Town of Bar Harbor, ME

Where Are We Now?

An Analysis of Current Conditions

A Document that will inform Bar Harbor 2035:

A Comprehensive Plan for the Future

October 2022

Acknowledgments

The Town of Bar Harbor would like to express its gratitude to everyone who contributed to the development of this Existing Conditions Analysis report for the 2035 Bar Harbor Comprehensive Plan. This includes the Comprehensive Planning Committee, town staff, and the consulting team, including Resilience Planning and Design, FB Environmental, and RKG Associates.

Contents

Photo Credit: Joyce Mahoney

Introduction

The purpose of this Existing Conditions Analysis is to provide a baseline understanding of Bar Harbor as a community in 2022. This report will inform the development of the 2035 Comprehensive Plan and guide the work of the Comprehensive Planning Committee, town staff, the consultant team, and the public over the next year. This report represents the first of three phases of the Comprehensive Plan writing process, and will also help the town satisfy requirements set by the State of Maine for comprehensive plans. It will become an appendix to the 2035 Comprehensive Plan.

ORGANIZATION

The Existing Conditions Report is divided into chapters by topic. Each chapter begins with a short summary profile that highlights information about the current conditions of Bar Harbor as it pertains to that topic. Each of these profiles is then followed by a longer inventory section that includes more data, tables, maps, key findings, and other information related to the topic. Each chapter explains what exists in Bar Harbor now, how the community is changing, and what emerging issues, challenges, and opportunities the town should consider addressing in its 2035 Comprehensive Plan.

BACKGROUND

This report will be used to guide the consulting team that is assisting the town in developing the Comprehensive Plan and to engage the public during the public outreach planned over the coming year. It will be the main source of information used to inform discussions about the future of the community with the public to identify a clear vision and actions to work toward collectively during the next decade.

It is important to note that this report represents a snapshot in time. Current conditions in any community are always in flux. Additionally, this report is not meant to be exhaustive. It explores current conditions related to aspects of community life that pertain to land use planning, future growth, and infrastructure investment. Sources for this report include land use data provided to the town by the State of Maine, federal data, supplementary private data sources that provide additional context, interviews with town staff and other key community partners, and other relevant reports, studies, and publications that have been completed by the town or by other community entities.

CENSUS DATA EXPLANATION

For Bar Harbor's Existing Conditions Report, the consultant team used the 2015-2019 5-Year American Community Survey (ACS) data package to analyze demographic, household, and housing trends. At the time in the project schedule when data needed to be pulled, organized, and analyzed, it was unknown exactly when the new 2016-2020 ACS package would be available to the public as the Census experienced delays in releasing the data due to the pandemic. To maintain the project schedule and ensure the team had enough time to analyze the data and write the Existing Conditions Report, the 2015-2019 data package was used. It is worth noting that data from the 2020 Decennial Census was also unavailable except for population and housing unit counts.

The consultant team has a high level of confidence in the 2015-2019 ACS data and does not anticipate any major changes in trends if 2016-2020 ACS data were used to replace what is already in the Existing Conditions Report. The new ACS data would likely show a continuation of current trends given that the new five-year estimates would only be adding one new year to the average (2020). In Bar Harbor particularly, housing trends seen leading up to the pandemic have most likely become more acute further reflecting trends currently described in the existing conditions analysis.

Bar Harbor Today

Bar Harbor is a year-round community with more than 5,000 residents that is well known for its natural beauty, proximity to Acadia National Park, its working waterfront, and historic villages. The community is also a popular destination attracting those who own second homes and tourists visiting the community for a short-term stay. While Bar Harbor and other communities on Mount Desert Island boast many assets that make this coastal area of Maine desirable to so many people, these communities are also facing similar issues, constraints, and challenges that will require a collective lens and collaborative solutions moving forward.

Early in 2022, the topics of **housing, infrastructure investment, tourism capacity, and the balance of the seasonal and year-round economy** were identified as the top issues that Bar Harbor needs to address in the future. These priority issues were selected based on input from municipal staff, board members, and elected decision makers. They recognize that the lack of housing units and housing affordability in town is limiting who can live in the community, which impacts the composition of the community, the local economy, municipal services, and quality of life. A vibrant community is one that has housing options for a variety of people, including workers, families, seniors, low, moderate, and higher income individuals, college students, and more.

Bar Harbor is also home to a diversity of year-round employers for the Mount Desert Island region and has a bustling downtown with a variety of small businesses that serve both seasonal and year-round residents. The Town's large employers support a few thousand jobs and are important economic generators on the island. The presence of large institutions and employers like MDI Hospital, College of the Atlantic, The Jackson Laboratory, and MDI Biological Laboratory are unique for a community of this size. Many employers and workers are struggling to find adequate housing in Bar Harbor and on Mount Desert Island, which results in long commute times, limits to the pool of employees that businesses can rely on, childcare challenges, and other issues. Seasonal workers are another population that has unique housing needs and limited existing opportunities to accommodate these needs. As the tourism season is lengthening on either end of the summer season, this will continue to be an issue unless addressed. The workforce in Bar Harbor also needs to reflect trainees that have different housing needs than college students or permanent residents.

Bar Harbor's municipal infrastructure is aging and has some capacity limitations that are in need of significant investment, particularly due to the fact that Bar Harbor receives thousands of visitors a year who are attracted to Acadia National Park. This municipal infrastructure includes transportation infrastructure, the stormwater system, and water and sewer utilities. Public facilities, such as the town's schools, are also in need of additional investment. While the tourism sector generates income (through parking and cruise ship fees) that supports municipal services, it also contributes additional costs and impacts to municipal services, such as solid waste, public safety, and water and sewer.

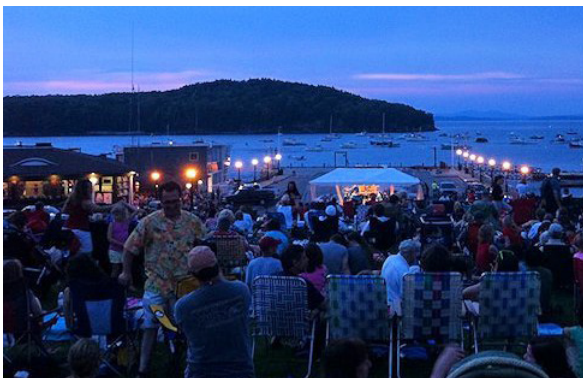
The tourism-based economic sector in Bar Harbor is one of the primary drivers of employment and economic activity for the town. However, tourism is growing, and with that tensions within the community are prompting questions around the level of economic impact provided, taxes paid, amount of municipal services required, and perceived transportation and infrastructure impacts. The seasonal influx of

people, particularly in Bar Harbor's downtown, creates significant vehicle and pedestrian congestion issues, traffic safety concerns at downtown intersections, and parking capacity issues. Even with a robust seasonal public transit system and well-established vanpooling and carpooling alternatives, the reliance on automobiles is overwhelming the community's roadways. Looking ahead, addressing congestion during peak tourism times through expanded pedestrian and bicycle infrastructure throughout the town, and increasing regional public transit alternatives will be critical.

However, these are not the only issues and opportunities that must be considered when planning for Bar Harbor's future. With more than 50% of its land area conserved, Bar Harbor is fortunate to have many important natural resources protected from development, but has limited options when considering where and how to accommodate future development. As Bar Harbor plans how to best manage future growth, a variety of needs and issues will need to be balanced including the capacity of infrastructure, community character, natural resource quality, housing needs of specific populations, and the finances of the community.

And yet, Bar Harbor remains a desirable place to live, work, and play for so many. Visitation is on the rise, and existing employers have many open year-round positions available. Looking forward, the community will need to grapple with big questions as it articulates a vision and direction for directing future growth. How does Bar Harbor gracefully withstand the pressures that come with being a desirable place to visit and live? How does the town sustain an equitable and livable year-round community? How does Bar Harbor best protect the assets that make our community special?

The chapters in this Existing Conditions Report that follow will further detail what is known about the community's land use pattern, infrastructure, natural and cultural resources, economy, and other elements. They will provide the basis for dialogue about the future of the community and help the town determine how to best address these and other priority issues in the years ahead.



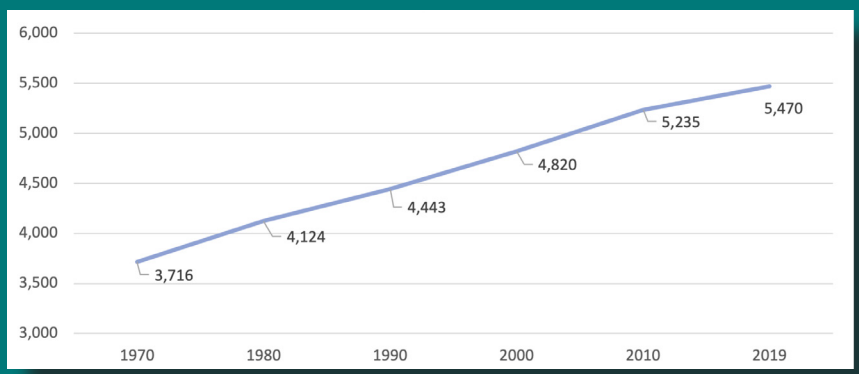
DEMOGRAPHICS

BAR HARBOR 2022 EXISTING CONDITIONS SUMMARY

Understanding population growth and trends is essential for a community that is planning for its future to ensure that it can meet its current and future resident's needs for services and resources. Bar Harbor's population consists of a diverse range of ages, from children, working age individuals, to families, to seniors, and has a significantly high seasonal population during parts of the year.

Bar Harbor's population is increasing. The total population of Bar Harbor has been increasing each decade and reached a high in 2019 of 5,470 residents. Population projections from the Maine State Economist indicate population growth could exceed 6,300 residents by the year 2038. Between 2000 and 2019, Bar Harbor's total population increased by nearly 14% while the county increased by only 5.4%.

POPULATION OF BAR HARBOR, 1970-2019



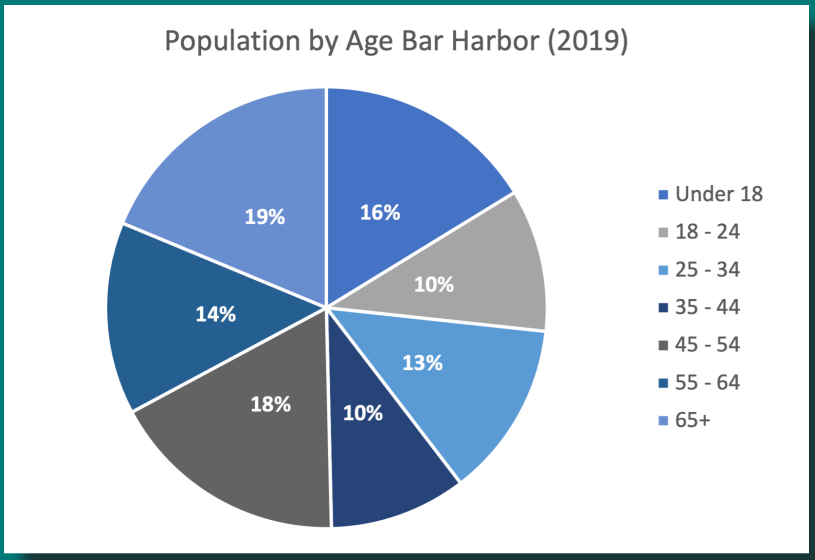
Above: Population of Bar Harbor, 1970-2019; Sources: U.S. Census Bureau, Decennial Censuses and 2019 ACS 5-year

Bar Harbor's seasonal population is increasing. Residents residing in seasonal housing units for portions of the year may increase Bar Harbor's population by an estimated 1,844 additional residents. *(note: the accuracy of this number is currently being researched by the municipality)*

Residents over the age of 65 comprise 19% of Bar Harbor's total population making it the largest age cohort. This cohort also grew by 32% between 2011 and 2019. However, school district data shows declining enrollment.

There are a higher proportion of children, adolescents, and those in the 45-54 year old age bracket in Bar Harbor compared to the county.

Bar Harbor does deviate from the county when looking at age cohorts that are typically in the later portion of family formation years (ages 45-54). This group, along with children under the age of 18, comprise the next two largest age cohorts in Bar Harbor, potentially signaling increases in family households in town.



Above: Population by Age, Source: 2019 ACS 5-year
Note: COA students are captured in the ACS age cohort information with other residents who are between the ages of 18-24 years old if they are present when the Census is conducted.

As employers in Bar Harbor look to grow, the need for more working-age residents will increase. Supporting employment growth does require an affordable year-round housing stock which could push potential residents off the island depending on their income and availability of housing options.

Hancock County saw a net migration rate of over 50 persons per 1,000 population between 2020 and 2021 indicating relocations during the pandemic were a key piece of population change in the county.

Bar Harbor's population has high education levels. Educational attainment among Bar Harbor's residents continues to increase, evident in the higher percentages of residents with an Associates degree, Bachelor's degree, or Graduate degree.

Household income has been increasing in Bar Harbor. Between 2011 and 2019, median household income increased $17,000 to a high of $66,591. This was driven by large increases in households earning between $75,000 and $150,000 per year. The largest increase by number of households was in the income cohort earning between $100,000 and $150,000 a year, which grew by over 300 households or 126%. The change in household incomes by cohort between 2011 and 2019 also shows the substantial increases in households earning between $100,000 and $199,999. Those two categories increased by 126% and 194%, respectively.

With the rising costs of living in Bar Harbor and the changes in domestic migration from the pandemic, the town may continue to become more economically exclusive over time forcing lower wage workers and lower income households off island.

Bar Harbor has a variety of current and potential residents that have distinct housing needs including year-round residents, seasonal residents, seasonal employees, year-round employees, college students, seniors, families, and more. These residents need to be accommodated along with transient accommodations.

1. Demographics

INTRODUCTION

Changing demographics can have an outsized impact in a place as small as Bar Harbor where relatively minor changes in the number of people living in the community, or households moving to the community, can create ripple effects not felt in larger communities. Understanding how the community has changed and is projected to change helps U.S. plan for its future. This section describes the demographic changes in Bar Harbor related to population, mobility, education and income. Data in this section does not include all statistics from the new 2016-2020 American Community Survey (ACS) as that data become available after this analysis was completed.

PRELIMINARY ISSUES, CHALLENGES AND OPPORTUNITIES

The following is a preliminary list of issues, challenges and opportunities posed by the findings of the inventory of existing conditions of Bar Harbor's population and demographics. These findings are subject to change with the preparation of goals and objectives not yet drafted at the time of this existing conditions report.

ISSUES AND CHALLENGES

Bar Harbor has been and continues to be a desirable place to live for both year-round and seasonal residents. The COVID-19 pandemic seemingly accelerated some of the population and housing trends that were occurring prior to 2020 such as increased demand for seasonal or short-term housing, higher median household income, greater levels of educational attainment, and population growth. These accelerated trends will continue to place pressure on the town's housing market, transportation system, infrastructure capacity, and public service delivery. While a growing community is certainly better than a declining one, it does necessitate thoughtful and forward-looking conversations about managing future growth.

In addition to the growth in population that has been occurring in Bar Harbor, residents are also getting older. Maine is he oldest state in the country in terms of the median age of its residents, and Bar Harbor's population over the age of 65 increased 32% between 2011 and 2019. Bar Harbor's increase in the percentage of residents over the age of 65 outpaced that of Hancock County as well. Some of this increase can be attributed to residents aging in place and growing older in the community in which they live, others may have relocated here in retirement from other states. Regardless, the aging population in Bar Harbor necessitates discussion about the provision of public services, healthcare options, transportation services, accessible housing options, and housing for different life stages.

OPPORTUNITIES

Although both the year-round resident growth and the growth in visitation occurring in Bar Harbor is placing continued pressure on the town, it can also be viewed as an opportunity to capture more activity from year-round households. The number of families with children has been slowly increasing since 2011 bringing younger adults to town and children to the schools. This helps balance the aging demographic that so many communities across Maine face with populating boards and committees with a diversity of residents across age ranges. More individuals and families in Bar Harbor also help support business activity providing more household spending to the community and the potential to draw on residents as a source of local employment. It will be important to consider how changes with in-migration, household income, and the affordability of the

community have shifted the demographic composition of Bar Harbor and to use the comprehensive planning process to address issues that constraint demographic diversity. The following sections describe the demographic composition and trends in Bar Harbor.

POPULATION PROFILE

In 2019, the Census Bureau's 5-year American Community Survey (ACS) estimated Bar Harbor's total population to be 5,470. This is the highest estimated population for the town in its history, though only about 200 additional residents compared to the 2010 decennial census count. Looking back as far as 1970, the town's population has been consistently increasing (see Figure 1.1). The most recently released 5-year ACS data package covering years 2016-2020 estimates the town's population grew again to a new high of 5,527 residents following a continued trend of growth.

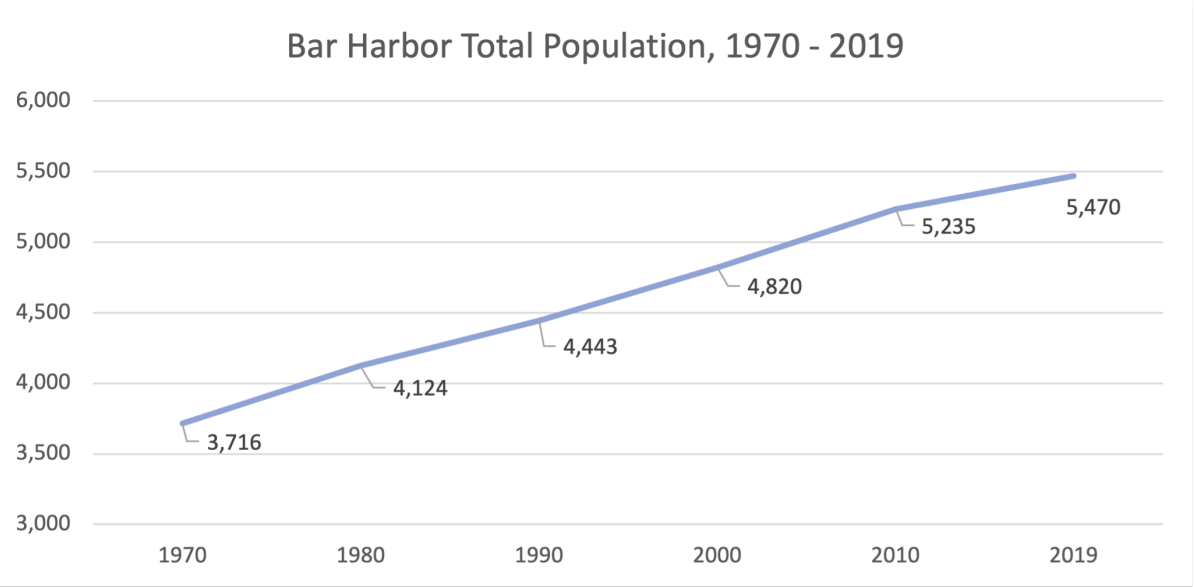


Figure 1.1: Population of Bar Harbor, 1970-2019; Sources: U.S. Census Bureau, Decennial Censuses and 2019 ACS

Demographic projections from the State of Maine also show a continuation of the growth patterns seen over the last several decades (see Figure 1.2). According to the state's most recent population projections, Bar Harbor could see an addition 900 new residents over the next 20 years. This would be a 16% increase in total population over that period of time. What is most interesting is Bar Harbor's population trends diverge from that of Hancock County and have been since the year 2000. Between 2000 and 2019, Bar Harbor's total population increased by nearly 14% while the county increased by only 5.4%. Prior to 2000, the town and county were both growing at a fairly consistent rate. Between 2000 and 2010, Bar Harbor's population growth then began outpacing Hancock County and that trend has not reversed nor is it projected to reverse. In fact, the State of Maine projects Hancock County's total population to decline by 2.5% between 2019 and 2038.

With the Maine projecting Bar Harbor's population to continue its upward trajectory, the question becomes where would these new residents live? If the town is unable to increase its year-round housing stock at a pace commensurate with population and household growth, these residents may end up living elsewhere in Hancock County.

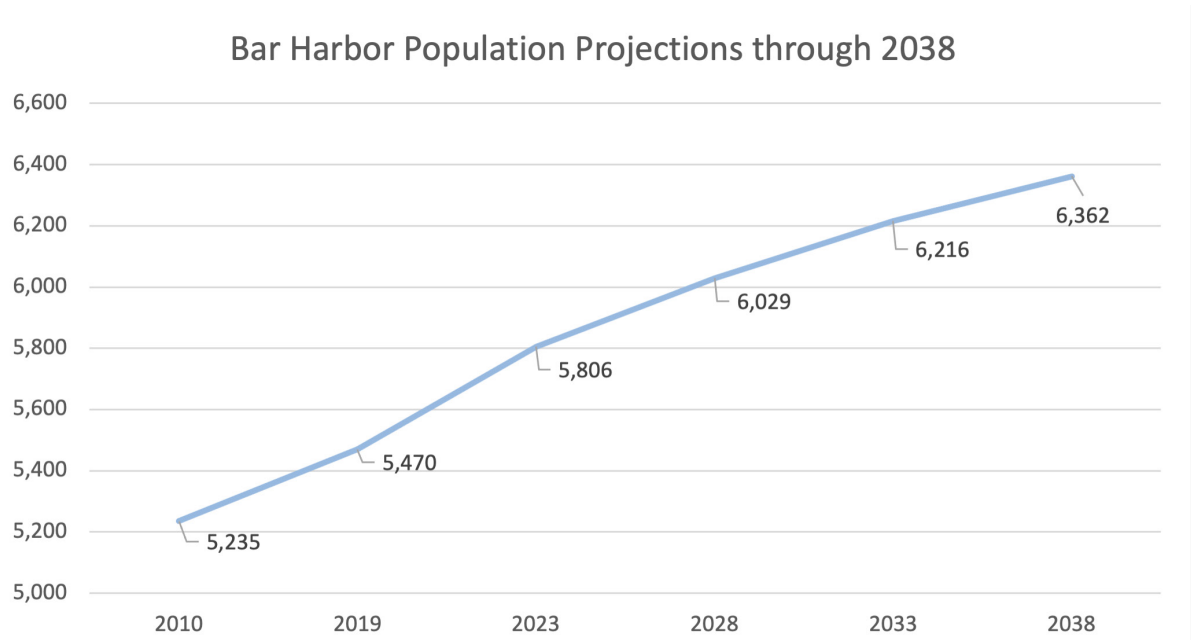


Figure 1.2: Population of Bar Harbor, 2010-2038; Sources: U.S. Census Bureau, Decennial Census, 2019 ACS 5-year, and Maine State Economist 2023-2038 Projections

SEASONAL POPULATION

In addition to the year-round population counted by the U.S. Census, there is also a recognition that Bar Harbor's population experiences a dramatic increase during the tourism season. While the Census does not count seasonal residents or visitors to Bar Harbor, there is a way to approximate the additional population from seasonal housing units in town. The Census does provide information on seasonal housing units in its count of vacant housing (described further in the housing chapter) and is defined as a unit which is occupied temporarily by persons who usually live elsewhere provided that the unit is not offered for rent or for sale. The Census also provides data on the average household size for an owner-occupied housing unit in Bar Harbor. By multiplying the number of seasonal vacant units by the average owner household size, we can approximate the number of seasonal residents Bar Harbor may see annually.

In 2019, there were an estimated 762 seasonal vacant units and owner-occupied households in Bar Harbor had an average household size of 2.42 persons per household. This results in an estimated seasonal population for these units of 1,844. According to the new five-year estimates covering 2016-2020, in the year 2020 Bar Harbor's seasonal housing units increased to 1,013 while the average owner household size decreased to 2.31. This results in a seasonal population estimate of 2,340. These estimates do not account for seasonal population increases from short-term visitation such as hotels, motels, RV parks, and campgrounds.

GEOGRAPHIC MOBILITY

The affects of the COVID-19 pandemic are still being felt and are yet to be fully understood, but recently released data from the U.S. Census Bureau on net domestic migration by county shows the attractiveness of Maine and other New England states (see Figure 1.3). The majority of counties across Maine, including Hancock County, experienced a domestic net migration rate of over 50 persons per 1,000 residents, meaning for every 1,000 residents in the county more than 50 moved in from another location (see Figure 1.4).

