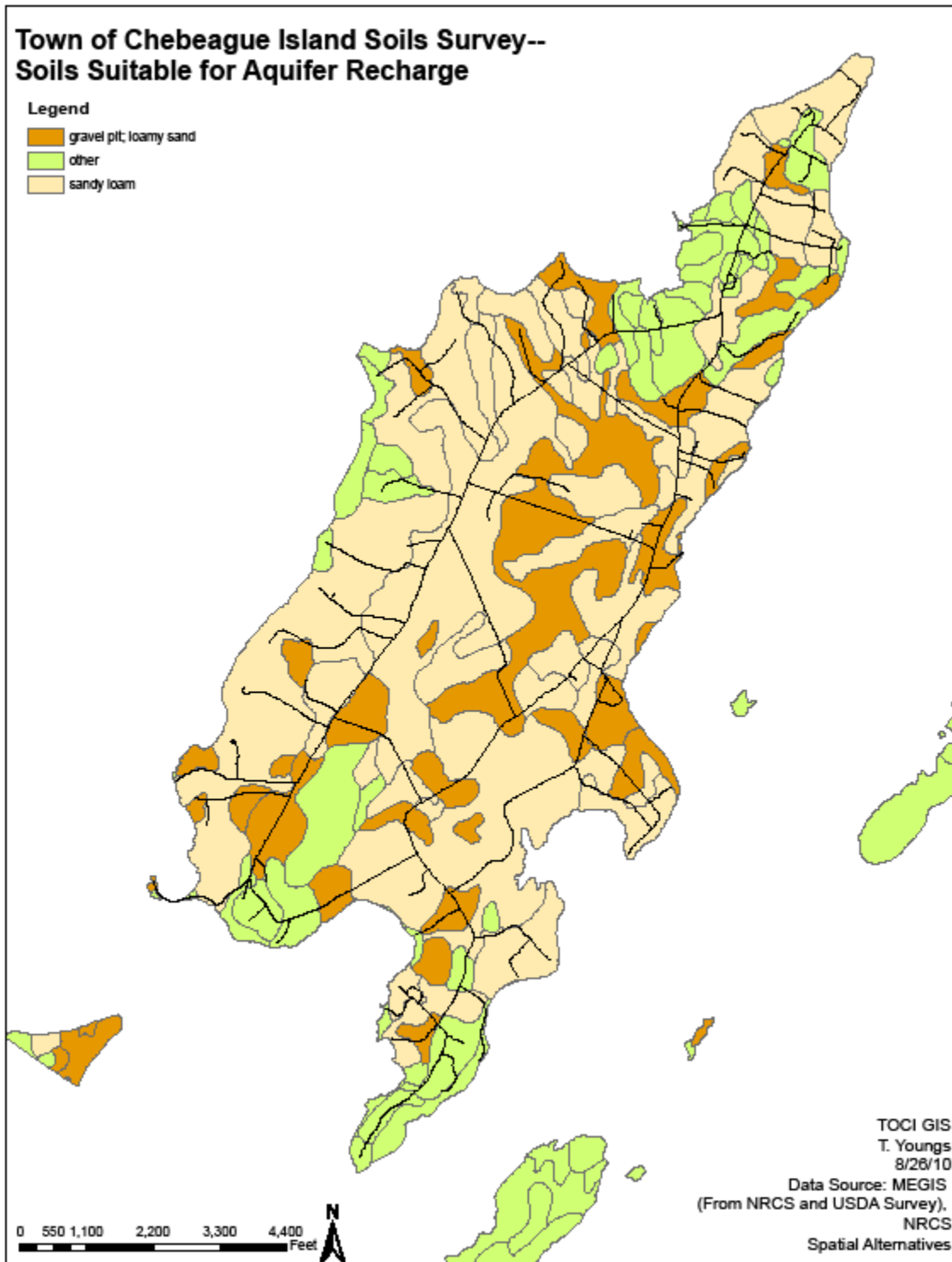
Possible constraints to development include floodplains, wetlands, slopes steeper than 15 percent, hydric soils and aquifer recharge areas. Up to World War II people built houses wherever they wanted, and where they could as a practical matter. Areas such as floodplains and wetlands were obviously not good places to build so these characteristics really were constraints. But all the other "constraints" in this list do not necessarily prevent development. They have become more serious constraints because we now recognize that these areas are either more fragile than we thought in the past, or perform functions that are important and incompatible with development.

Aquifer Recharge Areas: Most important, as the buff and orange/brown areas on Map 4 show, Chebeague has many areas where sandy and gravelly soils allow water to flow easily into the aquifer that is used for water supply. This is a serious concern since Chebeague has a single-source aquifer and pollution in one area may spread to the entire aquifer. Such aquifer recharge soils are common in areas that are already developed. In the past people didn't know how the underground aquifer worked or how vulnerable it is, and sandy and gravelly areas are often easy to build on.

Now we understand more about how the aquifer works and how it is critical to our drinking water. Some communities simply limit development on aquifer recharge soils. But where they are widespread, as on Chebeague, this is limitation not practical. Modern septic systems can keep pollutants out of the aquifer, so the Planning Committee is recommending that before it revises the land use ordinances, the Town develop and adopt an aquifer protection ordinance that would require that any new development show that it can be served by septic and drainage systems that would not pollute the aquifer, and especially its recharge areas. In addition, keeping land that is still fairly undeveloped in rural land uses also reduces the chances of polluting the aquifer.

Areas of hydric soils: These are very common on Chebeague, and pose somewhat the same problem as aquifer recharge areas because many existing houses are located in them. These are wet soils. They are not necessarily official "wetlands" but they are often adjacent to wetlands and are wet enough to make building houses, and, more important, septic systems, difficult. Chebeaguers, however, have always been able to either find or create dry spots among the wet areas, so many houses on Chebeague are located in areas of hydric soils.

Map 4:



Map 5:



Wetlands (shown in green on Map 5): These are areas that are really wet most of the time, so they are not easily developed. However, in the past, people simply filled them in or drained them for farming and building. Now we understand that wetlands perform important natural functions. They provide habitat for plants and animals. They impound rain water and allow sediments to settle out rather than draining rapidly into Casco Bay. Some provide aquifer recharge. Because of these functions, the State restricts filling of wetlands larger than 20,000 square feet.

Coastal freshwater wetlands are particularly important for animal and bird habitat, and, if they are also in floodplains, they are required to be zoned Resource Protection by the Shoreland Zoning Law. They occur behind beaches where a small frontal dune is formed at the upland edge of the beach, stabilized by beach grass, beach pea and poison ivy. Behind this berm at Springettes, Rose Point, Sandy Point, Bennett Cove, Chandler's Cove and Indian Point, fresh water from the aquifer as well as from streams and runoff accumulates. While the berm may be breached in big storms, these wetlands generally absorb heavy runoff and keep it from going directly into the Bay, allowing sediment to settle out of the water.

The wetlands at Rose Point, Chandler's Cove and Indian Point are formally protected, whether zoned as RP or not. Rose Point, Sandy Point and part of Chandler's Cove are designated as Resource Protection, but Springettes and Bennett Cove have no formal protection.

Chebeague also has many upland, forested wetlands, particularly along the south side of the spine of the island. They give rise to streams that run down to Fenderson Landing and Johnson Cove. These wetlands have no protection from development other than their wetness and the State wetland regulations.

Floodplains (shown in red on Map 5): Waldo Point Beach and Jenks Landing Beach have been designated as Federal Coastal Barrier Resources because they absorb the force of big storms and protect the shore from more erosion. This designation gives them a little protection from development. Many other low areas along Chebeague's shoreline are also in the 100 year floodplain. This has generally meant that, with a few exceptions, people have not built there in the past. Now houses are being built in some of these areas, even in the CBR areas because of the beauty of the shore.

The first round of the revisions of the FEMA floodplain maps in 2009 enlarged the areas designated as being in the floodplain. Because these changes were very controversial, a second round of floodplain delineation is beginning. The final maps will almost certainly have an impact on development along the shore of Chebeague's islands, but at this point it is not clear what the effect will be.

Hurricane Surge Areas (shown in a blue hatched pattern on Map 5) are an extension of the floodplain. These are areas that would be expected to be inundated in a Category 3 hurricane. A category 2 storm would flood less and Category 4, more.

Steep slopes (shown in orange on Map 5): Steep rocky slopes can make construction difficult, but steep bluffs facing the water, with flat areas on top create beautiful views and have been a

popular location for houses. These coastal bluffs are very fragile and at Chandler's Cove, Coleman Cove and Hamilton Beach they are being fairly rapidly eroded by the sea. Rocky slopes like those on Deer Point and Hope Island do not wash away, but are fragile in other ways. They have hardly any soil so that trees are vulnerable to blow-downs and septic systems are difficult to install. Again, the Shoreland zoning requires them to be zoned Resource Protection unless they are already developed. It is not entirely clear what areas of steep slopes on Chebeague should still be designated RP.

Criteria for Kinds of Areas

Based on the research and maps, like these of current development and land use constraints developed in the early resource inventory stages of the planning process, the Comprehensive Planning Committee laid out a set of criteria for identifying potential "rural" and "growth" areas. The areas identified by these criteria do not cover all of the island. Most of these remaining areas are shown on the Future Land Use Map as the townwide "basic" 1.5 acre-lot zone.

Rural areas

In some cases a constraint can also be seen as an opportunity for preserving an area as rural. Freshwater coastal wetlands are a good case in point. So are the large forested wetlands in the center of the island. They cannot be developed by state law, and, on the other hand, they can serve as the core for larger rural areas down the center of the island. Other criteria for defining rural areas are:

- Land that is still fairly undeveloped,
- Land that provides good animal habitat – mostly wooded, though with some openings. Only narrow, low traffic cross-roads,
- Areas that already have trails which could be developed more fully to go from one end of the island to the other,
- The Golf Course is already an active recreational open space.

Growth areas

If these are the criteria for defining rural and natural resource protection areas which should remain less developed, where should the growth that will be inevitable on the island, go? Should all the remaining land on the basic 1.5 acre map be designated as growth areas? If one of the basic purposes of the Plan is to retain the rural character of the island, this would seem counterproductive. Instead it would make more sense to try to encourage new development to occur in areas served by roads and community services, that already are developed. In the end, three kinds of growth areas were identified, each with its own criteria.

Criteria used for defining already existing growth areas are areas that:

- Are already moderately densely developed,
- Are well defined/named neighborhoods,
- Have a scale that encourages social interaction with neighbors and where destinations are within walking distance,
- Have businesses and/or services that serve the whole island,
- Are served by roads, telephone and electricity,
- Could be on an island-loop bus route.

Criterion used for a new growth area:

- An area that has some businesses and or services that could form the nucleus of a neighborhood like the ones above.

Criteria for Activity Centers:

- Areas that either already have public or non-profit facilities, or that might be sites for such facilities.
- The facility may in the future require local, State or Federal growth-related investment.

Finally the Committee found that there was one area of the island that didn't fit into any of these categories, and, in fact, barely fits into the basic 1.5 acre lot area. After considerable discussion the Committee decided to propose, for reasons explained below, that this area be designated for future "neighborhood planning" between the Town and the area's residents.

Rural Areas

On top of the basic 1.5 acre zoning, shown in buff on Maps 2 and 6, the Committee envisions Chebeague as preserving two kinds of rural areas, shown in green on Map 7. The first is land that provides critical natural functions such as aquifer recharge through absorption of stormwater and feeding and spawning or nesting grounds for valuable animals and birds. Such functions are important to preserve for the sake of both people and wildlife.

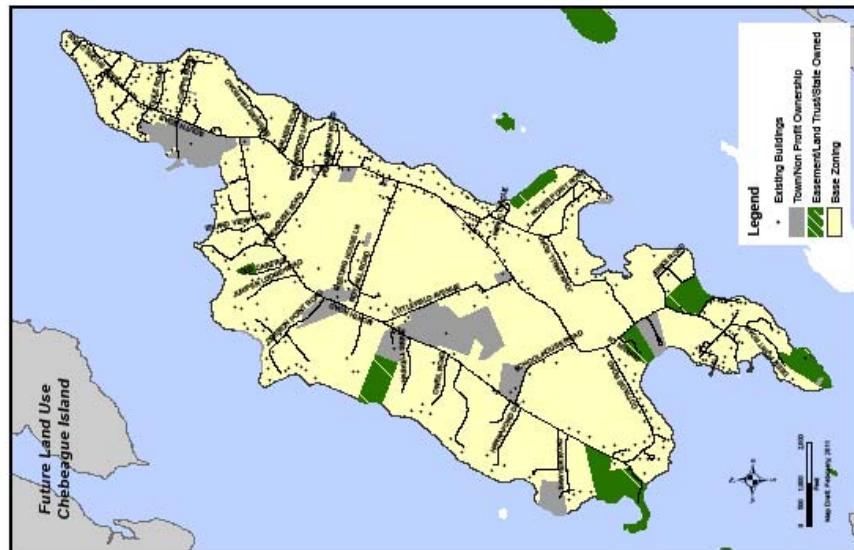
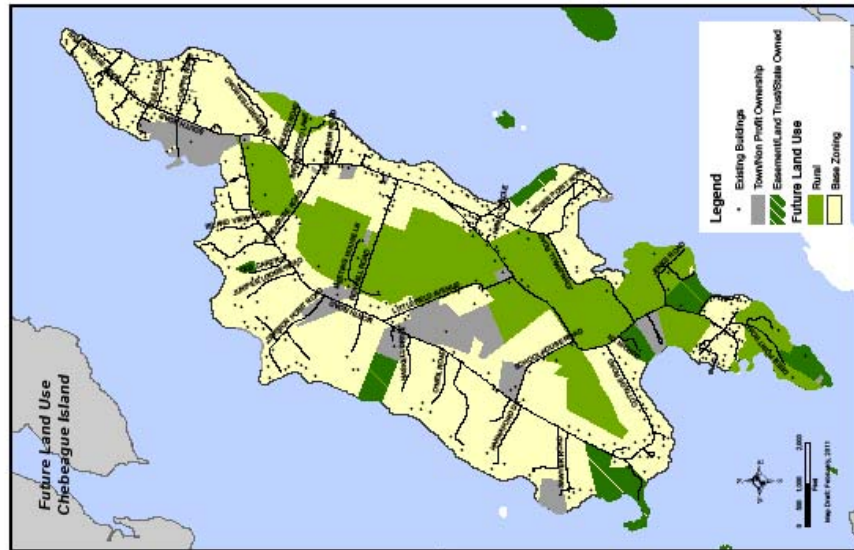
The second kind of rural area that should be protected is land that is useful to people – for farming or forestry, or because it has scenic or passive recreational value. These areas are potentially economically useful – for tourism, for example. But they also provide natural beauty and a real connection to the island's history and traditions.

The three major areas that are shown on the Future Land and Water Use Maps as rural are: the central upland of Great Chebeague Island, coastal freshwater wetlands, and the outer islands.

Critical Natural Resource Areas. These areas are ones that should remain undeveloped because they are particularly vulnerable and/or perform important functions such as aquifer recharge, stormwater retention or breeding and nursery habitat for animal species we value. In this Plan critical natural resource areas are defined conservatively, covering primarily areas that cannot legally be developed such as beaches, steep slopes, major forested wetlands or coastal wetlands in the Shoreland Zone.

Some areas on Chebeague are already in Resource Protection, as are some of the outer islands because they are bird nesting or seal haulout areas. Several additional wetlands are recommended to be placed in Resource Protection.

Maps 6 and 7:



Working Rural Land: As was indicated earlier, most of the areas that have already been preserved as Town open space or conservation easements are along the shore. Some, such as the Rose Point wetland and the Hook itself, are critical natural resource areas either entirely or in part, but others, such as the Higgins Farm field, are not.

Along the central spine of the island, forested wetlands can serve as the core of a larger area that this plan has designated as “working rural”. While this area contains houses, the density is low.

Some of this area could be used for farming, forestry and recreation. It could extend almost from the junction of North and South Roads at the Historical Society down the spine of the island to the wetland around Lovers' Lane at the West End.

This area covers the island's single farm and four areas that are currently in the State Tree Growth or Open Space programs. But most of the land is not protected in any way and is zoned for 1.5 acre lots (or 3 acres for back lots). Most of this area is already traversed by trails that provide access not only up and down the island but also into the settled areas closer to the shore. Again, these trails are not formally defined or protected. But they could be.

Growth Areas

Outside the rural areas, the Plan designates two kinds of growth areas, shown on the map in purple and yellow. These are areas where the Town will make most of its future capital investments, and where it may need the help of State and Federal funds to build, improve or expand facilities and services. On Chebeague, however, because there are no public sewers and waterlines, and the road system is largely complete, these expenditures will probably not guide future development as much as the extension of such "urban" services would on the mainland.

Activity Centers (in purple on Maps 8 and 9) are mostly small areas with a single use that might have some growth in the future that would qualify for public funding of some kind. There are two kinds of activity centers:

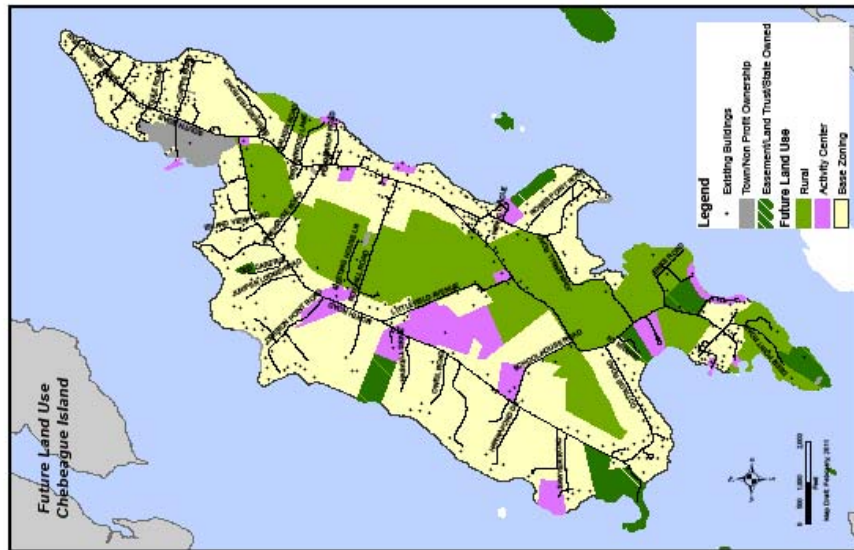
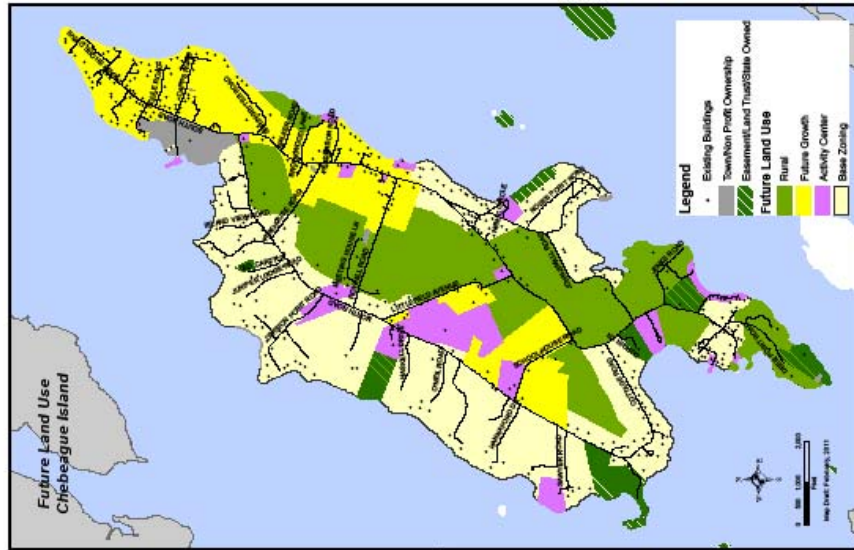
1. *Marine infrastructure activity centers* are areas where the Town may need State or federal financial assistance, particularly for wharves. All of the Commercial Fishing and Maritime Activity areas are identified here.

2. *Public service infrastructure (Town and non-profit)* are areas that could also require future State and/or Federal financial funds for enlargements or improvements. Town facilities include the School, the Transfer Station, the Town Garage, the Firehouse/Town Office, Chandler's Cove Beach, the Cemetery and a Town-owned parcel that has been identified for possible year-round/affordable housing development. Non-profit facilities include the Commons, the Historical Society, the Hall/Clinic/Library, the Grange, the Recreation Center and Kids Place. One business, the Boat Yard, is also included.

Residential Hamlets (in yellow on Map 9): If Chebeague wants to preserve rural areas by encouraging development to be clustered rather than dispersed, it must define the areas to receive this development, and provide incentives to encourage it to locate there. The previous mechanism for doing this, albeit one that was not deliberate, was to allow the creation of subdivisions where clustered parcels of land would be readily available for development.

Now, however, most of the land that has been available for sale in planned subdivisions has been built on. The island does have additional lots of record scattered around in already built-up areas, but few are for sale at any given time. This means that new construction is likely to take place on divisions of larger lots in areas without much development already. Two recent "spec" houses are examples. This suggests that it would be useful now for the Town to encourage both the use of existing lots of record, and the creation of a few new subdivisions in "growth areas."

Maps 8 and 9:



In addition, the Town could allow somewhat more dense development in these areas. This would not lead to rampant and unregulated development of many tiny lots. The minimum lot size, maybe 1 acre, would be set by Town Meeting, which could also require property owners to apply to the Board of Appeals to be allowed to create and build on such smaller lots. Since many lots smaller than 1.5 acres exist already all over the island, this would not create a new or unusual pattern.

The East End, the Center and Littlefield Road are three already-developed, walking-scale neighborhoods with quite distinctive characters, that have been identified as already existing growth areas. They still contain some land that could be developed. The Plan also proposes to encourage the creation of a new hamlet in the area around the School, Rec Center and Kids Place.

While these are referred to as “residential hamlets”, this simply reflects their primary land use. All were chosen as growth areas in part because they also contain commercial and institutional land uses that contribute to making them attractive places to live.

The East End: This neighborhood lies at the top of a hill, on both sides of Chebeague’s major road, South Road which bisects East End Point. The entire area is surrounded by water, with a beach on the south side and a bluff on the north. It is one of the most densely built up parts of the island (.69 houses/acre), and, because the houses along South Road have fairly shallow front yards, it is the most “village-like” area on the island. Except for the summer houses near the end of the point, the houses were generally built as year-round houses between 1840 and 1910 in Greek Revival, Victorian and Edwardian styles. Some are quite large, having been built or enlarged to take in boarders.

In the 1950s and 60s many of the year-round houses were bought by summer people, so the East End has a relatively small year-round population now. This would certainly be an attractive neighborhood for people to live in year-round again. But since many of the houses are on small lots, if this were to happen, the area might need to have some kind of sewage treatment system more efficient than individual septic systems. This might require public investment.

The East End is bounded on its west side by the Chebeague Inn, the Golf Course/Tennis courts and the Stone Wharf. This sounds like a real estate ad for a convenient and pleasant location. The Inn overlooks the Golf Course with beautiful sunset views. The Golf Course defines the area with a large, highly manicured open space that is used by island people and visitors from the mainland. Because Wharf Road runs up to South Road from the Stone Wharf, this is many visitors’ first introduction to the island.

The Center and Central Landing: Before World War II Central Landing was the most important of the several Casco Bay Lines landings on the south side of Chebeague. As the name indicates, it was the landing for the center of the island and the stop for the mail. The wharf never went back into use after the WWII, and no longer exists.

Despite the demise of the wharf and ferry service, The Center remained the area that was the island’s commercial center during the 1950s and 60s, though now its commercial uses are only “The Store” and the Slow Bell Cafe. Now it is also the location of the Library/Health Clinic/Hall complex which is a major draw for the whole island. On patriotic holidays it is the area of the island decorated with flags.

Quite a lot of the housing in this area is occupied year-round. The overall density is .42 houses to the acre.

Littlefield Road: This is a small, largely developed area in the middle of the area that is primarily designated as “rural”. At one end of Littlefield Road is the Island Commons assisted living facility, while at the other are the Church and the Parish House. Behind the Church is the Town Garage. Many of the houses date to the 19th century, but new ones have been built in the past 30 years and a few additional ones could be added.

School House Road: The area around the Chebeague Island School has in recent years become the site of both the Recreation Center and Kids Place, the island’s day care center. These could make up the institutional core of a nice residential neighborhood. The area to the south of the School is the island’s most recent subdivision which is not fully built out. Development might extend some way up North Road on the south side. West of the school there are a few houses and some fairly large, undeveloped parcels.

Implementation Strategies: Encouraging Rural Conservation and Growth Areas

The first, basic assumption of this plan is that changes in the Zoning Ordinance will retain the current 1.5 acre lot size across the whole of Great Chebeague and on the other islands as well. One of the Plan’s goals is also to continue to allow mixed residential, commercial and institutional uses on Great Chebeague, making the policy clearer in the Land Use Ordinances.

Beyond these basics, the Plan recommends defining rural areas and trying to preserve them as only moderately developed, in part by also defining growth areas and encouraging new development to take place in them. The most effective way to do both of these is to provide financial incentives to land owners.

There are a variety of ways to financially encourage residents to keep land undeveloped. Chebeaguers already use the tax incentives in the State Tree Growth and Open Space Programs and could be encouraged to use them more. The Land Trust acquires easements, often by donation but sometimes by raising money publicly and purchasing them. It and the Town could also buy development rights. Two of the recommendations in this Plan are to develop an open space and trails plan and then to make a yearly allocation in the capital budget to purchase development rights. Such an open space plan could also be the basis for allocating money from an open space and recreation impact fee, if the Town chose to adopt one. Cumberland had one but it was not carried over to the new Town. Finally, these monies could be augmented by private donations to the Land Trust or the Town. These financial incentives would all leave the rural land in its original ownership, but insure that it remains in its rural use.

Encouraging housing subdivisions that are designed to cluster houses and reserve undeveloped land would also allow development to take place, even in rural areas, in a way that would also preserve open space. Subdivisions seem to be disliked on Chebeague because they represent “big development”. But they provide the Town with much greater control over how blocks of land are used than lot-by-lot development does. Moreover, the subdivisions now on the island such as Cart Road Acres, subdivided in 1972, and Rose Point, subdivided in 1989, have taken 20 to 40 years to be built out, and over those years have provided a supply of available lots that are not located at random across the island.

Chebeague's Zoning Ordinance already has provisions allowing "cluster subdivisions" which maintain the 1.5 acre overall density but allow subdivisions to have smaller than standard lots in order to keep some of the land in open space. A better variant of this kind of subdivision is what is called a "conservation subdivision". When the land use ordinances are revised this kind of provisions can be evaluated more closely for their appropriateness to the scale of development on Great Chebeague.