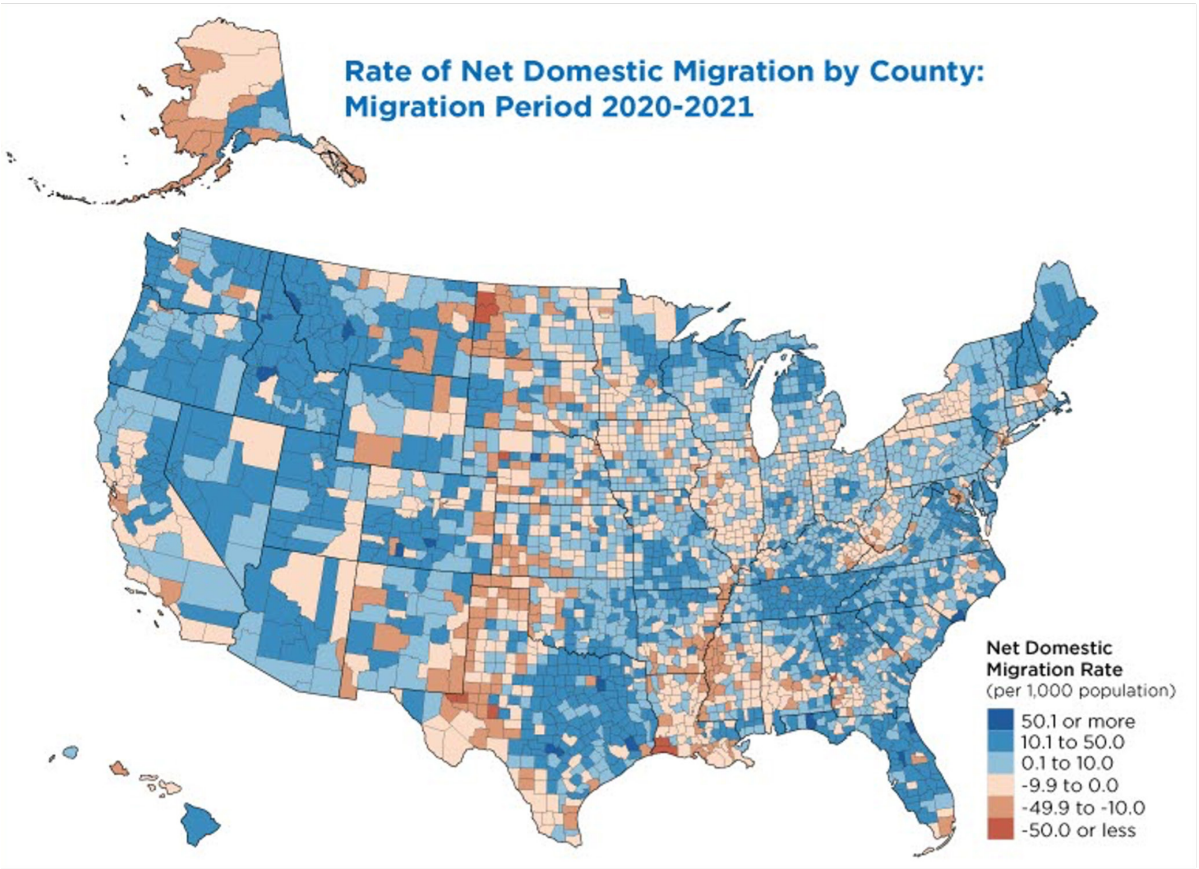


Figure 1.3: Domestic Migration Rates by County, U.S. Census Bureau, 2020-2021

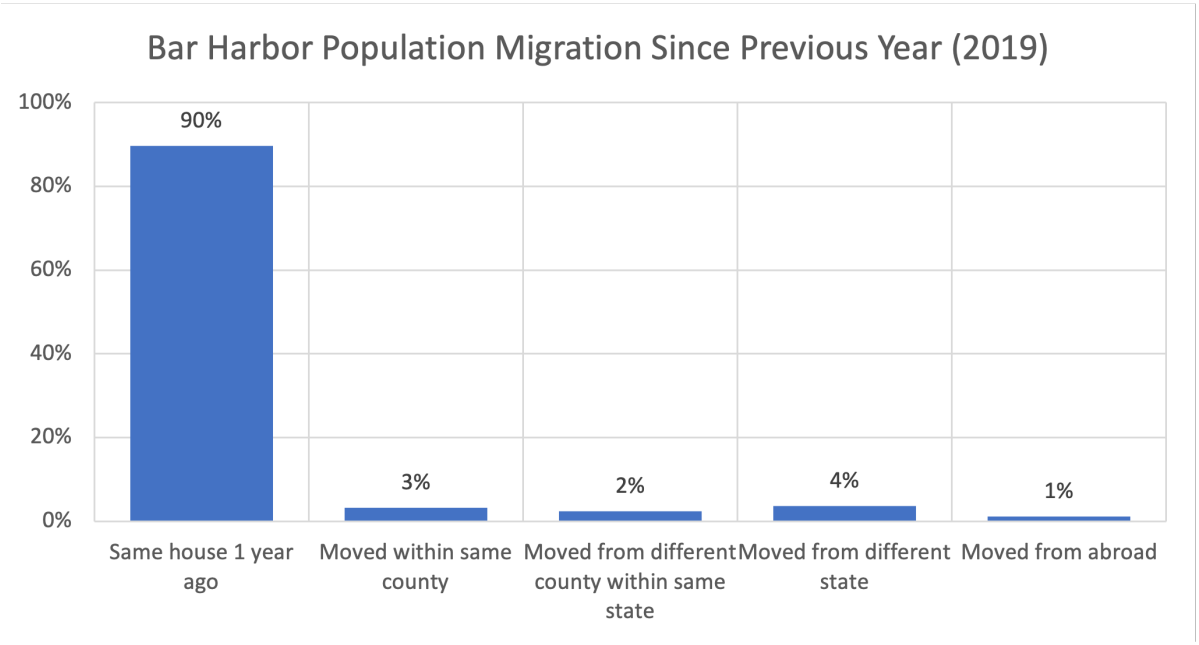


Figure 1.4: Population Migration, ACS 2019 5-Year

Looking back at how migration patterns were impacting population prior to the pandemic (positive percentages mean in-migration, negative mean outmigration), we see more residents were moving to Bar Harbor from another country than from other counties in Maine or other states across the country (see Figure 1.5). As legal immigration controls have become more restrictive and the pandemic effects where households chose to relocate, places like Bar Harbor and Hancock County have grown.

While we are just starting to be able to measure the effects of the pandemic on housing choice and employment, we know that counties across Maine have been impacted by these mobility trends. What is yet to be seen is the longevity of these trends and whether there is eventually a shift back to urban centers.

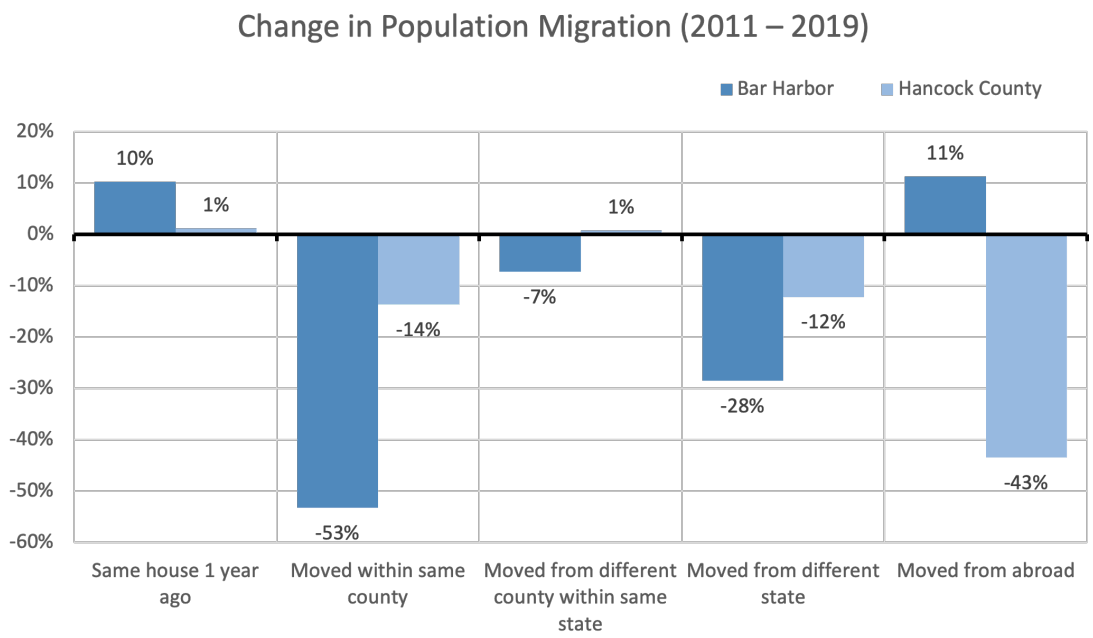


Figure 1.5: Change in Population Migration Patterns, ACS 2015 & 2019 5-Year

AGE

Figure 1.6 shows the population breakdown by age in Bar Harbor. Residents over the age of 65 in Bar Harbor comprised nearly 19% of the population as of 2019. This is the largest of the age cohorts both in total population and percentage of the population. This has also been a growing age cohort comprising 4% more of the total population in 2019 than in 2011, increasing by 250 residents. This is a similar trend to that of Hancock County where the population over the age of 65 also comprises 4% more of the total population in 2019 than in 2011. Bar Harbor does deviate from the county when looking at age cohorts that are typically in the later portion of family formation years, those ages 45-54. This group, along with children under the age of 18, comprise the next two largest age cohorts in Bar Harbor potentially signaling increases in family households in town.

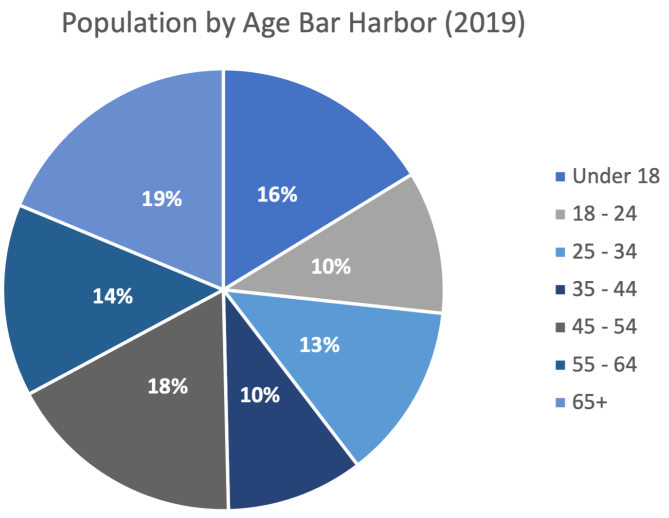


Figure 1.6: Population by Age, Source: 2019 ACS 5-year
Note: COA students are captured in the ACS age cohort information with other residents who are between the ages of 18-24 years old if they are present when the Census is conducted.

When looking at percent change of age cohorts between 2011 and 2019, a similar pattern emerges with high percentages of growth for residents ages 25-34, 45-54, and those over the age of 65. Given the demographic and economic changes in Bar Harbor these trends may not be surprising. Maine continues to be a popular destination for retirees and has been an aging state where numbers of older residents are outpacing younger ones. There is also a likely correlation between the growth in those ages 25-34 and 45-54 and children under the age of 18. These two adult age cohorts are either entering family formation years or already in that life stage and contributing to the growth seen in population under 18. As employers in Bar Harbor look to continue to grow, the need for more working-age residents will also grow which could signal a continued trend of population increases in these same age cohorts. However, supporting employment growth does require an available and affordable housing stock which could push households off the Island depending on their income and availability of year-round housing options. Additionally, a broader diversity of ages, especially families, contributes to a health, whole community.

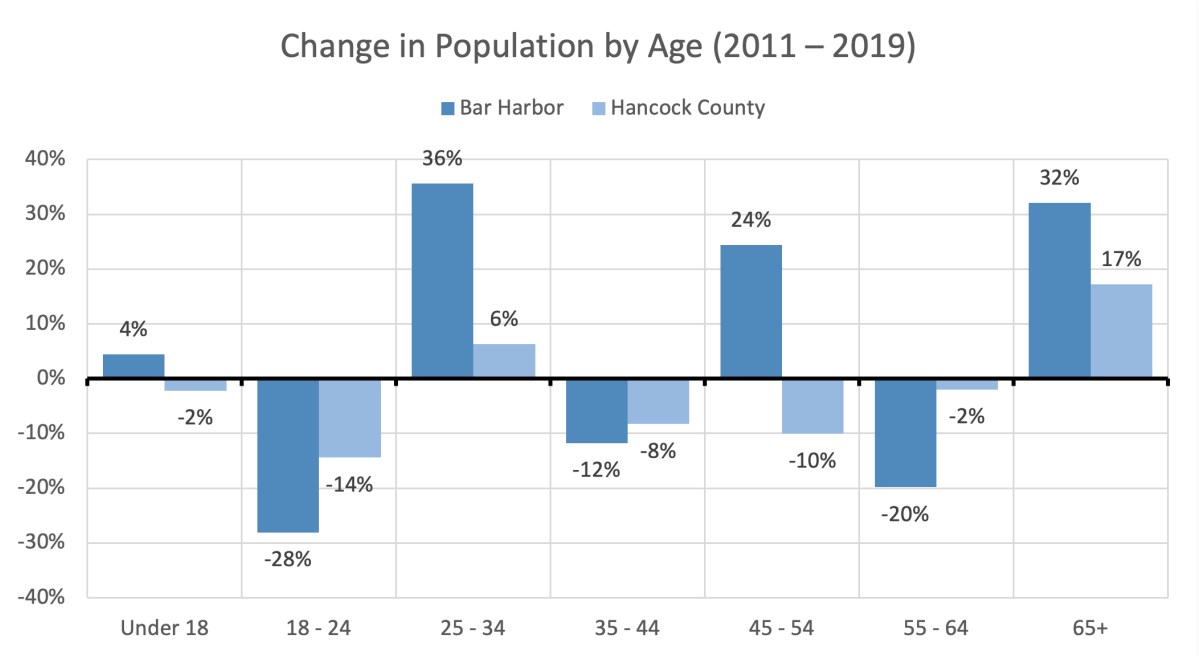


Figure 1.7: Population by Age, Source: 2015 & 2019 ACS 5-year

While the population by age data from the Census does show a 4% change in children under the age of 18, data from the School Department's Enrollment reports suggest continually declining enrollment. The differences in the data points are likely the result of a the following:

- The ACS data is an estimate that does include some margin or error as it represents a five-year period and is a sample of the total population.
- The ACS data includes children under 5 years of age who would not be enrolled in the school system, as well as those who have graduated high school and no longer in the school system. According to the ACS data, the town has experienced growth in children 0-5 years of age which may account for some of the differences.
- The school enrollment information includes data through the year 2021 which is not captured by ACS data yet.

RACE & ETHNICITY

Figure 1.8 shows the population breakdown by race in Bar Harbor. 90% of Bar Harbor residents identify as White. The next largest group are Asian American residents at 5%, followed by residents who identified as Black or African American at 3%. Residents who identify with two or more races increased to 3% of Bar Harbor's population as well. Between 2011 and 2019, the town's population has become more racially diverse with the White population declining from 93% to 90% and all other categories increasing between 1 and 3%. Figure 1.9 shows the change in population by ethnicity. Between 2011 and 2019, the number of residents identifying as Latinx grew but by a very small margin.

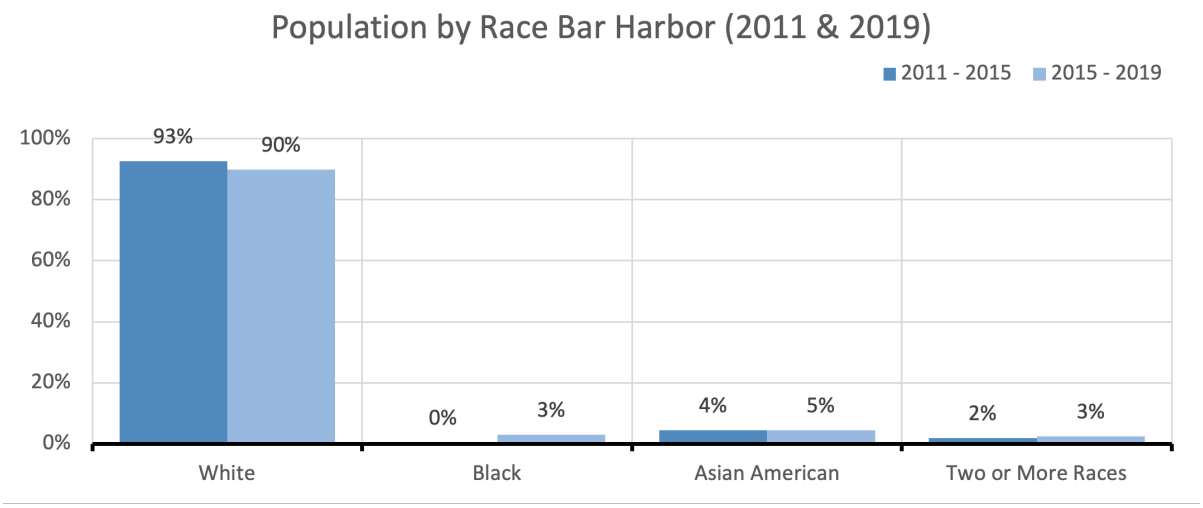


Figure 1.8: Population by Race, Source: U.S. Census Bureau, 2015 & 2019 ACS 5-year

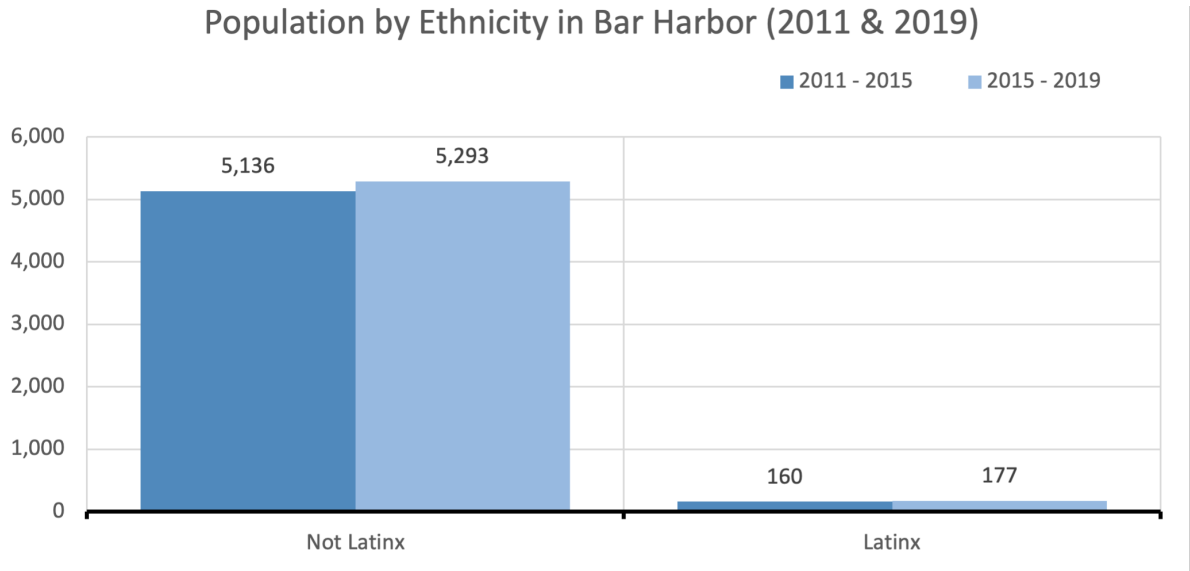


Figure 1.9: Population by Ethnicity, Source: U.S. Census Bureau, 2015 & 2019 ACS 5-year

EDUCATIONAL ATTAINMENT

As was noted in the prior Comprehensive Plan, Bar Harbor residents are well educated, and the number of residents over the age of 25 with at least an Associates degree or some college continues to increase (see Figure 1.10). In 2019, there were over 160 more residents with a Graduate degree than there were in 2011 and over 250 residents who had completed at least an Associates degree or some college credits. The number of residents without a high school diploma continued to decline comprising only 2.5% of the population 25 years and older. Comparatively, in Hancock County 66% of the population over the age of 25 have attained less than a college degree.

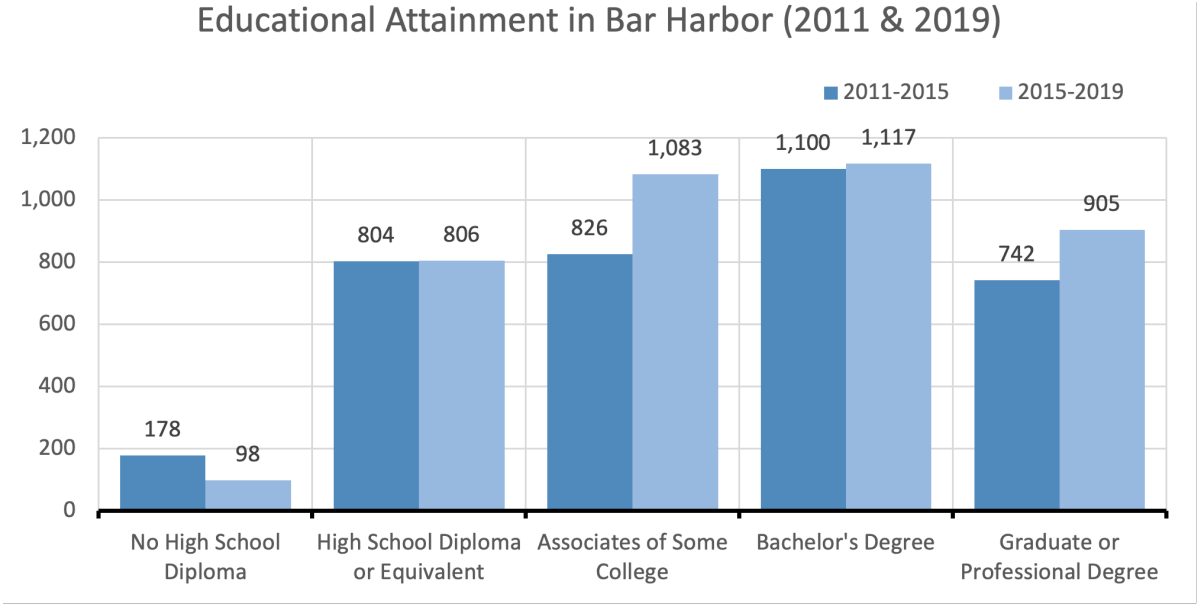


Figure 1.10: Educational Attainment, Source: U.S. Census Bureau, 2019 ACS 5-year

Bar Harbor residents continue the trend of becoming more highly educated with an increase of 31% of residents attaining an Associates degree or some level of college and a 22% increase in the number of residents with a Graduate or Professional degree (see Figure 1.11). These percentages outpace that of Hancock County in every category. These increases in educational attainment may also be translating

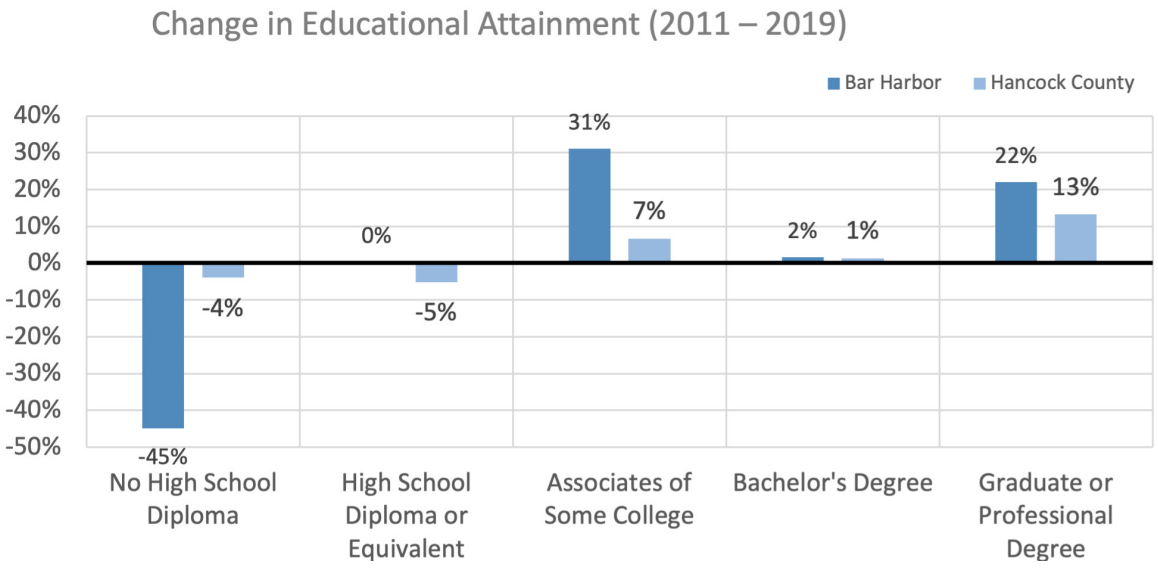


Figure 1.11: Change in Educational Attainment, Source: U.S. Census Bureau, 2015 & 2019 ACS 5-year

to higher incomes for some of the year-round population. Although not yet quantified, it is likely these trends will continue with the pandemic as more highly educated workers are moving to more remote locations as work from home options allow.

HOUSEHOLD INCOME

With the changes in educational attainment also comes changes in household income. In 2019, the median household income in Bar Harbor was $66,591. That is an increase of about $17,000 since 2014. Driving that shift in income has been households earning over $75,000 per year. Figure 1.12 shows how households in each income cohort have shifted between 2011 and 2019 with larger increases in households earning $75,000 or more and a large decline in the number of households earning less than $50,000 a year. The largest increase by number of households was in the income cohort earning between $100,000 and $150,000 a year, which grew by over 300 households or 126%. This category comprises nearly a quarter of all households in Bar Harbor. When compared to Hancock County, the same group only comprises 13% of its households.

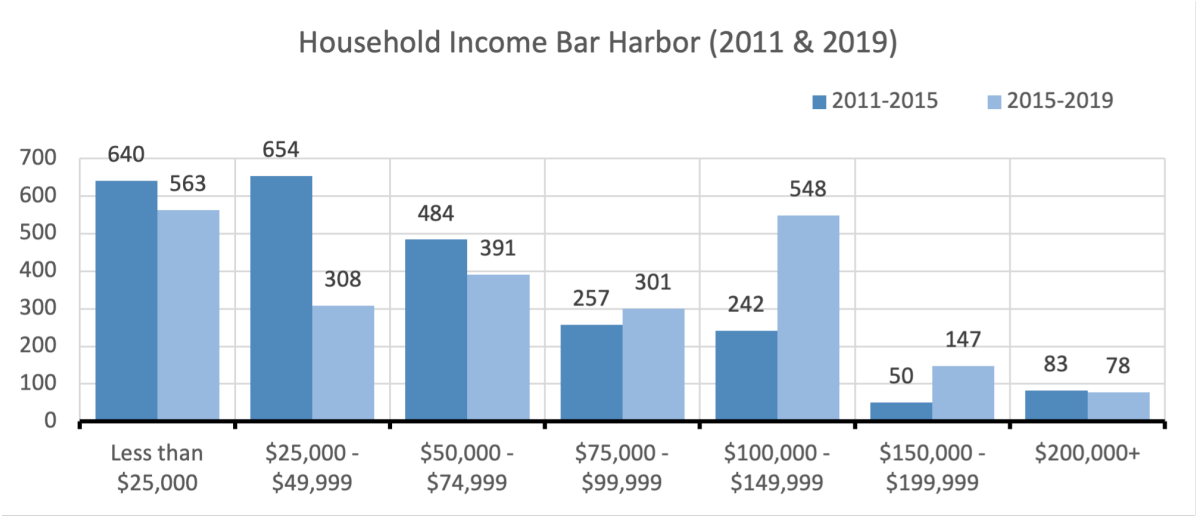


Figure 1.12: Household Income, Source: U.S. Census Bureau, 2015 & 2019 ACS 5-year

The change in household incomes by cohort between 2011 and 2019 also shows the substantial increases in households earning between $100,000 and $199,999. Those two categories increased by 126% and 194%, respectively. In total, those two cohorts increased by over 400

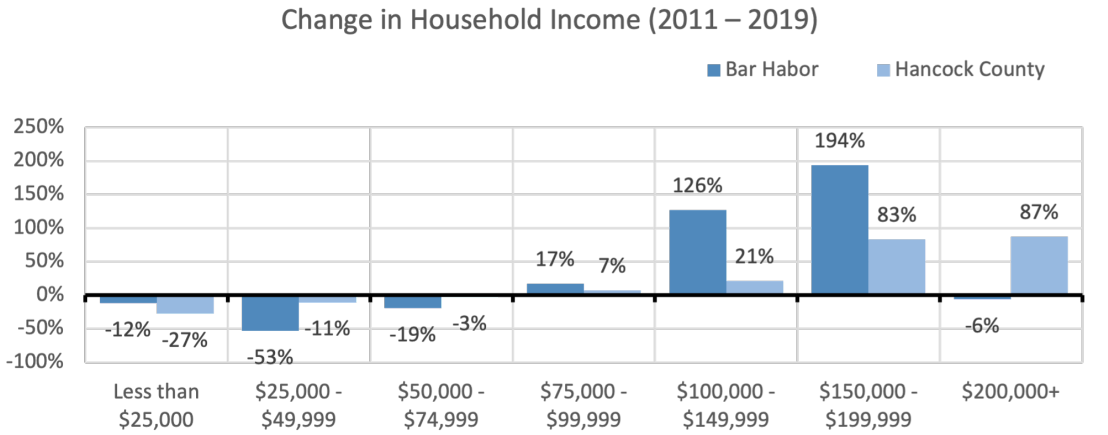


Figure 1.13: Change in Household Income, Source: U.S. Census Bureau, 2015 & 2019 ACS 5-year

households in less than ten years. With the rising costs of living in Bar Harbor and the changes in domestic migration from the pandemic, the town may continue to become more economically exclusive over time forcing lower wage workers and lower income households off island.

REFERENCES

- Comprehensive Plan Update, Bar Harbor, Maine. June 2007.
- Comprehensive Plan Data Package, Maine State Economist.
- Demographic Projections, Maine State Economist.

HOUSING

BAR HARBOR 2022 EXISTING CONDITIONS SUMMARY

Access to diverse, affordable, and high-quality housing options for Bar Harbor's current and prospective residents is one of the most pressing needs in the community. Availability of housing for a wide range of people is linked to economic development, community composition, and overall well-being and livability.

71% of Bar Harbor's housing stock is in single-unit structures, which have been steadily increasing. The vast majority (88%) of owner-occupied units are single-family structures with another 11% spread between one-unit attached structures and two-unit structures. There are very few alternative ownership unit typologies in Bar Harbor such as town-homes, three- or four-unit structures, or larger multi-family condominiums.

60% of households earning less than $25,000 a year are renter-occupied while 94% of households earning over $150,000 a year are owner-occupied. The median sale price of a home in Bar Harbor increased 67% in the past three years from $311,500 in 2018 to $520,000 in 2021. To afford a home at the median sale price in 2021, a person or household would have to earn over $100,000 a year and be able to put down a 20% down payment. According to sales data from Redfin, the median home sale price of all homes in Bar Harbor increased from $311,500 in 2018 to a $520,000 by the end of 2021.

Between 2011 and 2019, owner-occupied housing as a percentage of the town's overall housing stock increased from 57% to 62% while renter-occupied units dropped from 43% to 38%. The percentage of owner-occupied units increased over the last five years from 57% of units to 62% of units. The growth in owner-occupied households over the last ten years appears to be driven by two primary age cohorts – those aged 45-54 and those over the age of 65. These two age cohorts are growing in Bar Harbor and are the two largest age cohorts in terms of number of households residing in owner-occupied units.

The majority of owner-occupied households are headed by someone over the age of 55, while more renter households are headed by someone under the age of 44. This indicates that there may be challenges for younger residents to purchase a home in Bar Harbor.

The number of residents in Bar Harbor continues to increase, but the number of households is decreasing due to a rise in the average household size for owner-occupied units. The share of family households, with two or more related individuals living together, increased from 49% in 2015 to 57% in 2019. The share of single person households dropped by 5% over that period. One- and two-person households (regardless of tenure) still comprise over 67% of the town's occupied households.

As demand and competition for rental housing continues, higher income households will be able to pay higher monthly rents and out compete lower income households for units on the market. This will continue to price out low to moderate income households from Bar Harbor, particularly those residents who may be working in service-based and hospitality industries across town. Service-based industries include educators, nurses, plumbers, and other job types.

Bar Harbor's seasonal vacancy rate is 22.3%, or 762 housing units that are occupied seasonally. In 2020, the percentage of vacant and available units for rent and for sale was extremely low at 1.7%. As of the latest five-year American Community Survey (ACS) period from 2016-2020, the number of vacant units has increased to 1,230 with seasonal homes increasing by 251 units.

Bar Harbor's rental housing stock is older than its owner housing stock with 58% of all renter units built before 1980 compared to 44% for ownership units.

The number of short term rentals increased from 518 in 2019 to 750 in 2021. With the rise in short term rentals the number of listings (frequency in how often these properties become available) increased from 493 in 2015 to 5,125 in 2020.

There are opportunities to refine Bar Harbor's land use regulations to enhance flexibility of the development review process. The issues in Bar Harbor from a regulatory perspective may be less about the types of uses allowed in many districts and more about the dimensional regulations, parking, heights, and densities of residential uses.

There appear to be **gaps in rental and ownership housing options for younger residents** to move into, to keep growing families in town, to support employment growth, **and for seniors who may be looking for a smaller housing option with less maintenance.**

According to the US Census Bureau, a Census Designated Place (CDP) is a statistical geography representing closely settled, unincorporated communities that are locally recognized and identified by name. The Bar Harbor CDP consists of the main downtown center of the town of Bar Harbor. **The number of residents in Bar Harbor continues to increase, but the number of residents in the CDP decreased.**

The percentage of owner-occupied units increased over the last five years from 43% of units to 47% of units. **Unlike the Town of Bar Harbor, the CDP has more renters than owners.**

2. Housing

INTRODUCTION

Housing is one of the most fundamental topics in a Comprehensive Plan as it is one of the essential elements to everyday life. Whether someone is housed or unhoused, there is a shared understanding of the importance of having safe, reliable, and affordable housing for residents in the town. Bar Harbor's tourism-based economy places a set of unique pressures on the housing market with an ever-increasing level of competition for a finite number of residential units. Bar Harbor has many different populations that have their own housing needs including year-round residents, seasonal or second homeowners, year-round employees, and seasonal employees. Over the last decade, the introduction of short-term rentals to the market has created a new demand for housing that supports the tourism aspects of Bar Harbor's economy but also has the effect of reducing the year-round housing stock. With the rise in popularity of short-term rental options and the onset of the pandemic, demand for these units has introduced a new layer of complexity to the local housing market. This consequently has further reduced the availability of year-round housing units that may have otherwise been purchased or rented by year-round residents or employees.

The pandemic accelerated these trends by driving demand for outdoor recreation and the relocation of residents from urban settings to more rural and scenic locations like Bar Harbor. Consequently, residential sale prices rose at very sharp rates, crowding out many low- to moderate-income buyers. The issues of diverse housing needs, the seasonal nature of the housing market, and declining affordability were pointed out in the 2018 Mount Desert Island Housing Needs Analysis and Assessment which Bar Harbor participated in. Island-wide, workforce attraction and retention, an increasing aging population, a growing number of seasonal units, and widening affordability gaps for homeownership were all present throughout the report. The report also notes how housing is truly a regional issue and cannot be solved by one municipality or one organization alone.

While housing is an issue that persists island-wide, Bar Harbor took steps in 2019 to elevate the issue locally through the creation of a Housing Policy Framework. This document sets forth a housing vision, housing goal, and a set of ten strategies the Town of Bar Harbor could work toward over time. The vision statement set forth in the document is as follows:

"Support Bar Harbor's year-round community by having adequate and affordable workforce housing for residents who work in town, for families hoping to raise their children here, for seniors hoping to stay in the community as they age, and for businesses looking for a stable workforce and housing base needed to expand the town's year-round economy."

The Housing Policy Framework also established a set of ten strategies for addressing housing needs in Bar Harbor. Those included:

1. Develop Short-Term Rental Restrictions
2. Develop Zoning for Employee Housing
3. Develop Housing Needs Assessment and Action Plan
4. Identify Zoning Barriers to Housing
5. Encourage Low-Medium Income Housing through Zoning
6. Create Partnerships with Community Organizations
7. Create Partnerships with Large Employers
8. Secure National Park Service Town Hill Land
9. Ensure Quality Rental Housing
10. Reduce Red Tape/Streamline Approval Process

Following on the Housing Policy Framework document, the Town of Bar Harbor worked to create short-term rental regulations, zoning for employee housing, and continues to find ways to partner with housing organizations and employers.

PRELIMINARY ISSUES, CHALLENGES AND OPPORTUNITIES

The following is a preliminary list of issues, challenges and opportunities posed by the findings of the inventory of existing conditions of Bar Harbor's housing market. These findings are subject to change with the preparation of goals and objectives not yet drafted at the time of this existing conditions report.

ISSUES AND CHALLENGES

Bar Harbor is a place with finite resources to be able to address the wide-ranging need and demand for housing. There are land constraints, regulatory constraints, infrastructure constraints, political constraints, and financial constraints that currently work against addressing housing demand in a meaningful way. In addition to these constraints, there are also several groups competing for the limited housing stock that exists in town today. Figure 2.1 illustrates these different groups, each of which has a specific need for housing based on size, location, price, and time of year.

Figure 2.1: Housing Competition in Bar Harbor. Source: RKG Associates, Inc..

Housing is an economic development issue, particularly in a place like Bar Harbor. Demand for housing from employees is coming from larger and small employers ranging from The Jackson Laboratory to small local shops and restaurants in the downtown. There is also demand for a range of housing types and price points as not all employees in Bar Harbor earn enough to afford market rate rents or sale prices in town. Some employers in Bar Harbor are taking it upon themselves to solve their own housing issues for their employees. For example, The Jackson Laboratory is completing construction on twenty-

four (24) units of multi-family workforce housing specifically for their employees. They are also having difficulty attracting candidates for open positions in Bar Harbor with one of the main reasons being the lack of available and affordable housing. In another example, a number of local businesses including large hotels, restaurants, and retail shops, are having to create housing for their seasonal workforce either on property they currently own or by purchasing housing units on the open market. As housing becomes a scarcer resource over time, there may be limited options for employees to live and work in town, particularly for lower wage workers, including college students, in the tourism and hospitality industry who need housing priced appropriately to what they earn.

A final issue, with the rising cost of housing and lack of availability, is employees who work in Bar Harbor have to move further from their jobs and commute longer distances to get to work. These longer commutes add to household transportation costs, and as fuel prices continue to rise, cut into their household income leaving fewer dollars for other needs. If more workers are commuting into Bar Harbor, traffic on local roads and the limited access points into town may become more congested particularly during the tourist season. Worsening traffic also produces more localized pollution and a worsening of our environment. Commuting longer distances also has family implications, with daycare options being limited when many workers are commuting so far to Bar Harbor for work.

OPPORTUNITIES

The biggest opportunity for addressing at least some of the housing needs in Bar Harbor today is that most residents and business owners recognize this is a major issue that needs attention. In many communities, housing is often discussed and studied but there is little appetite to address the true root causes of housing imbalance. In Bar Harbor, not addressing housing issues will result in a less diverse community, further cost burden households, stifle economic development, and displace residents from the town who can no longer find housing or afford what housing is available. It is the recognition of the issue by a wide range of parties in Bar Harbor that may make it possible to address some of the housing issues the town faces. A more detailed analysis could provide more clarity around the true needs for housing in the town and possibly provide the town with data to help prioritize strategies, policies, and funding to address the housing needs that are most critical to supporting quality of life in Bar Harbor.

There are regional housing issues that were identified in the 2018 MDI Housing Needs Analysis that show the importance of addressing housing regionally. There are some policy and zoning changes the town can undertake and strategic partnerships to advance, but to truly address the affordable housing challenges more broadly a coalition of partners even beyond MDI will be needed. The following sections describe the housing market today and some of the factors that are driving the increased competition and higher price points for ownership and rental housing in Bar Harbor.

HOUSEHOLD COMPOSITION

Between 2010 and 2019, the total population of Bar Harbor increased by an estimated 235 residents to a high of 5,470. Over the same period, the number of households in Bar Harbor decreased by an estimated 74 total households. As population increases and the number of households decreases, the result is most often larger overall household sizes. Between 2011 and 2019, the average household size in Bar Harbor increased from 2.03 to 2.17 and was primarily driven by the increase in owner-occupied household size which rose from 2.25 to 2.42.

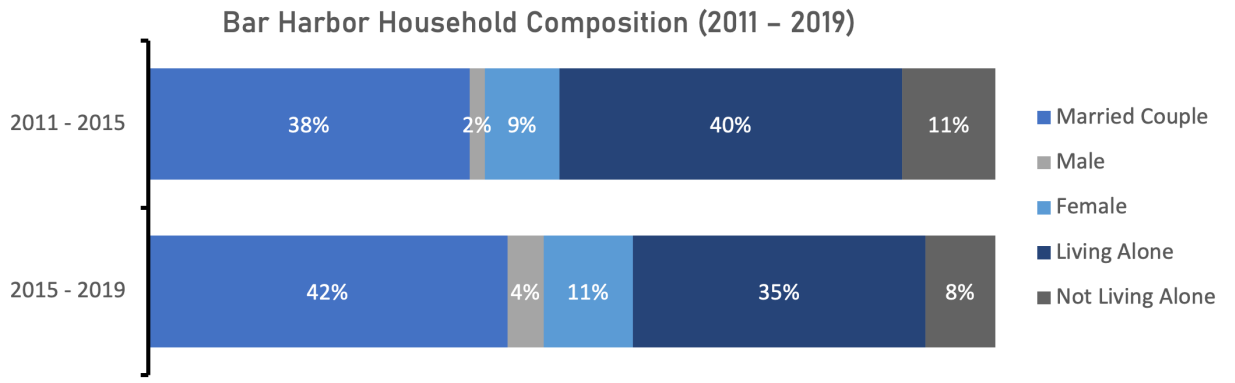


Figure 2.2: Household Composition, 2011 – 2019, Source: U.S. Census Bureau, 2015 & 2019 ACS 5-year

The changes in household size are also backed by data from the Census showing household composition has also been shifting over time. The percentage of family households, or those households with two or more related individuals, comprised 57% of all occupied households in Bar Harbor in 2019. This includes the category of married couples, as well as male and female led households. That is up from 49% of households in 2015. Most of that shift in household composition can be attributed to a growing share of married couple households and a shrinking number of households where one person was living alone. Interestingly, this shift in household composition is different from that of Hancock County, where 63% of households in 2019 were comprised of families down from 68% in 2015.

The shift in Bar Harbor to more family households is also consistent with the demographic shifts presented in the Demographics section where population growth with residents ages 25-34 and 45-54 corresponded with growth in children under the age of 18. This would be consistent with the increases in married couple households, and an indicator that some of those households also have one or more children living with them.

HOUSING TENURE

As household composition in Bar Harbor has shifted from an almost 50/50 split of family and non-family households to having more family households, the percentage of owner-occupied housing units has also increased. Between 2011 and 2019, owner-occupied housing as a percentage of the town's overall housing stock increased from 57% to 62% while renter-occupied units dropped from 43% to 38%. This follows a similar pattern to Hancock County which saw its share of owner-occupied housing jump from 73% to 76% of all occupied units. This trend diverges from macro housing trends across the United States where owner-occupied housing has been a shrinking percentage of the overall housing stock.

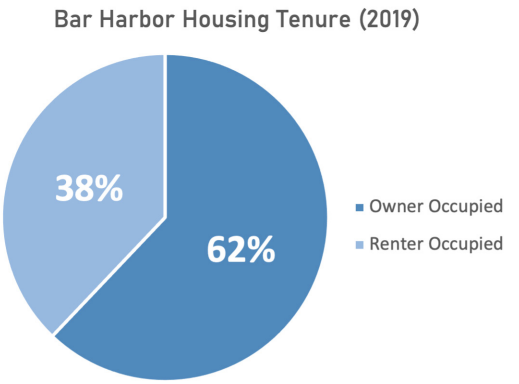


Figure 2.3: Housing Tenure, 2019, Source: U.S. Census Bureau, 2019 ACS 5-year

Although Bar Harbor's household composition and average household size has been increasing since 2011, one- and two-person households (regardless of tenure) still comprise over 67%

of the town's occupied households. This is down from 73% in 2015, or a loss of 201 one- and two-person households. Three-person households grew the most over this same period with 84 more households. This could be the result of single- or two-person households forming families and having children over this time period shifting the household size in Bar Harbor. This could also be the result of smaller households moving out or leaving town for a variety of reasons like housing availability, housing affordability, job transfer, or older residents moving away or passing on.

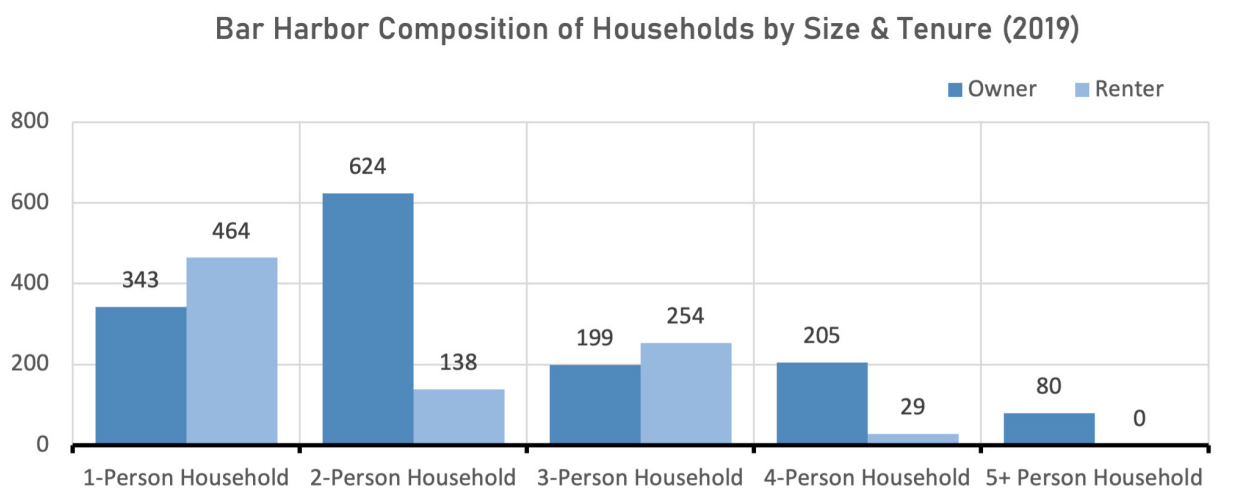


Figure 2.4: Household Size by Tenure, 2019, Source: U.S. Census Bureau, 2019 ACS 5-year

Looking at changes in household size by tenure over the last ten years reveals a similar story, with percentage increases for owner-occupied households with two or more persons. The only cohort of renter households that increased were those with three people.