The other mechanism to encourage development to be located in growth areas is to allow lots smaller than 1.5 acres in those neighborhoods. This could also have the advantage of creating some lots that would be less expensive than larger lots.

A Future Neighborhood Planning Area

Finally, this plan makes no recommendations for one area of the island but suggests, instead that the Town and the residents do some joint planning for it in the fairly near future to deal with issues that are unique and need to be dealt with. The area lies between North Road and the back shore between the Indian Point conservation area and Division Point and is shown in blue on Map 2.

As development on Chebeague continues to take place, a number of issues in this area are becoming more apparent and pressing:

- The lots, which in many cases run all the way from North Road to the shore, are quite deep. Some are also extremely narrow. In many cases the houses have been built on the shore, leaving the rest of the lot undeveloped. Now some of the owners are interested in subdividing their lots further and are running into unresolved problems.
- Most of the roads going down to these houses are private driveways. This means that if owners wish to subdivide their lots they don't have frontage on a "public right-of-way", so that new lots are defined as "backlots" which must be 3 rather than the basic 1.5 acres. Six of the 9 driveways already serve several houses on the shore, and sometimes some in between. These driveways are already only minimally accessible to fire trucks. As roads to support additional development, they would be completely inadequate. The residents of Deer Point Road are struggling with this issue already, and it would be better to avoid such problems than to try to correct them after they have become established.
- There is already some development pressure in this area which has brought property owners to the Town office asking to create 1.5 acre lots rather than 3 acre lots. It might make particular sense to allow some of this development to occur along North Road, particularly around the School. Development there might even be allowed on 1 acre rather than 1.5 acre lots. But current land use regulations make this impossible.
- This area also contains Sunset Landing which might be developed as a Town wharf in the future. This would have a significant impact on the area that should be planned for.
- Finally, much of the area is laced with paper streets left over from failed subdivisions in the early 20th century. Some or all of these could be claimed by the Town and used for

roads or open space. The Planning Committee discussed the idea of an open space corridor through this area, but any idea like this must come from the residents.

The deadline for the Town to review and decide on which paper streets to retain is September 2017. Since the existence of the paper streets in this area presents a possible opportunity for the Town and the residents, this might be an initial target-date to aim at for this planning.

3.b. HISTORICAL AND ARCHAEOLOGICAL RESOURCES

Historic patterns of white settlement are very evident on Great Chebeague, while the evidence of Native American settlement is gradually being washed away by the waters of Casco Bay. The preservation of the 19th century pattern of distinct residential hamlets or neighborhoods, separated by open space is a primary goal of this plan.

The appearance of the current development on Great Chebeague, both for year-round and summer houses, is still set by the architectural styles of the 19th and early 20th centuries. The many buildings surviving from this time have been used and reused for houses and businesses. By now there seems to be a general, if largely unarticulated, commitment to preserve this historic character. However, the changes wrought by the development of the past 20 years and its continuation into the future may challenge this uninstitutionalized consensus.

Recommendations

Goal: GREATER AWARENESS OF CHEBEAGUE'S HISTORY AND THE NEED TO PROTECT ITS HISTORIC AND ARCHAEOLOGICAL RESOURCES

Recommendation: The Town and the Historical Society are encouraged to create a standing Town committee on Historic Preservation that would undertake to work with residents and property owners to provide increased protection to historic and archaeological resources.

Recommendation: The Committee could survey current conditions of Native American sites and educate abutters about the possibility of additional remains of settlement that may be located in the adjacent upland.

Recommendation: The Committee could research and explore the possibility and potential ramifications of a historic district.

Recommendation: The Town and the Historical Society should continue to collaborate on Town projects that depend on historical research.

Discussion

Historical Development Patterns

In the 19th century, settlements on Chebeague were often based on kinship, with successive generations of children building on their parents' land. As a result, many older island homes are clustered in some of the neighborhoods described in the Land Use Inventory. Much of the rest of the island was farmed. Fishermen and mariners, however, had less need for extensive farmland, and areas such as the East End, Coleman Cove and the West End developed into denser settlements.

Then during the late 19th and early 20th centuries, summer vacationers began coming to the island, bringing a development boom with them. Nearly 200 summer cottages were built between 1884 and 1930. Individual cottages were built in nearly every neighborhood on the island. Farms became subdivisions of summer cottages. Many of these subdivisions were

clustered near the shore, creating summer enclaves such as the Massachusetts Colony and Cottage Road. Some, such as Sunset Landing hardly developed at all, and have now disappeared except for their paper streets in the Town records. Others, such as the Webber and Soule subdivisions, which created a summer neighborhood on the south side of the East End, have remained relatively stable for many years. This boom lasted through the 1920s.

Meanwhile some old farmhouses and many old barns became cellar holes full of the rambling roses and day lilies that had once grown in their gardens. What once were open fields, shown in the many photographs of the period, grew up into brush and then woods.

When the Great Depression hit, development on Chebeague largely stopped. Some residents who had moved away to take advantage of economic opportunities on the mainland, moved back.

There was also little civilian development during World War II, though military barracks were built at the far East End, at on Deer Point and on School House Road for the troops who maintained Portland's coastal defenses. These consisted of an anti-submarine net that was strung between the islands of Casco Bay closest to the shore to prevent submarines from entering the deep-water anchorage for warships between Portland and Cousins Island. Nets on Chebeague extended from Bar Point along the Great Bar to Littlejohn Island and from Deer Point to Crow Island.

The total number of houses built between 1932 and 1945 was only 18.

After the War, despite the post-war boom in the rest of the country, Chebeague following the trend of Maine's coastal towns and islands, experienced a significant out-migration. Again, there was little construction – about one house per year from 1945 to 1970.

The result of this historical pattern was that when building began to pick up again in the 1980s, only about 13 percent of the housing stock, summer and year-round, had been built since 1932.

Residential Architectural Character

Chebeague's history is still very evident in the present buildings and landscape. Stone walls weave back and forth through the island's second and third growth woods, showing evidence of the island's agricultural heritage. Hamlets of Greek Revival and Victorian houses, and shingle-style summer colonies are still largely intact. The sizes of lots and placement of houses relative to the road are characteristic of their time and purpose. Sadly, however, the evidence of Native American settlement, large coastal shell middens, is gradually being washed away by the waters of Casco Bay.

Because of the pattern of boom and bust housing development, the dominant architectural style of buildings built as year-round houses on Chebeague, even now after 30 years of steady new construction, is the Greek Revival style of the mid to late 19th century. The middle part of the 19th century was Chebeague's first major boom period. Many of Chebeague's residents made money carrying granite from local and down-east quarries to buildings sites from Eastport to St. Augustine Florida. They also built wharves, breakwaters and lighthouses. With the money they

made at these activities, the stone sloopers commissioned Greek Revival houses. Of these, 26 remain.

As the rest of the country moved on into Victorian house styles such as gothic and mansard, Chebeaguers simply adapted their basic Greek Revival style to a Italianate version. Sometimes the roof pitch was steeper, often there were more gables as well as bay windows. Jigsaw trim was added to new-style porches and stoops. Of these houses, built between about 1870 and even as late as 1910, 37 have survived. This means that buildings with Greek Revival elements make up fully 30 percent of all the houses built on Great Chebeague before 1950.

An additional 20 houses remain from the period before 1850. A few go back to the early Federal period before 1800. The rest date from 1800 to 1845. These are houses not unlike their Greek Revival successors in form and scale.

The last two decades of the 19th century brought the new building boom that came with the arrival of the summer visitors. Here the styles often differed from the Greek Revival. Initially, year-round residents took in summer boarders, and some built larger, often two story houses in the Queen Anne, stick and four-square styles.

By 1900, however, many summer visitors wanted to stay in houses of their own, producing a steady business in the construction of summer cottages. Most were “vernacular” cottages or “bungalows”. But there are several good examples of shingle-style architecture, including one built by architect Antoine Dorticos for himself.


Adaptive reuse has been the norm for both year-round and summer houses. Some have switched from year-round use to summer and vice versa. Some very old houses have become a section of a house made larger by an addition in a later style and many later houses have added els. Modernization in the form of electricity, running water, bathrooms, heating systems and modern kitchens have often changed the interiors significantly.

Historic Resources Other than Houses

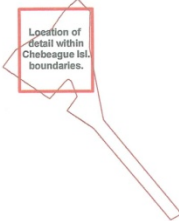
The houses are what many people think of when they think of historical resources on Chebeague, in part because many remain. But there are other physical remnants of Chebeague’s history, though many of them have been allowed to decay or disappear. Of the historic items listed in the Maine Historic Preservation Commission’s Data Inventory for Chebeague are two wrecks from 1880 and 1870 and the military defenses at the East End.

Long before whites came to Chebeague, the Abenaki Indians came to live on the islands in the summer because of their rich marine resources. Some Indians still came to camp on Great Chebeague in the summer as late as 1950. The primary remaining evidence of their occupation is large shell mounds along the shore (Map 1) of most of the Town’s islands. The shell middens have been surveyed by the Maine Historic Preservation Commission , but only some sites on Bates Island and Little Chebeague have been excavated by archaeologists. Fifty two sites were surveyed, 20 of which were eroded or damaged so badly that they were judged to be no longer significant. The others may be significant. Those that remain, however, face a significant threat. As bluffs along the shore, they are being washed away by the sea which is gradually rising.

Areas Sensitive for Prehistoric Archaeology* in
 Chebeague Island
 information provided by
 Maine Historic Preservation Commission
 February 2008

 Areas sensitive for prehistoric archaeology

*dated material subject to future revision
 map 1/1



Upland sites have been even more threatened by farming and the construction of houses, septic systems and roads.

The non-residential structures of historic interest, date primarily from the 19th and 20th centuries. The disappearance of many old commercial and public buildings and land uses attests not only to changes in public organizations and business practices as well as the ravages of fire and time, but also to common attitudes that accepted such change as natural. Most of the island's barns have suffered the same fate.

Remaining structures include:

- Public buildings including four schools, all but one in non-school uses, one active church and two others that have been reused as houses, and a public meeting hall.
- One of the five large summer hotels that flourished on Great and Little Chebeague at the turn of the 20th century. Smaller hotels and boarding houses are used as private houses.
- One small cobbler shop of the many small stores and shops that the island had before 1950.
- An ammunition magazine built by the military during World War II and now located in the garden of an East End House.
- Three of the 14 wharves that have served the island over the years.
- A couple of fish houses on the shore represent the infrastructure that supported past fishing practices.
- A World War I memorial monument.
- A number of barns.

Now, however, the memory of the island's commercial, religious and social activities and their buildings is being revived by the research of the Chebeague Island Historical Society. The Museum of Chebeague History has mounted exhibits on Island Life and Occupations in the 1870's, Entrepreneurship among West End fishers, Religion, Life on the Island during World War II, and Tourism. It also has frequent lectures on Chebeague history and publishes a newsletter, *The Sloop's Log*.

Institutions of Historic Preservation

Town Programs

Neither the Town of Cumberland before 2007, nor the Town of Chebeague Island since adopted any programs, ordinances or committees to protect historical and archaeological resources. Site Plan applications must show the location of any historic or archaeological resources, and a later provision requires that development "must include appropriate measures for protecting these resources." The Subdivision Ordinance includes a section on "Preservation of Natural and Historic Features".

There are no historic districts, and no buildings have been placed on the National Register of Historic Places. Chebeaguers do not know whether the island has historic resources of regional or national significance since the current inventory of historic properties does not contain the level of detail needed to determine this, though much information of this nature does exist.

The Chebeague Historical Society

The Chebeague Island Historical Society and its Museum of Chebeague History are active in documenting and preserving Chebeague's history, and providing public education about it. The Society was founded in 1984 by a small group of interested year-round residents. The Museum of Chebeague History is housed in the Society's most expansive holding, the District 9 schoolhouse, built in 1871. The other collections include thousands of examples of island material culture, including original papers from the island's recent secession from Cumberland, an extensive collection of island photographs, postcards, organizational records, ephemera, as well as artifacts relating to island.

The Society has many members, and the renovation of the Museum building and the operation of the Society has always been funded from dues, donations and grants, with no support provided by the Town.

Future Work on Preserving Historic and Archaeological Resources

This Plan recommends that the Town and the Historical Society work together to establish a joint Historic Preservation Committee. The Committee could:

- Research and explore the possibility and potential ramifications of a historic district.
- Develop an informational manual (or a series) on the particular characteristics of local styles of architecture. This could help owners of old houses who have little knowledge of historic preservation decide what kind of renovations would fit the character of their houses.
- Develop school programs and walking tours to increase awareness of architectural styles and the historical periods they were shaped by.
- Map stone walls and cellar holes.
- Develop a program of creating signs for individual houses that would build on the information collected for the House Tours.
- It could work with homeowners to
 - get their homes listed on the National Register of Historic Places, or
 - protect their properties from future change through historic preservation easements,
 - or qualify for State programs to protect historic resources

As indicated earlier, The Maine Historic Preservation Commission suggests that further archaeological survey, inventory work and analysis be done on the 32 Indian shell midden sites that may be significant, and “ agricultural, residential and industrial sites relating to the earliest Euro-American settlement of the islands beginning in the 17th century.”

3.c. WHARVES, WATERFRONT AND THE OUTER ISLANDS

The waterfront is the interface between the land and the Town's waters. Much, but not all of the Town's shore is "working waterfront" – used by people for economic activities. Indeed, access to the shore is critical to the Town's economy. Fishermen must get to their boats. Residents must get to ferries to the mainland for business and pleasure. Visitors, a significant element of the economy, expect to be able to get to the shore to sail, swim, fish or just enjoy the view or the beach. So do residents.

The Town-owned Stone Wharf is inadequate for all the uses it serves. The major recommendation of this section is for the Town to do a thorough study of the feasibility of developing Sunset Landing for at least some of these uses. The process of doing this study, making the decision about whether to implement a Sunset Landing plan and then carrying it out is likely to take between 10 and 20 years. In the meantime, the current Stone Wharf and the State Pier at Chandler's Cove need to continue to serve the island's needs.

Maintaining and increasing access to the shore is also an important Town issue.

In addition, there are shore lands, particularly on the outer islands that are important natural habitats for birds and seals. These areas are not part of the working waterfront. Indeed, Stockman, Bangs, Little Chebeague, Jewell, Little Jewell, Rogues, Sand, Crow West Brown Cow, Upper Green and the shoreline areas of Stave, Ministerial, Bates and Hope Islands have been designated as Resource Protection areas as part of the Shoreland Zone. The intent of this Plan is to keep them this way.

Goals and Recommendations

The Goal is: ADEQUATE MARINE FACILITIES TO SERVE THE TOWN'S FUTURE POPULATION AND ECONOMY

Recommendation: The Town should do a feasibility and cost/benefit study of the use of Sunset Landing for future marine uses. Such a study should also consider the land use impacts that this change could produce. If a decision is made to make any of these changes, plans need to be made about how the Sunset parcel and surrounding areas will be developed.

Recommendation: If a decision is ultimately made to build a second wharf on the island, one of the wharves should be made available to fishermen, and equipped with facilities and equipment (such as a hoist) for their use.

Recommendation: If the Town decides not to develop Sunset Landing as a marine facility over the next ten to twenty years, it must still retain the land since it is the only remaining large site with deep water access on the island.

The Goal is: MAXIMUM PUBLIC ACCESS TO THE SHORE AND THE WATER FOR RESIDENTS OF AND VISITORS TO THE TOWN.

Recommendation: The Open Space Committee should develop a Comprehensive Public Access Plan which would continue to inventory, research and prioritize trails, coastal access points and lands that are thought to be public or have been used by the public. Such research can be funded through the Town budget and grants; and the Town can and can hire experienced researchers, surveyors and lawyers. Points of access that do not already belong to the Town can be acquired by purchase or donation of easements.

The Goal is: KEEPING THE UNOCCUPIED OUTER ISLANDS AS LITTLE DEVELOPED AS POSSIBLE.

Recommendation: Explore the need for and feasibility of wildlife management on outer islands that have introduced species.

Recommendation: Work with the Land Trust, the Island Trail Association, the State and other landowners on issues of general management of the islands and regulation of such uses as camping areas and fires.

Goal: MONITOR AND REVIEW DEVELOPMENT PLANS FOR THE OCCUPIED OUTER ISLANDS.

Recommendation: The Town should develop a more systematic process for reviewing development proposals from the outer islands. This could include requiring a land use plan for the whole island if significant new development is proposed.

Discussion

Where Water and Land Meet: Coastal Land Use

Five of the Town's larger outer islands and all of the small islands and rocks are used primarily by birds and animals. Their "land use" is Resource Protection. So is most of the shore edge of the other outer islands.

The use of most of Town's developed shoreland, including that of the four occupied outer islands is residential. Of the approximately 209 lots along the shore of Great Chebeague, 173 or 83 percent are occupied by houses. Of these houses 125 or 72 percent belong to summer residents. The only "commercial" uses on the shore are the Golf Course, the Boat Yard, and the two public wharves. Thirty lots are still vacant. But several of these, as well as several that have houses on them are protected by conservation easements (Rose Point, Deer Point, the Higgins Farm field and Indian Point).

Since a fisherman's "business" is based at his house, this residential pattern did not and does not now preclude maritime uses. However, as property values along the shore have risen in the past 20 years, some fishermen have moved away from the shore to other parts of the island or off the island altogether. Coleman Cove is an example. It was still enough of a fishing community in 1990 to have been zoned completely for commercial fisheries and maritime activities. Now it includes a stretch of land in conservation easement and only one fishing family among its home

owners. On the other hand, the cove is still used for mooring four fishing boats and the Town road down to the beach is still actively used by fishermen to put off and take in their gear.

The single business-only building on the water is the Boatyard. It may be Chebeague's only truly water dependent commercial marine use other than the two public wharves. Other uses that might be considered water dependent such as boat building, welding repairs, storage of fishing gear and buying of lobsters and selling of bait are not done from land on the shore. The former depend on water access from public wharves or beaches accessible by truck. The latter are conducted from rafts or smacks on the water itself.

All of the shore is in the Shoreland Zone, a mandatory overlay zone established by State Law that includes all land within 250 feet of the ocean. Some of its purposes are to control water pollution by conserving shore cover, to protect fish spawning areas, aquatic life, and bird and wildlife habitat, to conserve natural beauty, protect access to the water and protect archaeological and historical resources. It basically reflects the underlying Town zoning but establishes uniform, statewide, typically pretty strict processes for review, and standards for development that is allowed.

It is also intended to protect commercial fishing and the maritime industry and allows for the establishment of Commercial Fisheries/Maritime Activities Overlay Districts in which the regulations strongly favor "functionally water-dependent uses" which require access to the ocean such as commercial and recreational boating and fishing facilities, boat building facilities and wharves. At the time the Shoreland Zoning law was implemented, eight areas of the Great Chebeague shore were designated as CFMA zones: Chandler's Cove Pier, Bennett Cove, Coleman Cove, the Boat Yard, Central Landing, Fenderson Landing, The Stone Wharf and Sunset Landing.

The current coastal land use pattern works fairly well as long as adequate access to the shore from wharves, beaches and other areas is maintained, and there are no major changes in the nature of the Town's fishing activities on the island. If the fishermen decided to build facilities on Chebeague for fish processing, large-scale storage of lobsters or some other venture that would be somewhat like the earlier Fenderson Clam Factory with a wharf and sizeable buildings, finding space on the water would be difficult. However the current Calendar Islands lobster marketing business seems to be using space in Portland so this does not seem to be an issue at this point.

The Working Waterfront

Even though land use along the shore is predominantly residential and open space, the Town's working waterfront is spread all around all the islands. The inhabited outer islands have landing places. Indeed, Hope Island has fairly elaborate wharf and boat storage shed. On Great Chebeague many areas around the coast are used as working waterfront including the CFMA zones described above. The criteria for inclusion focused on winds, slope of the land, depth of water and availability of support facilities. These areas have zoning regulations that allow intensive commercial/marine land uses close to the water, and prohibit the construction of new residential uses that would be incompatible with these marine uses. They are used by fishermen to on and off-load traps and equipment, moor boats and anchor lobster floats. At a minimum

these areas might be considered to be the Town of Chebeague Island's "harbors" as distinct from its "waters". And there are other areas, like Johnson Cove and the Cricks, that are not defined as CFMA but are used for storing floats and traps in the winter as well as for clamming.

There are currently four major points of concentration of working waterfront uses that include not only fishing activities but ferries, barging and recreational boating as well – the Stone Wharf, Chandler's Cove Wharf, the Boat Yard and the barging area at Bennett's Cove. They serve ferries, fishermen, recreational boaters, small cruise boats, barges, the Chebeague Rescue and emergency CMP and telephone company boats. Three of these are public: the Stone Wharf belongs to the Town of Chebeague Island, the Chandler's Cove Pier belongs to the State and the barging access at Bennett's Cove is a Town right of way.

Adequacy of Marine Terminals on Great Chebeague: Wharf and Parking Capacity

The wharves on Chebeague serve a number of distinct constituencies. Fishermen, ferry riders, recreational boaters, boat commuters, golfers and swimmers. Since cars are the most common way that people get around, any wharf facility that serves a substantial constituency needs parking.

Amount of Use and Parking

Many different kinds of users, and only two public wharves inevitably, creates congestion and conflicts of uses which are described in more detail in the Inventory of the Marine Economy.

The Chandler's Cove Wharf serves the Casco Bay Line's four to five boats per day, seven fishermen who moor boats there, an increase from 3 in 2000, some of the 38 pleasure boats moored in the cove and the CMP and telephone company repair crews.

The Stone Wharf serves as the terminus for CTC which is the island's primary ferry service. It has eight to ten runs each day as well as additional runs for the Rescue. In the summer the wharf has mooring space at floats for 37 boats under 17 feet long. These are used by Chebeaguers and by some workmen who come out from the mainland. Also, in the past, a summer a retail lobster pound has been moored to one of the floats. In addition 17 fishing boats and 64 pleasure boats are moored in the anchorage. At the south end of the wharf there is a concrete ramp that is used both for launching boats and for barging to and from the island. Next to the barging ramp is the 7th Tee of the Golf Course.

Today, most of the users of the wharves drive to them in cars and most expect to be able to park their car at the wharf for free. The problems of parking and congestion that this has created are much more evident at the Stone Wharf than at the State Pier at Chandler's Cove.

When the Chandler's Cove Wharf was rebuilt by the State in 2000 its parking area was enlarged to 20 spaces. The ridership on the Casco Bay Lines from Chebeague has been fairly stable at about 9,000 passengers per year over the past ten years. The number of lobster boats using the wharf has increased from 3 to 7. At this point the capacity of the parking lot seems to be sufficient, but may not remain so indefinitely.

Parking at the Stone Wharf, however, is severely restricted by being hemmed in by a historic house and the Golf Course. Past efforts to acquire land from the Golf Club or to create

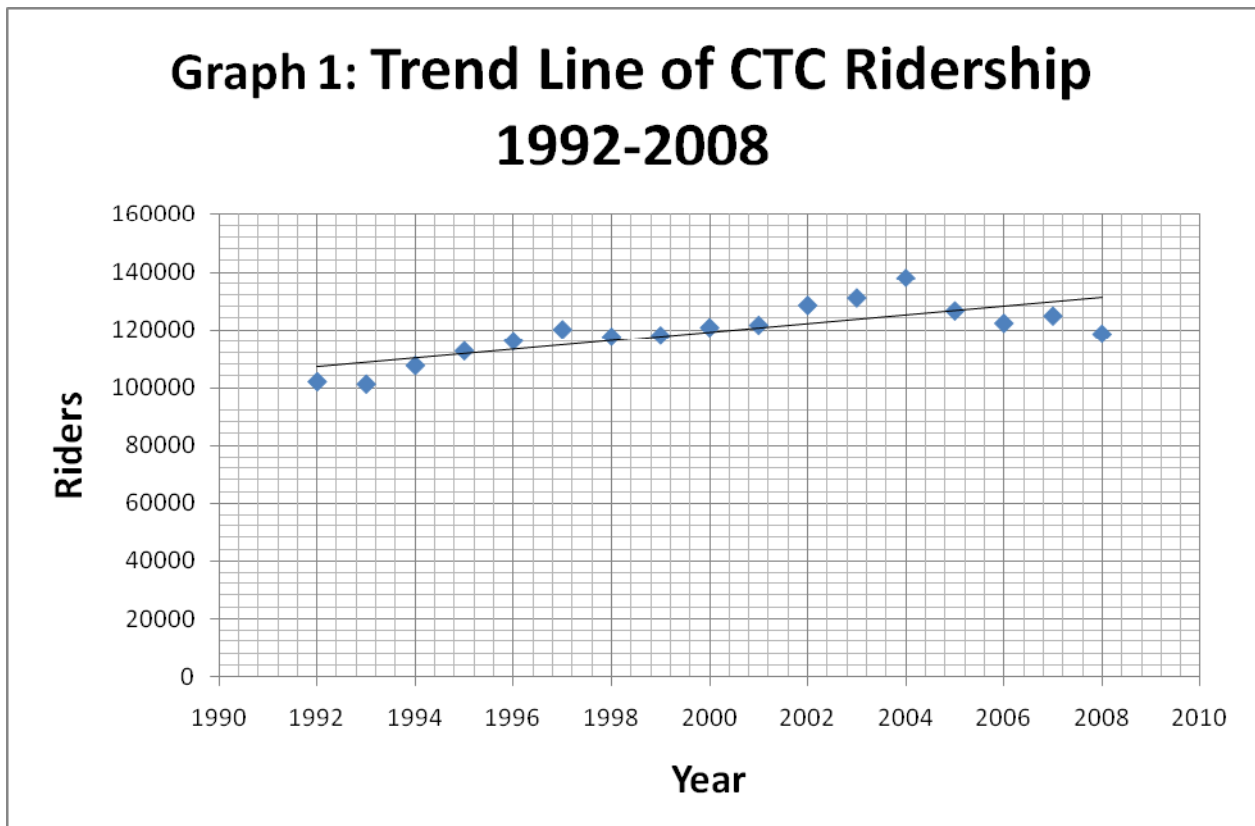
additional land by filling have largely been unsuccessful. The wharf currently has 80 perpendicular spaces plus space for 25 to 30 cars parallel-parked along Wharf Road. During June and November when fishermen are using the wharf to load and bring in their traps, the number of spaces is reduced by seven.

We have no data on how many people use the Stone Wharf and the Chandler's Cove pier each day. Traffic over the course of a day at the Stone wharf depends on many things that vary over the course of the year and from year to year:

- The size of the island population
- The time of year
- Whether school is in session
- Whether the island is hosting a wedding, a funeral, or it is a holiday period
- The number of uses on the wharf
- The number of lobster boats using the wharf and whether they are loading or unloading traps.
- The amount of construction occurring on the island and size of the houses

Parking is also a function of:

- The number of riders who don't have cars (such as construction crews from the mainland and riders dropped off by family or friends.)
- The number of parking spaces
- The amount of parking ordinance enforcement.



The one measure we do have for actual traffic at the wharf over time is total CTC ridership from 1992 to 2008 (Graph 1). This, of course does not include people coming to the wharf for other uses such as going out to a private fishing or pleasure boat, buying lobsters or playing from the golf tee. As the Transportation to the Mainland Inventory indicates, CTC ridership over the past 10 years seems to have somewhat mirrored the change in the number of houses being built on the island, which, in turn, reflects the general state of the national economy. Data from 17 years indicates that although ridership goes up and down with the economy, the general trend line has been rising gradually at somewhat less than 5,000 riders per year.

This analysis, of course, does not reflect the large growth in usage every year from winter to summer. In February 2008 the average daily number of riders in was about 270. In August it was about 480. Currently the parking is adequate in the winter. But in the summer, with a maximum of 110 spaces and a gradual increase in the number of cars on the island, the spaces are filled. The number of summer users also rises and falls with economic cycles, but the cyclical economic pattern is swamped by the larger number of people looking for parking in the summer.

Beginning in the 1960s users of the Stone Wharf began meeting to urge the Town to make improvements to the deteriorating wharf. Since 1980 a series of Stone Wharf Committees, formed by the Town, have made recommendations about increasing the number of parking spaces. The parking has gradually been expanded in the property owned by the Town. The most recent increase in 2008 was from about 68 to about 79 perpendicular spaces. In the past the Golf Club has been reluctant to sell land to the Town for the expansion of the parking, even though having cars parked along Wharf Road is a problem for them. This suggests that no significant expansion of the parking or other facilities requiring space that might be needed on the wharf is possible at the wharf's present site.

In sum, the growth in the need for parking and the multiple uses at the Stone Wharf are considered by a majority of the Comprehensive Planning Committee to be one of the major challenges facing the Town in the next ten years. The data on CTC use indicate that over the next ten years there will probably be a slow, but steady increase in the demand for space for both parking and automobile access to the wharf which will tax its already-limited capacity. The Town needs to begin now to look at ways to solve this problem, since a solution may take considerable time to study, agree upon and raise money for.

Wharf Capacity and Maintenance

The Chandler's Cove Pier belongs to the State of Maine. It was last replaced and enlarged in 2000. It is specifically designed to serve the Casco Bay Line boats which come up not to a float that goes up and down with the tide, but to a ramp that allows passengers and freight to come ashore at all tides. No other boats use this ramp which is the central feature of the pier, so the capacity is quite adequate for CBL.

The Town of Chebeague Island has a series of floats and a ramp off the north side of the pier. This is used by fishermen, pleasure boaters and the utility companies. There is a 15 minute time

limit for users in part to make sure that the CMP and telephone company boats can always dock in an emergency.

The Stone Wharf was built in the 19th century. It has served well for 150 years but it needs regular maintenance to keep it structurally intact and the road on top of it useable. Most of the structure is basically a large box of dressed granite that was then filled with fill. The action of the tide surging through it and of winter frost-heave both tend to wash the filling out between the enclosing stones, leading to sinking of the pavement on top as its support is lost. The south side, at the barge ramp and golf tee was built on timber cribwork which deteriorated over the years. Finally, the wharf could be built in this place in part because the surrounding water is not very deep. This means that for any large boat to use the wharf, the channel must be periodically dredged.

Since 1980 the Town Stone Wharf Committees have made recommendations on repairs that should be made to the wharf. In 1990 in response to the problem of sinkholes in the pavement, the fill was removed from a trench around the northern-most part of the wharf so that the stone “container” could be lined with filter fabric to contain the filling. This was only moderately successful and more sinkholes appeared. Again in 2003 structural repairs were made, replacing lost stones, pumping sand and concrete between the face stones and rebuilding the structure that holds the gangplank to the wharf. Most recently repairs have been done on replacing the wooden cribbing on the south side. These various repairs do, and will, strengthen the structure, but regular maintenance is always needed.

The channel was also dredged in 1994 and 2004. The permitting for the dredging can be an arduous process, but if the dredging were done each time within ten years, the State would consider this to be “maintenance” rather than dredging, with less strenuous permitting requirements.

Boats tying up to the Stone Wharf actually tie up to floats attached to the wharf which go up and down with the substantial tides. The stone structure is not much higher than the water at high tide, and at spring tides and in storms that coincide with high tides, the wharf itself is covered with water. This will become a larger problem, especially if the current sea level rise of 1 inch/10 years is increased by global warming.

Summary of Adequacy of Wharves

The State Pier at Chandler’s Cove is only ten years old and seems to be adequate to serve the Casco Bay Lines boats. The structure also seems to function well for fishermen, recreational boaters and the utility company representatives.

The Stone Wharf has undergone a number of repairs over the past 25 years. Structural problem will probably always remain, and maintenance needs to be ongoing. Its capacity to serve its many users has also been increased by the addition of summer floats that extend its length. However, the many different users it serves make the wharf a very congested place. Past efforts have increased and rationalized the parking, providing some handicapped in addition to regular parking spaces, and making space for the fishermen who depend on the wharf to load and unload

their traps and repair their boats. The barging ramp has been repaired. Even the golf tee fits in between the parking and the barging ramp.

Even so, the number of people and cars on the wharf when the Islander comes in on a Friday afternoon in August is large, and the situation verges on chaotic. There is a marked path for pedestrians, but no established traffic pattern, so while some cars are driving down to pick up passengers and others are driving away, still others are backing out of parking spots or idling while they talk with friends walking by. This is not a picture of an “adequate” wharf.

Barging

On both ferries passengers can bring personal baggage such as suitcases and bags of groceries and bikes. CBL carries larger, items that have to be unloaded by crane, on pallets or in luggage carts. Even larger items such as island cars, moving vans full of furniture, construction supplies, gravel, and trash containers for the Transfer Station have to come to the island by barge.

In addition to its two ferry wharves, Great Chebeague also has two public barge landing areas, one at the Stone Wharf and the other at Bennett’s Cove. The former is most easily served from Yarmouth and the latter, from Portland. The former is largely, but not entirely, used by the CTC push-boat and barge. The latter is used by other private barging companies. CBL has no barge operation.

Both landings have probably seen significant increases in traffic over the past 10 to 15 years, but there are no data going back that far. In 1994 the landfill was closed, requiring all trash to be taken off the island by barge in huge containers. As was indicated above, the 1990’s and much of the first decade of the 21st century was a period of active building on the island, producing a lot of barges carrying building supplies from concrete mixers to lumber and bricks. However since 2004 this traffic has declined.

Table 1: CTC Barging

	2003	2004	2005	2006	2007	2008	Average
Total vehicles	1001	1034	864	896	946	724	910
Commercial	557 56%	624 60%	494 57%	517 64%	472 50%	339 47%	500 55%
Private	444	410	370	379	474	385	
Total trips	214	210	172	201	178	130	
Trips from Cousins Isl. ¹³	181	195	157	159	153	118	
Cousins Isl. Barge-days				79	71	60	70/150 = 47 %

¹³ CTC also barges from Yankee Marina up the Royal River in Yarmouth. This barging is not regulated by the 1989 consent decree. The difference between total trips and trips from Cousins Island is these Yankee Marina trips. In 2007 there were also 24 trips to South Harpswell.

The barging ramp at the Stone Wharf serves both the CTC barging operation and other barging companies. We have data on CTC's barging, at least in recent years. CTC's barging is strictly regulated by the 1989 consent decree that settled the Cousins Island residents' suit against CTC.

Between 50 and 60 percent of the vehicles brought over and back by the CTC barge are commercial ones that belong to people who are doing work on the island. Some, like Chebeague Sand and Gravel, are island businesses that barge regularly. Many others are mainland businesses bringing out both transportation and supplies for particular jobs. The rest of the vehicles are cars and pick-up trucks for people living or staying on the island.

As Table 1 indicates, the barging generally fluctuates with the state of the economy, down, for example between 2007 and 2008, and generally down from the recent high in 2004. This poses a problem for CTC which uses the revenues from barging to support the ferry operation.

Because the CTC barge usually comes across from the Cousins Island parking lot, the location of the ramp on the Stone Wharf is very efficient. However, the ramp contributes to the general congestion of vehicles on the wharf. Because the barges have to operate when the tides are right, activity tends to be concentrated rather than spread out in time.

Bennett Cove has been a town landing since before the Civil War. Barging at Bennett Cove provides greater flexibility than the Stone Wharf to people who want to bring material onto the island. It is convenient for commercial barges coming up from Portland. There are no court-ordered restrictions on the amount of barging, and barging can be done throughout the winter. Unlike the ramp at the Stone Wharf which is concrete, the barges at Bennett's Cove simply come up onto the beach which slopes fairly gradually and so can accommodate barges over a longer period at the high tide. Bennett Cove tends to be used by the large barges owned by private barging companies.

There is no data for the growth in barging at Bennett Cove over time, but in 2004, at the height of CTC's barging, Sanford Doughty whose windows look out on the Cove, recorded all the barge landings for a ten month period (except mid-March through May), for days when he was at home, giving a minimum estimate of the traffic that year. Barges from Lionel Plante, Reliance and some other companies barged on 100 of the 217 week days (46 percent), making 135 landings. This was about the same amount of activity as CTC's barging at the Stone Wharf. Most days saw only one trip, but on 26 days there was more than one, and even as many as 4 or 5. Sanford counted 47 dump trucks as well as concrete mixers, flat-bed and boom trucks for lumber, moving vans, cherry-pickers and tree-cutting equipment, propane trucks and trucks hauling the dumpsters for the Transfer Station.

If barging both for CTC and for the other barging companies follows the same cyclical pattern tied to the economy that may shape CTC and CBL ridership, then these figures may represent a high point. But some other factors may be encouraging the use of Bennett Cove. One is that lumber trucks have grown in size and can more easily be carried on large barges. In addition, it costs less to barge from Portland to Bennett Cove than to the Stone Wharf. This has led the Town, for example, to do most of its barging of solid waste receptacles from Bennett Cove.

This level of barging creates problems even in a relatively uncongested area. The surrounding land use is all residential and the increased use and the industrial character of the barge-landing has created considerable unhappiness in the area. The heavy traffic has been hard on the gravel road up to South Road which was substantially rebuilt by the Town of Cumberland after all the barging of road-building materials to repair the island's roads in the wake of the Patriots Day storm in 2007.

The barging also affects the beach itself. The power of the propellers holding the barge to the shore churns a large hole into the substrate, exposing a CMP power cable that comes onto the island in the same place. In addition, Bennett Cove is the only place on Chebeague that has been identified so far as suitable habitat for baby lobsters who take up residence under the rocks that are exposed.

Ideas for Solving the Problem of Congestion at the Stone Wharf

Sunset Landing

In the late 1980s the Town of Cumberland organized a committee to survey possible sites on the north side of Chebeague for a new ferry wharf. In 1990 the Town bought a 9 acre piece of land at the west end of the island on the shore facing Cousins Island. It was the site of a never-developed subdivision with a pier called Sunset Landing. The Town's intent in buying the site was to explore building a new wharf that might provide a wharf and parking for CTC and maybe even CBL, and to provide a barge landing. The Stone Wharf would then primarily be used by fishermen and recreational boaters. The circumstances that came together to produce this idea are described in the Transportation to the Mainland inventory.

No detailed studies were done of the suitability for a wharf of either the land or the underwater substrate though a rough, conceptual design for a pier, floats and a wave fence was done by Prock Marine. The plan had no facilities for barging. No conceptual site plan for the land side of a Sunset Landing proposal was ever done.

There was a lot of interest in the idea on the island but considerable disagreement over how suitable the site would be for a year-round landing. In the end, the Sunset Landing proposal was put on indefinite hold. However, the Town of Chebeague Island still owns the land and there is still some expectation that it could be used for a marine facility – a wharf and/or barging facility. On the survey for this Plan 12 percent of the respondents suggested moving the CTC to Sunset Landing.

If the citizens of Chebeague decide to move part or all of the CTC's operations to Sunset Landing, a decision will need to be made about whether to encourage other development in that area, and, if so, what kind. What kind of other development would be compatible with a barge landing and/or a ferry wharf? Housing is not very compatible with major transportation and parking uses. In 1990 Jimmy Stewart thought about a store, gas station and restaurant at Sunset. If the wharf itself required State aid to be feasible, a growth area for such commercial development might make sense.

An Island Bus Service

The idea of an island bus service is one that keeps coming up in discussions of parking at the Stone Wharf. On the survey for this Plan, 19 percent of respondents suggested having a remote parking lot on the island, and a bus to the ferry or a round-the-island shuttle bus. However, this idea has never been studied and has never been the subject of a systematic proposal by any island group because it has created sharp opposition among some island residents.

The talk has taken several forms. One idea is to have a satellite parking lot, as CTC has on the mainland, with periodic bus service to the Stone Wharf and perhaps to Chandler's Cove. Another is to have a regular bus route around the island that has stops at both wharves. The image is often of using the school bus for this service. In either of these cases, the service would only run during the summer. Ideas vary about who might continue to park at the Stone Wharf – only commuters, only year-round residents or only fishermen, for example.

Again, if Chebeague residents are interested in having an on-island bus service, it would be necessary to examine what effect its route and stops might have on the pattern of island development. If there were a single satellite parking lot, what other land uses would be compatible with it? If there were a continuous-loop bus service, would people walk or drive their cars to the bus stops?

Coastal Access

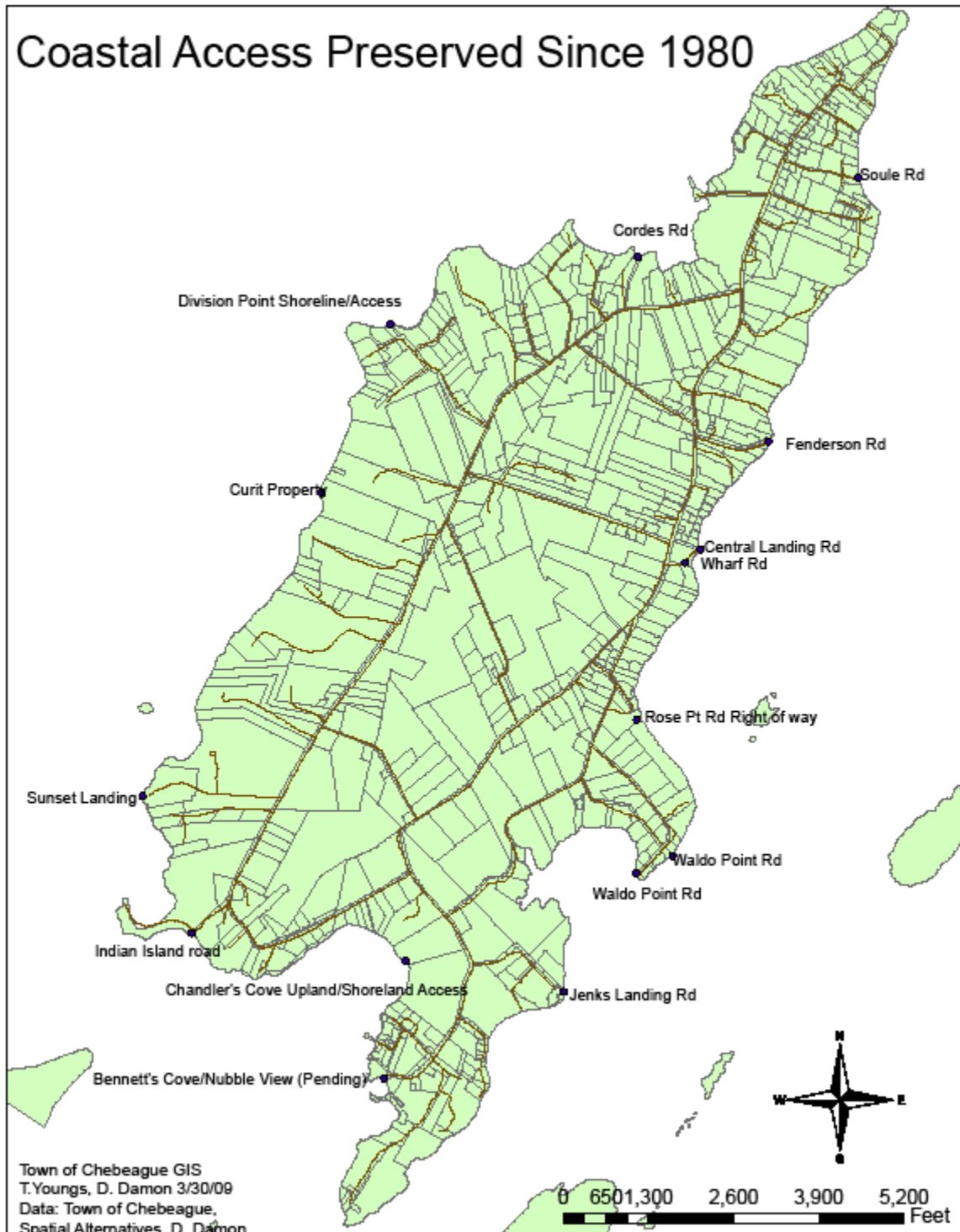
Both fishermen and vacationers need to be able to get to their moorings. Beyond that, a vacation destination surrounded by water needs public access to it. Under ordinances going back to Maine's Colonial past, there is a right to access the shore over someone else's property for the purposes of fishing, fowling and navigation. On Chebeague the Town of Cumberland stood legally behind this right of access. It has not been a significant issue yet for the Town of Chebeague Island. But this is not the primary mechanism for achieving access to the shore.

Because of Chebeague's particular history of decentralized access to boats, there are strong values that have supported easy access to the shore. Now, however, this value is under pressure, and it has become more important to define and protect public access rights to the water. There are more houses and more people, particularly along the shore. People move to the island from places where keeping others off your property is accepted as a basic right. Some have blocked existing points of access to the shore, even ones owned by the Town.

Since the 1980s, the State, and the Towns of Cumberland and Chebeague Island have adopted the strategy of researching property ownership of rights in the shore and of formalizing the legal status of access points that belong to the Town. Some of these are discussed in the 1998 *Coastal Access Study*. For example, rights of way and shore access points that had been granted to the Town in old (and not so old) subdivisions but forgotten since have been reclaimed through the research and work of Donna Damon. The Town and the Chebeague and Cumberland Land Trust have also been active in acquiring access points or easements to them from willing property owners.

Map 1 shows access points on the shore that have been legally documented as public since 1980, whether through public ownership or easement. The map does not show additional possible access points that might be documented in the future. In the Island Institute's study of coastal

Map 1:



access in all coastal communities in Maine, *Mapping Maine's Working Waterfront*, Chebeague ranked high in the number of public access points.

All of the smaller outer islands are completely within the shoreland zone since they are less than 500 feet wide. Hope, Bangs and Stave are wide enough to have areas outside the shoreland. Stockman belongs to the Chebeague and Cumberland Trust, while Little Chebeague, Crow and Jewell Islands belong to the State of Maine. All the other uninhabited islands – Bangs, Stockman, Jewell and the small islands -- are zoned Resource Protection. The immediate shoreline areas of the inhabited islands – Hope, Stave, Ministerial, and Bates -- are also mostly designated RP.

The Outer Islands

State maps show Sand, Bangs, Stockman, Ministerial and Upper Green Islands as seabird nesting islands. Ernie Burgess' map adds Jewell, Bates, Stave, Rogues, Crow and Goose Nest Rocks as nesting areas.

All the islands are stopping places for a variety of migrating birds.

Seals are protected under the 1972 Federal Marine Mammal Protection Act. Goose Nest Rocks, Mink Rocks, and rocks off of Stave and Sand Islands are seal haul-out areas.

However, the outer islands are not necessarily pristine natural habitats. Several have introduced raccoons that do considerable damage to nesting birds.

Hope Island is a special case among the outer islands. It belongs to a single family who have been developing an extensive farm/estate with houses, barns, a chapel, a large boathouse, and a gravel pit for road-building and rip-rap. These construction projects have been approved individually by the Code Enforcement Officer, though the gravel extraction should have been reviewed by the Planning Board. The Town has never asked for or received an overall plan for the development of the island, nor has consideration been given to what, if any, services the Town might provide in the future.

The three other occupied islands, Stave, Bates and Ministerial, have not had active development in recent years. But it is possible that this might occur in the future. It does not seem appropriate for the Town to develop land use plans for any of the privately owned islands, though it does regulate them through zoning, including Shoreland Zoning, subdivision control and building codes.

3.d. MANAGEMENT OF THE TOWN'S WATERS

The map of the entire Town of Chebeague Island emphasizes the scale of the town's waters which extend, in a panhandle-shape, out to the three mile limit. Traditionally comprehensive plans have dealt largely with a town's land and public facilities. But in a Town that is 82 percent water, and whose economy depends significantly on those waters, it seems unreasonable to focus only on the land. Indeed, the economy and social life of the town have been defined by the active use of those waters for fishing, tourism and recreational use and for the transport of people and freight. Like all other "unconnected islands" all the islands of the Town depend heavily on boats.

The idea that a Comprehensive Plan for an island community should involve planning for the use of the Town's waters as well as the uses of its land raises two different, but related, planning issues. One is the question of whether and how the Town could realistically do this. Some communities have harbor plans, but the idea of developing a plan for the use of a larger section of the ocean is just beginning to be adopted in the U.S.¹⁴ The other issue is how can the Town develop and adopt policies to encourage good stewardship of its waters. Because the answers to these two questions are so uncertain, this is the most tentative chapter in this plan.

Goals and Recommendations

The Goal is: SAFE AND FAIR USE OF THE TOWN WATERS BY FISHERMEN, RECREATORS AND PROVIDERS OF TRANSPORTATION AND OTHER KINDS OF SERVICES.

Recommendation: The Town should reconstitute the Coastal Waters Commission as a broadly based group of residents who are concerned with the general welfare of the waters of Chebeague.

Recommendation: The Town should finalize the process begun by decision of the 2010 Annual Town Meeting, of developing a plan for the Town's waters by developing a plan for near-shore mooring areas and Coast Guard designated anchorages that balances the needs of fishermen, recreational boaters, the Boat Yard and other interested parties. Such a process must not only consider the needs of these various groups but must involve them directly.

Recommendation: The Town should identify and mark the Town boundary at the Great Bar, Little Chebeague, Jewell and Hope Islands.

Recommendation: The Town should pay particular attention in the mooring/harbors plan to protecting eel-grass beds.

Recommendation: The Town should explore whether to include additional areas of the Town's shoreline in the Shoreland Zoning Resource Protection Zone.

¹⁴ Fara Courtney and Jack Wiggin. *Ocean Zoning for the Gulf of Maine: A Background Paper*. Gulf of Maine Council on the Marine Environment and NOAA MPA Center, January 2003.

Recommendation: The Town and Harbormaster should provide educational materials on “boating safety, respect and courtesy” to all boaters to make them more aware of possible conflicts among users of the waters.

Recommendation: The Shellfish Warden and the Shellfish Commission should continue to actively manage clam flats to maintain and increase productivity.

The Goal is: AN INCREASED ROLE FOR THE TOWN OF CHEBEAGUE ISLAND IN STATE DECISION-MAKING ON THE USE OF TOWN WATERS.

Recommendation: The Town should consider whether to develop a plan for the use of its waters and bottom. If such a plan is undertaken, its development must also involve the users of the Town’s waters.

Recommendation: The island’s lobstermen are urged to make sure that the TOCI continues to be represented on the Zone F Lobster Council and encourage representatives to work actively for a sustainable lobster harvest and for maintenance of brood stock and protection of juvenile lobsters.

Discussion

Ownership of Town Waters

The Town does not own its waters, but it could position itself to better respond to initiatives by other governments and private organizations to use the Town’s waters. The power to plan and regulate at the local level is granted by the State, and in the case of ocean waters, the powers granted are not only quite limited but are also changing as what has been a commons, open to all, is not only more intensively used but is also being privatized. The land to the low tide line is owned by people on the land. Below the low tide line, the waters of the Town of Chebeague Island are owned by the State of Maine out to the three-mile limit. This means that the Town has little control over more than three quarters of its area.

Ostensibly these waters are a “commons” available for use by anyone for work or recreation, though such use is often regulated. In near-shore Maine, the bottom has been somewhat managed and apportioned, without formally privatizing the commons, by lobstercatchers who have been able to limit use by informal methods. Lobstercatchers from a local area have territories and lobstering rules such as v-notching egg-bearing females and prohibition on taking shorts and large lobsters by informal pressure. This, even now in some parts of Maine, is a system of “mutual coercion, mutually enforced” , though this system has been formalized in the State’s regulations and Lobster Zone Councils.

However, the idea of the water as a commons is gradually disappearing. The State leases the bottom to individuals and companies for things like pipelines and cables, and in recent years for aquaculture. Since the State is encouraging aquaculture, this has created a situation where the bottom is gradually being privatized as the common farming lands of Britain were in 18th century.

This basic conflict is quite real in the Town of Chebeague Island and makes the Town an unwelcoming place for aquaculture or any other use of the bottom. Lobstering is almost the only fishery left, and there is intense competition for the bottom. None of the fishermen from Chebeague engage in aquaculture. There has been one mussel farm in TOCI waters, but the island fishermen fought it and its expansion. There has recently been some exploration of small-scale leases for growing oysters in cages, but this, too, involves bottom leases and is suspect.

On a completely different scale, in 2004 a proposal was made by Trans-Canada Pipelines to build a liquefied natural gas terminal, initially on Harpswell and then on Hope Island. Such a terminal would have had a significant impact on fishing in the area through loss of bottom, damage to traps and interruptions to fishing when tankers were in the area. In addition, an underwater pipeline across Town bottom would have been necessary to convey the natural gas to the mainland. Chebeaguers, working with people from other islands and the mainland, mobilized against this proposal and it was retracted.

Now there is considerable interest at the State level in off-shore wind turbines as a source of alternative energy. Indeed, as the energy element of this plan indicates, Chebeague itself has explored this possibility. But State action seems more likely and sooner. Because the transmission lines of the Cousins Island Power Plant are so close to Chebeague, and the Town extends out to the three mile line, it may be possible that the State will consider such a development in or close to the Town. Again, there would have to be a subsurface transmission line to get the power from the turbines to the mainland. The State has said that as the planning for these wind turbines goes forward, towns that will be impacted will be a part of the planning process, but the details are not clear.

This struggle over the use of the Town's waters and bottom is one in which the Town's powers are much less than the State's. The Town needs to be proactive in thinking about how it wants its waters used. This involves planning within the powers to regulate harbors given to Towns by the State. But, if the Town chooses, it could also include broader scale planning for all of the Town's waters.

Local Regulation of Town Waters

While the Town's waters are substantially governed by federal and state governments, Towns do have some role to play in their management. The Maine Coastal Management Policies Act lays out the State's concerns in relation to ports and harbors.

Maine's Ports and harbors are a limited and irreplaceable State resource uniquely capable of supporting fishing, waterborne transportation, water-based recreation, and other uses dependent on a shoreside location. Less than 10 percent of Maine's 3,500 miles of coastal shorelines is physically suitable to function as a port or harbor area. . . .