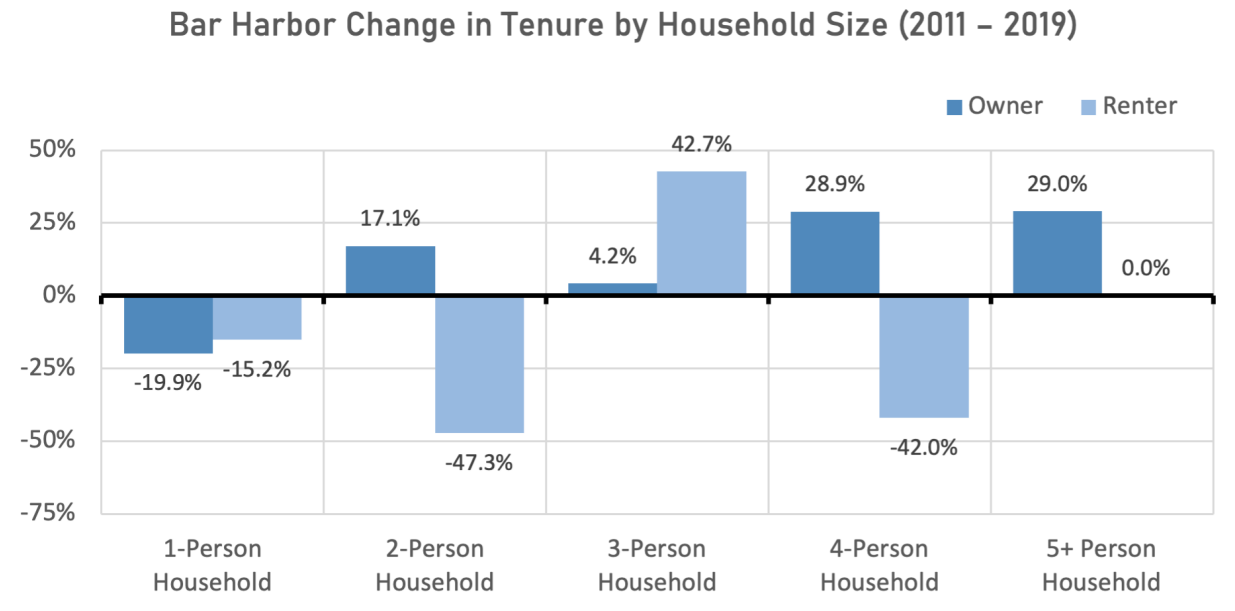


Figure 2.5 Household Size by Tenure, 2011-2019, Source: U.S. Census Bureau, 2015 & 2019 ACS 5-year

The growth in owner-occupied households over the last ten years appears to be driven by two primary age cohorts – those aged 45-54 and those over the age of 65. These two age cohorts are growing in Bar Harbor and are the two largest age cohorts in terms of number of households residing in owner-occupied units. In 2019, there was an estimated 479 owner households headed by someone over the age of 65. This is a notable metric as it could signal potential turnover in units as those households age out and could open supply to year-round residents or be a source of supply for others who are competing for seasonal units, short-term rentals, or employee housing.

The largest number of renter households are headed by someone between the ages of 25 and 44 which comprise an estimated 445 total renter households or 50% of all renter households in Bar Harbor. Interestingly, renter households headed by someone over the age of 65 accounts for 231 renter households or 26% of all renter households in Bar Harbor.

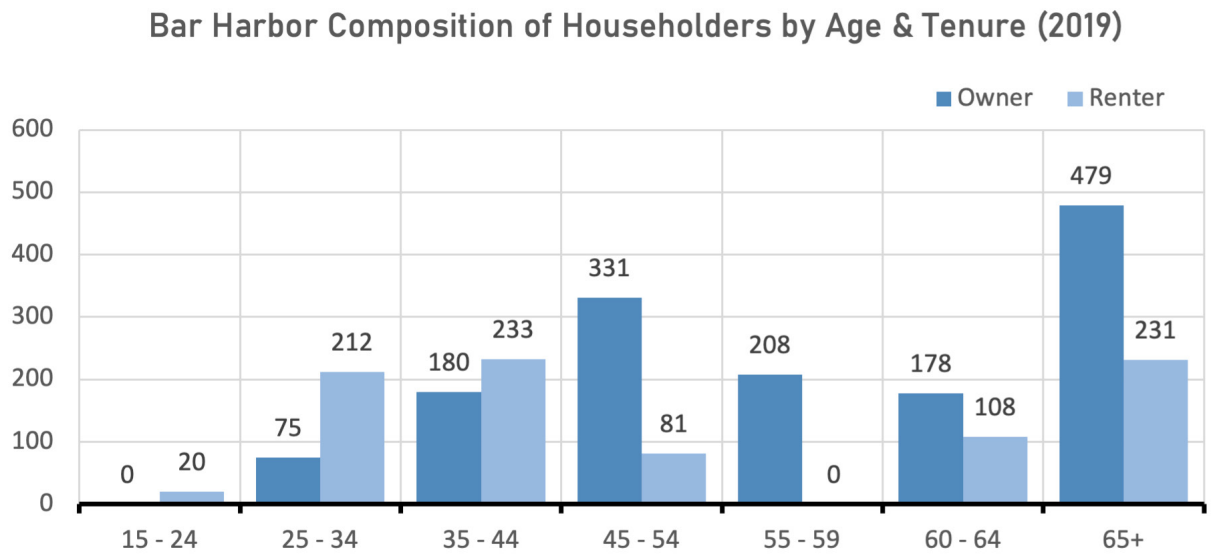


Figure 2.6: Tenure by Age of Householder, 2019, Source: U.S. Census Bureau, 2019 ACS 5-year

With the increases in household income in Bar Harbor over the last ten years, there has also been a shift in the number of owner-occupied households earning more than $100,000 a year. This income cohort of owner households grew by 157 between 2011 and 2019 while owner households earning less than $75,000 a year shrunk by 167. As shown in Figure 2.6, housing tenure and household income are closely correlated with the majority of households earning less than $50,000 a year residing in rental units, while the majority of higher income households tend to reside in owner-occupied units. As housing prices continue to rise in Bar Harbor, these trends are likely to accelerate as only the highest income earning households will be able to afford market rate ownership units.

On the renter-occupied side, there are similar trends where the highest increase in renter incomes occurred for households earning between $100,000 and $149,999. This cohort increased by an estimated 170 households over the last ten years. As demand and competition for rental housing continues, higher income households will be able to pay higher monthly rents and out compete lower income households for units on the market. This may continue to price out low to moderate income households from Bar Harbor, particularly those residents who may be working in service-based and hospitality industries across town.

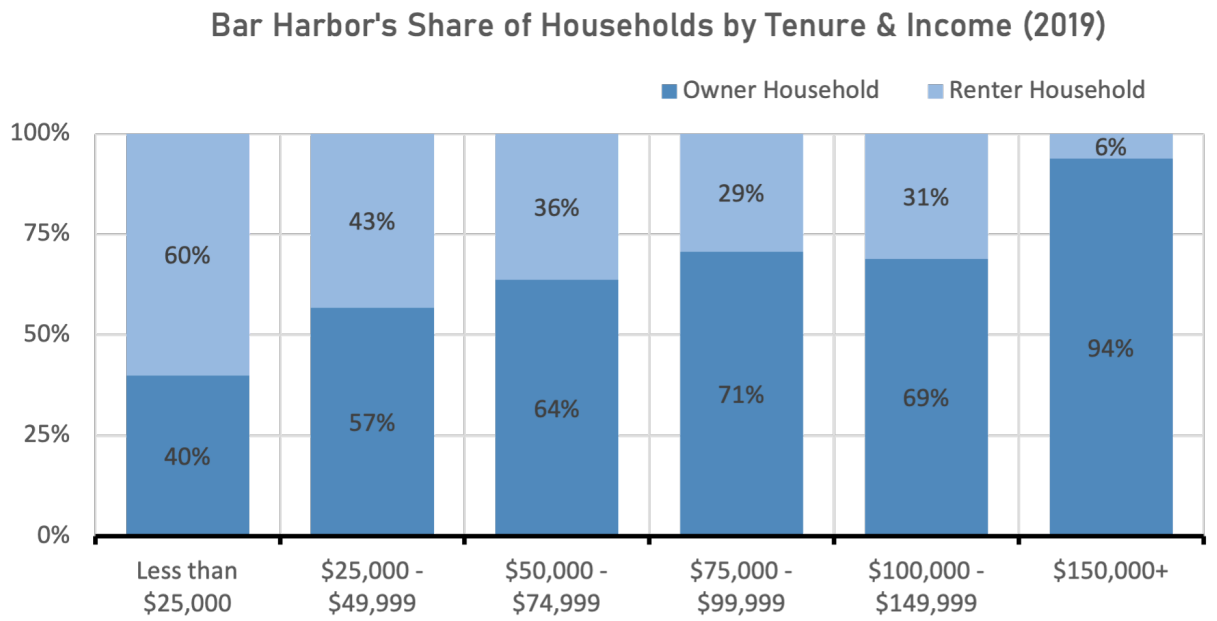


Figure 2.7: Tenure by Household Income, 2019, Source: U.S. Census Bureau, 2019 ACS 5-year

HOUSING UNITS

In addition to understanding the change to households and housing tenure in Bar Harbor, it is also important to understand how the actual housing stock has changed over time. With an ever-tightening housing market and added competition for a limited stock of housing units, aligning housing supply with demand becomes important to trying to balance housing within the local market. Layering on the complexities of the pandemic and its impact on housing prices, availability, and increased demand for seasonal and short-term housing has created a sense of urgency both locally and regionally for addressing housing issues.

In 2015, the Town of Bar Harbor had a total estimated housing unit count of 3,484. That number decreased to an estimated 3,416 units by 2019, or a loss of 2% (68 units). The majority of the units shown as a loss in Bar Harbor were those classified as Mobile Homes which decreased from 132 units to 66 units. The town did see increases in the number of units classified as single-family and multi-family structures that included more than five units. Interestingly, as Bar Harbor's housing unit count decreased, Hancock County saw an increase in total housing units of 2%, or an estimated 847 units. Looking more closely at the composition of the town's housing stock by owner and renter units, we see

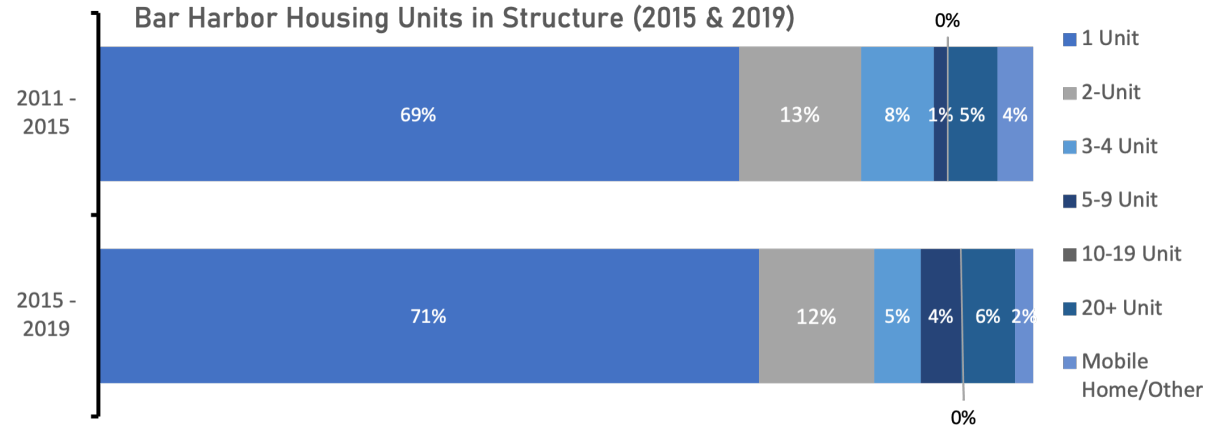


Figure 2.8: Housing Units, 2015 & 2019, Source: U.S. Census Bureau, 2015 & 2019 ACS 5-year

the vast majority (88%) of owner-occupied units are single-family structures with another 11% spread between one-unit attached structures and two-unit structures. There are very few alternative ownership unit typologies in Bar Harbor such as townhomes, three- or four-unit structures, or larger multi-family condominiums.

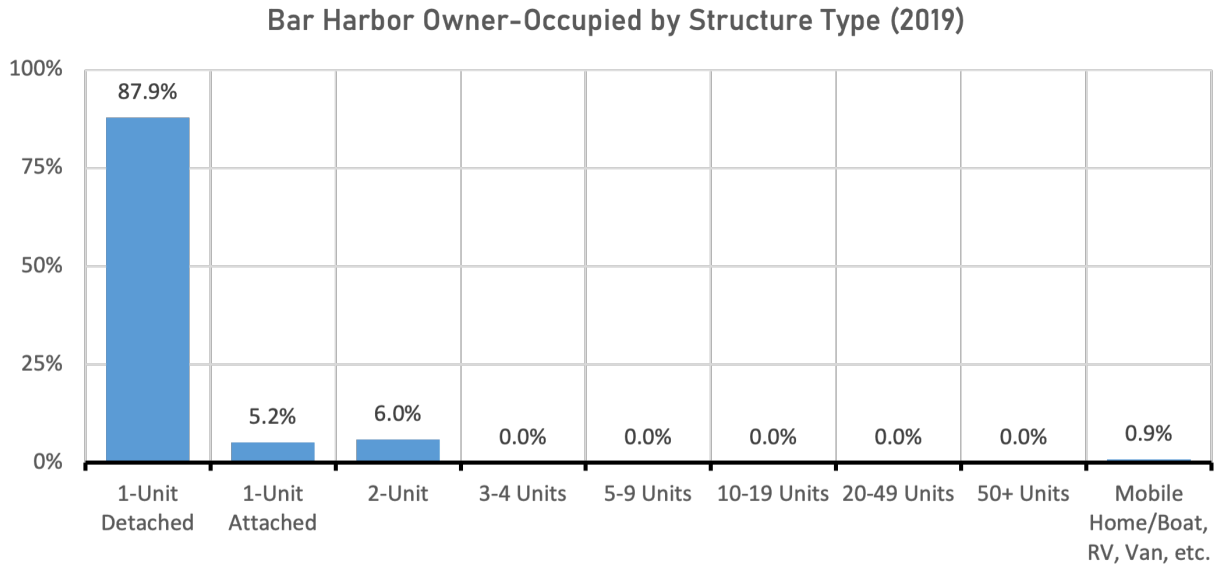


Figure 2.9: Owner-Occupied Units by Structure, 2019, Source: U.S. Census Bureau, 2019 ACS 5-year

Conversely, the renter-occupied housing stock is spread across a number of different residential structure types with 75% of all renter units in structures with fewer than ten units. With the predominate housing type being single-family homes in Bar Harbor, it is not surprising to see over a quarter of rental units are in single unit structures. The town does have about 22%, or 197 units, in structures with 20 or more units. It is very typical to see more rental units in buildings with higher units counts.

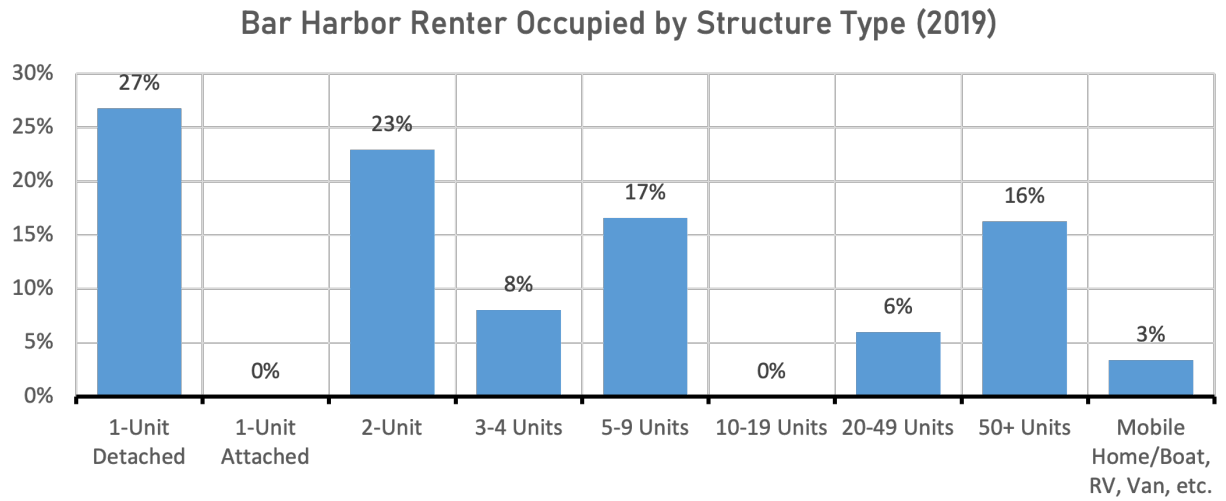


Figure 2.10: Renter-Occupied Units by Structure, 2019, Source: U.S. Census Bureau, 2019 ACS 5-year

AGE OF THE HOUSING STOCK

Overall, the renter housing stock in Bar Harbor is older than the owner stock with about 58% of all rental units in structures that were built before 1980 making those units over 40 years old. The owner-occupied housing stock is newer with 66% of units constructed after 1980. For a community in New England, the housing stock in Bar Harbor is on the newer side as many New England towns typically have very old housing stock. This may be because of the 1947 fire that destroyed so many residential buildings in town. By comparison, housing units constructed after 1980 across Maine comprises 44% of all units, but in Bar Harbor it is 52%. This is good for Bar Harbor as there may be fewer concerns about the quality of housing in the town, as well as the deficiencies of modern-day facilities such as plumbing and electric that can be found in some older residential structures.

Table 2.1: Age of Housing Stock		
Year(s) Built	**Units**	**% of Total**
Owner-Occupied Age		
Built 2000 or later	448	31%
Built Between 1980 and 1999	508	35%
Built Between 1960 and 1970	158	11%
Built 1959 or Earlier	337	23%
Renter-Occupied Units		
Built 2000 or later	177	20%
Built Between 1980 and 1999	192	22%

BUILDING PERMITS

Since the tail end of the Great Recession in 2013/2014, the Town of Bar Harbor has seen an uptick in residential building permit activity specifically for new housing units. In 2015, the town saw a high of 51 building permits issued and since then has averaged 40 permits issued per year through 2020.

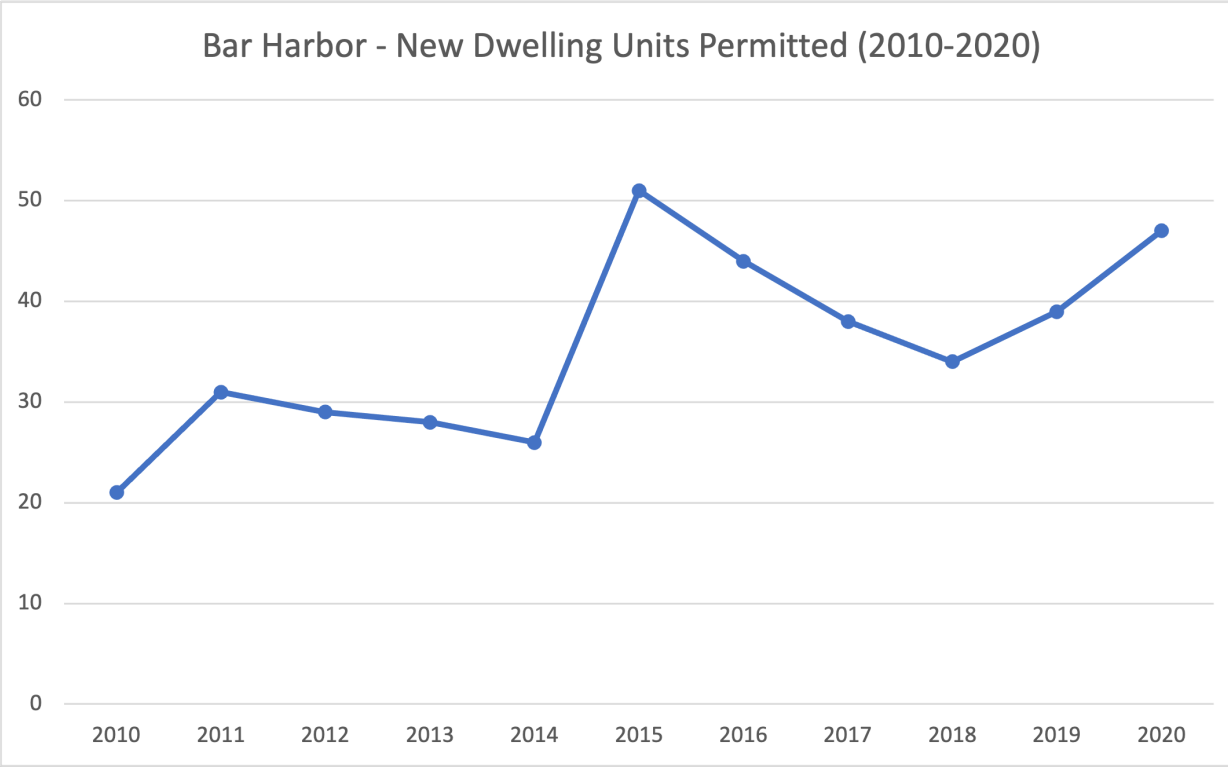


Figure 2.11: Building Permit Data, 2010-2020, Source: Bar Harbor, 2022.

VACANCY AND SEASONALITY

In a tourism-based, waterfront community with a national park like Bar Harbor, demand for both year-round and seasonal housing options are very high. One of the challenges with high demand for seasonal and short-term housing is part-time homeowners and investors can often outcompete local buyers with higher price offers, larger down payments, faster closing dates, or all cash offers. The desirability of being in Bar Harbor and all the natural amenities that come with living in the town continue to drive real estate prices higher crowding out lower to moderate income year-round households. To help understand the impacts of the seasonal housing market in Bar Harbor, the Census tracks the number of seasonal/recreational units through the vacancy table. The vacancy table disaggregates vacant housing units by type, which includes unoccupied units available for sale and for rent, as well as seasonally owned units, which are vacant for part of the year. According to estimates from the 2015-2019 ACS, Bar Harbor had a total of 1,080 vacant units with 71% of those units categorized as seasonal housing. That is an estimated 762 units out of a total of 3,416 units in Bar Harbor, or a vacancy rate for just seasonal housing of 22.3%.

As of the latest five-year ACS period from 2016-2020, the number of vacant units has increased to 1,230 with seasonal homes increasing by 251 units. This only captures the first year of the pandemic and is one year of an estimate that includes 2016-2019. What this does is speak to is the increasing trend and impact of seasonal housing in Bar Harbor and its further constrain on the year-round housing market.

VACANT AND AVAILABLE HOUSING

The seasonal nature of the housing market and competition for available units in Bar Harbor combine to create a very tight vacancy rate for units that are actually either for sale or for rent. According to ACS data from 2019, there were only 88 total housing units available for a true vacancy rate of 2.6%. This is incredibly low as most healthy housing markets have a vacancy rate between four and six percent to allow for some turnover in the market. Data from the 2020 ACS estimates the actual vacancy percentage for units available for sale or for rent is 1.7%.

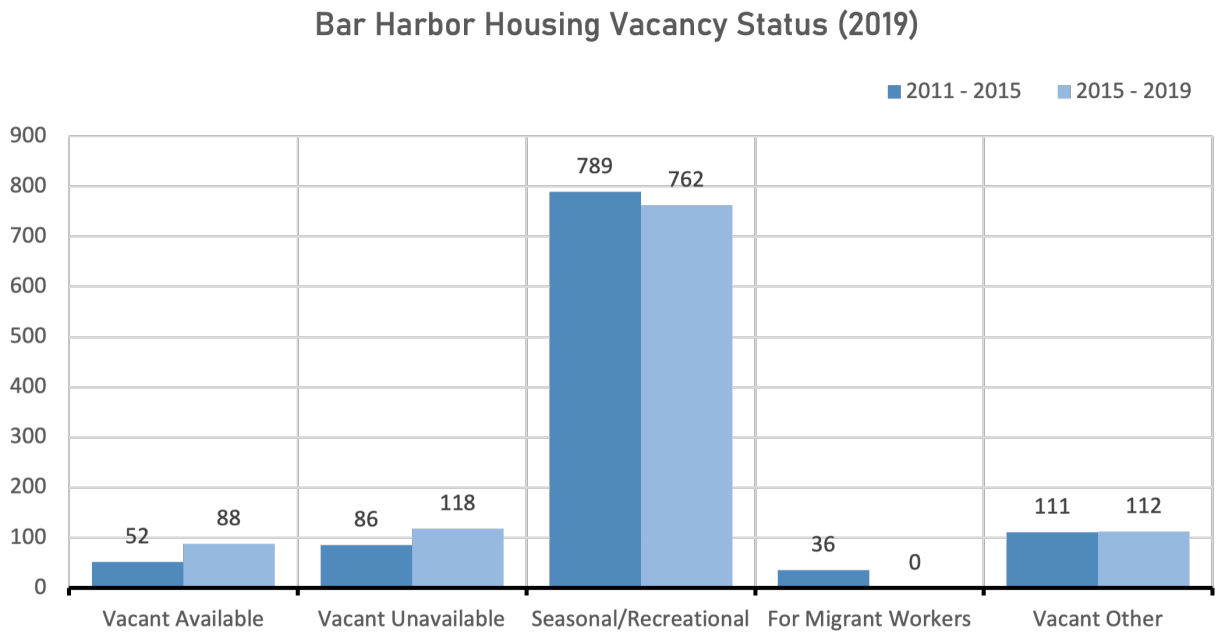


Figure 2.12: Vacancy, 2019, Source: U.S. Census Bureau, 2019 ACS 5-year

SHORT-TERM RENTAL MARKET

The desirability of Bar Harbor from a tourism and visitation standpoint is not only creating a housing supply challenge, with seasonal homeowners who may spend only part of the year in town, it is also creating demand from the housing investor market. Through interviews with town staff and other members in the community it is clear that the short-term rental market is also impacting the number of available year-round units that might otherwise be available to purchase or rent. The short-term rental option adds another dimension to the existing hospitality industry in Bar Harbor allowing more visitors to stay in town than would otherwise be possible through traditional hotels, bed and breakfasts, and campgrounds. Investor-owned properties, whether purchased by an individual or a real estate syndicate, are able to generate significant value thanks to companies and websites like Airbnb, VRBO, and HomeAway. The cash flows of short-term rental units are enough to justify higher purchase prices for units that come on the market likely out competing offers made by those looking for year-round housing.