Government agencies have a responsibility to assure that new or expanded activities in these areas will be compatible with, and will not degrade their current and future use as a port and harbor area.

Title 38 of Maine's Statutes provides the legal basis for local governments to manage local waters, particularly harbors and other near-shore areas. It enables them to appoint harbormasters

(required in all coastal towns if requested by 10 or more voters), to form Coastal Waters or Harbor Commissions to adopt policies related to the Town's waters, and to enforce local, state and federal laws related to the use of the waters.

The Town of Chebeague Island's Coastal Waters Ordinance, developed out of Cumberland's ordinances during the Transition, is primarily regulatory. It brings together the regulations for the use of the Stone Wharf, the approval process for new wharves, the mooring regulations, the rules for the operation of vessels in Town waters and the shellfish conservation regulations. So far the Harbormaster has focused on establishing these regulatory functions.

The Town has a Coastal Waters Commission made up of five volunteers. Their policy role is to "study and evaluate public usage of and access to the Coastal Waters of the Town" and "to plan for the future use of those waters"¹⁵. They work with the Selectmen and supervise the Harbormaster's enforcement of the Town's rules and regulations. To date, the Commission has not been effective in these tasks, has lost membership and ceased to meet. Since it is a central committee for the functioning of the Town, the Selectmen need to reconstitute it so that it can work effectively.

The TOCI Harbormaster's duties involve allocating and regulating moorings, defining anchorage areas and the transient channel for the Stone Wharf, managing the floats, docks, ramps and landings owned by the Town, patrolling the harbor to ensure compliance with State boating and marine resources laws and providing assistance in case of accidents or maritime distress.

As increasing numbers of working and pleasure boats, ranging from jet-skis through lobster boats and sail boats of all sizes, to large cabin cruisers, all try to use the Town's waters, possible conflicts multiply. Boats become entangled in lobstering gear or recreational boaters, and even fishermen hauling their traps may be endangered by the wake of a large, high-speed motor boat. These conflicts are usually unintentional, but they can produce anger, and sometimes safety risks. Managing these conflicts falls to the Coastal Waters Commission and the Harbormaster.

Moorings

The Town has about 400 registered boats, not including documented vessels at one end of the spectrum and small sailboats and punts that do not have to be registered at the other. Boats are used for fishing, for transportation of goods to the mainland or other islands, for passenger transportation and for pleasure. The simplest form of access to a boat in the water is to have a mooring that can be reached by punt from a beach or other landing place. This is the primary way that Chebeaguers get to their boats. Overall, as Table 1 and Map 1 show, the Town has more than 350 moorings – probably closer to the total number of registered boats. They are located all around the island. Forty four are for commercial vessels, about five are for fishing floats of various kinds, while the majority are for recreational boats.

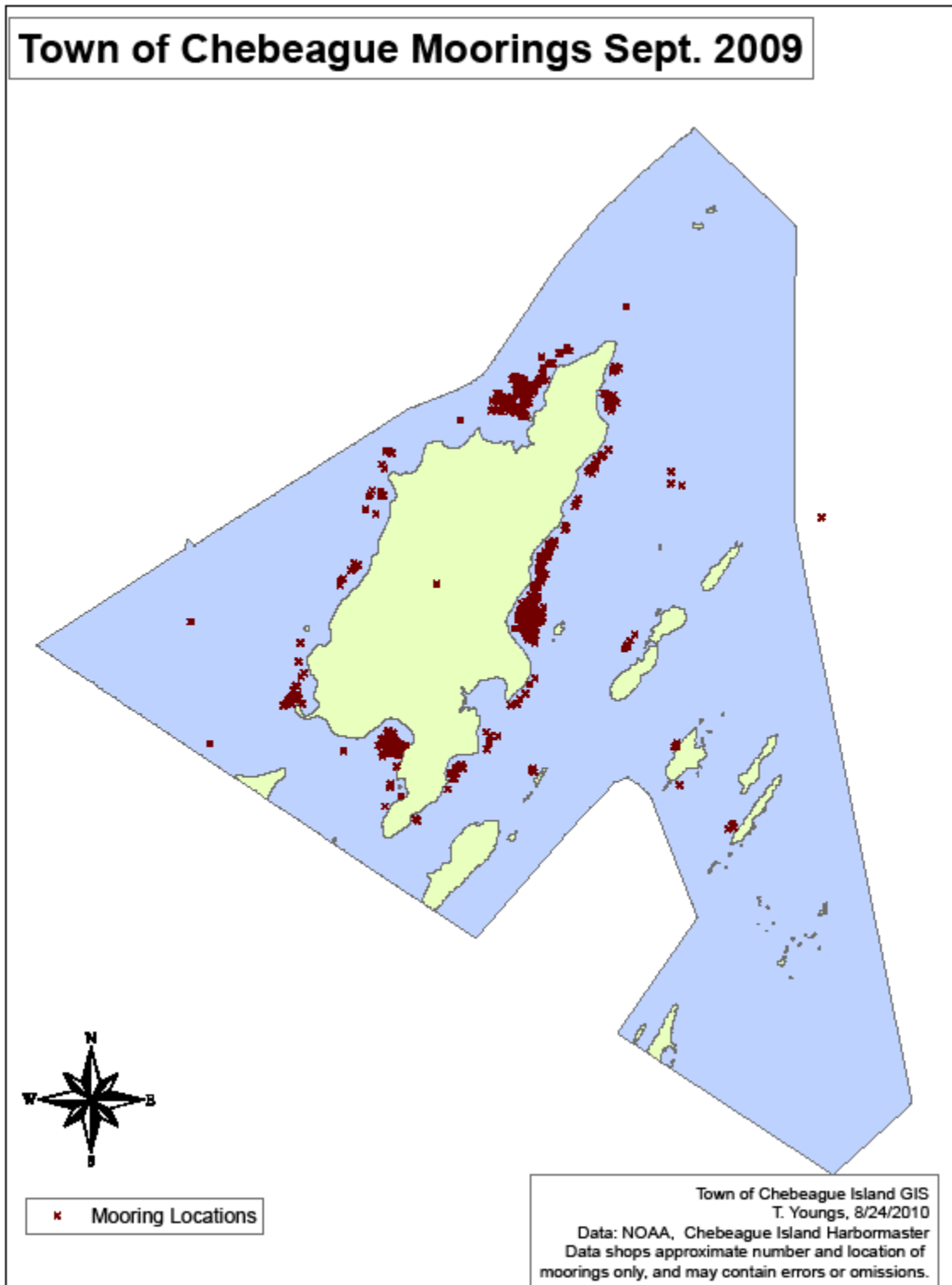
¹⁵ William Prosser's legal guide for coastal officials has this to say about "the harbor committee": Typically, the harbor committee is made up of unpaid residents of the community appointed by the selectmen. In choosing the appointees, the intent of the selectmen is to assemble a volunteer body of men and women who are motivated by a disinterested concern – disinterested in the sense that no member has any axe to grind, and concerned with the successful present operation of the harbor and an appropriate pattern of future change. They tend to be the most knowledgeable "boat people" in the community, and in theory, at least, it is their understanding of the importance of having a good working harbor that makes them willing to serve without pay." (page 22).

Table 1: Mooring Places around Great Chebeague Island

Place	# Fishing Boats 2000	# Fishing Boats 2008	# Pleasure Boats	Total number 2008
Hamilton Beach	0	0	17	17
Springettes	1	1	2	3
Fenderson Landing CFMA	3	2	0	2
Central Landing CFMA	7	5	12	17
The Boat Yard CFMA	0	1	101	102
Waldo Point	1	1	3	4
Johnson Cove	3	3	17	20
Coleman Cove CFMA	5	4	8	12
Black's Cove	2	2	?	?
Bennett's Cove CFMA	1	1	?	?
Chandler's Cove CFMA	4	7	38	45
Indian Point Cove	0	0	?	?
Sunset to Division Point	1	0	23	23
Stone Wharf CFMA	17	17	64	81
Northeast End	0	0	8	8
Little Chebeague		1	0	1
Hope Island	0	0	0	0
Sand Island	0	0	2	2
Stave Island	0	0	2	2
Ministerial Isl.	0	0	1	1
Jewell Island	0	0	0	0
Total	45	45	298+	about 400

Information from the Town of Chebeague Island Harbormaster. ? indicates an area not yet surveyed by the Harbormaster at the time this table was created in 2009,

Map 1:



With the exception of a sizeable number of fishermen who keep their boats at the Stone Wharf, most fishermen moor on the outside of the island facing the sea. They also usually go out from an area that is fairly close to where they live. Over the past eight years the number of fishermen and where they moor their boats has not changed very much. The number at the Stone Wharf has remained constant and Chandler's Cove has picked up three people (see Table 1).

Some other mooring areas -- Hamilton Beach, the back shore and the Boatyard -- are largely used by recreational boaters, many but not all of whom are summer people. This informal separation on Great Chebeague between recreational and commercial moorings probably reduces the possibility of conflicts between fishermen and recreational boaters such as unauthorized use of someone's mooring..

Chandler's Cove and the Stone Wharf are used by both fishermen and recreational boaters and are discussed in more detail below.

In addition to these regular boat moorings, there are some specialized moorings for mussel rafts, rafts for fishermen's gear and rafts for buying lobsters and selling bait.

The Town has no plan or policies about how many or where moorings can be, though the Army Corps of Engineers does not allow them more than 200 yards from the shore. There is a provision in the Town ordinance about creating a waiting list for any area where there is not enough space to assign a mooring, with a set of six priorities, in addition to location on the list, that favor commercial fishermen over everyone else, tax payers over non-taxpayers and residents over non-residents. But since there is no limit on the number of moorings the Town allows, and there is still space available, there has been no need for a waiting list.

Chebeague also does not yet have any U.S. Coast Guard designated special or general anchorages. Designating such areas means that boats that moor in them do not have to have visual and audible signals during the night or at time when visibility is poor. The 2010 Annual Town Meeting asked the Coast Guard to designate the shore around the whole island as such an anchorage.

The State, and even the Army Corps of Engineers see the increasing land values on the coast and the multiple pressures for space both on the water and on the shore from fishers, recreational boaters, housing developers and people who would like to preserve open space. They hope that communities like the Town of Chebeague Island will develop plans for their waters and harbors. But there is no legal obligation for a town to do so.

However, one of the primary tasks laid out in the ordinance for the Coastal Waters Commission is to plan for the future use of the Town's waters. A plan that could gain the acceptance of Town Meeting would be a useful contribution to shaping the future of the Town's marine economy.

Comprehensive Planning for a Town's Waters?

The State offers assistance to Town in the development of harbor plans to deal with the many conflicting uses that may occur in such a constricted space.¹⁶ But communities do not generally plan for their "open waters" which are assumed to provide room enough for all possible uses. Again, the State and Federal governments regulate certain ocean areas or ocean resources, but this regulation tends to be sectoral rather than comprehensive.

In such a system, the role of the Town is reactive. So, for example, the only role that the Town has in the granting of aquaculture leases is to be designated as "an intervenor" in the State permitting process so that it can be heard in hearings on leases. This can be done more effectively now that Chebeague is an independent Town. But at present the Town simply responds to a particular aquaculture application without having thought about which of its waters might be most suitable for aquaculture.

On the other hand, it would be possible for a Town to develop a plan for its waters. This would have no specific sanction from the State. But it would enable the Town to deal with the State on a more equal footing – if not legally, then at least in terms of data analysis and systematic thought.

Such a plan would not be easy to develop politically or technically. It would require the participation of the various users of the Town's waters such as fishermen, The Boat Yard, aquaculturists, recreational boaters, owners of cables or pipelines and commercial ferry or shipping companies. The increased organization of Chebeague's lobstercatchers in the last few years, the turnover in ownership of the Boat Yard and the sale of the mussel farm all provide opportunities and also challenges to the development of such a plan.

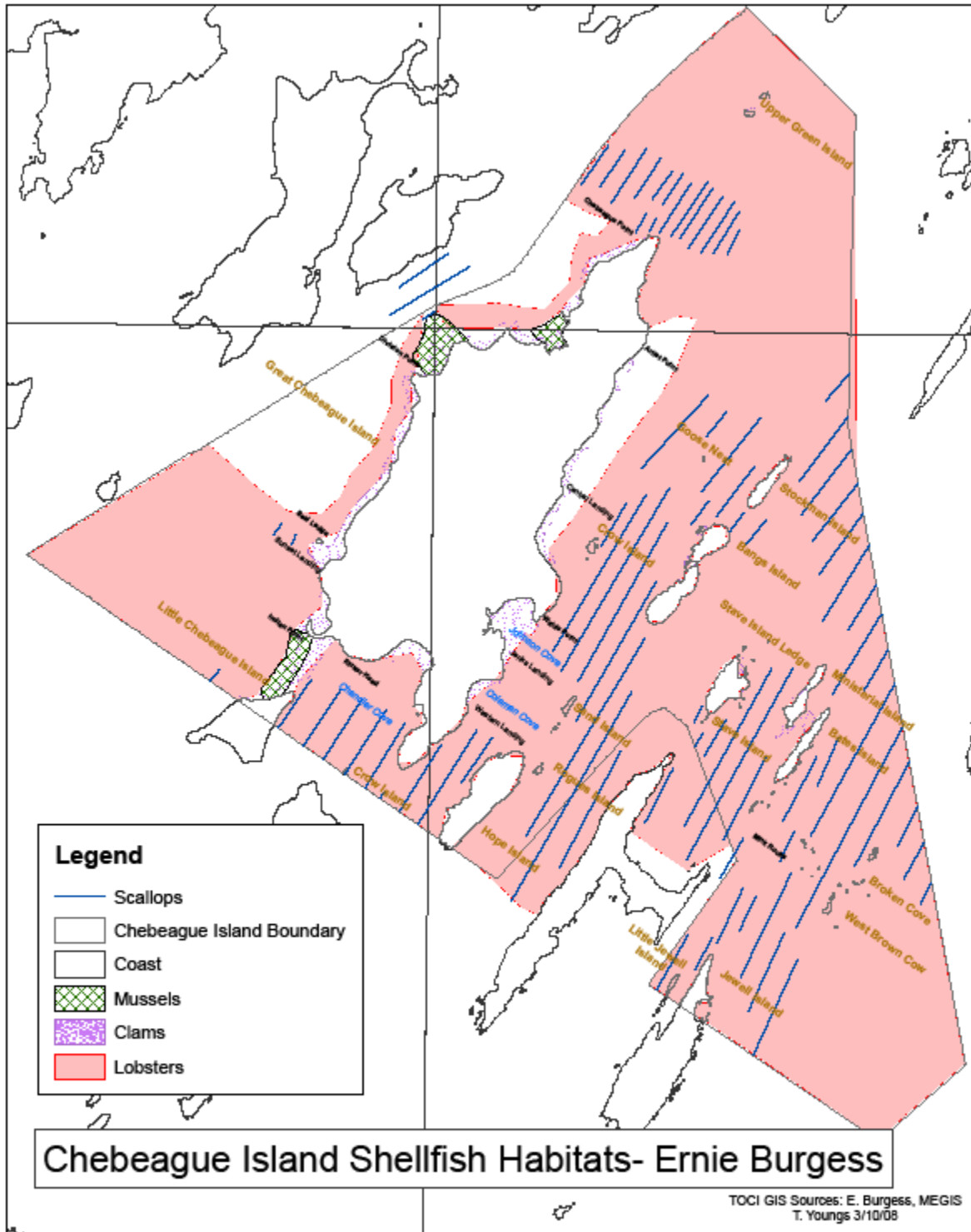
The purpose would be to anticipate and separate or mitigate conflicting uses, if possible. Lobstercatchers and other kinds of fishermen would need to identify the areas where they fish – not territories of individual fishermen, but the total area that they fish. This would define "good" lobster fishing territory experientially. This is something that Chebeague fishermen have not wanted to do. But the Island Institute has begun working with fishermen in Penobscot Bay on this kind of mapping. Technically there is probably not enough objective data on the bottom, the currents, and the resources to determine objective criteria for judging what areas might be best for particular uses from lobstering to a route for a cable or pipeline.

Map 2 is the work of one experienced Chebeague lobsterman. It suggests that there are few sizeable areas in the Town that are not good lobstering bottom, but that scallops are found in more restricted areas. The map, however, does not include cable areas or the Town's one mussel lease, just to mention two additional competing uses for the Town's bottom.

Such a plan would give both the Town and the State information in dealing with regulatory applications for State shellfish farming leases, wind turbines, pipelines or cables in Town waters. The process of using this information could also involve working with State agencies or trying, with other islands or interest groups such as fishermen, to shape policy in the State Legislature.

¹⁶ Ron Poitras. *The Right Tack: Charting Your Harbor's Future*. Augusta ME: Maine Coastal Program and the Maine State Planning Office, 1995.

Map 2:

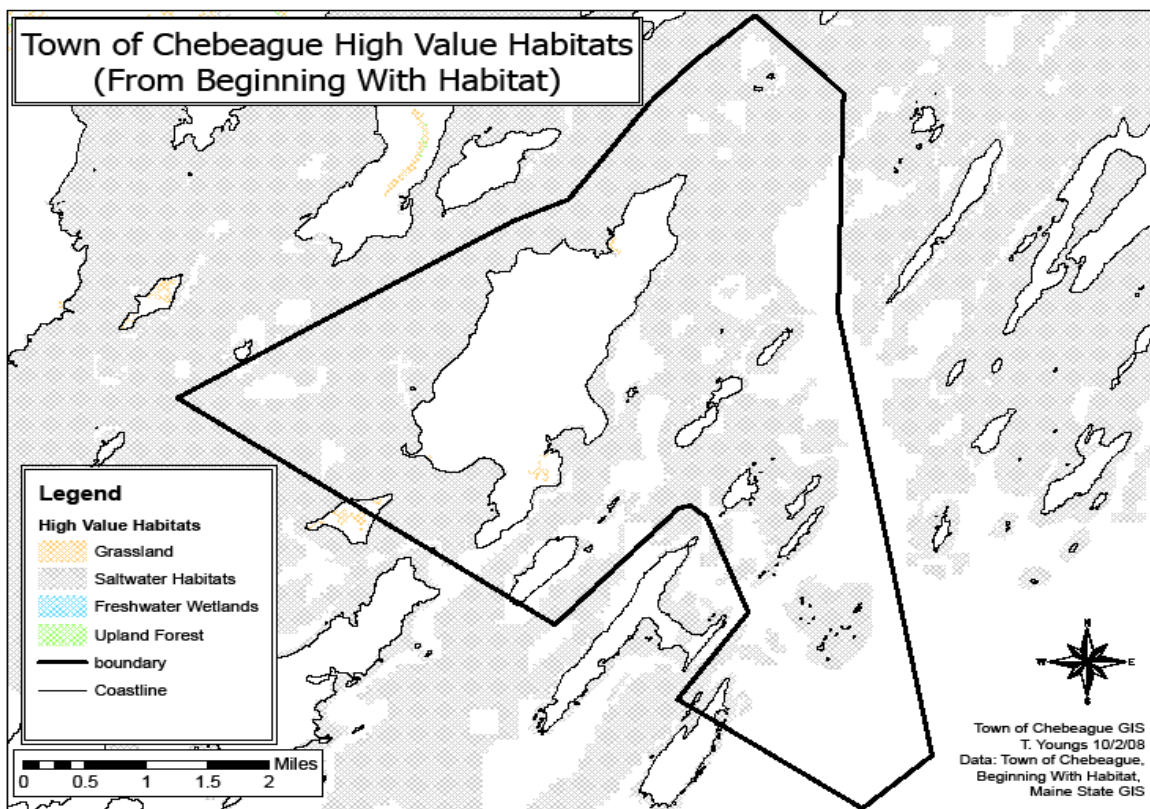


Map 2:

This chapter is not this kind of comprehensive ocean plan. This plan only suggests that the Town and its residents consider whether a planning effort of this kind would be useful in the future. However, this plan does present a much simpler “Waters Use” map that focuses on one dimension of the Town’s waters: which waters should be used and which need particularly to be protected.

Stewardship of Critical Marine Resources

Any plan for the use of the Town’s waters must deal with sustainable use and stewardship. The State’s land use guidelines focus not only on the efficient use of land for residential and commercial purposes, but also on protecting critical natural areas. These areas are called “critical” because they are so essential to the survival of valued wildlife that they need to be substantially protected from over-use and degradation. The loss of ground-fishing, urchin fishing and the present decline of scalloping all attest to the neglect of effective planning for marine sustainability.



Map 3:

The Marine Resources Inventory describes the various marine habitats in the TOCI waters and the commercially valuable species in them. Map 3 indicates that most of Chebeague’s waters are high value habitat for rare, threatened or endangered species or species with persistent declining populations designated by the U.S. Fish and Wildlife Service. The fish included in this list that

are found in Casco Bay are alewives, American eels, shad, Atlantic sturgeon, blueback herring, bluefish, horseshoe crabs and winter flounder. These are only some of the fish in the Bay, and are not generally ones that are of economic importance to Chebeague's fishermen (any more), but their habitats overlap entirely with species that are.

Again the regulation of fishing is a function of the State. Only lobstering has regular, systematized local input by fishermen. State regulations for individual fisheries are supposed to insure that only sustainable numbers of fish or shellfish are harvested. But tradition and political pressure from fishermen have kept harvests at unsustainable levels. Lobstering has been one of the few continuously productive fisheries partly because lobstercatchers have historically managed their commons. But the tremendous increase in lobster landings since 1990 has worried both fishermen and State officials, so that fishing effort is now being reduced.

Map 4, the "Use" map of the Town's waters, designates two different kinds of areas that parallel separate kinds of uses on the land. One is the designation "Critical Marine Natural Area". Other areas are designated "marine Use Area", similar to the Rural Use area on land. This plan does not envision any reorganization of fishing regulations in the State, but there are several things that the Town of Chebeague Island can do to be good stewards of the Town's waters. One is to keep pollution out of them. Another is to maintain the natural eco-systems related to beaches, salt marshes and mud flats. A third is to consider some regulation of eelgrass beds.

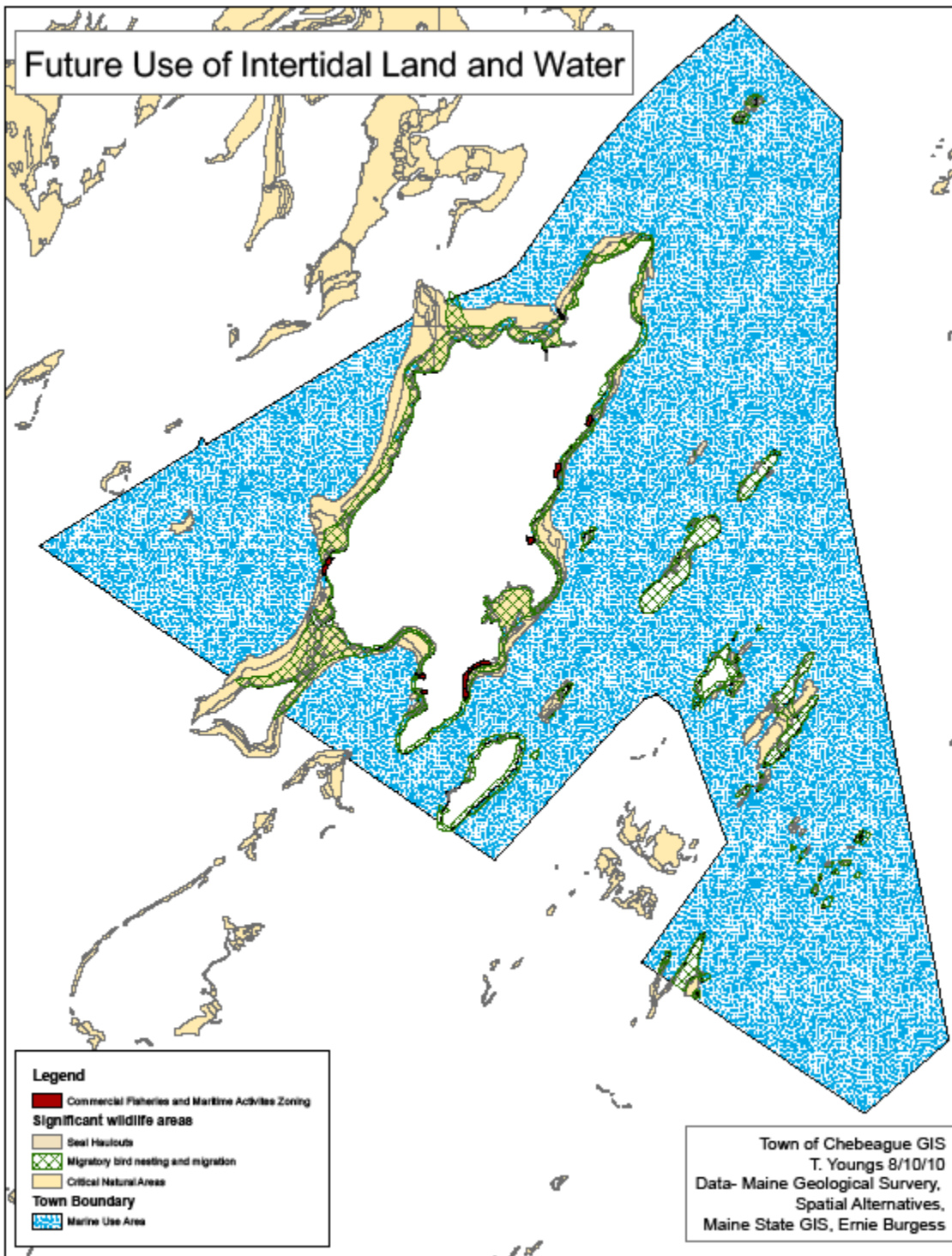
As the Marine Resources Inventory indicates, Chebeague's waters, especially on the ocean side of the island, are moderately oxygen rich and clear, as measured by the water monitoring of Friends of Casco Bay. However considerable pollution runs into the Bay from not only the mainland but from islands like Chebeague. Excess nutrients from sediments, sewage and fertilizers encourage the growth of green algae which kills marine animals underneath it. In late summer it is now found on Chebeague's most productive clam flats. Petroleum residues and pesticides also run off the land, harming marine life.

Since much of the pollution comes from the land, recommendations for reducing it are made in the chapter on Clean Waters. However, the pollution from boats and ships, particularly the sewage when they empty their heads into the Bay, is something that could be dealt with in a plan for the Town's waters.

The areas along the shores of the islands show, in detail in Map 4 the various kinds of critical marine natural areas in the intertidal zone :

Beaches are very dynamic environments. The sand shifts seasonally in the cycle of storms and calm weather. The upland edge of the beach is marked by a sand dune or berm. On Chebeague, these are not large, but they serve as a barrier that normally prevents the salt water from entering freshwater marshes behind the beach. This is an integrated ecosystem, in which all the parts must be maintained for the system to function. Beaches can be used for recreation, and as staging areas for fishing, but the State prohibits development on beaches.