The Town of Bar Harbor's 2021 short term rental regulatory document noted there are close to 750 short term rentals in Bar Harbor up from 518 in 2019. Data provided by the Town of Bar Harbor through the third-party data vendor AirDNA shows just how quickly the uptake of short-term rentals has been in town. Between 2015 and 2020 the number of total available listings, which is the count of all advertised or booked units for rent in a month, grew from 493 to 5,125 in five years. That is a 940% increase over that period showing the very rapid increase in frequency of available listings on an annual basis.

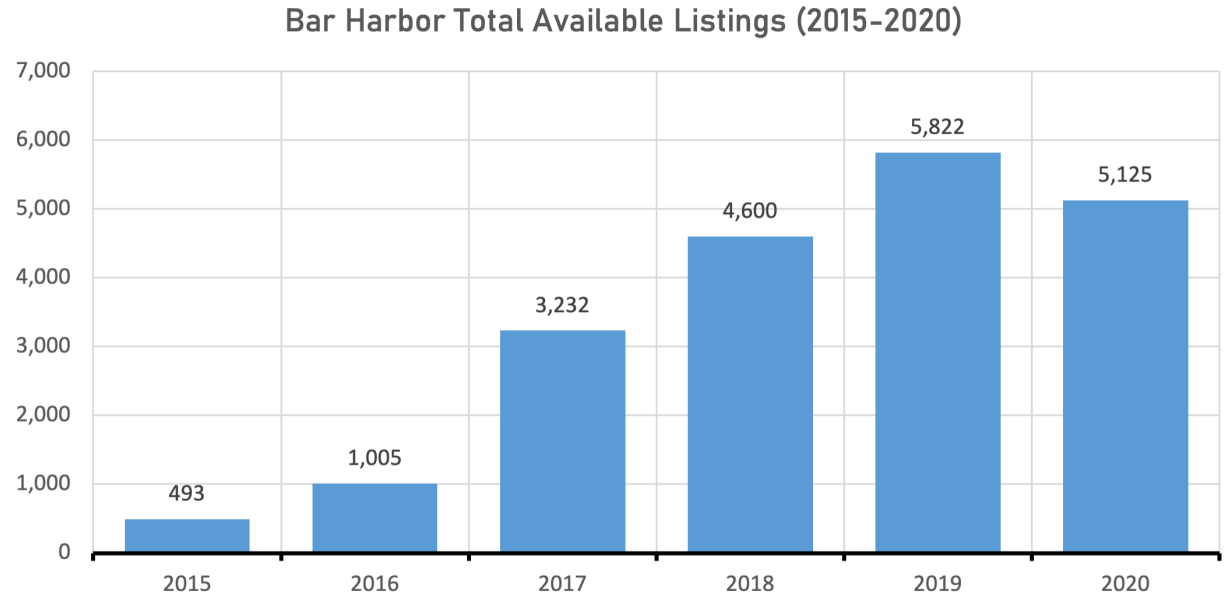


Figure 2.13: Total Available Listings in a Month, 2015-2020. Source: AirDNA, June 2021.

While the number of short-term available rentals grew, so did the number of listing nights which is a measure of all nights that were available in a given month. Figure 12 compares the number of listing nights available in a given month to the number of nights actually booked. Not only have listing nights increased but the percentage of nights actually booked by visitors has been increasing as well. This means that fewer listings are not being booked. During the months of July and August in 2019 and 2020, between 78% and 88% of listing nights were booked in Bar Harbor which could be as high as 8,000 to 9,000 listing nights a month.

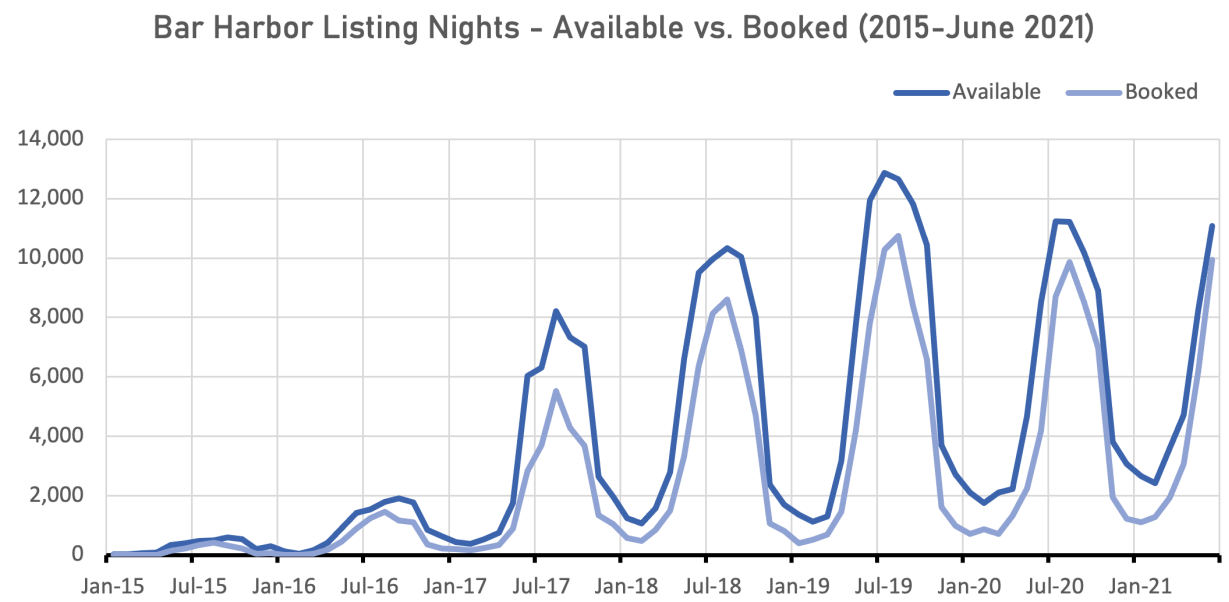


Figure 2.14: Available vs. Booked Listing Nights, 2015-June 2021. Source: AirDNA, June 2021.

The increased demand for short-term rentals in Bar Harbor has also driven up average daily rates over the last five years. Between 2015 and 2020, the average daily rate for a unit increased by $60 per night for "entire homes" with a high average daily rate of $275.50 in 2020. Given 2020 was a pandemic year where travel to New England states like Maine was restricted, rates in 2021 and 2022 are likely to continue to climb making investments in short-term rentals even more attractive.

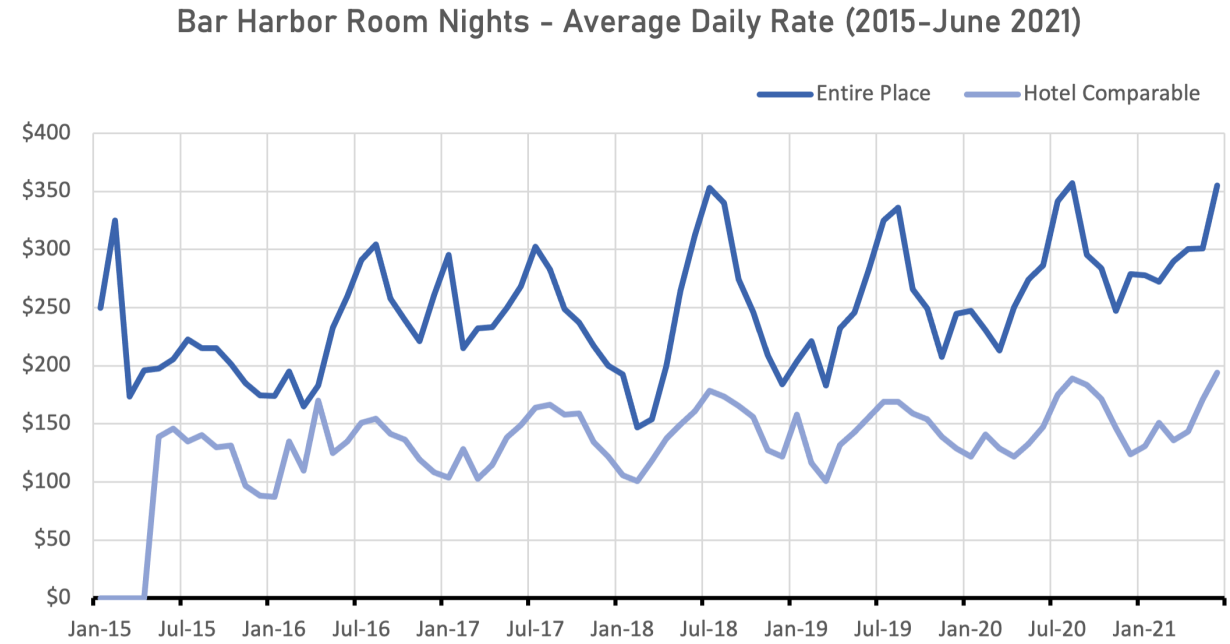


Figure 2.15: Average Daily Rates, 2015-June 2021. Source: AirDNA, June 2022

Short term rentals is one of the top housing topics in Bar Harbor as noted in the 2021 short term rental regulatory document. The impacts short term rentals have on year-round residents and their housing struggles is documented in this regulatory brief. The town notes "many renters have to move out every six months and some people end up living in cars, in the park, or couch surfing". The document also

accurately notes that short term rentals provide an important source of income to residents of Bar Harbor allowing them to continue to live in town and pay their bills.

The enacted legislation that Bar Harbor passed created two types of short term rentals, referred to in the regulations as VR-1 and VR-2. The VR-1 units are located in or at the primary residence and are allowed in 34 zoning districts. The entire unit can be rented out with no minimum rental period/number of nights restrictions. A maximum of two VR-1 registrations per qualifying property are allowed.

The VR-2 units are those located on a property that is not the owner's primary place of residence and would only be allowed in 18 zoning districts that are zoned for commercial and lodging activities. The VR-2 registration restricts to renting the entire dwelling unit for a minimum of four nights. The maximum number of VR-2 registrations are capped at 9% of the total number of dwelling units in Bar Harbor. Transfers of both VR-1 and VR-2 would be prohibited, including transfers to a new owner or location. The goal of this regulation is to help curb the creation of new investor-owned short term rentals across Bar Harbor which further restrict the amount of year-round owner and renter housing.

HOUSING PRICES

As housing supply continues to tighten with the competition between year-round residents and those looking for seasonal, investment, and worker housing, the price of housing continues to climb. According to Census data from 2019, the median value of a home in Bar Harbor was $315,700 which is over $100,000 higher than the median value of a home in Hancock County ($212,700).

Interestingly, the majority of value increases between 2011 and 2019 occurred for homes priced between $250,000 and $499,999 while more expensive homes priced over $500,000 declined as a share of all homes. This is due to seasonally vacant homes not being counted in the median value calculation. In other words, the decline in the share of high value homes is likely due to those homes changing hands from year-round owners to seasonal or investor-owned homes. This would then remove those homes

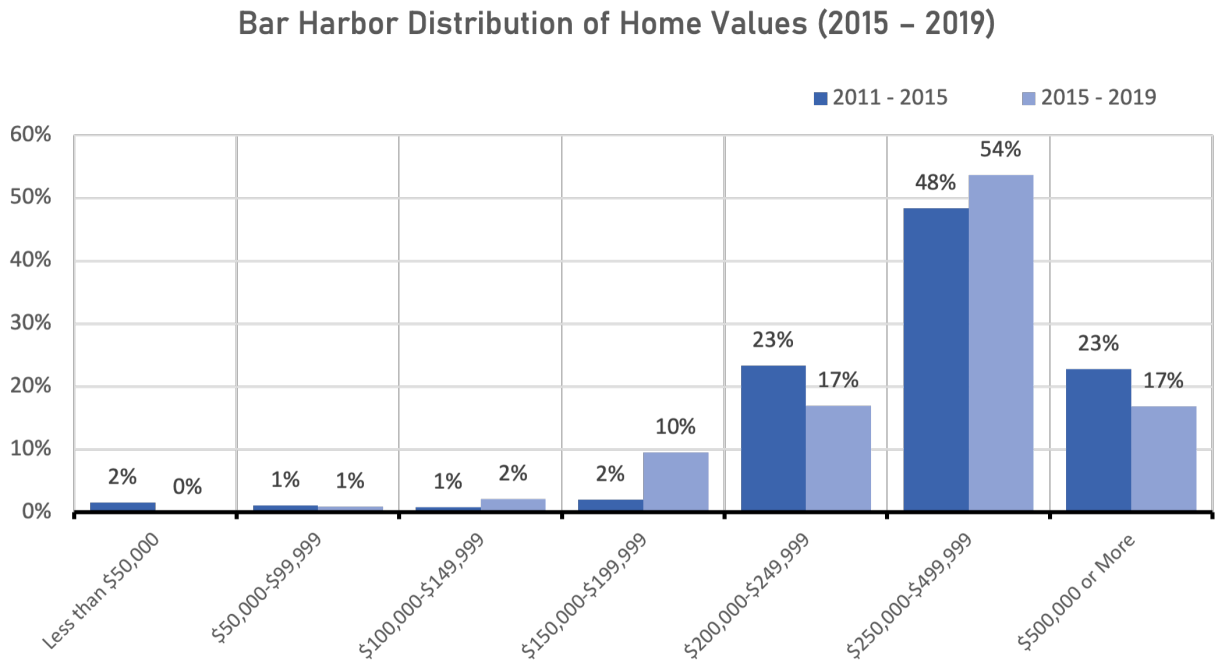


Figure 2.16: Home Values, 2015 & 2019, Source: U.S. Census Bureau, 2015 & 2019 ACS 5-year

from the value cohort they were in during the prior Census count. In the case of Bar Harbor, home values are not likely declining but the removal of higher value homes from year-round occupancy is bringing down the median value of the remaining year-round units.

HOME SALES AND PRICING

In addition to changes in median home value, sale prices have skyrocketed in Bar Harbor. According to sales data from Redfin, the median home sale price of all homes in Bar Harbor went from $311,500 in 2018 to a $520,000 by the end of 2021. That is a $200,000 jump, or a 67% increase in three years. At the same time, prices are increasing, the total number of home sales in town decreased. In 2018, Redfin recorded 1,347 individual home sales, while in 2021 there were only 269. Some of this may be attributed to reduced sale volumes due to the pandemic and fewer open houses, but this downward trend had been occurring even as far back as 2017. The pandemic likely accelerated those trends further constraining the number of people moving out of Bar Harbor, the number of homes entering the market, and thereby driving up the sale prices for home hitting the market.

These trends in home sales and prices are pushing owner-occupied homes further out of reach of many year-round Bar Harbor residents, particularly for those residents who are of low to moderate income. In order to afford a home at the median sale price in 2021, a person or household would have to earn over $100,000 a year and be able to put down a 20% down payment. This far exceeds the current median household income in Bar Harbor of just over $66,000 a year.

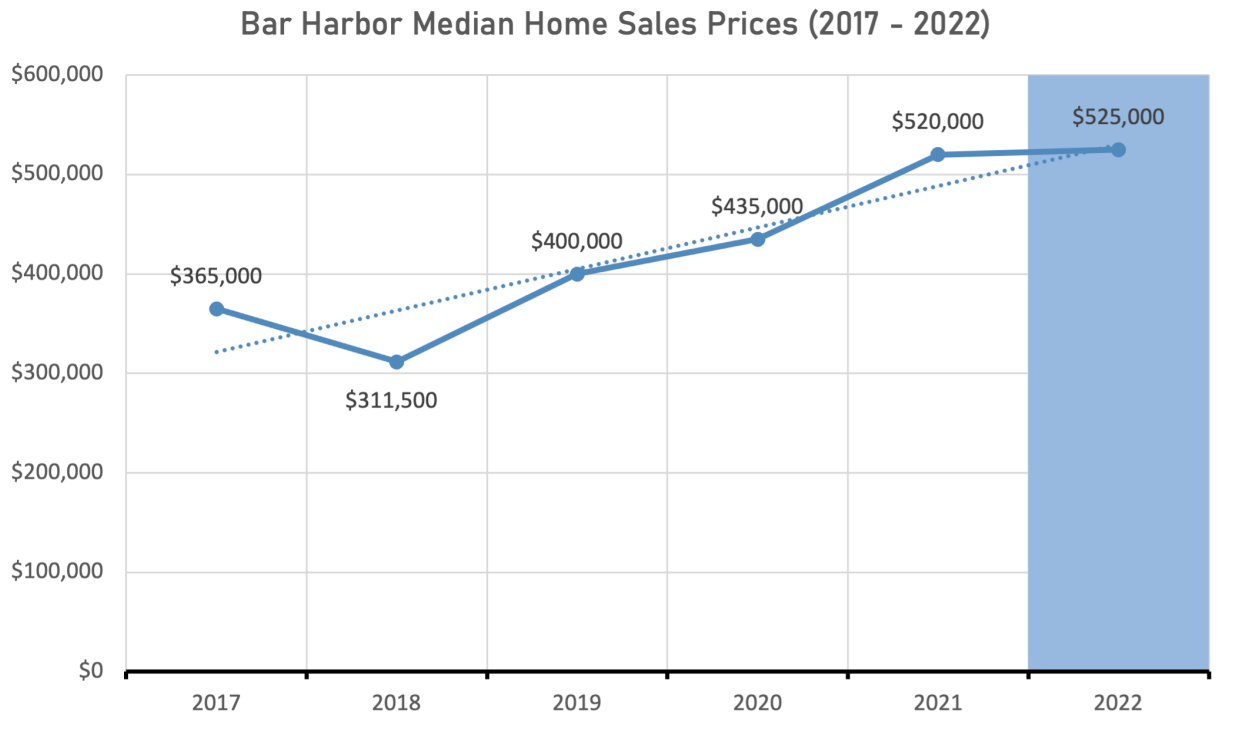


Figure 2.17: Median Sale Prices, 2017-March 2022, Source: Redfin.

GROSS RENT

Gross rent, which is a measure of the monthly agreed upon rent plus an estimate of monthly utility costs and fuels if they are paid by the tenant. This measure captures the true cost of renting a unit if utilities are not included in the monthly payment. It should be noted that ACS measures of gross include all rented units in Bar Harbor, not just those that are recently listed on the market, which is why ACS gross rent estimates do not reach as high as recently listed rental units in town. From 2011 to 2019, the median gross rent in Bar Harbor increased 9.4% from $790 per month to $864 per month. The largest increase in units by price cohort was for units priced between $1,500 and $1,999 a month comprising 8% of all rental units in 2019. The largest number of rental units in Bar Harbor are still those priced between $500 and $999 a month. To afford a unit priced at $999 a month, an individual or household would need to earn just under $40,000 a year. To afford a newer rental unit priced at $1,999 a month, an individual or household would need to earn just under $80,000 a year.

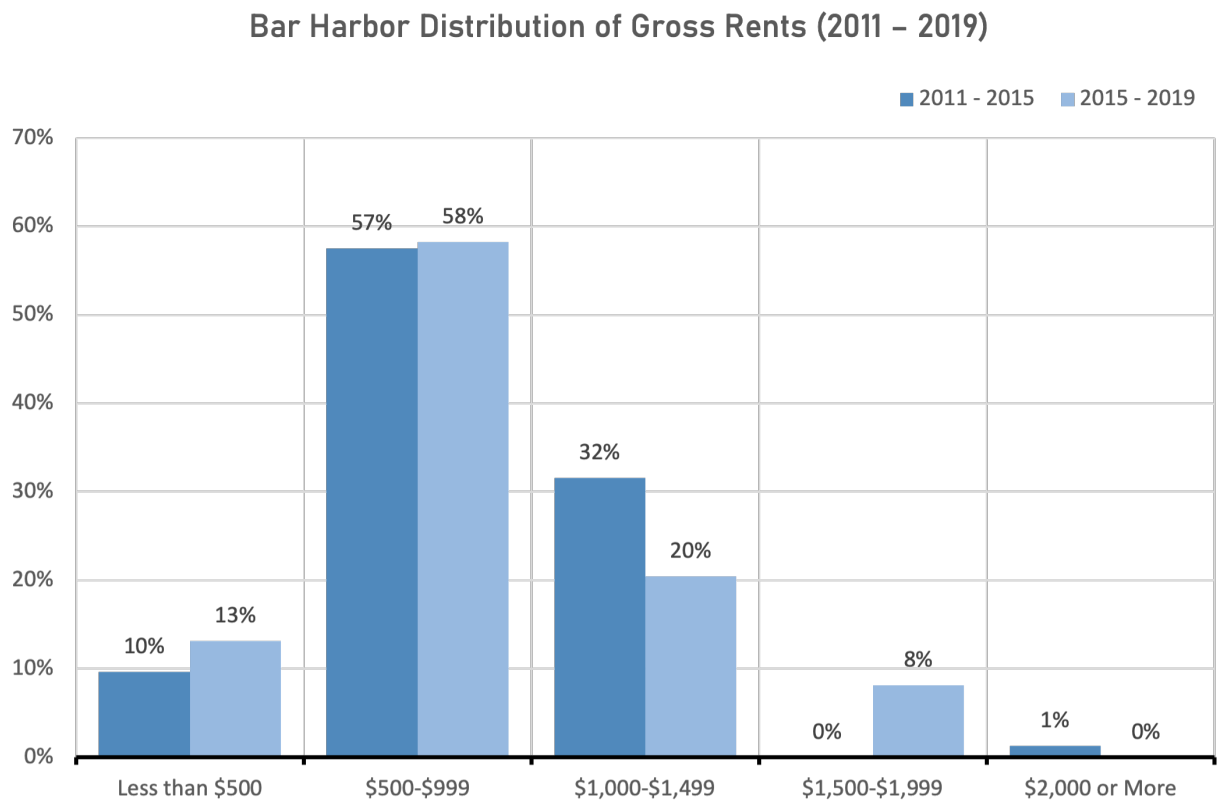


Figure 2.18: Median Gross Rent, 2015 & 2019, Source: U.S. Census Bureau, 2015 & 2019 ACS 5-year

AFFORDABILITY

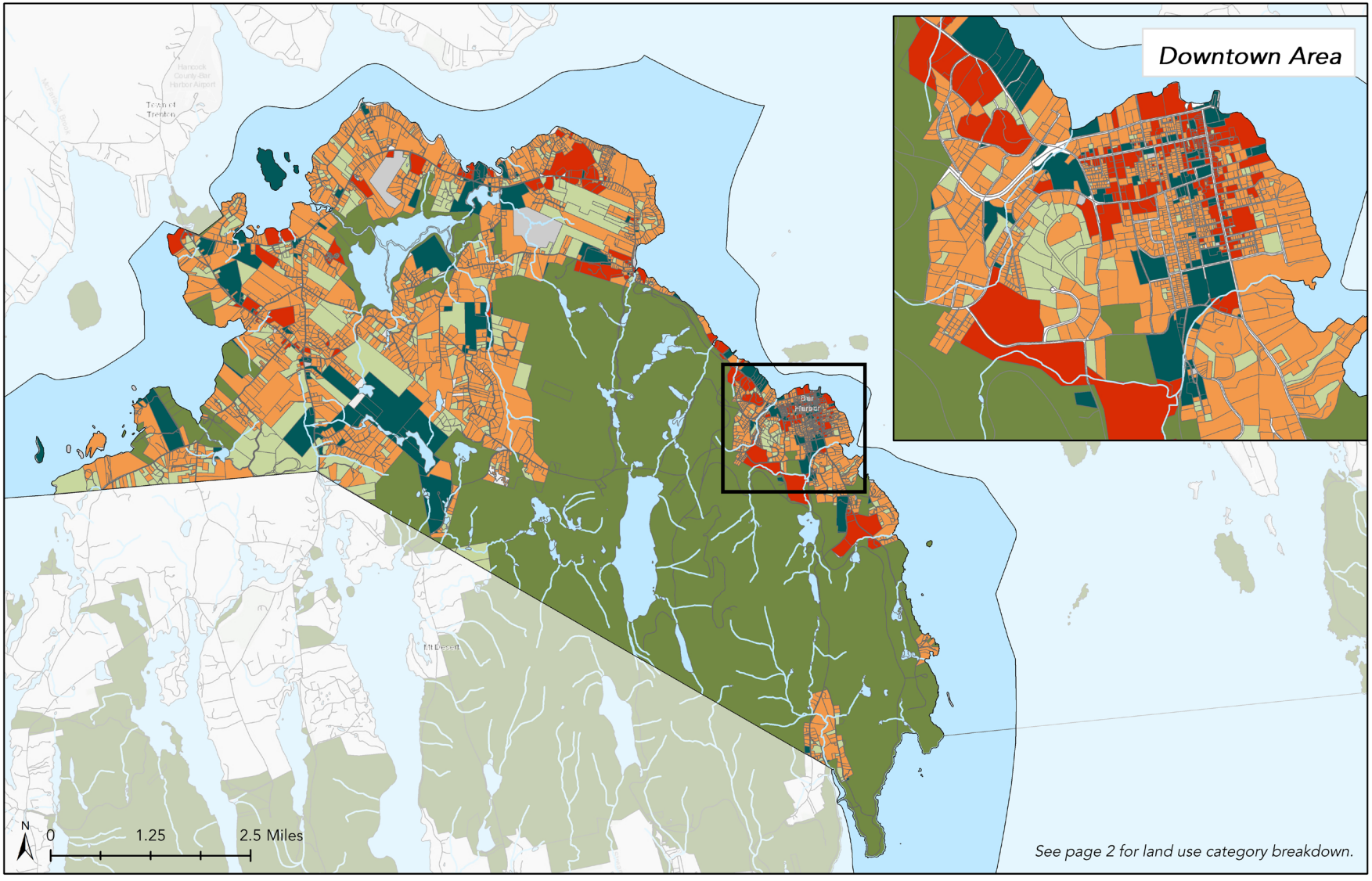
Rising housing prices for both owners and renters in Bar Harbor are also leading to more households overall having to spend more than 30% of their household income on housing costs. This metric is known as "cost burden" and is a standardized measure of what a household should spend on their annual housing costs. In Bar Harbor, 40% of all owner-occupied households with a mortgage and 36% of all renter-occupied households are spending more than 30% of their income on housing costs. As prices continue to rise in Bar Harbor, particularly with the shrinking supply of year-round housing and impacts of the pandemic, cost burdening for many households is likely to increase.

LAND USE AND ZONING

Map 2.1 shows how the land within Bar Harbor's municipal boundary is currently being used. The orange-colored parcels of land are all used primarily in support of residential uses. When looking at the land use map, it quickly becomes apparent just how much of the land area within Bar Harbor's borders is occupied by Acadia National Park. Most of the residential parcels of land outside of the downtown area (shown in the inset map) are single family homes, leaving fewer options for new development across town. In areas where new residential development may be physically possible, there may also be constraints on the land from environmental/natural features or a lack of public utilities (water/sewer). In the downtown area where parcels are much smaller and land is largely consumed by existing buildings, redevelopment may be the mechanism for addressing housing challenges.

From a zoning perspective, residential uses are allowed in many of Bar Harbor's zoning districts today. An analysis conducted by FB Environmental noted 34 of Bar Harbor's zoning districts currently allow at least one form of residential use. However, in many of these districts, a number of other uses are allowed that compete with housing development such as lodging, solar, etc. The issues in Bar Harbor from a regulatory perspective may be less about the types of uses allowed in many districts and more about the dimensional regulations, parking, heights, and densities of residential uses. These potential barriers may be creating financial constraints where property owners or developers cannot achieve a high enough density to make a residential project viable. Map 2.2 provides a generalized zoning map that identifies locations in Bar Harbor where zoning is primarily encouraging residential versus commercial. The lightest shade of orange in the map indicates districts where both residential and commercial are encouraged.

Map 2.1 Generalized Land Use Map, 2022.



LAND USE

BAR HARBOR

Map created for assessment of existing conditions within Bar Harbor.

- Bar Harbor Town Boundary
- Waterbody/Coastal Waters
- Stream
- Road
- Acadia National Park Boundary

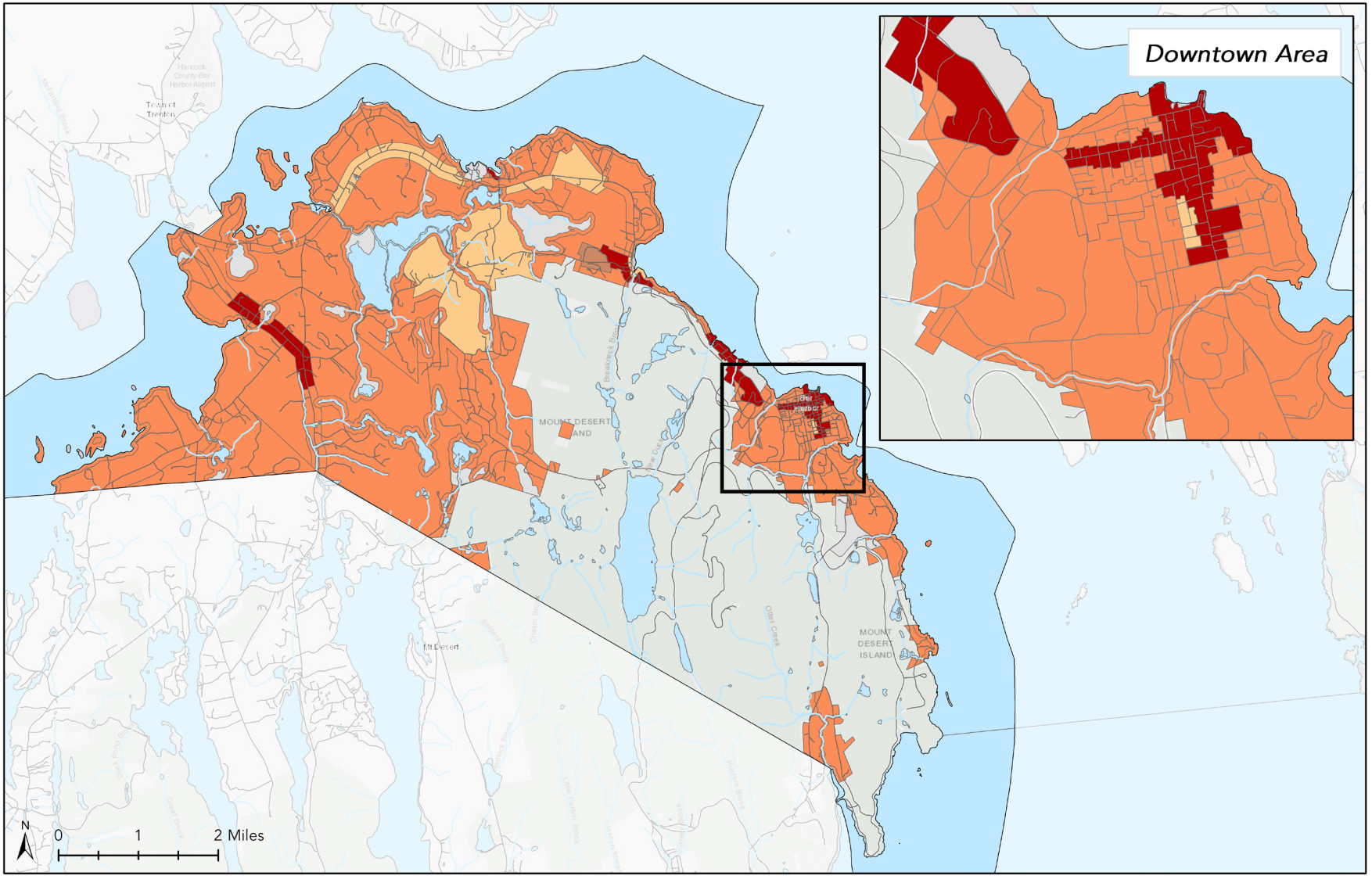
Land Use by Major Category

- Residential
- Commercial
- Social/Institutional/Public
- Undeveloped Land
- Other

Data Sources: Town of Bar Harbor, Maine Geolibrary, National Hydrography Dataset
Coordinate System: NAD 1983 UTM Zone 19N
Created: FB Environmental
February 2022

FB environmental

Map 2.2: Generalized Zoning Districts by Allowable Use, 2022.



ZONING

BAR HARBOR

Map created for assessment of existing conditions within Bar Harbor.

Bar Harbor Town Boundary
Waterbody/Coastal Waters
Stream
Road

Zoned as:

Primarily Residential
Primarily Commercial
Industrial
Both Residential and Commercial
Other

Data Sources: Town of Bar Harbor, Maine Geolibrary, National Hydrography Dataset
Coordinate System: NAD 1983 UTM Zone 19N
Created: FB Environmental
February 2022

FB environmental

BAR HARBOR'S CENSUS DESIGNATED PLACE (CDP)

According to the U.S. Census Bureau, a Census Designated Place (CDP) is a statistical geography representing closely settled, unincorporated communities that are locally recognized and identified by name. The Bar Harbor CDP consists of the main downtown center of the Town of Bar Harbor. It is located on the eastern part of Town on Mount Desert Island. It is host to the town's major commercial activities and includes a number of hotels and tourist attractions. The majority of Bar Harbor's residents reside within the CDP making it an important geography of comparison when considering the housing dynamics occurring throughout the Town of Bar Harbor. The following section provides a brief highlight of key data points that speak to the similarities and differences between the Town of Bar Harbor and the Bar Harbor CDP.

HOUSEHOLD COMPOSITION IN THE CDP

Despite the broader population increases in Bar Harbor, the Bar Harbor CDP saw an 11% (293 residents) decrease in total population from 2011 – 2019. Over the same period of time, the number of households in the Bar Harbor CDP decreased by an estimated 213 total households.

ACS estimates show that with these population decreases, household composition has also been shifting over time. The percentage of family households, or those households with two or more related individuals, comprised 56% of all occupied households in Bar Harbor's CDP in 2019. That is up from 34% of households in 2015. Most of that shift in household composition can be attributed to a growing share of married couple households and a shrinking number of households consisting of unrelated roommates.

The shift in Bar Harbor's CDP to more family households is also consistent with the demographic shifts presented in the demographics chapter where population growth with residents ages 25-34 and 45-54 corresponded with growth in children under the age of 18. This would be consistent with the increases in married couple households, and an indicator that some of those households also have one or more children living with them.

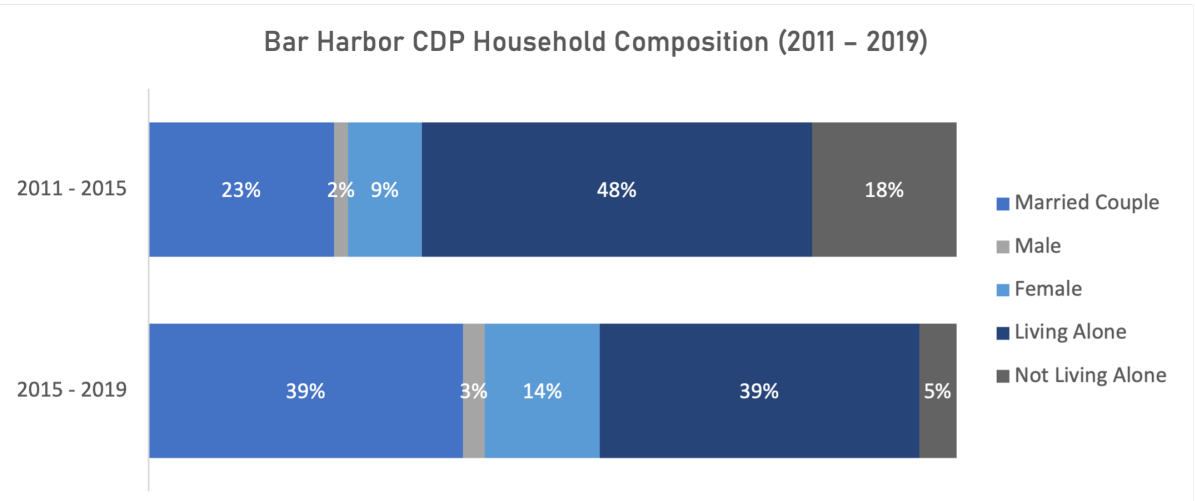


Figure 2.19: Household Composition, 2011 – 2019, Source: U.S. Census Bureau, 2015 & 2019 ACS 5-year

HOUSING TENURE IN THE CDP

As household composition in Bar Harbor has shifted from an almost 50/50 split of family and non-family

households to having more family households, the percentage of owner-occupied housing units has also increased. Between 2011 and 2019, owner-occupied housing as a percentage of the town's overall housing stock increased from 57% to 62% while renter-occupied units dropped from 43% to 38%. This follows a similar pattern in the CDP where owner-occupied units increased from 43% to 47% and renter-occupied decreased from 57% to 53%.

Although Bar Harbor's household composition and average household size has been increasing since 2011, one- and two-person households (regardless of tenure) comprise the majority of households in the CDP.

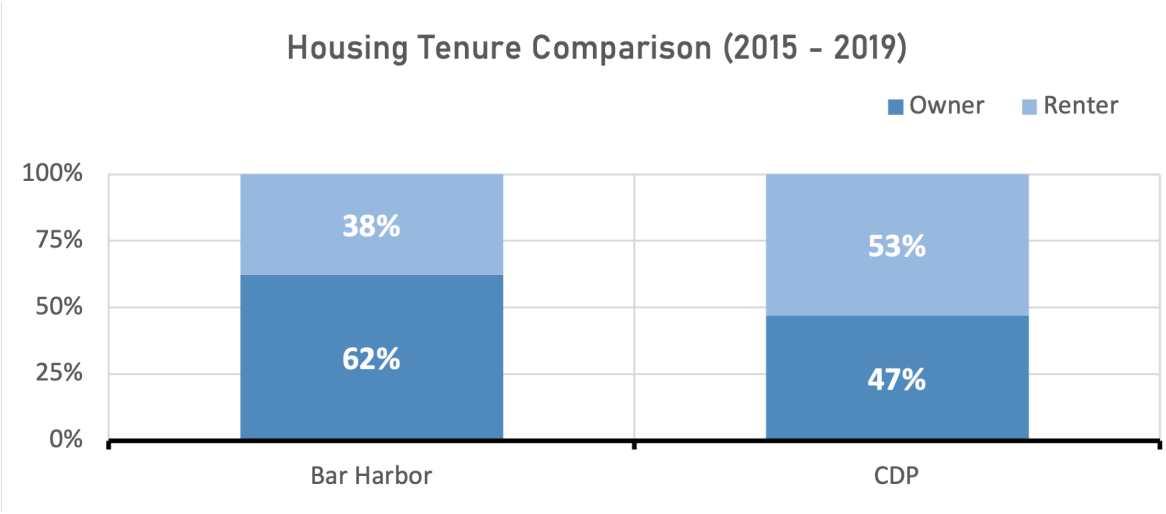


Figure 2.20: Housing Tenure, 2019, Source: U.S. Census Bureau, 2019 ACS 5-year

Over the past decade, Bar Harbor's CDP has seen net decreases in one-person households regardless of tenure and increases 2 – 4 person households which has contributed to the increase in average household size.

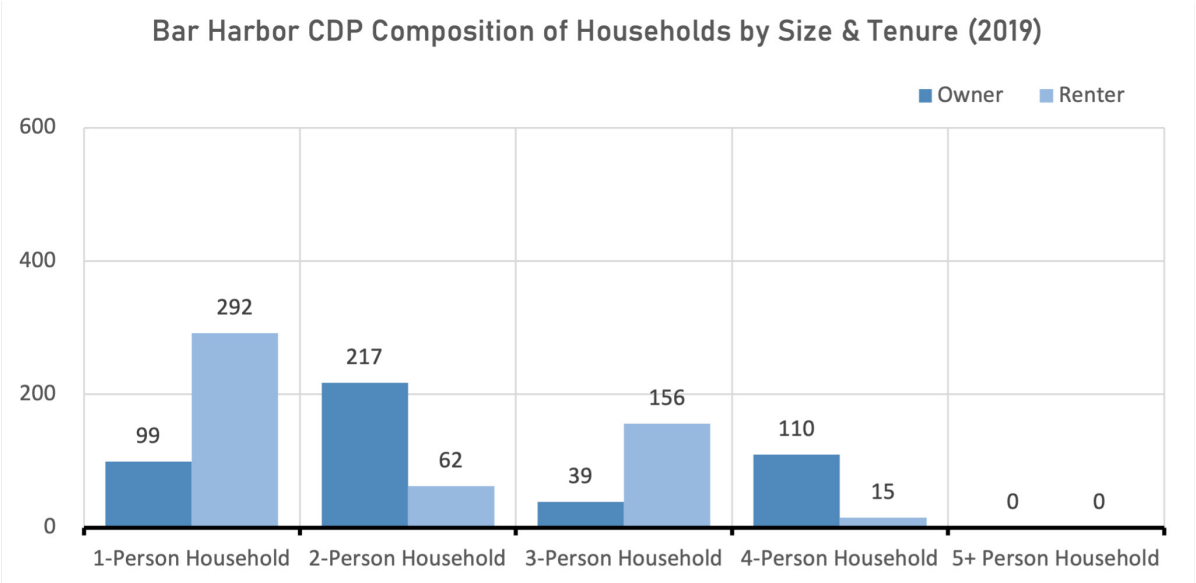


Figure 2.21: Household Size by Tenure, 2019, Source: U.S. Census Bureau, 2019 ACS 5-year

The largest number of renter households are headed by someone between the ages of 25 and 44 which comprise an estimated 290 total renter households or 55% of all renter households in Bar Harbor'

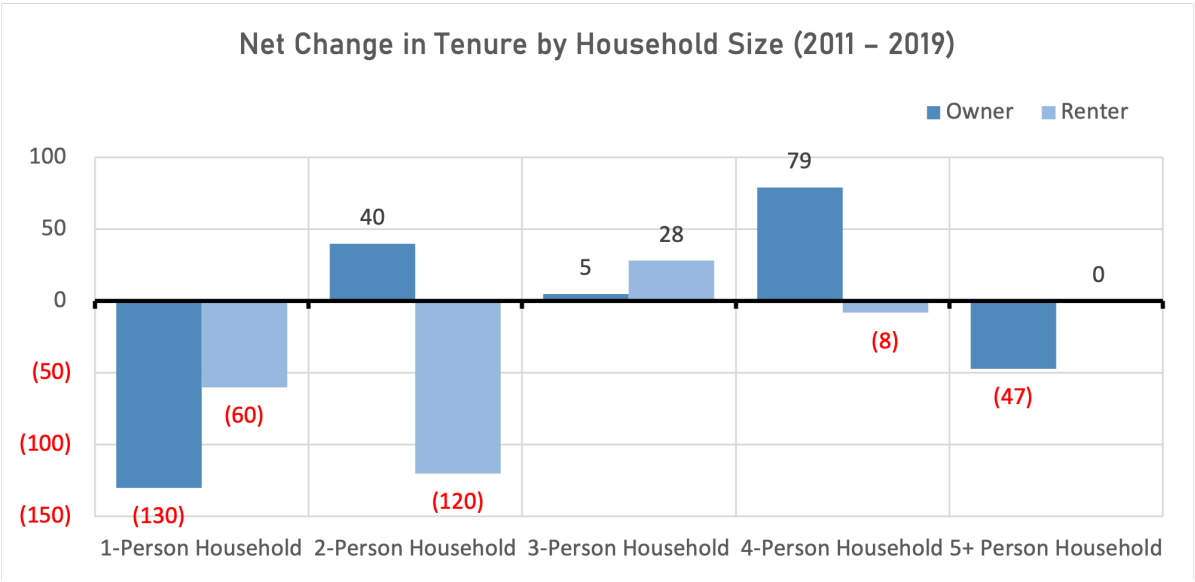


Figure 2.22: Household Size by Tenure, 2011-2019, Source: U.S. Census Bureau, 2015 & 2019 ACS 5-year

CDP. Interestingly, 24% of all households in Bar Harbor's CDP are headed by a householder 65 years or older.

HOUSING UNITS IN THE CDP

Looking more closely at the composition of the CDP's housing stock by owner and renter units, we see the vast majority (81%) of owner-occupied units are single-family structures with another 13.7% spread between one-unit attached structures and two-unit structures. There are very few alternative ownership unit typologies in Bar Harbor' CDP such as townhomes, three- or four-unit structures, or larger multi-family condominiums.

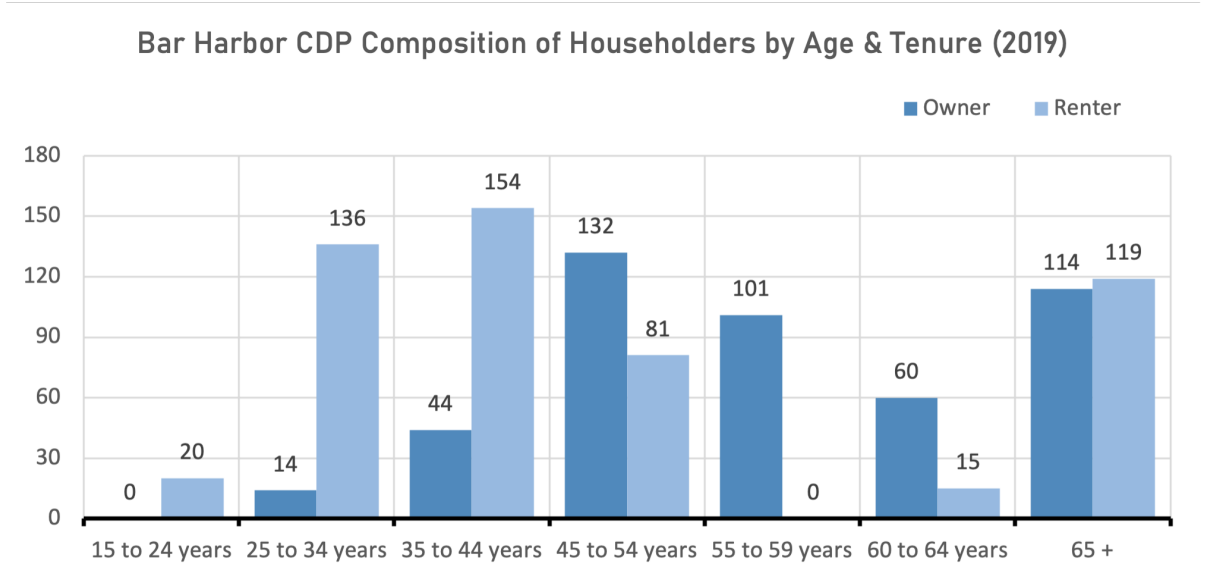


Figure 2.23: Tenure by Age of Householder, 2019, Source: U.S. Census Bureau, 2019 ACS 5-year

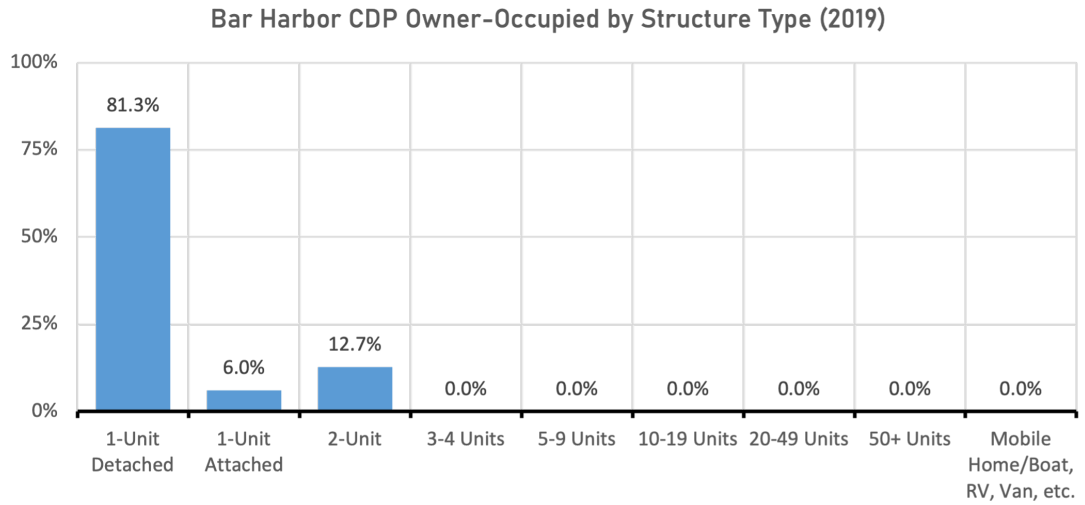


Figure 2.24: Owner-Occupied Units by Structure, 2019, Source: U.S. Census Bureau, 2019 ACS 5-year

Conversely, the renter-occupied housing stock is spread across a number of different residential structure types with 73% of all renter units in structures with fewer than ten units. With the predominate housing type being single-family homes in Bar Harbor's CDP, it is not surprising to see over a quarter of rental units are in single and two-unit structures.