Map 4:



Mud flats are of economic value to the Town for clamming. The Town has a Shellfish Warden and a Shellfish Commission who monitor and manage the flats.

Salt Marsh is not very common in the Town. It forms an integrated upland part of several important clam flats such as Johnson's Cove and the Hook, and needs to be maintained as part of the mudflat ecosystem.

Eelgrass beds play an important role in providing nursery habitat for marine animals such as lobsters, scallops, winter flounder and mussels. They occur in shallow waters where the grass can get plenty of light. The eelgrass also traps suspended sediments and so helps to clear the water and let the sunlight penetrate.

In the past eelgrass suffered from a long-term decline as result of disease, but it seems to have recovered from this. The primary threats to it today are shading from wharves, physical harm and pollution. The grass itself can be cut off or uprooted by mooring chains and, in some places, dragging for mussels. Excessive nitrogen flowing into the Bay from fertilizers and sewage on the land can create algae blooms that cut off sunlight and kill the eel-grass.

Since much of the eel-grass grows below the normal low-tide line it is in State jurisdiction. The State has no policies for specifically protecting eel-grass, though review organizations like the Army Corps of Engineers, weigh seriously the impact of projects like wharves on eel-grass beds, as Chebeague found in the review of a proposal for a CTC wharf at the power plant on Cousins Island. But since eelgrass beds do occur in waters close to the shore, they could be given particular attention in the process of designating mooring/anchorage areas. In addition, it would be possible to require more eel-grass-friendly mooring gear.

The rest of the Town's waters are designated as a Marine Use Area parallel to the Rural Use Areas on the land for farming and forestry. These are extractive industries, just as fishing is on the water. Like farming and forestry, fishing can be sustainable or not. The purpose of designating these areas is to highlight the need to at least encourage sustainable use.

The existing Shoreland Zoning classifies a few areas of the Town's shoreline as Resource Protection Zones where only minimal-intensity uses such as recreation are allowed by right and economic uses such as aquaculture and timber harvesting are allowed by permission of the Planning Board. The current RP areas are: Indian Point, some beach and wetlands at Chandler's Cove Beach, Sandy Point, the entire shoreline of Johnson Cove, and the wetland and beach at Rose Point. The Land Use chapter has recommended adding the beaches and freshwater wetlands at Springettes and Bennett Cove.

It would be possible to designate the areas shown on Map 4 as Resource Protection. This would exclude the Commercial Fisheries/Maritime Activity zones where intensive water-dependent uses are allowed. This designation would only apply to the shore-line itself, not to the larger Shoreland Zone.

This designation would only be reasonable, however, if commercial and recreational clamming were allowed in the RP Zone.

It is also possible under the Shoreland Zoning for a Town to designate coastal access areas, scenic areas and areas with archaeological remains as Resource Protection as well.

4. Running the Town

In the Town of Chebeague Island, the extension of public infrastructure is a very weak tool for shaping development. In communities with public sewers and water lines planned extensions of these services, as well as the extension of roads, can shape where new development will occur, as well as insuring that new development is adequately served. On Chebeague none of these tools are available. There are no public sewers and most houses have private wells. Even the primary road system on Great Chebeague is essentially complete.

The ferry services could potentially encourage growth by making access to the island easier. However, the CTC is very much constrained in its growth by the legal settlement with the residents of Cousins Island and the agreement with Yarmouth. For the Casco Bay Lines, the down-bay service is required by its enabling legislation but is not seen as a growth area.

The rest of the Town's infrastructure and public services – the Transfer Station, the Fire and Rescue Department, the Cemetery, the Stone Wharf and the Public Service Department – are basic and adequate but are more likely to have to adapt to whatever development occurs over the next 10 to 15 years rather than playing a role in shaping it. The Town also faces the same problem that many other service providers on the island do of needing to have the capacity to meet much higher demand in the summer than during the rest of the year.

Because transportation, both to the island and on the island, and public facilities play so little role in promoting or shaping growth on Great Chebeague, and none at all on the outer islands, they have been grouped together under the heading of "Running the Town". Indeed, they are critical for the day to day operation of the Town. One aspect of the CTC ferry service, the cost, does have implications for growth on the island. It is dealt with on the chapter on the Cost of Living.

In a number of cases, buildings or equipment for transportation and public services may need to be funded through the capital budget. In addition, the Town is very much aware of the need for these services to be run efficiently. So there are some recommendations for improving them that belong in the Comprehensive Plan along with the discussion of the Town's fiscal capacity to provide them.

4.a. TRANSPORTATION TO THE ISLAND: FERRIES

Transportation to the mainland, including transportation of both goods and people, has been a major issue for Chebeague for more than 50 years and will probably always be a central concern for the island. Many of the issues about this transportation revolve around the two ferry services that serve the island. The recent histories of Chebeague's two ferry lines, the Chebeague Transportation Company and the Casco Bay Lines, are described in the Transportation to the Mainland inventory.

Map 1 shows the ferry routes, landing sites and parking lots that serve Chebeague. It also indicates the routes used by barges to Yarmouth and Portland.

It is also useful to remember that ferries are not the only form of transportation to and from the island. Some people, particularly residents on the outer islands, travel to and from during the summer in private boats. On the mainland side there are a number of places where moorings could be set and there is some limited space at the Cousins Island Wharf. However, the practice of using private boats is not very common in the winter. It is also possible to get service to and from Chebeague 's islands by Portland Express water taxi. The Marie L., based on Chebeague, also takes groups on tours around the upper Bay.

In addition, both ferry companies carry freight, as do several barging-only companies such as Lionel Plante (Peaks Island) and Island Transporter (Rockland). Barge landings are discussed in the chapter on Wharves, the Working Waterfront and the Outer Islands.

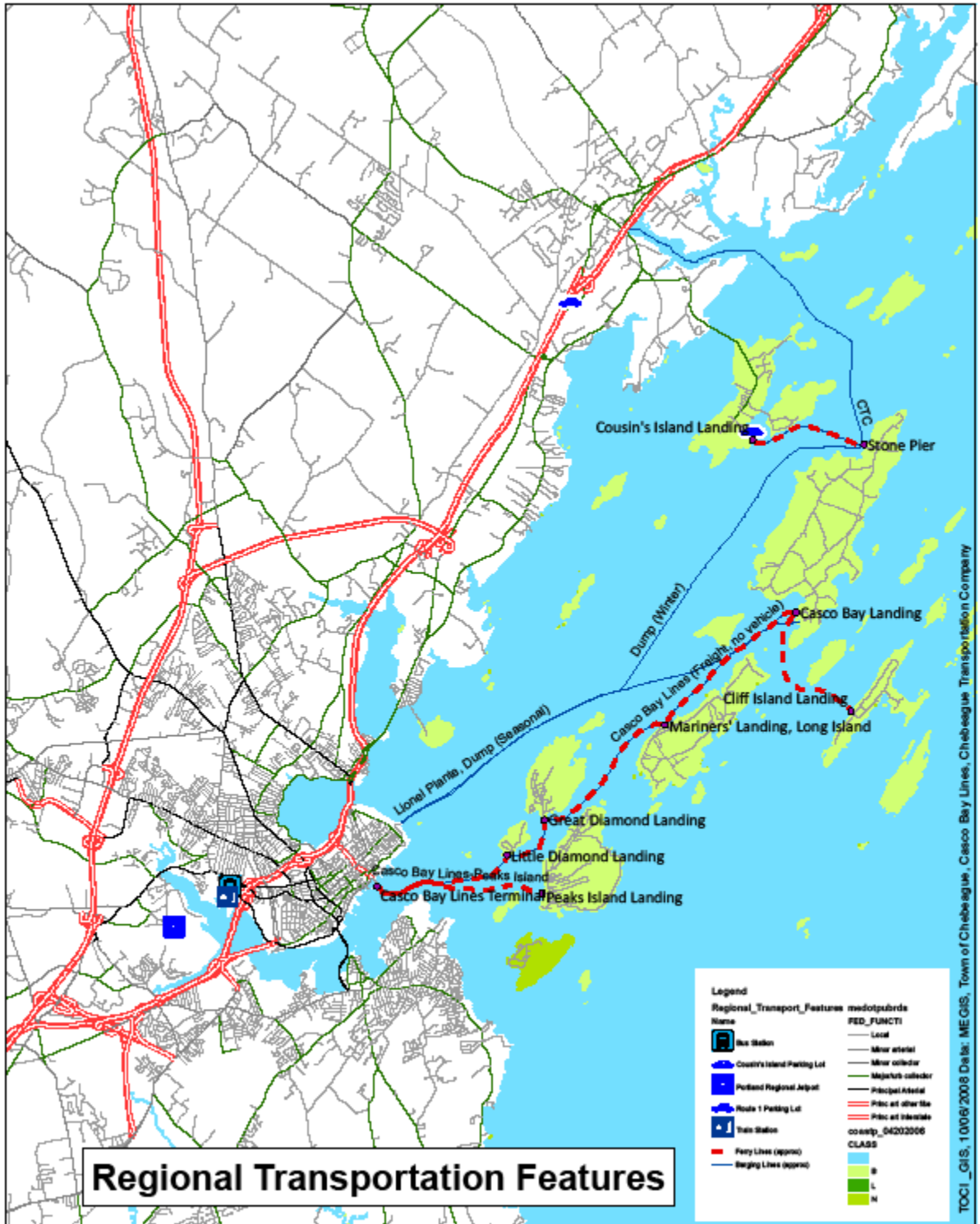
By 2009 the question of the survival of the CTC ferry service and its mainland parking operations, issues that had been central issues for the island since the 1980s, had been resolved, at least for the moment. In this Plan the focus shifts to the different, though also much-discussed issue of whether the capacity and location of public wharves and barging ramps on Chebeague is adequate for the long-term future of the island. These issues are discussed in the chapter on Wharves, the Working Waterfront and the Outer Islands. This chapter focuses on the two ferry companies' roles in the Town's transportation system. Since neither ferry is owned by the Town the recommendations in this plan are quite limited.

It may also be useful at the beginning of this section to make a couple of points about the role of transportation to the mainland in the community. The two ferry companies provide essential services to the community. Without their passenger and various freight services, life on Chebeague as we know it would be impossible. They also contribute to the Chebeague economy. And finally they may develop stronger relationships with the Town government though this is much more true for CTC than for CBL.

Goals and Recommendations

The Goal is: EXPLORATION OF THE FUTURE RELATIONSHIP BETWEEN THE TOWN OF CHEBEAGUE ISLAND AND THE CHEBEAGUE TRANSPORTATION COMPANY AND THE CASCO BAY LINES.

Map 1:



Recommendation: Given Chebeague's dependence on its ferries, the Town should actively work with both companies to insure that its interests are effectively represented in their decision-making.

THE TOWN AND CTC SHOULD ENGAGE IN A DISCUSSION ABOUT WAYS TO REDUCE THE COST OF TRANSPORTATION TO THE MAINLAND BY INCREASING REVENUES, LOWERING COSTS OR HAVING A SUBSIDY.

Recommendation: The Town should closely follow CTC's reorganization plans and make a decision whether to encourage movement toward CTC becoming a Transit District with a closer relationship with the Town.

Recommendation: If the Town considers providing any additional operating subsidy to CTC to lower parking fees or ferry fares, it needs to consider what impact the subsidy is likely to have on future growth in the Town.

Discussion

The Role of the Ferries in the Chebeague Economy

CTC is a more central concern in this plan in part because it is an important part of the Chebeague economy, while the Casco Bay Lines is less central but still important.

In 2009 CTC had 25 employees, nine of whom were full-time captains, deckhands or administrative personnel. Of these full-time employees, seven lived on the island. The remaining 16 were part-time bus drivers or fill-in deck hands, three of whom are from the island. The Company provides full-time employees with a variety of benefits including a pension plan and supplemental health care coverage.

In 2009, CBL had 40 year-round employees and 79 seasonal ones. None of them live on Chebeague. However, CBL makes regular freight shipments that are needed by island businesses such as the Store and the Inn, but which are not large enough to require a barge trip. It also has the mail and UPS/FEDEX contracts, ships food from Portland supermarkets to the islands and carries other things such as propane tanks and redeemable bottles and cans.

In fact, both ferries are critical to the survival of the island economy because, quite aside from carrying passengers, they bring out most of the goods for businesses and individuals that are supplied from the mainland – groceries, plants, appliances, car parts, clothes – virtually anything that is not grown or harvested on the island. Barges owned by CTC and other barge companies bring the rest. Less noticed, the ferries and barges also take off all of the refuse that island generates. CBL, for example, transports all the redeemable bottles and cans into a recycling center in Portland.

The Relationship of the Ferries to the Town

The Casco Bay Lines has very little formal relationship with the Town of Chebeague Island. On the other hand, CTC and the Town are highly interdependent, a relationship that sometimes

produces conflict, but also makes CTC lean toward the idea of, at some point, becoming a Transit District under the Town.

CBL

CBL has no formal ties to the Town. In 1980 the private Casco Bay Lines, based in Portland, went bankrupt. And in 1981 the Legislature created the Casco Bay Island Transit District (CBITD). This “quasi-public” transit district is an independent agency with an elected Board of Directors with one representative (taxpayer or resident) from each of the down-Bay island, three from Peaks, two at large island members, one person appointed by the State and one, by the City of Portland.

Chebeague is a small piece of CBL’s operation. The island provides 1 percent of the riders on the CBL, but is a steady, year-round user of CBL’s freight service.

A major difference between CBL and CTC is that the former gets 18 percent of its operating revenue from State and the Federal subsidies. It can also apply for capital funds for boat replacement to both the State and Federal governments.

The Chandler’s Cove pier at which the CBL lands belongs to the State which last replaced the facility in 2000. The pier itself is designed for and used only by CBL. The Town owns one float next to the pier that is used by fishermen and other people coming ashore on Chebeague from boats.

CTC

CTC is a private, stock-holder-owned company. A for-profit transportation company is now quite unusual in the Portland region and in Maine in general. As such, CTC must operate and replace its capital stock such as boats and buses on the revenues it can earn. It does not qualify for any grants or subsidies from the state or Federal governments. Most residents of the island own stock in the company. CTC owns its two ferries and its barge and push-boat. It rents two parking lots on the mainland. Its Route 1 lot is leased from the Town of Cumberland. The State owns the Blanchard Lot and right-of-way to the lot, leases the property to the TOCI which, in turn, subleases it to CTC. CTC uses the revenues from the mainland parking and, more significantly from its barging operation to subsidize the cost of running the ferry itself. It also owns and runs the buses that serve the Route 1 parking lot.

However, CTC depends significantly on the Town in a variety of ways. During the struggle to insure permanent ferry parking on the mainland in the 1990s, when Chebeague was still part of Cumberland, the Town played an active role in helping the company work with both the Town of Yarmouth and the State. In 1989 the towns of Yarmouth and Cumberland reached a legal agreement which stipulated things like the number of trips CTC could run, its hours of service and the size of the ferry. This agreement was renewed in 2008 between Yarmouth and the new Town of Chebeague Island.

Much of the marine infrastructure that is used by the CTC also is provided by the Town of Chebeague Island. On the island the Stone Wharf which is used by the CTC is owned and maintained by the Town, as is the parking area that serves the wharf. CTC is a major, but not by

any means the only user of the wharf. The Town also builds and maintains all the floats at the wharf, including the one used by CTC.

CTC provides several significant public services to the Town. It provides transportation free of charge at any time of the day or night for the Rescue Service, taking patients to meet the ambulance at Cousins Island. It does the same for police coming to and from the island. It also holds the contract for transporting island children to school on the mainland. It provides free parking and transportation for funerals, and for people visiting relatives during extended periods of medical treatment. Cumberland had an arrangement with CTC to transport Town officials back and forth free of charge. But this is not the case with the Town of Chebeague Island.

Since 1993 there have been community-wide discussions about how CTC might best be organized to fend off attacks and take advantage of available resources. In 1993 the Community Transportation Forum considered the pros and cons of a variety of governance models, from the existing for-profit private company to a non-profit, to a quasi-public transit district, to a municipal transit district, to ownership by the Town. At various times in the past, including during the secession movement, there was discussion of having the Town either take over and run, or provide an explicit operating subsidy to the Company.

A discussion between the CTC Board and the Comprehensive Planning Committee indicates that the CTC is working on a plan to reorganize the company to make it eligible for the same kind of state and Federal aid that is available to CBL. Initially, perhaps as soon as 2011, they expect it will become a non-profit. Then they hope it may become a quasi-public or municipal transit district with a much closer relationship to the Town government.

Because the cost of transportation, primarily on CTC, is one of the things that discourages people, especially working families, from moving to the island and creates a burden on those who already live here, the Planning Committee is recommending that the Town explore with CTC how these costs might be reduced. Such discussions would probably, inevitably, raise the question of whether the relationship between CTC and the Town should change.

Relationship between CTC and CBL

Officially, there is no relationship between CTC and CBL. Indeed, the past history is one of competition and bad feeling which resulted in the development of separate areas of operation for each ferry. Casco Bay Lines has a monopoly on carrying passengers south of Tukey's Bridge dividing Portland from Falmouth. CTC can only carry passengers outside of that area.

However recently CTC and CBL have discussed sharing back-up boats. CTC's back-up boat is the Pied Piper. CBL owns five vessels including a car ferry, the Machigonne II, for Peaks Island. Generally four of the boats are in regular operation and the other is used when a regular boat has to be worked on or is being used for a charter. It might also be possible to make CTC's Pied Piper available to CBL for charter cruises.

4.b. TRANSPORTATION ON THE ISLAND: ROADS

Chebeague is unusual, though like other unconnected islands, in having no road connection to any other town, no through traffic, no state roads and a multi-modal trip (car, passenger ferry, for many, bus, and car) for any trip to the mainland. Because of this unusual connection to the rest of the State transportation system of roads and mass transit, the Town is essentially invisible in the Portland Area Comprehensive Transportation Plan, *Destination Tomorrow 2006*.

However, Great Chebeague is large enough that walking, biking and golf carts, especially in the winter, are not adequate modes of local transportation in the 21st century. So virtually all households have at least one car on the island and one on the mainland. The island has a well-developed system of 15 miles of fairly narrow, rural, public roads. This chapter is concerned particularly with the nature, condition and safety of those roads for pedestrians, bike riders and drivers.

The issues related to alternatives to automobiles on the island, the trip to the mainland, and the impact of this transportation system on the mainland is discussed in the *Inventory of Transportation to the Mainland* and the Plan Chapter on Ferries. The only area where there are significant congestion problems on Chebeague is at the Stone Wharf. This is discussed in the Working Waterfront Chapter.

Goals and Recommendations

The Goal is: IMPROVED ROADS

Recommendation: Carry out and adjust as necessary the 2010 Road Plan.

Recommendation: Estimate typical cost of possible upgrades, for example, widening roads, paving gravel roads or returning paved to gravel roads. Allocate money for engineering help for this.

Recommendation: Determine what kind of road upgrades residents want to see in light of options and costs.

Recommendation: The Town should evaluate and prioritize drainage areas that need work and acquire drainage easements when the opportunity arises.

Recommendation: Develop and adopt road standards for public and private roads.

The Goal is: DEVELOPMENT OF FAIR AND COST-EFFECTIVE TOWN POLICIES FOR ACCEPTING AND/OR MAINTAINING PRIVATE ROADS

Recommendation: Road standards for public and private roads should be generally similar.

Recommendation: Develop a policy for maintenance and winter plowing of public and private roads.

The Goal is: ACCURATE INFORMATION ABOUT THE TOWN'S ROADS

Recommendation: Compile accurate road descriptions and documentation for all Town roads.

Recommendation: Act on all possible paper streets before 2017. Allocate funds for research, survey and legal services on this issue

The Goal is: SAFETY OF THE MULTIPLE USERS OF THE TOWN'S ROADS

Recommendation: Evaluate current locations of street lights and determine, with public input, where there should be more or fewer.

Discussion

While Chebeague was part of Cumberland, the expense of work on the island roads made them a low priority for the Town, though this was remedied somewhat between 2000 and 2007.

Because so little attention has been paid to Chebeague roads over many years, there are three issues that need long-term planning attention:

- The “deplorable” current condition of most of the public roads and what work needs to be done to bring them up to some acceptable minimum standard.
- What standards does the island community want its roads to be built and maintained to? Now the roads are fairly narrow and are shared by cars, pedestrians and bicycles. Should some or all be wider? Should there be provision for bikes and pedestrians in separate
- lanes? Should they be paved, gravel or some combination, as at present? Should private roads be similar to public ones?
- Where will the gravel that is necessary for road construction and maintenance come from? In the past the island has had several gravel pits but at present has little gravel that comes from the island. Gravel mining uses up gravel that forms the island's aquifer recharge areas. Can we have both gravel and adequate, unpolluted water?

In April 2010 a Task Force to Develop a Road Plan, made up of two selectmen and a member of the Comprehensive Planning Committee, made a report to the Town on the present condition of Chebeague's paved, public roads along with options for maintaining and repairing them. The Comprehensive Planning Committee agrees with the strategy laid out in this plan.

On the issues of what standards the Town wants to set for its roads, and where the material for working on them will come from, this Plan can raise and frame but cannot make definitive recommendations on because they require additional community discussion.

The Road Network

Map 1 shows all of Chebeague's roads as they are defined for the 911 emergency response system. This includes not only public roads but any private road that has houses on it. Table 1 lists whether roads are public or private and Map 2 shows where they are. Today Great

Table 1: TOWN OF CHEBEAGUE ISLAND ROADS

Name	Ownership	Width	Paved Ft.	Gravel Ft.	Class
Aaron's Wharf Road					Res
Artist Point Road					Res
Ashley Lane					Res
Avon Street					Res
Back Shore Road					Res
Ballard Road					Res
Bar Point Road	Town	20 feet	825		Res
Ben Webber Road					Res
Bennett's Cove Road	Town			898	Main
Birch Lane					Res
Bluff Head Road					Res
Broad Reach Road					Res
Brookwood Lane					Res
Buxhill Boulevard					Res
Capps Road	Town	17.5 feet		695	Res
Carter's Point Road					Res
Casco Bay Landing Road	Town	19	739.2		Main
Central Landing Road					Res
Chandler's Cove Road	Town	19	633.6		Main
Chandler's Field Road	Town			x	Res
Charleston Road	Private Easement	12		1750	Res
Church Lane					Res
Clugston Drive					Res
Cordes Road	Town			792	Res
Cottage Road	Town	18	3,696		Cross
Crossman Lane					Res
Curit Farm Road					Res
Deer Point Road					Res
Division Point Road	Town	20	1,900		Cross
Durgin Lane					Res
East Shore Drive	Town		1,531		Res
Fenderson Road	Town	14	215	788.2	Res
Firehouse Road	Town	19	2,165		Cross
Flag Avenue					Res
Grange Road					Res
Great Cove Road					Res
Hamilton Hotel Road					Res
Haskell Drive					Res
Hill Top Lane					Res
Huddum Circle					Res
Indian Point Road	Town			1,690	Res
Island View Road					Res

Jenks Road	Town			1,742	Res
John Small Road	Town	19	5.940		Main
Juniper Lodge Road					Res
Landfill Road	Town	19	305		Main
Lessing Road					Res
Littlefield Road	Town	13		3,379	Cross
Meeting House Lane					Res
Moulton Beach Road					Res
North Road	Town	21	13,250		Main
Niblic Circle					Res
Oak Lane					Res
Old Cart Road	Town	21	1,005		Res
O'Neill Road					Res
Petticoat Lane					Res
Pond Road					Res
Proctor Drive					Res
Ricker's Head Road					Res
Ridge Road					Res
Rose Point Road	Town			2,059	Res
Roy Hill Road	Town			3,432	Cross
Ruel Road					Res
Sandy Point Road					Res
Sawyer Road					Res
School House Road	Town	20	2,170		Cross
Secret Road					Res
Sherman's Road					Res
Soule Road	Town			1,214	Res
South Road	Town	20	18,075		Main
South Shore Drive	Town			1,425	Res
Springettes Road					Res
Spruce Point View Road					Res
Sunset Road					Res
Trower Lane					Res
Waldo Point Road	Town			580	Res
Walker Road					Res
Western Landing Road					Res
Wharf Road	Town	22	1.385		Main
Will Ross Lane					Res
Willow Street	Town			264	Res
Worthen Drive					Res
Zaugg Lane					Res

Chebeague has 15 miles of public roads. Of these 10.8 miles are paved, leaving only 4.1 miles of gravel crossroads and roads down to the water. These roads make up a fairly efficient network for moving around the island and getting easily from one place to another. For a rural area there is good “interconnectivity” meaning that you can get fairly easily from one end of the island to the other and across it in between.

There are three types of roads on Chebeague (Map 3). “Main” roads like North, South, John Small and Wharf Roads have about 20 feet of pavement and carry a fair amount of traffic much of the length of the island. They are paved and have intersections with other roads. “Cross” roads like Firehouse or School House Roads are shorter, somewhat narrower – about 18 feet but sometimes less, don’t have intersections and carry less traffic. Both main and crossroads carry enough traffic to be “public” rather than “private” roads, and are owned and maintained by the Town. Some carry enough traffic to be paved.

The third kind of roads, “residential” roads, are the smallest and carry the least amount of traffic, taking a few people to a small number of houses. Most go down to the shore from main roads. Almost all are narrower and unpaved.

The network of main and cross roads is fairly complete. As new development occurs, new residential roads, and occasionally a “cross-road” sized road will be needed.

Traffic

The Town Clerk says that there were 350-400 vehicles in island use in 2008. This includes both vehicles used year-round and those owned by summer residents. Construction workers and summer visitors often barge cars and trucks over from the mainland for limited periods of time. In the summer there may be as many as 600 vehicles on the island at any given time.

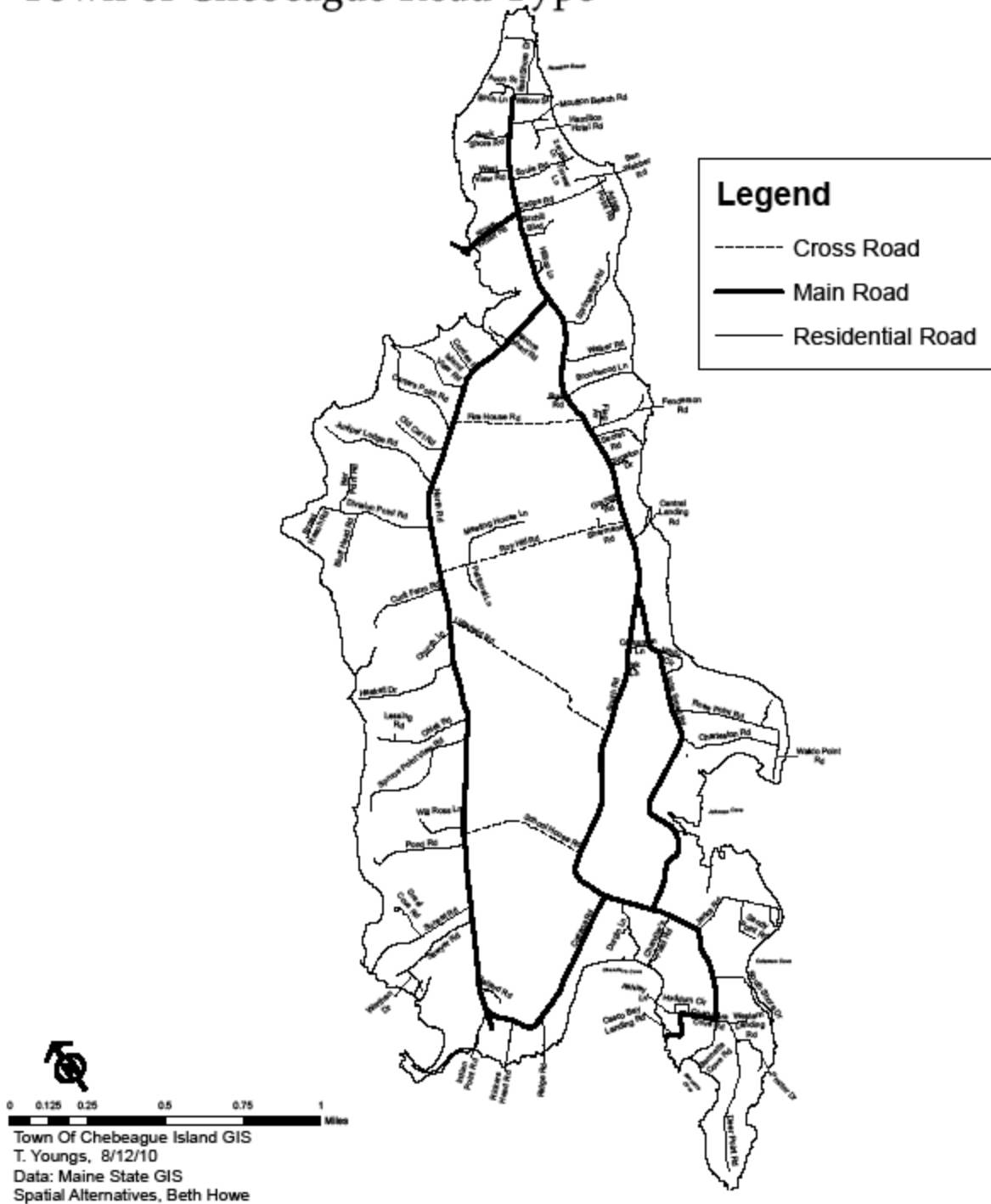
Vehicles include not only cars and trucks of various sizes, but also golf carts and several other small, electric vehicles. Chebeague does not license bicycles, so there is no count of how many of them there are; but there are many. In addition, some very large trucks, such as oil tank trucks, dump trucks, the schoolbus and the fire engines, live on the island. Others are barged over from the mainland and driven on Chebeague’s roads. These include the trucks for hauling the dumpsters to and from the Transfer Station, various construction vehicles including cement mixers, and the truck for pumping out septic systems.

Where is the heaviest traffic? Traffic can be looked at in terms of volume and also in terms of weight. 20 cars per day may not be a lot with respect to road maintenance but 1 cement truck per month might be. There are also a few predictable routes and areas that will receive higher volumes and heavier traffic:

Bennetts Cove – This landing is used by the barge to bring the solid waste hauling vehicles as well as construction related vehicles on a regular basis.

The Solid Waste Route - The route from Bennetts - South Road – School House – North Road – Transfer Station Access Road could reasonably be considered a route used more than any others on the island for heavy traffic. Solid Waste hauling in the summer can

Town of Chebeague Road Type



Map 3:

occur twice a week, and is probably twice a month in the winter. This route currently has some of the worst paving conditions and also some of the better paving conditions on the island. The transfer station access road and adjacent area of North Road get extra traffic from residents dropping off trash at that facility.

Boat Yard (John Small Road) – Given new development at the Boat Yard, including the Niblic and the Post Office, this area of John Small has seen increased traffic. The oil delivery trucks are currently kept at the Boat Yard, and while heavy vehicles may not be the major concern, traffic volume may be. The paving conditions on John Small are now some of the worst.

The Center (South Road) – The Store, Library, and Hall also naturally attract more traffic volume than other areas.

The Public Works Building (Littlefield Ave.) – The public works facility has heavy vehicles traveling to and from it on a regular basis.

The Wharf Road – Has a high volume of traffic. CTC barging operations there frequently bring moderately large trucks, and sometimes larger barges bring the Transfer Station vehicles in at the Stone Wharf.

Road Conditions

Most of the island's roads are deplorable, one of the biggest frustrations I had with Cumberland governance. I would like to think that our existing tax base can support a meaningful re-paving effort. (Plan survey respondent).

Good roads have to be built and maintained to be “good”. A good road must have a good base of gravel that drains well. A rule of thumb is $\frac{3}{4}$ -1 inch of gravel for every foot of traveled way width; so a 20-foot wide road should have a minimum of 15 to 20 inches of gravel base. The material in the road should be of good quality and well compacted. The road must be designed to carry the largest vehicle that would be driven on it – in Chebeague’s case, the trucks carrying dumpsters from the Transfer Station, dump trucks or concrete mixers. And the road must be designed to drain well. This includes having a crown that sheds the water and adequate shoulders, ditches and culverts to carry water away from the road and not allow it to accumulate in the road base. There is little point in resurfacing a road with poor drainage – the potholes will simply return.

In addition, the least costly way to have good roads is to do good routine, preventive maintenance on roads that are in good condition already. Once roads have been allowed to deteriorate, bringing them back to good condition through rehabilitation or reconstruction, costs many times what it would have cost to maintain them. After the Patriot’s Day storm in 2007 Cumberland used FEMA money to rebuild Roy Hill and Bennett Cove Roads. A few years before that South Road was resurfaced from Wharf Road to Roy Hill Road. These are roads that now need to be well maintained to retain the value that was recently put into them.

The Task Force to Develop a Road Plan inventoried 9.2 miles or nearly all of Chebeague's paved roads (Map 3) using a methodology called the Road Surface Management System (RSMS) developed by MDOT. The data collected by the Task Force was entered into this software which then calculated summary measures of the condition of the roads, what kind of maintenance they needed and options for that, including costs.

The result indicated that Chebeague has 2.84 miles (31 percent) of road that is in good shape, needing only, at most routine maintenance. At the other end of the spectrum, it has 4.31 miles (47 percent) of roads in poor condition. These need either complete reconstruction or major rehabilitation. In between are 2.05 miles (22 percent) of road that are deteriorating but could be brought back from this decline by timely preventive maintenance. Segments of road were prioritized according to the kind of traffic they carry, their importance, and the nature of the surface – balancing the need to do preventive maintenance with routine maintenance.

After holding a public hearing on the plan, the Selectmen included money in the 2010-2011 capital budget to begin this work.

Road Standards and Public and Private Roads

What difference does it make that there are three kinds/sizes of island roads? Different roads carry different amounts and weights of traffic and need to be built with that in mind. This is usually done by having “road standards” – minimum standards for the construction of new roads of different sizes and purposes.

As was indicated above, the system of “main” roads on Chebeague is probably complete, though some reconstruction might take place for which standards might be needed. But any new subdivision like Division Point/Division Shores would probably require a “crossroad” like access road and several residential roads. Without road standards the Town would be unable to control the size or structural adequacy of these roads. If they became part of the Town-owned system of roads, as Division Point and Bar Point Roads have, this would be particularly important since it would be more costly for the Town to maintain inadequately designed roads.

The main and crossroads on Chebeague are all public – the Town fills their potholes, digs out their drainage ditches, maintains their culverts and plows them in the winter. Some “residential” roads are maintained and plowed by the Town, at least sometimes because they serve “a significant” number of year-round houses. But there is no set standard for how many year-round houses there must be for this to happen. Many other “residential” roads on Chebeague are not owned, maintained or plowed by the Town.

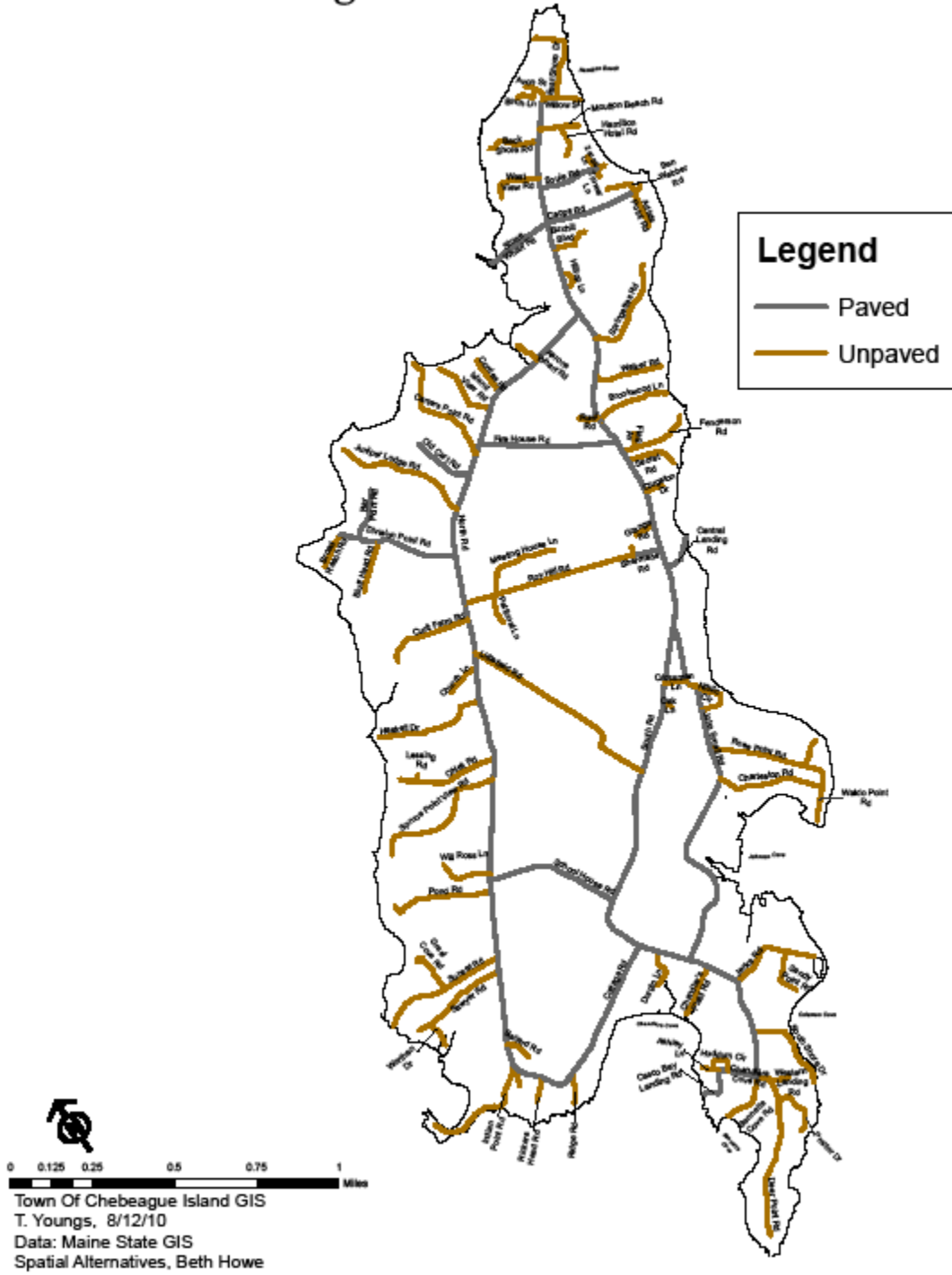
At present Chebeague has two kinds of road standards inherited from Cumberland. One set is overkill for a rural place like Chebeague. On the other hand, the other is exceptionally low.

The first covers new roads built in residential subdivisions, requiring that the minimum size for a public road ROW be 50 feet, with an asphalt pavement width of 20 feet, and 4 foot shoulders on each side. This is about the same size as an island main road rather than an island residential road.

The second standard covers private roads. This leaves the determination of the nature of these roads entirely to the property owner and the Town Code Enforcement Officer:

Map 3:

Town of Chebeague Road Surfaces



In the IR and IB zones, an applicant shall submit to the Code Enforcement Officer an application for a private right-of-way required to provide access to a structure located within that zone. The application shall specify the location of the proposed right-of-way, the proposed width, the materials to be utilized in the construction of the road, grades, provisions for drainage, and sight distances at any turning radius. The Code Enforcement Officer shall approve any plan that makes adequate provision for these items, provided that the Fire Chief approves the application for sufficiency of access for emergency vehicles.

The problem here is that these roads often serve sizeable parcels of land, and over the years the parcels are gradually subdivided further so that a single house becomes two or three or six. A driveway that may have been adequate for a single summer house is not adequate for, say, six houses, some of which are occupied year round. Not only is collective maintenance of the road difficult to organize, but roads that were built to minimal standards are more difficult to maintain. The most significant problem is that access for emergency vehicles may be quite difficult.

The result of these existing “standards” is that there are major differences between public and private roads on Chebeague. Some years ago, the residents of Deer Point Road petitioned the Town of Cumberland to take over and maintain/improve their road because of the poor condition of the road and the number of year-round residents living on it. But the Town refused because the road did not meet even the minimal standards for a public road on Chebeague, and of the cost involved in improving it would have been substantial.

Now that Chebeague is an independent town and has begun to focus on improving its road maintenance, these mainland expectations about island road standards, still written into our ordinances, can be revised so that they reflect the expectations of island residents.

Vinalhaven and Islesboro have separate but not very different standards for both public rights of way and private ones, but neither makes any distinction between “main” and “residential” roads. These and other ordinances could be sources for ideas if The Town of Chebeague Island decides to adopt road standards. As Vinalhaven’s Subdivision Ordinance says, its standards for both public and private roads “are subject to the overriding requirement that safe and convenient emergency vehicle access to all lots shall be provided and maintained.” Exactly how that is arrived at should be a matter for public discussion.

The Need for Gravel

As the sections on road conditions and road maintenance indicate, the critical elements of a good road are good drainage and sound construction. Building a road is not just a matter of clearing away trees and stumps, leveling the ground and paving it. Roads, whether paved or gravel, must be built up of layers of different sized gravel in a 15 to 20 inch base, carefully compacted to be strong but also to provide adequate drainage.

Chebeague has had a number of Town gravel pits in the past, and currently has a private one. However, these are mostly worked out, so that today, much of the gravel needed for roads is brought from the mainland by barge. There is periodic discussion of opening another Town gravel pit, and several sites have been suggested.

The gravel is a critical element of the island’s aquifer recharge process. It holds and filters water as it percolates down into the water table. If the gravel were not there the ground could not

perform this function as effectively. So the more gravel that is mined, the less effective the aquifer recharge area will be. In addition, the mining reduces the “overburden” – the amount of soil that covers the aquifer. With thinner soil, the chances are greater that pollution could penetrate into the aquifer.

This suggests that on an island with a sole source aquifer, the pros and cons of mining for gravel should be carefully weighed. Some Towns prohibit gravel mining in aquifer recharge areas. In the case of Chebeague, this has to be weighed against the widespread distribution of aquifer recharge/gravel and sandy soils, and the substantial cost of bringing gravel from the mainland. There is more discussion of this issue in the Chapter on Water Resources.

Safety

On Chebeague cars and other vehicles share the roads with pedestrians and bicyclists. In the summer there are many walkers and bike riders, often walking or riding abreast until they become aware that a car is approaching.

Island residents have traditionally taken a rather laid-back approach to traffic safety that relied on the lack of traffic and common sense to keep accidents from happening. Occasional auto accidents do happen, whether from drunken driving or inattention, but this does not seem to be a significant problem. Perhaps surprisingly there are also not many car-bike or car-pedestrian accidents either. Even so, every summer the obvious risk provokes comments about people walking in the middle of the road or bicyclists riding abreast.

“Solving” this problem, however, involves a considerable tradeoff. Creating sidewalks, even “freewalks” that are not higher than the road itself, would require widening roads and would cost money. So would allowing space for a bike lane. Spending money to widen roads would find little support. If the present informal island trails were formalized and maintained, it might be possible to designate some for biking, taking some of this traffic off the roads. However, just formalizing them as walking paths will be a significant task.

Since Chebeague became an independent town, a number of simple measures have been taken to make the roads safer. State DOT evaluated what the speed limit should be and that has now been posted so that tickets can be written. A few stop signs have been added to the two informal ones at Firehouse and Roy Hill Roads where they meet North Road. The orange cones at The Center seem to have a beneficial effect on the traffic speed and might be considered in a few other areas where people and cars gather.

Chebeague has fairly narrow, rural roads with drainage ditches rather than curb and gutter. Parking is not allowed “on the street” except along Wharf Road. This generally leaves the roads unobstructed for traffic. This is particularly necessary and enforced in the winter, when snow-plowing is necessary and the banks of snow at the sides of the roads leave even less room for parked cars. Off-street parking is required for businesses and generally there seems to be enough except sometimes at the Inn.

There are 56 street lights on Great Chebeague, primarily at road intersections¹⁷. On stretches of road that have no intersections, there are few lights. In four areas of the island these are areas that have no CMP poles at all -- most of Roy Hill Road, South Road between Littlefield and School House Roads, the middle of Littlefield Road and Cottage Road from its start at North Road to the Ridge Road.

This pattern of lights raises some interesting issues. On the safety side, bicyclists riding at night with no lights may have accidents and people walking in dark clothes are at risk. Street lights also aid in snow removal by increasing the visibility when moving snow away from intersections.

On the side of aesthetics, however, telephone poles can clutter up lovely views – people particularly say this about Roy Hill Road, but it is also especially true of Cottage Road. Also street lights add to light pollution. The dark night sky on the island is one of its pleasures. While timers and motion sensors have been suggested, it might be easier to have fewer lights and educate island people about using bike lights, wearing reflective clothes and carrying flashlights when they are out on the road at night.

Parking

Aside from private businesses, and town and non-profit buildings, the only place where there is any significant amount of public parking is at the two ferry wharves.

Paper Streets

The status of Chebeague's "paper streets" is more closely related to the goal of preserving open space than it is to the use and maintenance of ordinary roads.

When land is subdivided for development the individual or company that creates the subdivision lays out streets to provide access to it. These are often deeded to the Town. In some cases development of the subdivision never takes place or is much less than the developer hoped. This was true of a number of subdivisions on Chebeague at the turn of the 20th century. In other cases the road may be built initially but later is absorbed into adjoining private property. In either case, the roads go on existing on the Town's books as "paper streets". The Maine State Legislature has adopted a law requiring towns to review all their paper streets and decide whether they want to keep their claims or let them lapse. The Town has 20 years from 1997, to complete these reviews. These paper streets can be a valuable asset to Chebeague, in particular, since they are often located in subdivisions laid out on the shore.

Cumberland commissioned Donna Damon to study Chebeague's paper streets in detail. She made recommendations to the Cumberland Planning Board on the streets in the Nubble View and Waldo Point subdivisions. Other studies on Pleasant View Park, Merriam Point, Sunset Beach/Sunset Landing, and Division Point/Division shores still need to be done and their recommendations acted on by September 2017.

¹⁷ This does not include the modern streetlights that the State installed at the State pier at Chandler's Cove.

4.c. PUBLIC FACILITIES AND SERVICES

The Town of Chebeague Island is made up of a series of unconnected islands. Only Great Chebeague has any urban-style public facilities and services such as public roads or fire and rescue service. The other islands have entirely private services but with very small populations, their need for other public services other than fire and rescue, is minimal. And fire and rescue are ones that are difficult to provide from one island to another.

As Map 1 indicates, though public and non-profit facilities are located all over the island, the Town itself does have two consolidated sets of facilities, one at the Firehouse on North Road and the other around the Church which includes the Cemetery, the Transfer Station, the brush dump and the Town Garage.

This section deals with most of the Town operated services on Great Chebeague – fire and rescue, solid waste, public works, the Town office and the Cemetery. Roads were dealt with in the previous chapter, and public wharves are discussed as part of the Working Waterfront.

Many of the public facilities discussed here are shown as “activity centers” in the chapter on Future Land Use because their renovation or expansion might require the Town to apply for State or Federal funds. In addition some recommendations are made on issues related to these services that have implications for the physical planning of the island.

Goals and Recommendations

The Goal is: ADEQATE FIRE AND RESCUE SERVICE FOR RESIDENTS OF GREAT CHEBEAGUE ISLAND.

Recommendation: Develop, maintain and implement a practical and prudent capital equipment plan for the Fire and Rescue Departments

Recommendation: Road standards adopted by the Town must provide for adequate access by fire engines and the ambulance.

Recommendation: Provide additional hydrants on existing water sources; and additional fireponds should be added to serve areas now under-served.

The Goal is: REDUCED RISK OF WILD-FIRE ON THE ISLAND

Recommendation: Educate homeowners about wildfire risks and ways to lessen them.

The Goal is: EFFICIENT AND NON-POLLUTING CENTRAL COLLECTION AND COMPACTION OF ISLAND SOLID WASTE.

Recommendation: Develop/upgrade the general maintenance plan and schedule for the facility to keep it appropriately clean, sanitary and safe for users and staff. Such a plan could include mowing the capped landfill, monitoring the wells, providing year-round water supply, washing

down the facility, pumping the 1,500 gallon holding tank under the shed and having an eye-wash station.

Recommendation: Provide ongoing education and publicity on recycling and redemption, and continue hazardous waste collection.

Goal: REDUCED VOLUME OF WASTE MATERIAL

Recommendation: Explore the use of wood in the brush dump for biomass energy generation.

Recommendation: Explore the possibility of community composting.

The Goal is: A TOWN OFFICE THAT ALLOWS FOR EFFICIENT WORK, FACILITIES FOR PRIVATE MEETINGS AND ADEQUATE STORAGE OF TOWN RECORDS.

Recommendation: Identify needs and explore options for better meeting Town Office needs.

The Goal is: EFFECTIVE MAINTENANCE OF THE TOWN'S INFRASTRUCTURE.

Recommendation: Develop, maintain and implement a practical and prudent capital equipment plan for the Public Service crew.

Goal: ENSURE THAT THE CEMETERY PLAN IS ADEQUATE FOR ANOTHER 200 YEARS

Recommendation: The Cemetery Committee and the Town should develop a capital plan for the future maintenance and expansion of the cemetery. This should

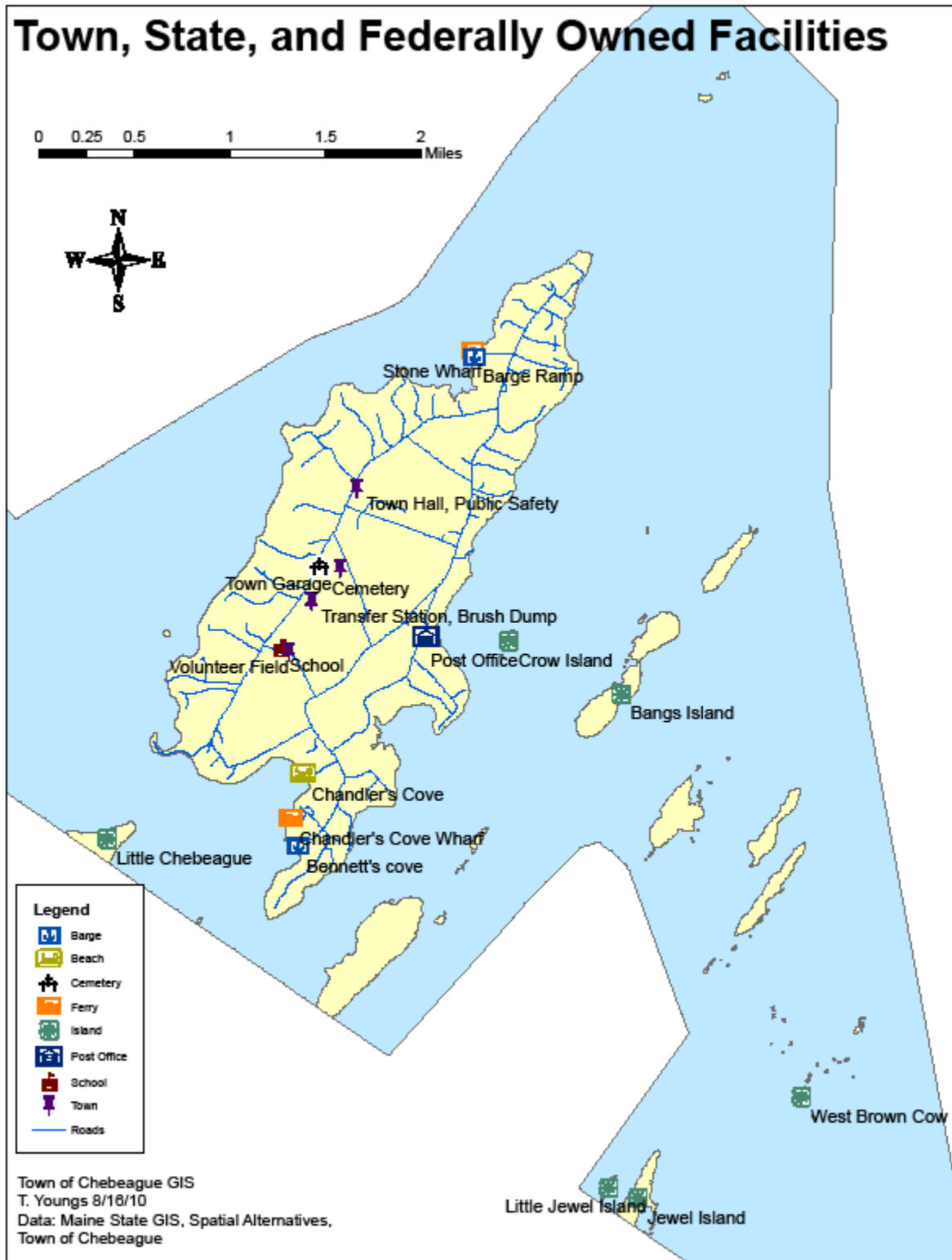
- Create an accurate map of the whole cemetery,
- Consider whether any new buildings will be needed.
- Consider other facilities such as running water at the western end.
- Consider whether to allow green burial options.
- Evaluate the need for changes in the landscaping.
- Evaluate the need for rehabilitation of gravestones.
- Define and/or transfer any land that will be needed by the Cemetery in the future.

Recommendation: The Town should secure the existing paper records, computerize the cemetery's data so that it can be accessed by both the Town office and the Cemetery Committee, and record important unwritten information, so that the transition from one Committee or administrator to the next can take place routinely.