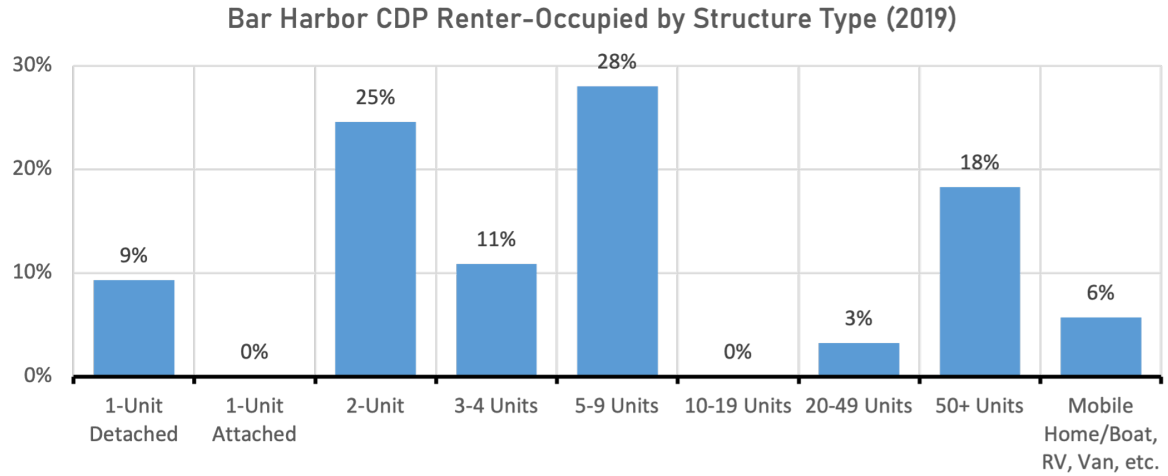


Figure 2.25: Renter-Occupied Units by Structure, 2019, Source: U.S. Census Bureau, 2019 ACS 5-year

AGE OF THE HOUSING STOCK IN THE CDP

Overall, the renter housing stock in Bar Harbor's CDP is older than the owner stock with about 84% of all rental units in structures that were built before 1980 making those units over 40 years old. The owner-occupied housing stock is newer with 43% of units constructed after 1980. Compared with the Town of Bar Harbor, the CDP's owner housing stock is much older and given its higher

Table 2.2: Age of Housing Stock in the CDP

Year(s) Built	Units	% of Total
Owner-Occupied Age		
Built 2000 or later	35	8%
Built Between 1980 and 1999	162	35%
Built Between 1960 and 1970	42	9%
Built 1959 or Earlier	226	49%
Renter-Occupied Units		
Built 2000 or later	48	9%
Built Between 1980 and 1999	37	7%
Built Between 1960 and 1970	271	52%
Built 1959 or Earlier	169	32%
Source: U.S. Census Bureau, 2019 ACS 5-year		

density compared to the town, the majority of the town's older rental stock is most likely located in the CDP contributing to the higher numbers of rental units built prior to 1980.

By comparison, housing units constructed after 1980 across Maine comprises 44% of all units, but in Bar Harbor it is 52%. While the Town of Bar Harbor has newer housing stock in broad comparison to the state, The town's older housing stock is most likely concentrated in the CDP, which is what drives the share of older housing stock in the town-wide estimates.

VACANT AND AVAILABLE HOUSING IN THE CDP

The seasonal nature of the housing market and competition for available units in Bar Harbor's CDP combine to create a very tight vacancy rate for units that are actually either for sale or for rent. According to ACS data from 2019, there were only 44 total housing units available for a true vacancy rate of 2.83%. This is incredibly low as most healthy housing markets have a vacancy rate between four and six percent to allow for some turnover in the market.

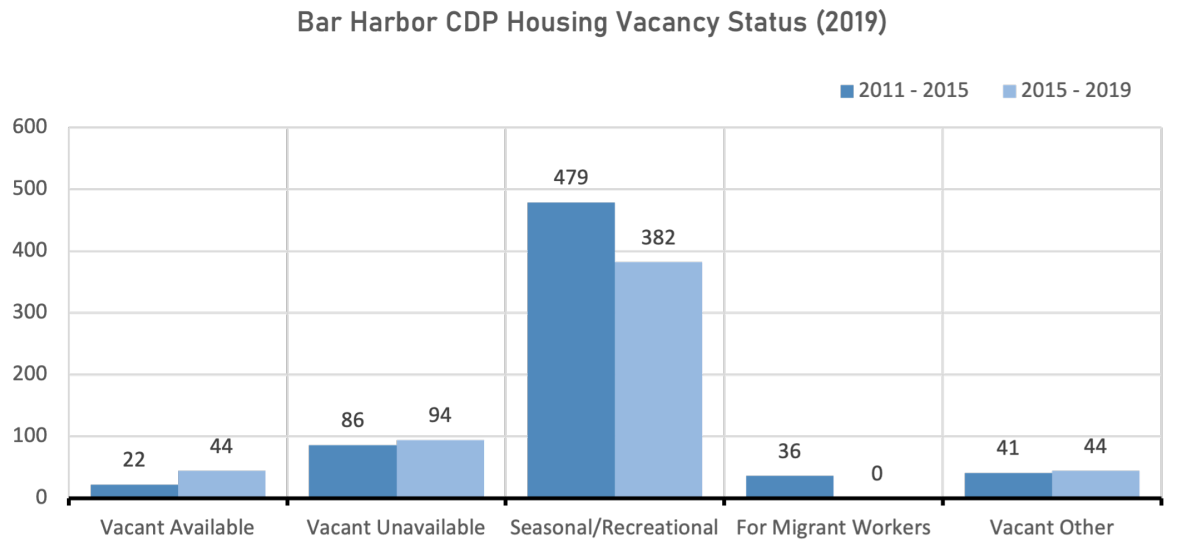


Figure 2.26: Vacancy, 2019, Source: U.S. Census Bureau, 2019 ACS 5-year

HOUSING PRICES IN THE CDP

As housing supply continues to tighten with the competition between year-round residents and those looking for seasonal, investment, and worker housing, the price of housing continues to climb. According to Census data from 2019, the median value of a home in Bar Harbor's CDP was $327,400 which is over $100,000 higher than the median value of a home in Hancock County ($212,700). Interestingly, the majority of value increases between 2011 and 2019 occurred for homes priced over $500,000 which is in contrast with the town-wide increases in homes priced between $250,000 and $499,999. This could suggest that while the decline in the share of high value homes across Bar Harbor is likely due to homes changing hands from year-round owners to seasonal or investor-owned homes, the share of high valued homes in the CDP remain consistent. This means that throughout Bar Harbor, home values are not likely declining but the removal of higher value homes from year-round occupancy is bringing down the median value for the town, and the higher value year-round units are remaining concentrated in the CDP.

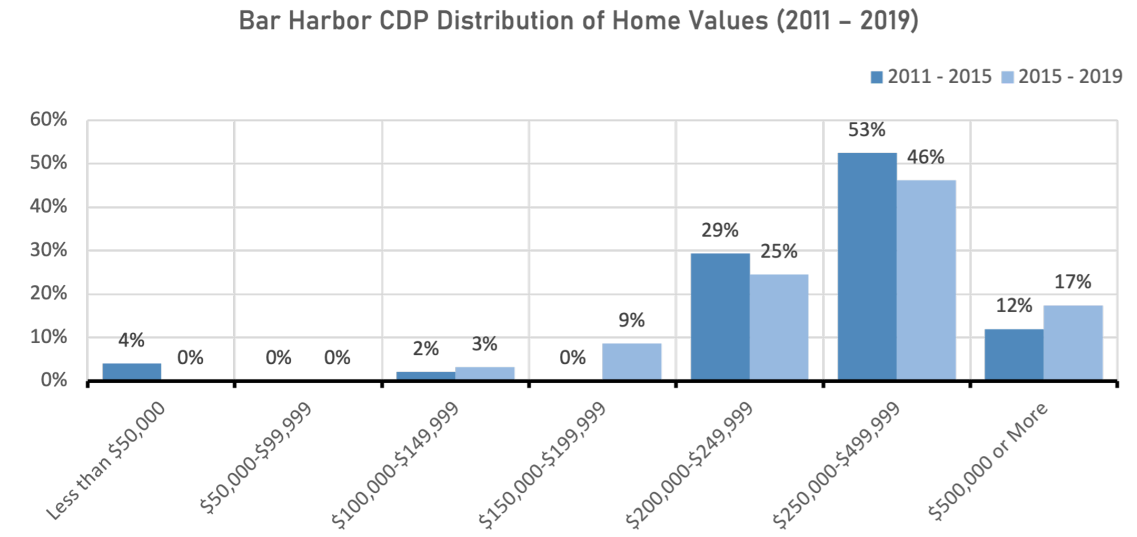


Figure 2.27: Home Values, 2015 & 2019, Source: U.S. Census Bureau, 2015 & 2019 ACS 5-year

GROSS RENT IN THE CDP

From 2011 to 2019, the median gross rent in Bar Harbor increased 4.28% from $795 per month to $829 per month. The largest number of rental units in Bar Harbor's CDP are still those priced between $500 and $999 a month. To afford a unit priced at $999 a month, an individual or household would need to earn just under $40,000 a year. To afford a newer rental unit priced at $1,999 a month, an individual or household would need to earn just under $80,000 a year.

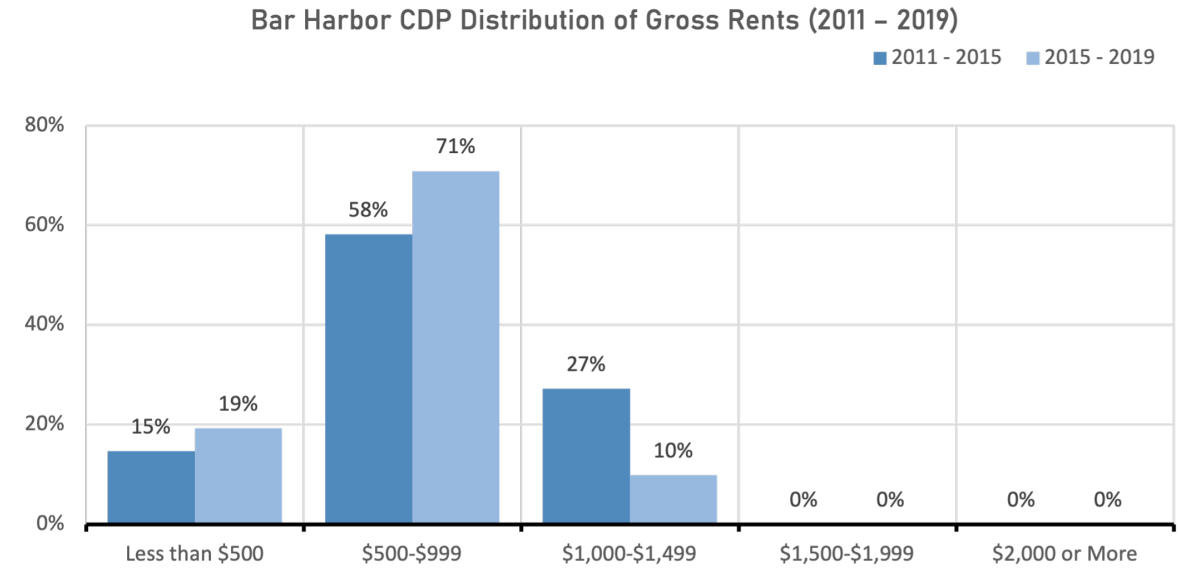


Figure 2.28: Median Gross Rent, 2015 & 2019, Source: U.S. Census Bureau, 2015 & 2019 ACS 5-year

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- Comprehensive Plan Data Package, Maine State Economist.
- Housing Needs Analysis and Assessment, Mount Desert Island, Maine. November 2018.
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- Housing Policy Framework, Bar Harbor, Maine. October 2019.
- AirDNA Report, Bar Harbor, Maine. June 2021.

ECONOMIC DEVELOPMENT

BAR HARBOR 2022 EXISTING CONDITIONS SUMMARY

Bar Harbor has a robust tourism economy, an active Downtown that benefits from tourists visiting Acadia National Park and Mount Desert Island, as well a year-round economy anchored by a number of key institutions and other businesses. Economic development efforts are directly linked to availability of housing, transportation options, and capacity of public infrastructure.

The employment base across industry sectors in Bar Harbor is centered on five primary sectors. These include: professional, scientific, and technical services; accommodations and food services; health care and social assistance; retail; and educational services. In 2020, Bar Harbor's businesses employed an estimated 4,846 people of which nearly half were employed in those first four industry sectors.

Prior to the pandemic, the number of jobs in Bar Harbor was steadily increasing, reaching a five-year high of 5,619 jobs in 2019. The majority of jobs in Bar Harbor fall within the professional and technical services, health care, retail, accommodations and food service, and education sectors of the economy.

The pandemic had a major impact on jobs in 2020 with the retail and accommodations and food services sectors losing approximately 600 jobs. Some of those jobs have come back as tourism and businesses opened back up in 2021. The unemployment rate in Bar Harbor increased to 6.3% in 2020 as a result of the pandemic's impacts on jobs across tourism-based sectors. That has since fallen to 5.5% in 2021 and is likely to continue to fall as more businesses reopen and rehire. Prior to the COVID-19 pandemic, the unemployment rate was at a low of 3.6%.

The seasonality of Bar Harbor's economy creates challenges related to finding and retaining employees and has created a reliance on the H-2B visa program to fill many seasonal job openings each year. During peak season months of July and August, there can be as many as 700-800 additional employees in town compared to January and February.

70% of all jobs in Bar Harbor in 2019 were filled by employees who lived outside town and had to commute in. Only 30% of all jobs in Bar Harbor were filled by people who both lived and worked in town.

Of the 2,924 employees commuting into Bar Harbor for work, **a majority work in service-based jobs likely supporting tourism-based industries and some work in professional/scientific/tech positions for the town or in other sectors.**

Annual wages for many employees in Bar Harbor are below $40,000 a year, making it difficult to afford housing and transportation costs which are both rising rapidly.

Compounding the rise in transportation costs is the fact that **15% of all employees working in Bar Harbor commute more than 25 miles a day.** This is over 1,000 employees each day driving more than 25 miles to work in Bar Harbor.

The tourism-based economy in Bar Harbor continues to grow. In 2021, Acadia National Park recorded over 4 million visits which is the highest level seen since the late 1980's. Cruise ships will also return to Bar Harbor in 2022 and are estimated to bring nearly 290,000 visitors to the port.

Situated within Frenchman Bay, **the town relies on its marine resources for recreation, tourism, and commercial use.**

3. Economic Development

INTRODUCTION

The phrase "economic development" is often thought to refer to physical development of commercial and industrial space in a community, but true economic development supports the improvement of the town and the lives of people residing there through both physical change and policy. Specific economic conditions in a municipality are largely driven by sources of household income; the commercial and industrial base a community can attract, retain, and support; and the uses a community chooses to allow or encourage on its land via zoning. There are many factors that businesses and organizations take into consideration when choosing where to locate, including availability of space, local amenities, access to a talented workforce, tax rates, and quality and capacity of existing and planned infrastructure.

The economy in Bar Harbor is very unique with a robust tourism-based economy benefiting from its waterfront location and the presence of Acadia National Park within the geographic boundaries of the town. This creates a draw for both land- and water-based tourists which help support Bar Harbor's downtown and the multitude of hospitality-based businesses across town. There are also several large institutions in Bar Harbor which provide thousands of jobs and their own set of economic impacts, and also offer a buffer to economic shocks like the COVID-19 pandemic that had outsized impacts on retail, restaurants, and hospitality businesses. With land-based tourism growing and water-based tourism returning, the town is faced with questions around the future of the economic ecosystem and where to place their emphasis going forward.

PRELIMINARY ISSUES, CHALLENGES AND OPPORTUNITIES

The following is a preliminary list of issues, challenges and opportunities posed by the findings of the inventory of existing conditions of Bar Harbor's economy. These findings are subject to change with the preparation of goals and objectives not yet drafted at the time of this existing conditions report.

ISSUES AND CHALLENGES

Bar Harbor is unique for a place of its size in that it has a very robust tourism economy fueled by its location on the coastline and the presence of Acadia National Park, but it also has several large employers that support a few thousand jobs and offer different career pathways. The presence of large institutions and employers like MDI Hospital, College of the Atlantic, The Jackson Laboratory , and MDI Biological Laboratory are unique for a community of this size. Although the two facets of Bar Harbor's economy co-exist, there are tensions in the community regarding the economic impact provided, taxes paid, amount of municipal services required, and perceived transportation and infrastructure impacts. The diverging viewpoints on the inherent value of the different facets of the local economy appear to be creating different factions within the community – those that support the tourism-based sectors and continued growth and those that would prefer to see more year-round businesses grow and thrive. With limited land and resources, the town will need to define its economic pathway and work on it together.

As housing prices continue to rise and year-round housing availability shrinks, employees working in Bar Harbor are having to move further away. This in turn creates longer commute distances and limits the pool of employees that businesses can rely on, particularly during the peak of the season. With increasing fuel prices, longer commute distances, and seasonal congestion, employees may seek opportunities in other communities where jobs in retail, restaurants, and

accommodations are also present. This is a complicated issue that requires solutions across economic development, housing, and transportation. During interviews with Bar Harbor businesses and members of the Comprehensive Planning Committee, childcare was also identified as a major issue impacting working families. The lack of availability and prohibitive cost of childcare options on the island are also constraining employees.

OPPORTUNITIES

One of the biggest opportunities, and questions, facing Bar Harbor as it looks to the future is how reliant should the town be on the tourism economy? This comprehensive planning process should be utilized to evaluate this possibility. As the length of the season continues to expand earlier in the spring and later in the fall, there are more activities emerging that could help expand year-round tourism opportunities. While it is unlikely that visitation and revenues in the non-peak portions of the season would equal or replace peak season activity, there may be some business models that could help increase visitation in the off peak and thereby allow more businesses (accommodations, restaurants, and retailers) to remain open year-round. This may help employers hold on to more year-round employees if they are able to remain open all year. There may be opportunities to build on existing efforts to promote year-round tourism through winter activities and the creation of wintertime events that could draw visitors to Bar Harbor on weekends with promotions to stay overnight and visit downtown businesses. If there is a desire for more businesses to stay open year-round to provide options for local residents in off peak times, there will need to be a consistent source of revenue businesses can count on. Year-round tourism activities may be one option.

To create more business and job opportunities in Bar Harbor that could help with year-round employment, there may be unique partnerships that could be explored such as bringing together institutions like MDI Hospital, The Jackson Laboratory , MDI Bio Lab, and College of the Atlantic to discuss research projects, entrepreneurship programs, and how to support very small start-ups in town. This could begin with cultivating a support network for the college's entrepreneurship program and providing space for recent graduates or returning alumni to work collaboratively in Bar Harbor and find partnerships with the local research and health care institutions. There may also be opportunities to leverage access to natural resources like the park and the water to create new ideas and business models and cultivate them locally. Supporting and expanding the creative economy and arts sector, which is already robust in Bar Harbor, may also present opportunity for entrepreneurship and business growth.

There may opportunities to bring other businesses into the mix that could offer alternatives to, or complements for, outdoor recreation activities in Bar Harbor. The town has several active farms that offer a range of products and could potentially expand those activities to become part of the visitor experience. The agricultural sector of the economy could offer farm to table dinners, retail outlets to buy locally produced food and products, host events or live music, host educational events or classes for adults and children, and more.

There also may be opportunities to capitalize on the town's waterfront location by tapping into aquaculture for tours, educational events, and food tastings. If additional activities, events, and businesses become part of the larger ecosystem, there also needs to be an inclusive marketing plan that ties all the different pieces together so visitors and locals alike can see all the options available year-round. This may

be something organized by the Bar Harbor Chamber of Commerce that businesses can buy into to help subsidize the effort. Additionally, Bar Harbor does have a strong arts and crafts sector that contributes to the local economy which may also present opportunities for supporting entrepreneurship.

Lastly, to help expand opportunities for economic development and provide a smaller business district for locals the town could consider exploring options to further build out the commercial area where Route 189, Knox Road, and Crooked Road intersect. This area already has some small businesses like Atlantic Brewing Company, West Eden Pizza, and Town Hill Market drawing customers in. There may be opportunities to not only expand commercial activity here, but also add residential uses to create a built-in customer base and help address housing shortages. While infrastructure and utility improvements may be needed, this could provide a longer-term growth opportunity in Bar Harbor. The following sections describe the economic conditions in Bar Harbor.

LABOR FORCE

Bar Harbor's labor force includes all residents over the age of 16, employed or actively seeking employment. As of the 2019 5-year American Community Survey (ACS), Bar Harbor's labor force was 3,193, which equals a 68% labor force participation rate. This is higher than the County and State's labor force participation rate of 61% and 63%, respectively.

Table 3.1: Labor Force Characteristics, Census ACS 5-Year 2015-2019

Labor Force Composition	Estimate	Percent of Total Population
Total Population	**5,470**	**100.0%**
Population over 16	4,699	85.9%
In Labor Force	3,193	68.0%
Civilian Labor Force	3,173	67.5%
Employed	2,918	62.1%
Unemployed	255	5.4%
Armed Forces	20	0.4%
Not in Labor Force	1,506	32.0%

Unemployment is down significantly in both Bar Harbor and Hancock County compared to the earlier part of the decade. In 2021, the average unemployment rate for Bar Harbor was estimated to be 5.5% and 5.1% for Hancock County. In Bar Harbor, this is down from 9% ten years ago. While the current unemployment rate in Bar Harbor is about two percentage points higher than in 2019, overall unemployment is quite low despite the large number of employees working in hospitality, restaurant, and retail industry sectors. The pandemic had an outsized impact on these particular industries. However, Bar Harbor's economy appears to be bouncing back like many other parts of the U.S.. That being said, the overall labor force and those actively employed did shrink between 2019 and 202. This could be the result of employees moving away, finding jobs in other sectors elsewhere, or dropping out of the workforce completely. A smaller overall labor force would help to drive down the unemployment number even if a similar number of residents remained unemployed.