Recommendation: The Town should develop a clear definition of the responsibilities of the volunteer Cemetery Committee, any paid employees and the Town staff.

The Goal is: FAST AND RELIABLE HIGH SPEED COMMUNICATIONS

Map 1:



Recommendation: The Town should work with vendors including chebeague.net to make major improvements to internet and cellphone service on the island.

The Goal is: EXPERTISE TO ACCESS AND CREATE TOWN GIS MAPS

Recommendation: Train Town staff and others in the community in the use of the Town's GIS resources.

Discussion

Fire and Rescue

The Town has a combined Fire and Rescue Department, with a common Chief, and Captains who head the two divisions. All the fire and rescue personnel are volunteers who are paid only for the time that they are out on calls or in training, though the officers receive nominal stipends as well. The Fire unit has two Lieutenants and the Rescue, one. In 2009 there were 24 fire fighters including three women. The Rescue unit had 12 members including 7 women. All fire and rescue personnel undergo continuous training throughout the year.

Physical Plant

The Department is housed in the Firehouse at 192 North Road. The location is fairly central on the island, minimizing response times. This 3-bay, 4,400 square foot, concrete-block building was built by Cumberland in the early 1980s. The roof was replaced in 2008. The most significant problems with the building are (1) that it is quite energy-inefficient. An Energy Block Grant application has been funded to do some of this work. (2) it lacks storage space for the equipment now used by the Department.

In the past the Firehouse has been used as a community shelter in times of emergency because it has a 50 Kilowatt generator, a kitchen and bathrooms. It has recently purchased a new generator that is easier to operate. However, serving as a shelter complicates the Department's ability to focus on responding to the emergency. In recent years the Hall has also acquired a generator and has served as an emergency shelter.

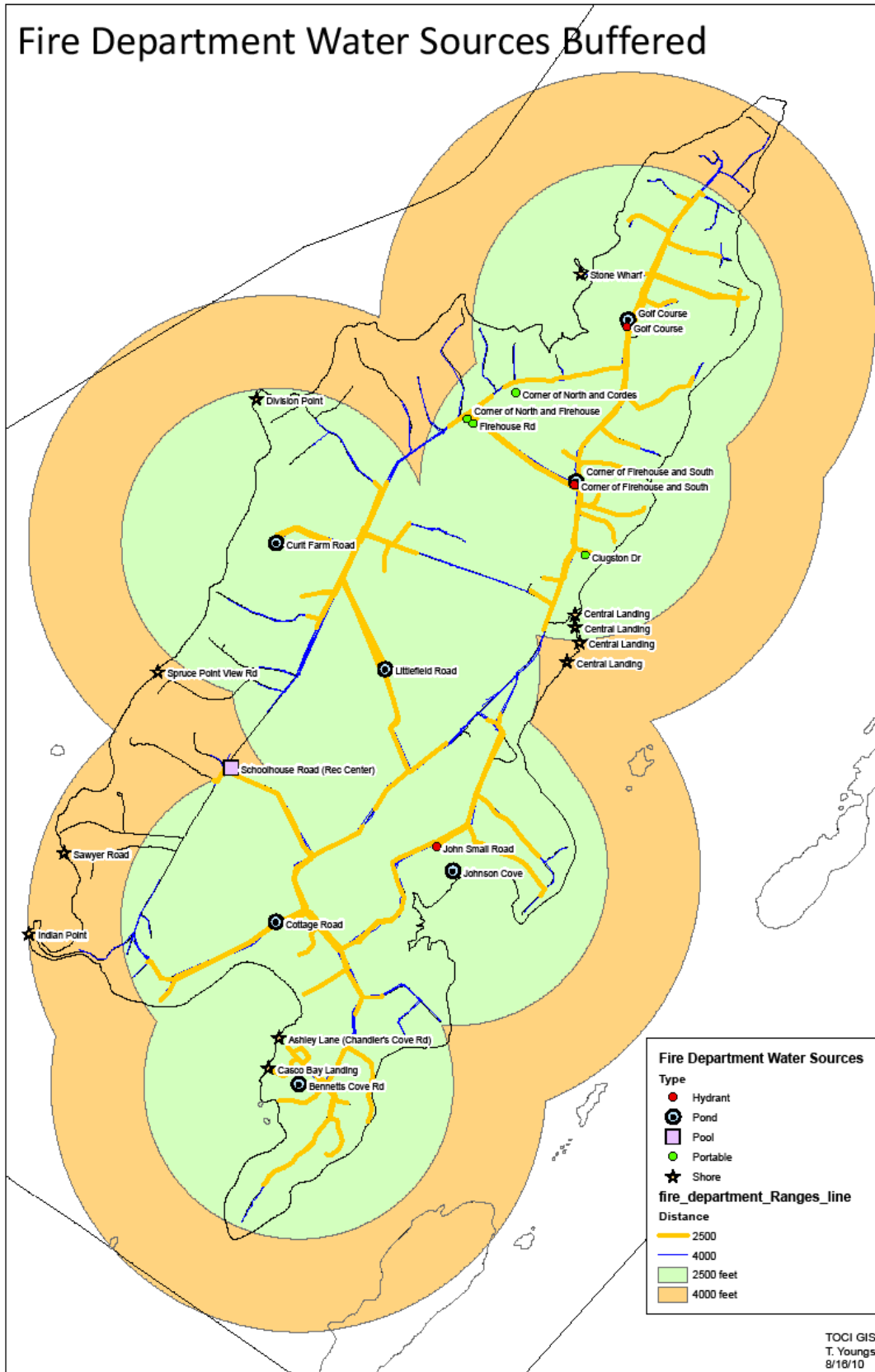
Fire-Fighting Operations

The Town has a contract with Cumberland County for fire and rescue dispatch services.

Because the island has no public water supply, water for fighting fires has to come either from ponds specifically created to supply water for fire-fighting or from other water sources. These are shown on Map 2. The Chebeague Inn is the only building on the island that has a sprinkler system. There are also two portable ponds, one with a 1000 gallon capacity and the other with 1500 gallons. Finally water can be drawn from the Bay at seven locations.

The National Fire Protection standards suggest a water source within 1000 feet of any fire, a standard that is most relevant for communities with public water supply and fire hydrants. The Chebeague Department has 4000 feet of water supply line. If the distance the water has to be pumped is more than 2500 feet then a second pumper is stationed between the water source and the fire to keep the pressure up.

Map 3:



The green and tan circles on Map 3 show the 2,500 and 4,000 foot distances from each on-land water source. But since fire hoses can't just be snaked through the woods, the gold and blue lines indicate the same distances measured along the Town's roads. This shows that most of the island is covered from some water source on the land. The areas that are not covered, at the extreme East End and in two sections along the north side of the island, could be covered by drawing from the Rec Center swimming pool or the Bay, or by setting up a portable pond to which water could be shuttled.

Not all water sources function year-round. Four of the fire ponds have hydrants that a fire truck can connect to. These deliver water from below the surface, so they function even if the surface is frozen. A fifth pond on Cottage Road is in the process of getting a hydrant. The Curit pond and Sanford's Pond have no hydrants, but the firemen can cut holes in the ice. Sanford's Pond is also drained in the summer. The Rec Center swimming pool, which is not shown as a fire pond on Map 3, can be used in the summer.

Adding to the number of fire ponds, and equipping all water sources with hydrants, especially in areas that currently are not close to one would provide additional insurance that the Fire Department will be able to fight any fire anywhere on the island. The section of the Plan on Clean Waters indicated that combination fire and retention ponds may be useful not only for firefighting but also for keeping sediment and pollutants out of Casco Bay. Any expansion in the number of fireponds should be accompanied by a plan and additional money for their maintenance.

Another issue related to firefighting operations is the ability of the fire trucks to reach all houses and fireponds on the island. Many of the island roads are private ones and their width and maintenance is quite varied. The Curit Farm Road firepond is not as accessible as others that have hydrants on main roads. When new road standards for the island are considered it is important to make accessibility by emergency vehicles an important criteria for both public and private roads.

Wild-Fire Hazard

Since 1983 there have been seven wildfires burning a total of 2.8 acres. In general, houses on great Chebeague are moderately at risk from wildfires. Some Town actions and some public education might reduce the existing risks or improve response to fires.

The primary sources of risk are several. One is the lack of "defensible space" around houses, meaning that houses are closely surrounded by trees, bushes, tall grass, leaf litter – materials that could easily burn and where burning embers could easily reach the house. On Chebeague, two thirds of the houses had less than 30 feet of defensible, open space around them, and only 6 percent had 70 or more feet of open space. Many houses are also surrounded by conifers which pose a greater risk than hardwood forest. Many buildings also have combustible sheathing, though most have fairly fire-proof roofs. Finally, in recent strong storms some areas of the island have had repeated spruce blow-downs, leaving tangles of dead timber.

Fighting a wild-fire on Chebeague is also potentially made more difficult by the many long, narrow, dead-end private roads and driveways on the island and the lack of access to less

developed areas. The lack of street signs and house numbers is sometimes a problem for both fire and rescue though both groups have maps that show the location and number of every building on the island.

Rescue

The Department has a 2003 Ford ambulance. The 12 rescue personnel provide the minimum staffing for the unit. Most have been trained during the past three years, so they are just gaining experience.

When a call for a rescue is made to 911, the Cumberland County Dispatch calls all rescue personnel on the island to respond. If the patient needs to be transported to the hospital, his or her condition is stabilized if necessary, and then s/he is taken to the Stone Wharf by the ambulance. At the Wharf a CTC captain and deckhand have also answered the rescue call by going to the boat. The patient, still on the stretcher, is put onto the boat and taken to the Cousins Island Wharf where the boat is met by a Yarmouth ambulance which transports the patient to Portland.

In unusual cases, when a patient's life depends on quicker action or higher levels of care than can be provided by the island personnel, the patient may be taken to the mainland by Life-Flight. The helicopter can land on the ballfield even at night, and the Department has a protocol for securing the area with fire engines.

Fire and Rescue Mutual Aid and Agreements with Other Organizations

An island community served only by passenger ferries has to be largely self-sufficient in its equipment. There is no quick and easy way to take trucks from one island to another or to and from the mainland. In addition, the equipment must be reliable since repairs are not easy or instant.

On the other hand, personnel can, in an emergency, come from or go to other islands or even communities on the mainland. The Department has mutual aid Memoranda of Understanding for firefighting with Long Island, Yarmouth, Freeport and Cumberland, and with the Chebeague Transportation Company to provide the transportation to carry this out.

The Rescue Unit has the closest regular working relationship with other towns and organizations. Every patient who is transported to a hospital on the mainland must be taken on the CTC ferry and met by an ambulance on the mainland. The primary agreement for mainland response is with Yarmouth Rescue, though other towns may sometimes respond under mutual aid agreements. The Rescue also has a MOU with CTC concerning transportation to Cousins Island which is provided at any hour of the day, free of charge.

Finally Chebeague has a MOU with the Town of Long Island to respond to Chebeague rescue calls on the outer islands. The reason for this is that the outer island are all located to the east or south of Great Chebeague. The CTC ferry is located on the north-west side of the island and cannot respond in a reasonable amount of time. Long Island, on the other hand, has a dedicated rescue boat moored on the north side of the island, with fairly direct access to Chebeague's outer islands.

Solid Waste

The Transfer Station on Chebeague, is the place where residents take their refuse for disposal, and where they meet and socialize with their friends. It is also the single most expensive facility/service operated by the Town of Chebeague Island. And the yearly cost has been rising.

The Transfer Station includes seven somewhat separate operations:

- The brush dump for organic yard waste, including wood but not stumps.

- The municipal waste compaction facility for general waste using two closed, roll-off, 50 cu. yard containers, each with a 2 cu. yard stationary compactor.

- A closed, roll-off 50 cu. yard container with compactor for the single-stream recycling.

- Two separate bins for the disposal of construction waste and metal

- An area for the disposal of appliances,

- Redemption operations, provided by Chedemption, a subsidiary of the non-profit Chebeague Island Council

- The collection of toxic waste such as batteries, fluorescent light bulbs, computers, and tires.

The Transfer Facility, itself, is a large metal shed open on two sides, with a concrete floor. It holds the three compaction bins, the two open bins and a small building used as an office by the Transfer Station Attendant. In addition outside the shed there is a small shed that is used for the bottle redemption operation. There is electric power which is needed to run the compactors; but there is no running water or bathroom. There is a 1500 gallon tank underneath to collect runoff water from the concrete slab. The site is surrounded by a chain link fence with a gate to the entrance road and one to the brush dump, beyond. There is a berm with trees that separates the Transfer Station from the cemetery. Sometimes, however, when the Transfer Station is open at a time when a funeral is occurring, the Transfer Station noise can be intrusive. Because of this it is sometimes closed during funerals.

The brush dump is in a former gravel pit. It is separated into areas used for incoming brush and logs, a pile of chipped brush and wood, and an area for the storage of dirt dug up by the Town in its normal operations. A gravel road runs through it, connecting the Transfer Station to the Town Garage on Littlefield Road.

While the space is generally adequate, it could barely accommodate the amount of brush that was brought in after the Patriot's Day storm in 2007. For \$7 – 8,000 the Town hires a huge chipper to be brought out once a year to chip up all the wood and brush that has been brought in. The volume of chips can get quite large and it would be useful to find more ways to use them. Now they are primarily used by residents and professional landscapers as mulch. However there is a possibility that, using a different chipper, they would be suitable for fuel for a high-efficiency heating system.

At the time of the 2006-07 transition to the new Town, Cumberland said that the 2006 municipal waste (not including construction debris or recycling) was 275 tons. In 2008 a total of 470 tons of solid waste was transported to the mainland by Pine Tree Waste. An estimated 19 tons of redeemable bottles and cans was also sent by Chedemption to the mainland for free on the Casco Bay Lines. So the total was 489 tons. Of the solid waste handled by Pine Tree, almost half (48

percent or 225.7 tons) was general “municipal waste”, while just over a third (34 percent) was construction debris and 16 percent was recycled materials.

Almost half (47 percent) of the Town’s share of the waste comes in the four months between June and September, rising to almost 80 tons in the month of August alone. Chedemption’s yearly pattern is even more extreme, with 71 percent of the bottles and cans being brought in during those four months. This makes clear that, as with so many other aspects of life on Chebeague, the Transfer Station must be capable of handling more than 90 tons of solid waste per month even if the actual average monthly amount is less than half of that (40.75 tons).

Chebeague has contracted with Pine Tree Waste, a division of Cassella. Pine Tree’s truck(s) brings out empty containers and exchange them for the full ones which they take back to Portland. The barging is done by Lionel Plante. Despite an original effort to have the barging go through the Stone Wharf, Plante charges \$600 per load from the Stone Wharf and \$500 from Bennett Cove which is more convenient to Portland and less congested. This has created problems discussed in the chapter on the Working Waterfront. In 2010 a compactor was added for the single-stream recycling which is expected to somewhat reduce the amount of barging required.

Chedemption

Chedemption was formed to provide a way for people to bring redeemable bottles and cans to the Transfer Station but not to lose the money that could be gotten back for them. It is organized and run by the Chebeague Island Council, an island non-profit and staffed by all the island non-profits which divide the money generated.

The volume coming into Chedemption has remained quite stable over the years since it was fully operational. Yearly revenue has averaged \$6,939 with expenses averaging \$483. Chedemption has the capacity to continue to operate at this level as long as it is possible to recruit 70 volunteers over the course of the year.

The Town Office

Chebeague has only had its own Town Office for two years since it became an independent town. It is a three-room area at the west end of the Public Safety Building.

The result has been adequate to get started in, but it is cramped, lacking in any privacy and very noisy. The two Town Clerks serve customers at a counter in the first room. The Harbormaster, Assessor and Code Enforcement officer share two desks in the third room. The Town Administrator uses a small office in between. Anyone walking from the room with the counter to talk to one of the Town staff in the back room has to walk through the Administrator’s office. When there are 6 or 7 people using the space, the noise is quite distracting.

This problem is mitigated by the fact that the Office is closed to the public one full day and two half days each week and only two of the people using the office are full-time employees. It is possible to find the Town Office occupied and quiet – but not often. There is also little space left over for the safe, or for storage for files, supplies or maps which are now simply being piled on the floor, table and filing cabinets.

Public Service

The Public Service Department maintains the Town's infrastructure including its roads, culverts, ditches, wharf, floats, transfer station and the various pieces of mechanical equipment. The Town Garage and a salt shed and diesel fuel storage tank, were built in 1995 on the large parcel of land that includes the closed landfill, the Transfer Station and the brush dump.

The Public Service crew is made up of two full-time employees, supervised by the Town Administrator.

The garage is a prefabricated metal industrial structure, 60' x 60' set on a concrete slab, with unobstructed overall eave height of 20'. The insulation is R 19 (6 inches) in the walls and the roof, with 4 inches of insulation in the interior walls. It is heated by a waste oil furnace, supplemented with electric baseboard heat in the restroom and office. Water is heated with electricity.

The salt shed is conventional construction on a concrete slab. It fully encloses the salt.

The tank for storing diesel fuel is double walled and is set in a high-walled containment tank.

The Public Service Department operates:

2003 Chevrolet 1-ton dump truck. To be replaced in 2013.	Ford Backhoe/loader, four wheel drive.
2000 dump truck with hi-lift	Bulldozer
1981 dump truck. To be replaced in 2015.	Road grader
1986 GMC Boom truck for moving floats	Trailer
Blade plow	Screening plant
Hopper sander	3000 Gal skid tank
Swenson sander	Air compressor
X blade snow plow	Plasma cutting unit
	High pressure washer
	Diesel pump

The Cemetery

The Chebeague Cemetery is the only active cemetery on the island. Though it is located next to the Chebeague United Methodist Church, it belongs to the Town and is administered by the Town's standing Cemetery Committee. It is one of the records of Chebeague's history. Its six acres is part a large piece of Town property that since World War II was used for the dump, and then the Transfer Station, the brush dump and the Town Garage.

Since at least the early 20th century, the cemetery has served both year-round and summer families. Since in many families, earlier generations were year-round residents and in later ones have become summer people, or vice versa, the distinction is somewhat academic. In addition there are a group of plots owned by people from Long Island, though it now has a cemetery of its own.

The cemetery has grown over the years. The initial parcel was extended to the east and south in the late 19th century. Since that time it has been extended to the west in two sections. The most recent addition was designed in 1990 by Frank Cofran, a summer resident. A rough estimate suggests that there are over 3430 individual lots in the cemetery now. Of course the potential number of lots and the number actually occupied are two quite different things. Normally families buy plots and fill them over several generations. Given the nature of the Chebeague Cemetery's records, it is impossible to know how many have been used and how many remain empty.

Since 1990 about 90 lots in the newest section have been sold – an average rate of almost 2 per year. At present there are about 300 lots for sale which would suggest that the cemetery will not need to be enlarged for many years. Since the cemetery is part of a larger Town-owned parcel, there is some room for expansion. At the western end, the cemetery is already hemmed in by the Transfer Station to the south and a private lot to the west. However, along the southern boundary at the eastern end, there is room for expansion back towards the brush dump, though this area also serves as the buffer to the brush dump. While the Cemetery Committee does not see a need for expanding the cemetery soon, they would like to formalize with the Town the area for future expansion.

It is not ideal to have the cemetery next to the Transfer Station which is noisy and has industrial-type lighting. However, the buffer of trees between the two has grown up over the years, and the Town has been willing to close the Transfer Station at times when a funeral is being held in that area. When the cemetery expands back toward the brush dump, this same issue will need to be dealt with.

Cemetery Administration

There has probably been little change in the cemetery administration over the past 50 years. It has been run by Dick and Dianne Calder since 1988, and by Ethel Ross for many years before that. The records are handwritten in a series of spiral notebooks for accounting, manila folders with copies of deeds from Cumberland, plus a three-ring binder of other deeds. There are three maps at different scales of the old, intermediate and new sections. These are all kept in the Calder's house. Much of the other information about the cemetery is in Dick and Dianne's heads and they are getting older. This is an administrative pattern characteristic of a small town, but it is a fragile system – subject to the loss of critical information from death or fire or having the records taken to the Transfer Station by accident.

Power and Communications

Power

There has been a great deal of public interest in alternative sources of power on Chebeague because of the wind turbine project on Vinalhaven. In the planning survey about a third of all the respondents wrote about their interest in developing some form of alternative power for the island. Many people suggested a variety of possibilities – wind, solar, biomass, tidal and geothermal energy. The largest proportion (24 percent) were interested in wind energy.

Electricity: three phase power is supplied from both South Portland and Yarmouth. Almost all the service is above ground. On a heavily wooded island, this means that the island experiences

a fair number of power outages, but residents are generally prepared, and there are community shelters for periods of extended outage. CMP keeps the trees next to power lines trimmed. CMP also has a special crew with a boat that serves the islands and they come as soon as they can when there are problems.

Communications

Improved communication technologies were also a major interest to people who answered the planning survey. Eighteen percent said they wanted better internet service, while 6 percent wanted cable service to the island. On the other side, 8 percent of respondents said that Chebeague.net is doing a good job. Similarly, 16 percent of respondents said they hoped the island could have better cell phone service. Only two people said explicitly that they would not like to see a cell phone tower on the island.

Chebeague.net is the local provider of high-speed internet service. It is adequate for many customers, including some telecommuters, but when there are many users in the summer, it can be erratic, and not all areas of the have easy reception from its towers. Some island residents who could work from home if the bandwidth were greater, cannot do so now. Chebeague.net has been applying for grants to upgrade its service but, so far, has been unsuccessful.

Other Utilities

No cell towers

No cable

Telephone provides only telephone service; no internet by phone.

Satellite TV: moderately consistent reception.

4.d. Fiscal Capacity and Capital Investment Planning

The underlying fundamentals of the Town of Chebeague Island's fiscal capacity are good since the Town has high-value, shore-front property. On the other side, there are factors that keep Town expenditure down. Many year-round residents have modest to low incomes – the median income in the 2000 Census was \$32,188. In addition, the Town had a debt in 2007 of \$4,800,000 as a result of secession.

The 2009 Audit by Berry, Talbot and Royer indicates that on June 30 the Town had capital assets, net of depreciation, of \$3,018,045 and total assets of \$5,330,649, compared with liabilities, including debt, of \$4,517,515.

Goal: LONG-TERM CAPITAL PLANNING FOR BOTH EXPECTED AND UNANTICIPATED PROJECTS, EQUIPMENT AND FACILITIES, IN ORDER TO AVOID BORROWING AND BONDING.

Recommendation: The Town should work out realistic capital budget priorities, reserves and expenditure schedules.

Recommendation: The Town should identify and take advantage of non-Town funding sources for capital projects.

Discussion

Revenues and Expenditures

The Town of Chebeague Island only came into being in July 2007. Revenues and expenditures for two years are shown in Tables 1 and 2. The first year's budget was created by a Transition Committee, with help from Cumberland, and was everyone's best guess about what it would cost the new town to operate.

A second year of experience has shifted both the expenditure and revenue pictures a bit, but not dramatically except in the case of fixed charges for debt.

There are three sources of debt, all resulting from secession. A \$1.3 million bond issue reimburses the Town of Cumberland for all the capital items on the island at the time of secession, for Chebeague's share of the Town's debt incurred while Chebeague was part of the Town and for a new Chebeague fire truck. Another \$1.7 million bond issue does the same for MSAD 51. A third bond issue for \$1.8 million pays for the education of Chebeague's children in the MSAD 51 schools for the seven years after secession, to 2014.

The debt payment for 2007-2008 was misleading because the first bond payment was not made until November 2008 and was only \$162,438. However, the 2008-2009 debt service of \$600,828 will be fairly typical until 2014 when the 7 year payment for schooling ends. At that point the debt service will decrease to about \$221,000 per year. However, the tax revenue released from this debt service will then be needed to pay tuition for students in school on the mainland.

Table 1: Town of Chebeague Island Revenues¹⁸

Revenues	2007-2008	2008-2009
Property Taxes	\$2,318,325	\$2,372,612
Excise Taxes	89,106	88,816
Intergovernmental Transfers	236,222	217,107
Licenses, Permits and Fees	53,775	56,593
Interest	18,833	12,551
Other	18,633	-----
Total	2,734,894	2,749,509

Table 2: Town of Chebeague Island Expenditures

Expenditures	2007-2008	2008-2009
General Government	402,873	\$327,370
Public Safety	141,424	161,587
Public Works	189,082	192,502
Education	846,551	814,568
Health, Sanitation and Welfare	140,295	143,035
Cultural and Recreation	99,600	97,500
Fixed Charges	162,438	746,854
Capital Investment	156,000	123,000
Total	\$2,138,263	\$2,606,416

In addition to the \$1.3 million lump sum payment to the Town of Cumberland, the Town of Chebeague Island also contributes 50 percent of the tax revenue from the outer islands to Cumberland for 50 years.

Tax Base and Tax Rate

Table 3 shows the tax base for the Town during the two years it has been in existence. The table also gives the tax rates.

The Town Assessor expects that the tax base will be fairly stable over the next ten years. The \$2.7 million increase between 2008 and 2009 resulted from several one-time revisions and collections done by the new Assessor. Since most of the property is year-round and summer

Table 3: Valuation and Tax Rates

Valuation	2008	2009
Real Property	\$113,325,950	\$116,004,688
Personal Property	236,500	235,600
Tax Rate	20.49/thousand	20.13/thousand

¹⁸ Expenditures and revenues are taken from the Town's audits.

houses, it is subject to fluctuations in the housing market. It is unclear whether the collapse of the housing boom has generally reduced land and housing values. It has resulted in a substantial decline in new construction.

The Town has not had a revaluation since 2003 when it was part of Cumberland. The State estimates that its assessments are 65-70 % of full value. The Town is putting aside money in the capital budget to pay for a new revaluation study.

The Town has a number of properties in the State Tree Growth and Open Space programs, as well as land in conservation easements and non-profits like the Church. However these do not have a significant effect on taxes.

The Town of Chebeague Island is committed to keeping taxes as low as is consistent with meeting public needs, and increasing them as little as possible over the coming ten years. The one-time growth in the tax base between 2008 and 2009 was sufficient to lower the tax rate. But the Town's experience is too limited to know what the future will bring.

Revenues from new development have probably covered the need for additional services created by that development in the past but since Chebeague was part of Cumberland, this was not kept track of separately. However, the way this has to be looked at on Chebeague is somewhat different than in many other communities. Meeting the service need is less a matter of extending utilities or roads and more an issue of having the service capacity to meet the maximum demand in the summer for such things as solid waste disposal, rescue, police and services provided by the Town Clerk and the Harbormaster.

The demographic projections indicate an increase of about 33 year-round and perhaps 100 summer people over the next ten years. This increase is probably not enough to require enlargement of Town facilities such as the fire house or the transfer station.

However, there are a number of possible new studies and projects, discussed in this Plan and are largely the result of the islands becoming an independent town. The possible need for an expanded Town Office, or the study for and possible construction of a new ferry terminal with more parking or a ferry-bus service are cases in point.

There are also several inheritances from the Town of Cumberland that may require capital expenditures earlier than might be anticipated. Already the Town has had to borrow money to replace its backhoe and one of the fire trucks because of their age. More significantly, the backlog in road maintenance is so significant that some roads may need to be rebuilt. As present secession-related debt is retired, road reconstruction alone could absorb freed-up tax revenues for some time.

Because the Town begins its life with a large debt to its previous town and school district, many people in the community think that it should not be adding to that debt for capital expenditures that could be funded through the capital budget. The Planning Committee urges the Selectmen and the Town Meeting to avoid getting into the habit of borrowing money by doing realistic capital investment planning.

Capital Investments

A capital budget and six-year Capital Improvement and Management Plan are intended to identify, prioritize, plan for, and schedule large expenditures on assets or infrastructure that will last a significant length of time – things like purchase of land, construction or major repairs of buildings roads or piers, and purchase of fire trucks and other major equipment. These items can be financed over a period of time, either by putting money aside in the capital budget over a period of years until the needed amount is available, or they can be paid for by issuing bonds which are then paid back over a period of years. Sometimes capital items are paid for with grant money such as the MDOT grant to rebuild the wharf turn-around on Cousins Island.

In the transition to independence The Town of Chebeague Island acquired the existing Town and School infrastructure and, as indicated above, undertook \$4.8 million in debt to reimburse the Town of Cumberland and SAD 51. Since the Town starts its life with such a large debt, it seemed initially that the Town would not be borrowing additional money until these debts were paid off. However, over the past two years Town Meeting has agreed to borrow additional money for replacement of the backhoe and fire truck.

The Town of Chebeague Island did not inherit any systematic capital improvement program. In 2007-08 and 2008-09 Town moneys were put into a capital account to cover capital items that were obviously on the horizon such as vehicles, building repairs, fire pond dredging, and wharf, float and boat ramp repairs.

At the beginning of the budgeting process in 2009 a draft Capital Improvement and Maintenance Plan was developed by the Town Administrator (attached at the end of this chapter, page 211). It covers capital items that cost more than \$7,500 and are expected to last longer than five years. It extends over a six-year period and covers:

- Harbor and waterfront improvements: Dredging, maintenance of the Stone Wharf, floats at several piers, and the boats of the Harbormaster and Shellfish Warden
- Public Safety: Fire and Rescue facilities and equipment. Not police.
- General Government Reserves: A revaluation Study, building facilities and administrative vehicles.
- Public Service: Road repairs and public works equipment.
- Public Easements and drainage-ways

The draft CIMP was not adopted by the Selectmen, perhaps because of disagreement about exactly what data it should be based on. However, as part of the yearly budget cycle, the Selectmen do develop a capital budget and a 6-year estimate of future capital expenditures based on the definition of a capital expenditure in the draft (example attached p. 223). It is expected that most capital investments will be funded by yearly contributions to the Capital Investment Reserve Fund.

In 2010 a proposal was made to adopt an ordinance to create a three-member Capital Planning and Finance Committee to help the Selectmen develop the capital budget by doing research and analysis on infrastructure needs, developing long-term capital expenditure plans and exploring how expenditures might be financed.

The Town has no impact fee ordinance.

School and County Obligations

Payments to schools on the mainland and to the county do not have an adverse effect on the Town's ability to finance capital investments.

State Spending Limitations

The LD 1 limits have not been surpassed.

Possible Capital Budget Items in this Plan

Major Planning and Ordinance development projects:

- Land Use Ordinances
- A possible aquifer protection ordinance
- Survey of Septic systems
- Open space and trails plan
 - Funds for research, surveying and legal services on paper streets
- Comprehensive plan for Town waters

Recommended studies of possible capital projects:

- Sunset Landing wharf and parking
- Internet improvements and cell phone service

Possible Capital Projects

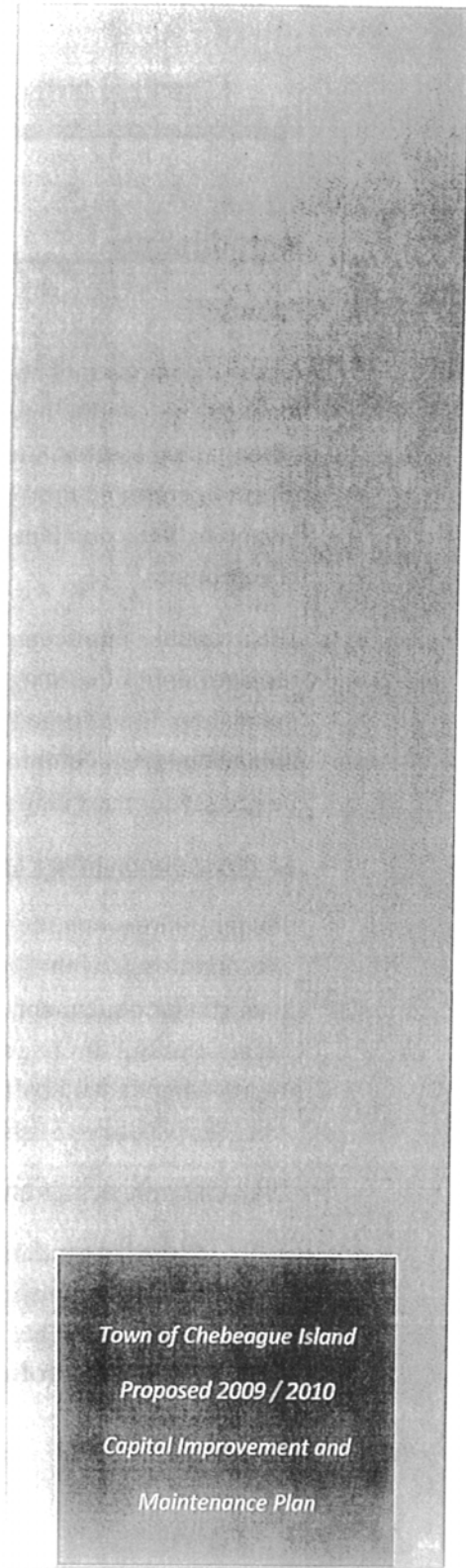
- Road improvement and reconstruction according to existing plan
- Maintenance of wharves
- Purchase of development rights in the rural area
- Purchase land for affordable housing
- Town office expansion

Sharing of Capital Investments

In general, the Town of Chebeague Island's status as a collection of unconnected islands limits the possibilities for sharing of capital investments with other units of government.

The primary exception is that Chebeague does use wharf and parking areas on the mainland for the operation of the CTC. The Town of Chebeague Island shares with the Town of Yarmouth the cost of maintaining and reconstructing the wharf at Cousins Island used by the CTC. State DOT has also provided money for capital improvements at this wharf, specifically the purchase of the Blanchard parking lot and the reconstruction of the road to and the turn-around at the Cousins Island Wharf.

In addition the State also builds and maintains the pier at Chandler's Cove for the Casco Bay Lines. The Town has an agreement with the State to have a float at this pier.



*Town of Chebeague Island
Proposed 2009 / 2010
Capital Improvement and
Maintenance Plan*

Capital Improvement and Maintenance Plan

Introduction

Purpose.

A capital improvement plan is a valuable and critical planning tool that is used to manage the continuing need to replace or add equipment, buildings, land and other capital assets. It is also a record of what assets are owned or under some form of control by the Town. The purpose of this plan is to provide a method of planning that combines the needs of all departments and units of our local government.

This capital improvement plan not only addresses the maintenance and replacement of existing assets, it also looks ahead for future needs, projects and mandates. The desired product is a guide to be used in preparing comprehensive annual budgets. Before and after each annual budget is adopted, the plan should be revised for use in the next annual budget preparation.

A. Description of the Capital Improvement and Maintenance Plan

Capital improvements programming involves the planning of long-term capital expenditures by the Town. Capital expenditures include funds for buildings, lands, major equipment, and other commodities that are of significant value and have a useful life of several years. For Chebeague Island's purposes, a capital improvement shall be defined as a capital expenditure that is more than \$7,500 and that will have a useful life of 5 years or greater.

The CIMP provides a framework for the following administrative functions:

1. Estimating capital requirements.
2. Scheduling projects over fixed periods with appropriate planning and implementation.
3. Prioritization of capital improvements.

4. Developing a financing plan for proposed projects.
5. Coordination of activities between departments in meeting project schedules.
6. Monitoring and evaluating the progress of capital improvements.
7. Informing the public of projected capital improvements.

B. Benefits of the Capital Improvement and Maintenance Plan

Considerable benefits may be derived from a systematic approach to the programming of capital projects. These include:

1. Focusing attention on community goals, needs and capabilities.
2. Achieving optimum use of the taxpayer's dollar.
3. Guiding future growth and development.
4. Serving wider community interests over localized ones.
5. More efficient governmental administration.
6. Maintaining a sound and stable financial program.
7. Focusing attention on existing infrastructure conditions.
8. Enhancing opportunities for participation in federal and state funding programs.

C. Consideration in Adopting the CIMP

There are a variety of internal and external factors that may influence CIMP decisions. These factors include:

1. **Maintenance of Existing Facilities** - Chebeague Island already has considerable investment in its existing roads, harbor infrastructure, piers, buildings, etc. With limited financial resources to expand the existing capital stock, priority may be given to keeping existing facilities in good working condition.
2. **Availability of State and Federal Funding** - The decreasing availability of such revenues is cause for caution on becoming overly dependent on them for CIMP decisions in general, and may indicate the need for prioritizing those programs, which are still eligible.

3. **State and Federal Mandates** - State and Federal mandates may require the renovation of existing facilities or the construction of new facilities or the procurement of new equipment.
4. **Unforeseen Circumstances** - Even the best planning cannot anticipate future, unforeseen circumstances. These circumstances may have either a negative or positive consequences.

D. Continuous Maintenance and Development

The Town Administrator, with input from appointed officials, employees and board/committee/commission leaders will be responsible for updating the CIMP on an annual basis. Once the plan has been updated, it shall be presented to the Chebeague Island Board of Selectmen for their review, input and revision, and ultimately it shall be incorporated into the proposed annual budget.

E. Integration with GASB 34

This capital improvement and maintenance plan is based upon the inventory of assets required by the Government Accounting Standards Board (GASB) 34. GASB 34 requires the town to have a detailed inventory of its entire infrastructure. Infrastructure, by way of example, includes roads, bridges, drains, culverts and if applicable, water distributions and sewer collection systems.

For the purposes of the Capital Improvement and Maintenance Plan, the components of the plan have been divided into several separate areas. These include:

1. Harbor and Waterfront
2. Public Safety
3. General Government Reserves
4. Public Works
5. Easements and Drainage ways

At this time, this plan does not address educational facilities, as the School Department may be working to establish a capital plan of their own.

The following narratives describe the various components and the decision making process that goes into evaluating each area.

1. **Harbor and Waterfront**

The Harbor and waterfront is an integral part of the Town of Chebeague Island. While the town is much more than simply a waterfront area, this is the area that is the basis for much of the town's commerce. Commercial fisheries and commuters alike use the facilities on the waterfront, and must be maintained in a safe and effective manner. The Stone Pier area is also the most visible facility on the island. Virtually every person who visits, works or lives on Chebeague Island passes through this area several times a week, if not daily. The capital items that make up this component include, but are not limited to:

- A. **Dredging** - Last conducted approximately 2004-2005, the area adjacent to the Stone Pier and Wharf must be dredged on occasion to facilitate the ability of the Chebeague Transportation Company to

operate their passenger vessels. Commercial fisheries would also be drastically impacted by the Town's failure to adequately provide for their ability to moor, turn and tie up and the facility. Environmental permitting restrictions seem to mandate that dredging operations be undertaken within 10 years of the previous dredging operation. Failure to do so would lead to very severe restrictions on the permitting process, and would increase the cost of such an undertaking by large magnitudes.

- B. Wharf Infrastructure Maintenance - The wooden wharf structure, the concrete boat launch, the various retaining walls and pavement, must be maintained in a safe and efficient manner. With use only to increase, the facilities will need constant observation to provide safety, movement of vehicles, pedestrians and use by recreational boaters. Anyone who observes the area will recognize that the concrete planking on the boat launch must be replaced as soon as possible. Many of the large granite blocks that are integral to the retaining walls have moved and need to be replaced to their structural position. Areas of the parking area near the end of the structure are in need of fill. The entire area is in need of bituminous overlay. Designated parking areas need to be re-established for handicapped passengers and for school bus and taxi parking.
- C. Floats and Ramps - must be constantly maintained in order to allow for safety and operational convenience. The floats must be installed and removed in a timely manner to both protect the investment in the structures and equipment AND to support the commercial and recreational fishermen and boaters that utilize the facilities.
- D. Harbor Master / Shellfish Warden vessel and equipment

Presently this department operates with a 23' harbor master patrol vessel with motor and trailer, and a smaller utility punt with outboard.

The present equipment, with adequate maintenance, will provide many more years of service to the community.

2. **Public Safety** - The Chebeague Island Fire and EMS Department presently operates in crowded facilities with minimal meeting and storage facilities. Though left with equipment and vehicles that operate well, the age of some of the vehicles will become an issue in the future as the regulations regarding firefighters and the equipment that they use change to meet changing philosophies. Firefighting vehicles, though not strained by excessive mileage, do require constant maintenance and updating. Various single pieces of equipment are expensive and therefore the Thermal Imaging Camera is included in this area. The Fire Department also maintains several fire ponds that must be occasionally dredged and cleaned to keep free of growth and sedimentation.
3. **General Government Reserves** - This component includes several areas, including the following:
 - A. **Building Facilities** - The present Municipal Office, though adequate for the startup of the community over a year ago, will need to be expanded for meeting space and efficiency of the employees in the certain future. Though this plan and its proposed funding do not address this, it is an area that must be studied and addressed in the near future. The present building facilities do not anticipate the accommodation of Police Services or the housing for a police officer. While the present Municipal Building addresses short term administrative needs, as the Town continues to operate the area assigned to storage of documents, vital records and operating paperwork will be woefully inadequate.
 - B. **Revaluation Services** - As with all Maine communities, properties must be assessed at just value in accordance with the taxation statutes of the State of Maine. This is a costly and time consuming undertaking and is best budgeted for as a capital outlay.

- C. **Administrative Vehicles** - As part of its employment contracts and agreements, and for general convenience and efficient operations, the Town must provide various vehicles for its employees that do not live on the Island. Those requiring some form of transportation include the Town Administrator, Code Enforcement Officer, Tax Assessor and Health Officer. While it is certain that to be efficient for transportation on the island, a vehicle need not be new, but it must be safe and efficient. The contract police officer also requires transportation during the non-summer months when a police cruiser is provided.
4. **Public Works** - The Chebeague Island Public Works department operates 2 dump/plow vehicles, 1 one-ton utility plow vehicle, a boom truck for the removal and placement of floats, a backhoe/loader for ditching and loading trucks, an aged bulldozer and small, but adequate road grader. There is an immediate need for the one-ton utility vehicle to be replaced with one designed for low speed, low mileage use on the island. The department also has a small screening plant that is in good condition and will provide good service.

The road infrastructure within the Town of Chebeague Island is in poor condition. Roadways are awash in pot holes, and pavement is crumbling. The gravel roads have poor surfaces that can not hold smooth when they are graded. The cost of reconstructing these roadways is enormous. At present funding levels, it will take many years before a major road project to bring these roadways to any modern standard can be undertaken. Funding of this area is extremely important to the viability of the island. The roadways do not necessarily need to be brought to pavement, but could instead be returned to well graveled and graded as an alternative that would be less costly.

The other area of concern is an economical and lasting source of gravel and sand. Consideration should be given to the licensing of a small gravel extraction area (under 5 acres).

5. Easements and Drainage ways - Chebeague Island is riddled with small drainage areas that pass from, to and under town and private ways and make their way to the ocean where, inevitably, erosion occurs. Some erosion is at the shore, some at roadways, and some in areas very close to year round and seasonal dwellings. It would seem important to develop a plan to address and prioritize these drainage ways, and to develop a plan to improve and maintain them. This will require research, survey work, ground work, and in some cases, engineering work will be required to size and design drainage structures.

The following is the proposed Capital Improvement and Maintenance Program for the future of the Town of Chebeague Island. It is meant as a guide, and should be revised annually to better address a changing community.

2009 / 2010 Capital Improvement &
Maintenance Plan
(Proposed 01-21-09)

Capital Improvement Maintenance Plan

RED text indicates new acct.

Shaded shows proposed purchase

	Anticipated Cost 2008	Year of Replacement or purchase	Anticipated Balance 6/30/09	Approved 08/09	Draft 09/10	Draft 10/11	Draft 11/12	Draft 12/13	Draft 13/14	Draft 14/15
9000 - Capital Improvements										
HARBOR AND WATERFRONT										
9010 - Dredging	\$ 100,000	2015	30,000	15,000	15,750	16,538	17,364	18,233	19,144	
9020 - Floats & Ramps	ongoing	as needed	12,405	5,000	10,500	11,025	11,576	12,155	12,763	
9020.1 Floats										
9020.2 36' alum. Ramp w/wood deck										
9020.3 Aluminum Ramp										
9015 - Wharf Reserve	ongoing	as needed	19,389	10,000	21,000	22,050	23,153	24,310	25,526	
9016 Boat Ramp	\$ 20,000	2009	-	20,000	2,500	2,625	2,756	2,894	3,039	
9060 - Harbormaster Vessel				2,500	2,625	2,756	2,894	3,039	3,191	
9061.1 14' Aluminum Punt										
9061.2 9.9 hp outboard	\$ 3,000	2009								
9061.3 Parker 23'	\$ 30,000	not determined								
9061.4 225 hp outboard	\$ 16,000	not determined								
9061.5 Parker 23' trailer		not determined								
PUBLIC SAFETY										
9012 Fire Pond Dredging	\$ 5,000	2010		5,000	2,000	2,100	2,205	2,315	2,431	
9025 - Fire truck Reserve	ongoing		40,000	15,000	21,000	22,050	23,153	24,310	25,526	
9026.1 2006 Farrar	\$ 250,000	not determined								
9062.2 1980 Engine 9	\$ 200,000	not determined								
9062.3 1971 Engine 6	\$ 200,000	eliminate								
9062.4 1975 Engine 8	\$ 200,000	2015			20,000	21,000	22,050	23,153	24,310	
9062.5 1975 Tank 1	\$ 200,000	undetermined								
9062.6 Thermal Image Camera	\$ 15,000	2015								
9192 2003 Ambulance	\$ 125,000	2018	1,000	1,000	5,250	5,513	5,788	6,078	6,381	

Capital Improvement and Maintenance Plan

RED text indicates new acct. Shaded shows proposed purchase	Anticipated Cost 2008	Year of Replacement or purchase	Anticipated Balance 5/30/09	Approved 08/09	Draft 09/10	Draft 10/11	Draft 11/12	Draft 12/13	Draft 13/14	Draft 14/15
GENERAL GOVERNMENT RESERVES										
9030 - Facilities										
9035 - Vehicle Reserve			4,000	2,000	5,000	5,250	5,513	5,788	6,078	6,381
9035.1 2001 Red Crown Vic	\$ 25,000	2009	8,000	4,000		3,000	3,150	3,308	3,473	3,647
9035.2 1988 Blk. Crown Vic	\$ 25,000	eliminate asap								
9035.3 1994 Explorer	\$ 25,000	as needed			4,000	4,200	4,410	4,631	4,862	5,105
9035.4 2005 Bluebird Bus	\$ 70,000	ongoing	9,960		6,000	6,300	6,615	6,946	7,293	7,658
9040 - General Reserves			40,000	20,000						
9045 - Revaluation Reserve	\$ 35,000	2011								
PUBLIC WORKS										
9050 - Paving and Roadways			30,000	15,000	75,000	78,750	82,688	86,822	91,163	95,721
9055 - Public Works Equipment			35,000	10,000		15,750	16,538	17,384	18,233	19,144
9055.1 1986 GMC Boom Trk.	\$ 100,000	not determined 2010			15,000	3,000	3,150	3,308	3,473	3,647
9055.2 2003 Chev 4-ton w/plow-sander	\$ 50,000	not determined 2015								
9055.3 2000 Dump Trk w/plow-sander	\$ 80,000	not determined 2013			20,000	21,000	22,050	23,153	24,310	25,526
9055.4 1984 Dump Trk w/plow-sander	\$ 80,000	not determined								
9055.5 Bulldozer	\$ 80,000	not determined								
9055.6 Backhoe/Loader	\$ 80,000	not determined								
9055.7 Road Grader	\$ 110,000	not determined								
9055.8 3000 gal skid tank	\$ 6,000	not determined								
9058 Easements and Drainage Ways	\$ 60,000	Ongoing other projects		15,000	20,000	21,000	22,050	23,153	24,310	25,526
				6,000						
				5,000						
Annual Appropriation			123,000	242,500	258,875	274,319	285,410	299,680	314,664	

Capital Improvement and Maintenance Plan

	Anticipated Cost 2010	Year of Replacement or purchase	Approved 09/09	Approved 09/10	Apprs Balance 3/12/2010	Draft 10/11	Draft 11/12	Draft 12/13	Draft 13/14	Draft 14/15	Draft 15/16	Draft 16/17	Draft 17/18	Draft 18/19
HARBOR AND WATERFRONT														
5010 - Dredging	\$ 150,000	2015	15,000	15,000	45,000	20,700	21,735	22,822	23,963	25,161	26,419	27,740	29,127	30,583
5020 - Floats & Ramps	ongoing	as needed	5,000	5,000	0,402	5,250	5,511	5,788	6,078	6,381	6,700	7,036	7,387	7,757
5020.1 Floats						-	-	-	-	-	-	-	-	-
5020.2 36' alum. Ramp w/wood deck						-	-	-	-	-	-	-	-	-
5020.3 Aluminum Ramp						-	-	-	-	-	-	-	-	-
5015 - Wharf Reserve	ongoing	as needed	10,000	100,000	20,000	20,000	21,000	22,050	23,153	24,310	25,526	26,802	28,142	29,549
5015.1 Boat Ramp	\$ 9,000	2009		5,000	5,000		2,500	2,625	2,756	2,894	3,039	3,191	3,350	3,518
5060 - Harbormaster Vessel						-	-	-	-	-	-	-	-	-
5061.1 14' Aluminum Punt	\$ 1,500					-	-	-	-	-	-	-	-	-
5061.2 5.5 hp outboard	\$ 5,000	not determined				-	-	-	-	-	-	-	-	-
5061.3 Parker 23'	\$ 30,000	not determined				-	-	-	-	-	-	-	-	-
5061.4 225 hp outboard	\$ 16,000	not determined				-	-	-	-	-	-	-	-	-
5061.5 Parker 23' trailer	\$ 2,500	not determined				-	-	-	-	-	-	-	-	-
5012 - Fire Pond Dredging	\$ 5,000	2018		5,000	-	2,000	2,100	2,205	2,315	2,431	2,553	2,680	2,814	2,955
5025 - Fire truck Reserve	ongoing		15,000	10,000	51,400	41,000	43,050	45,203	47,463	49,836	52,328	54,944	57,691	60,576
5022.2 1980 Engine 3	\$ 225,000	not determined				-	-	-	-	-	-	-	-	-
5022.3 1971 Engine 6	\$ 225,000	eliminate				-	-	-	-	-	-	-	-	-
5022.4 1975 Engine 8	\$ 225,000	2015				-	-	-	-	-	-	-	-	-
5022.5 1975 Tank 1	\$ 200,000	undetermined				-	-	-	-	-	-	-	-	-
5022.6 Thermal Image Camera	\$ 15,000	2015				-	-	-	-	-	-	-	-	-
5192 2003 Ambulance	\$ 125,000	2018	1,000	5,000	6,036	5,250	5,513	5,788	6,078	6,381	6,700	7,036	7,387	7,757
GENERAL GOVERNMENT RESERVES														
5030 - Facilities			2,000	-	4,141	4,000	4,200	4,410	4,631	4,862	5,105	5,360	5,628	5,910
5035 - Vehicle Reserve			4,000	-	1,000	-	-	-	-	-	-	-	-	-
5035.1 2001 Red Crown Vic	\$ 25,000	2009			1,000	-	-	-	-	-	-	-	-	-
5035.2 1999 Blk. Crown Vic	\$ 25,000	eliminate				-	-	-	-	-	-	-	-	-
5035.3 1994 Explorer	\$ 25,000	skip				2,500	2,625	2,756	2,894	3,039	3,191	3,350	3,518	3,694
5035.4 2005 Bluebird Bus	\$ 70,000	school budget				-	-	-	-	-	-	-	-	-
5040 - General Reserves (Grant Fund)****	ongoing	ongoing			9,960	-	-	-	-	-	-	-	-	-
5045 - Renovation Reserve	\$ 70,000	2011	20,000	-	41,410	10,000	10,500	11,025	11,576	12,155	12,763	13,401	14,071	14,775
PUBLIC WORKS														
5050 - Paving and Roadways	ongoing	as needed	15,000	30,000	60,000	31,500	33,075	34,729	36,465	38,288	40,203	42,213	44,324	46,540
5055 - Public Works Equipment			10,000			20,000	21,000	22,050	23,153	24,310	25,526	26,802	28,142	29,549
5055.1 1986 GMC Boom Trk.	\$ 100,000	not determined				-	-	-	-	-	-	-	-	-
5055.2 2003 Chevy 1-ton w/plow-sander	\$ 50,000	2013				-	-	-	-	-	-	-	-	-
5055.3 2000 Dump Trk w/plow-sander	\$ 80,000	not determined				-	-	-	-	-	-	-	-	-
5055.4 1981 Dump Trk w/plow-sander	\$ 80,000	2015				-	-	-	-	-	-	-	-	-
5055.5 Bulldozer	\$ 80,000	not determined				-	-	-	-	-	-	-	-	-
5055.6 Backhoe/Loader	\$ 80,000	2010		32,000	-	21,000	22,050	23,153	24,311	25,527	26,803	28,143	29,550	31,028
5055.7 Road Grader	\$ 110,000	not determined				-	-	-	-	-	-	-	-	-
5055.8 3000 gal skid tank	\$ 6,000	not determined				-	-	-	-	-	-	-	-	-
5055.9 Hydroseeder	\$ 15,000	2011				7,500	7,500	-	-	-	-	-	-	-
DRAINAGEWAYS AND EASEMENTS														
9050 - Easements and Drainage Ways	\$ 60,000	Ongoing		10,000	10,000	5,000	5,250	5,513	5,788	6,078	6,381	6,700	7,036	7,387
		other projects		15,000										
				6,000										
				5,000										
Annual Appropriation			123,000	281,000	265,243	195,700	207,610	210,116	220,622	231,653	243,236	255,398	268,168	