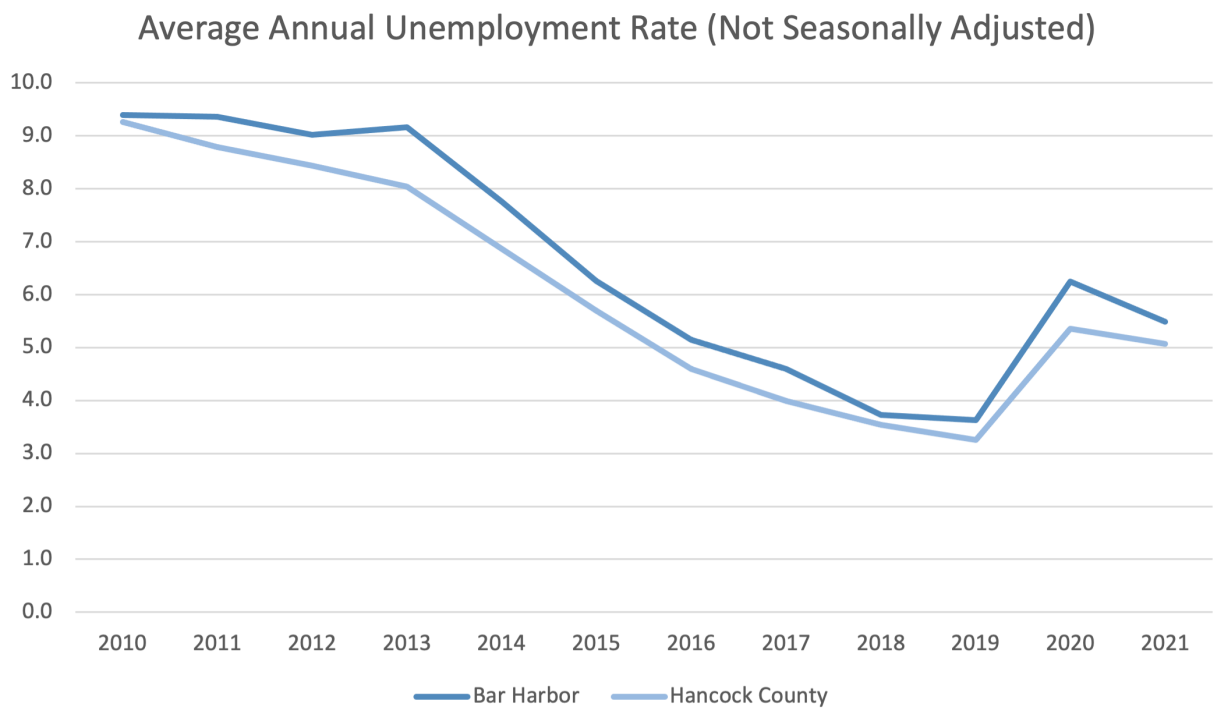


Figure 3.1: Unemployment Rate 2010-2021, Maine Center for Workforce Research and Information.

EMPLOYMENT BY INDUSTRY SECTOR IN BAR HARBOR

Figure 3.2 shows percentage of workers employed by industry sector in Bar Harbor. The employment base across industry sectors in town is centered on five primary sectors: scientific, and technical service; accommodations and food services; educational services; health care and social assistance; and retail trade. In 2021, Bar Harbor's businesses employed an estimated 5,401 people of which 80% were employed in these five primary industry sectors. In 2021, 31% of the workfore in Bar Harbor were part of the professional, scientific, and technical services industry sector and 25% were part of the accomodation and food services sector, respresenting the largest industry sectors in town.

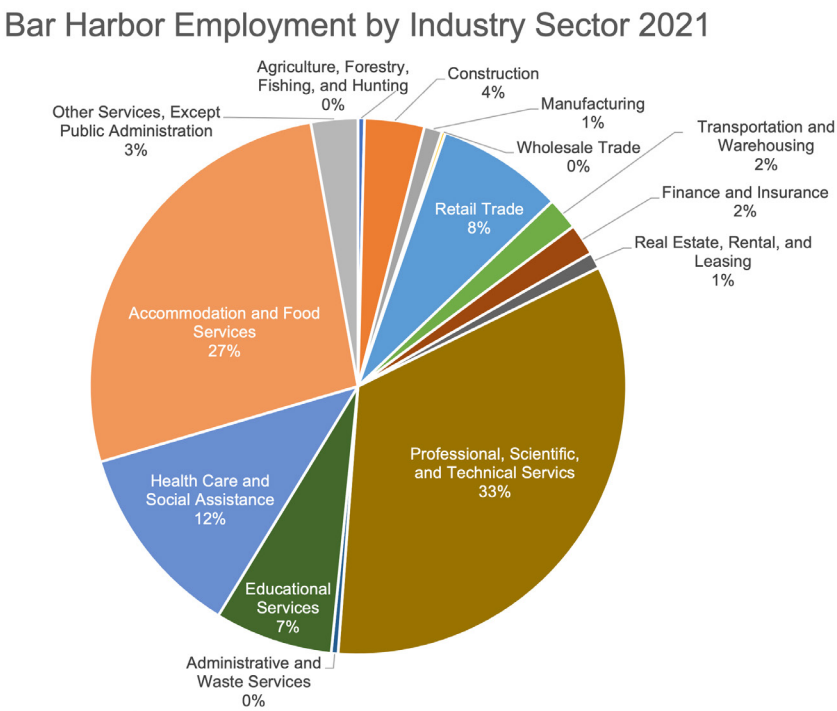


Figure 3.2: Bar Harbor Employment by Industry Sector 2020, Maine Center for Workforce Research and Information.

The pandemic had a real impact on total employment and employment across several

Table 3.2: Workers Employed by Industry Sector in Bar Harbor, Center for Workforce Research and Information, Maine Department of Labor								
Industry Sector of Bar Harbor Residents	Workers by Industry							
	2014	2015	2016	2017	2018	2019	2020	2021
Total, All Industries	**5,171**	**5,152**	**5,199**	**5,299**	**5,516**	**5,619**	**4,850**	**5,401**
Agriculture, Forestry, Fishing, and Hunting	27	29	28	17	21	22	18	20
Construction	138	142	145	138	138	158	167	184
Manufacturing	45	47	46	47	57	51	35	55
Wholesale trade	--	--	9	9	10	10	7	11
Retail trade	465	474	440	447	445	454	337	388
Transportation and Warehousing	94	85	99	93	119	110	74	99
Information	18	29	31	29	23	--	--	--
Finance and Insurance	91	99	94	94	98	103	97	97
Real Estate and Rental and Leasing	62	64	60	64	63	59	43	50
Professional, Scientific, and Technical Services	1,388	1,405	1,408	1,491	1,602	1,685	1,717	1,709
Administrative and Waste Services	23	25	33	33	30	32	23	21
Educational Services	359	345	325	346	356	362	359	363
Health Care and Social Assistance	585	574	590	619	622	575	603	600
Accommodation and Food Services	1,374	1,326	1,386	1,397	1,437	1,463	969	1,364
Other services, except public administration	225	220	212	192	224	242	141	144

industry sectors in Bar Harbor (see Table 3.2). Between 2019 and 2020, there was a decline of 777 jobs (-14%) with total employment dropping from 5,619 to 4,850. The majority of the decreases were seen in the accommodations and food services sector and the retail sector which were two of the hardest hit industry sectors nationwide. In a tourism-based economy like Bar Harbor, these sectors were hit especially hard but are likely to rebound as tourism grows and cruise ships return in 2022. While job openings are prevalent across several industry sectors, there remains difficulty in actually filling open positions. During interviews with business owners across several sectors, including professional, scientific, technical services, getting employees to come to Bar Harbor for work is a challenge.

Figure 3.3 shows the change in employment to Bar Harbor's top industry sectors between 2014 and 2021. Bar Harbor's professional, scientific, and technical services industry sector is the only sector that has increased between 2014-2021, despite challenges related to worker recruitment and retrention. Workers in the accomodations and food services industry sector, and to a lesser degree, the retail trade

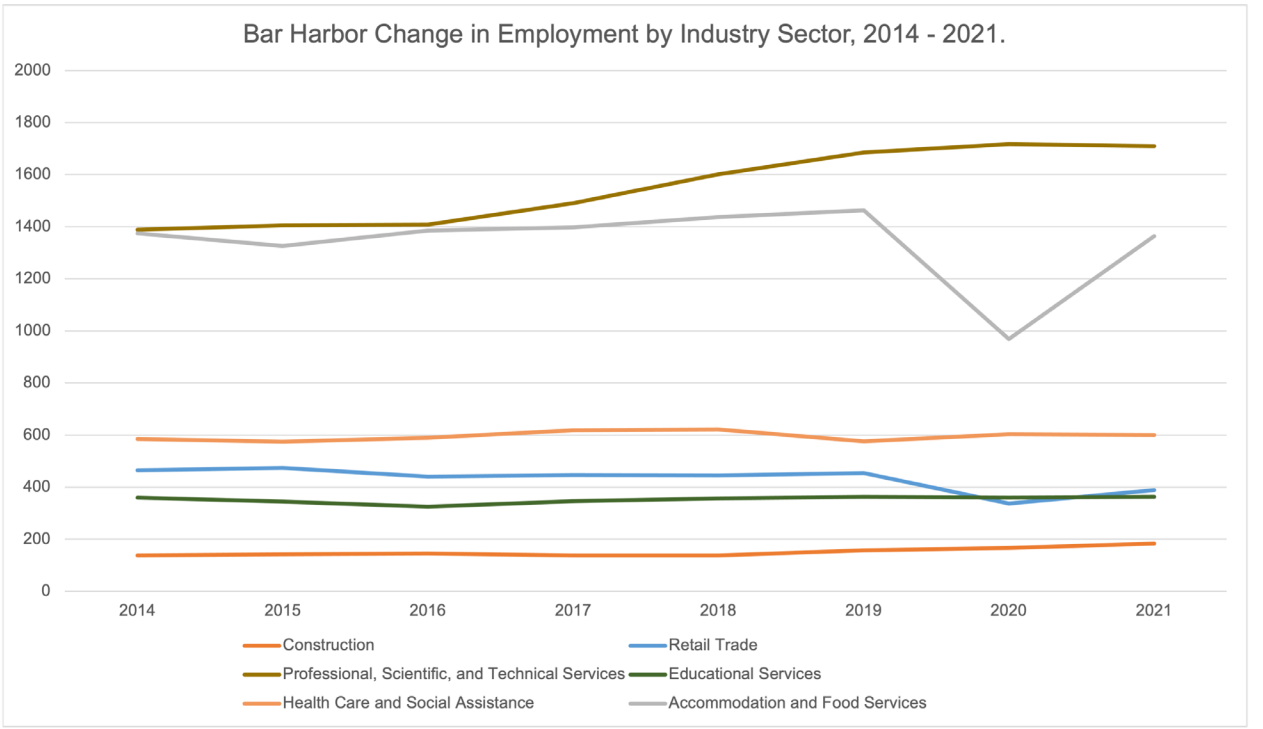


Figure 3.3: Bar Harbor Employment by Industry Sector 2014-2020, Maine Center for Workforce Research and Information.

industry sector, decreased from 2019-2020 but both sectors are experiencing a rebound in growth since 2020. The retail services sector was also holding steady until the decline in 2020. Other industry sectors remained fairly steady over the seven-year period. Although agriculture, forestry, fishing, and hunting do not account for a large portion of the workforce, these industries remain an important part of Bar Harbor's local economy and heritage providing not only economic benefits to the community, but also natural resource management value and contribution to the town's rural, seacoast character. Bar Harbor's marine resources are discussed further in the Natural Resources section of this report.

SEASONAL WORKFORCE

Given the large number of businesses in Bar Harbor that rely on seasonal tourism, particularly between April and October, the employment base also ends up being seasonal. While some business owners try to keep core staff on payroll year-round, many employers in the tourism-based industry sectors utilize both seasonal and temporary workers during peak periods. These employees are often a combination of U.S. citizens working seasonal jobs and nonimmigrant employees through the U.S. Department of Labor's H-2B visa program which allows employers to hire temporary workers for seasonal or peakload need. For the purposes of this section, seasonal workers are those who are employed through regular employment measures but are only working during the actual tourist season.

Figure 3.4 compares average employment in Bar Harbor during January and February versus July and August each year between 2010 and 2021. These months are representative of the lowest employment months in the off season and the highest employment months in the peak of the season. In typical years there are about 700 to 800 additional employees working in Bar Harbor during July and August compared to January and February. In 2020, that difference in employment shrank to only 360 showing the impact of the pandemic on seasonal businesses in town. In 2021, the difference in employment was back up to 670, as land-based tourism resumed and even grew.

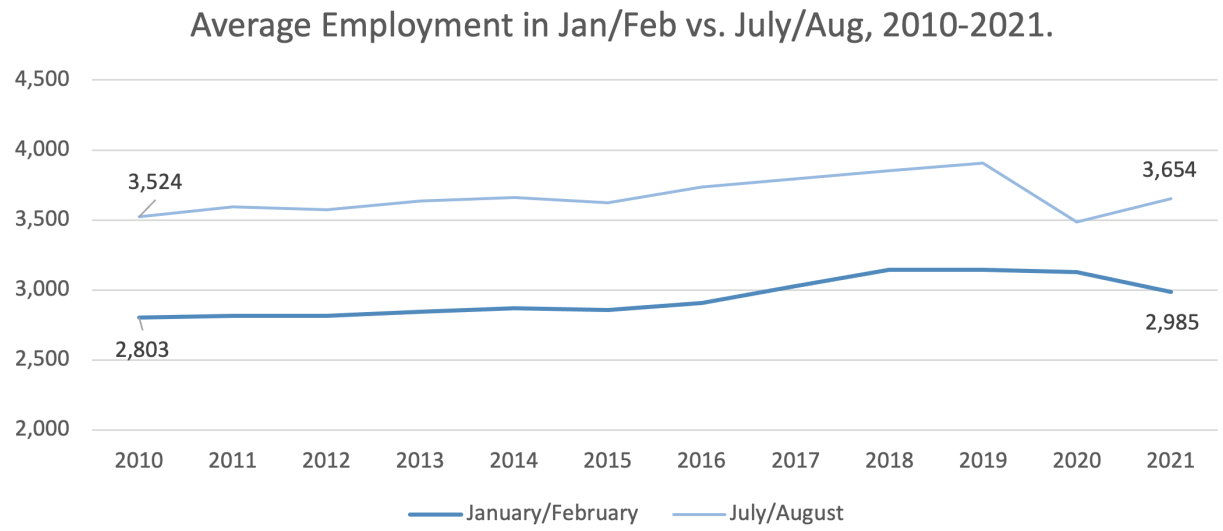


Figure 3.4: Bar Harbor Seasonal Employment Comparison 2010-2021, Maine Center for Workforce Research and Information.

AVERAGE WAGES

According to average wage by industry sector data from the Maine Center for Workforce Research and Information, average wages (regardless of sector) increased by 33% in Bar Harbor between 2015 and 2020. The average wage went from $41,080 to $54,600 over that five-year period. Wages across all industry sectors increased between 2015 and 2020 (except for wholesale trade since 2015 data was unavailable for thise sector). Industry sectors which saw the largest increases included finance and insurance, administrative services, agriculture, fishing, forestry, and hunting, health care and social assistance, transportation and warehousing, and accommodations and food services. Figure 3.5 shows the change in wage by industry sector between 2015 and 2020.

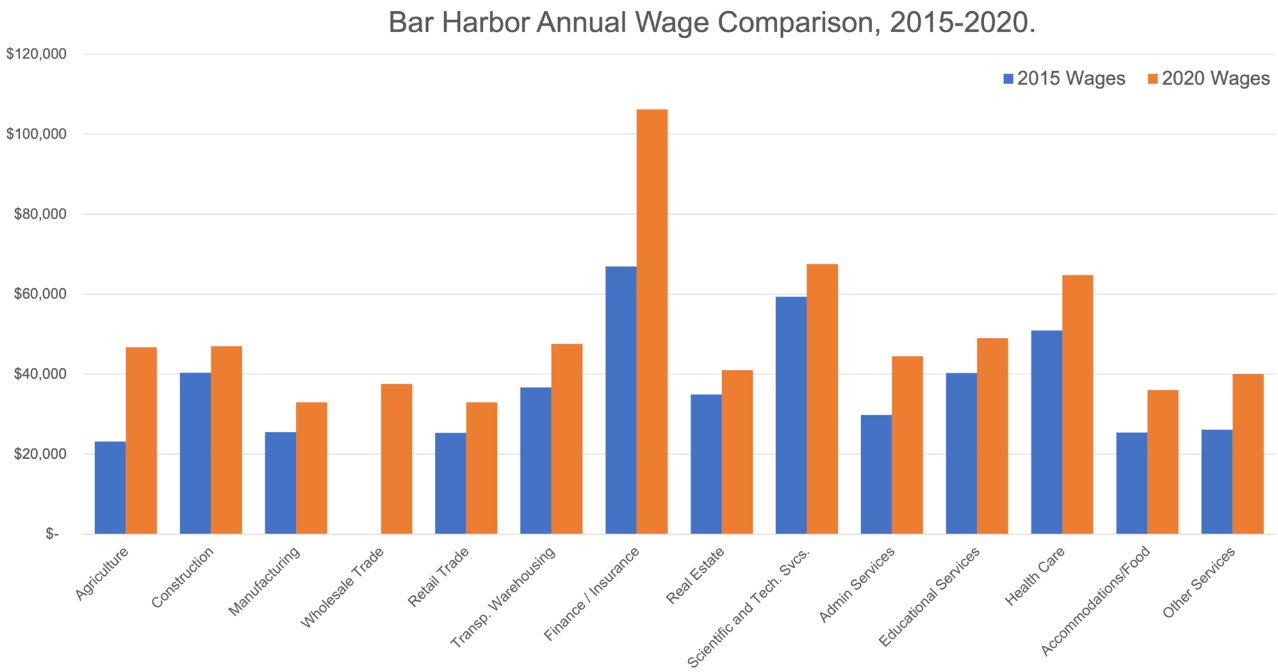


Figure 3.5: Bar Harbor Change in Average Wage by Industry Sector 2015-2020, Maine Center for Workforce Research and Information.

Figure 3.6 compares the change in total employment by industry sector to the change in average wages to highlight industry sectors in Bar Harbor that are experiencing growth or decline in total employment and how that may be impacting average wages by sector. As noted in the earlier paragraph, retail is the only employment sector to experience employment growth and wage loss. Most of the other large employment sectors saw wage growth with some experiencing declines in employment largely due to the pandemic.

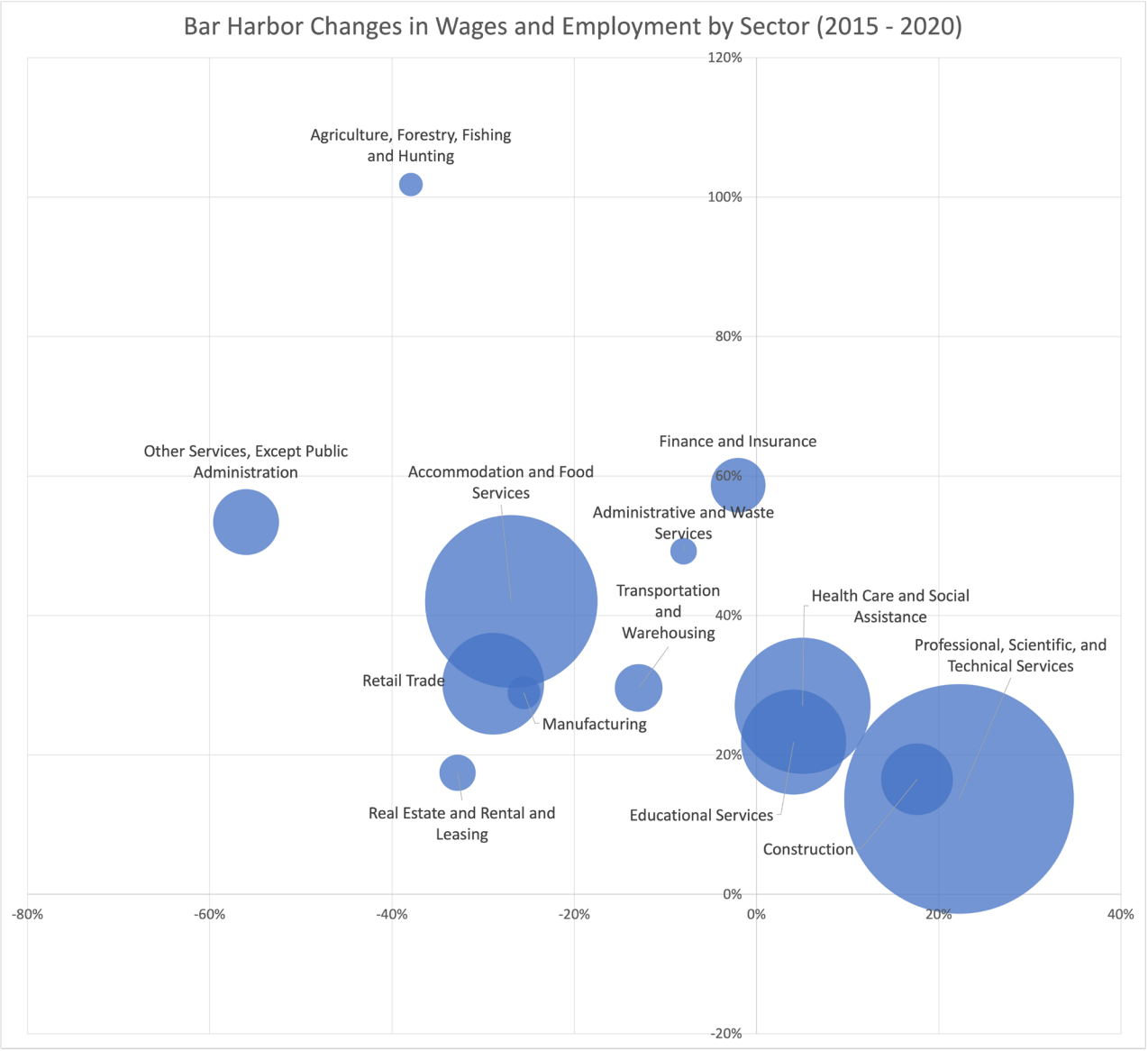


Figure 3.6: Bar Harbor Comparison of Change in Employment to Wages by Industry Sector 2015-2020, Maine Center for Workforce Research and Information.

LARGEST EMPLOYERS

According to the Bar Harbor Chamber of Commerce, the largest year-round businesses include:

- The Jackson Laboratory
- MDI Hospital
- Hannaford Grocery
- MDI Biological Laboratory
- College of the Atlantic
- Bar Harbor Bank & Trust
- First National Bank

The largest seasonal businesses include:

- Bar Harbor Resorts – owners of multiple lodging and dining locations in Bar Harbor
- Witham Family Hotels – owners of multiple lodging locations in Bar Harbor
- Lafayette Hotels – owners of multiple lodging and dining locations in Bar Harbor
- FishMaine – owners of multiple dining locations in Bar Harbor

This list covers the major private sector and nonprofit employers in Bar Harbor, but there are also other large employers like the National Park Service which manages Acadia National Park, and the Town of Bar Harbor which employs municipal staff, public safety workers, and school employees. Also note that the seasonal businesses listed above do employ some year-round staff.

COMMUTING PATTERNS

From an economic, transportation, and housing perspective, it is important to understand where Bar Harbor residents work and where Bar Harbor employees live to gain a better understanding of the commute flows in and out of town each day. While these may be less important in the off season, during peak season employees are commuting on roadways that may be congested with land-based tourists coming to visit Acadia or other sights in Bar Harbor or Mount Desert Island.

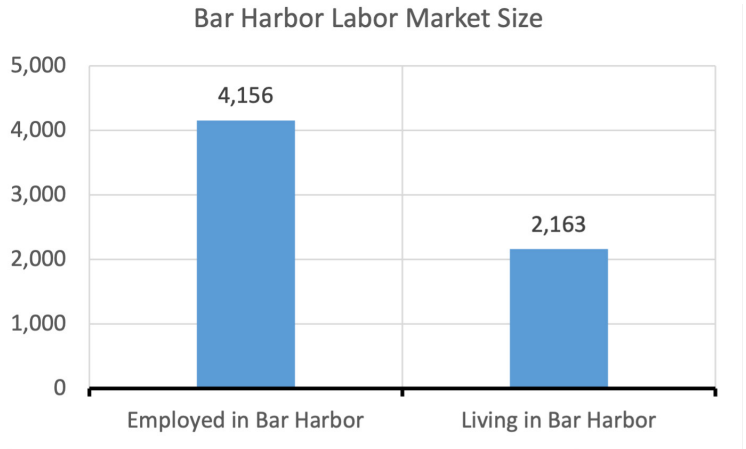


Figure 3.7: Labor Market Data, 2019. U.S. Census OntheMap.

According to 2019 data from the U.S. Census' OntheMap commute flow database, there are nearly 2,000 more employees working in Bar Harbor than there are employed residents who live in the town. That means just over 70% of all jobs in Bar Harbor in 2019 were filled by employees who lived outside town and had to commute in. Only 30% of all jobs in Bar Harbor were filled by people who both lived and worked in town.

Of the 2,924 employees commuting into Bar Harbor for work, approximately 2,500 (86%) work in service-based jobs likely supporting tourism-based industries. We know from the wage data discussed earlier that these jobs tend to be lower paying, making it more difficult to afford the ever-increasing prices of both rental and ownership housing in Bar Harbor. This in turn creates a situation where workers need to drive further to find housing that is affordable while commuting longer distances to jobs in Bar Harbor.

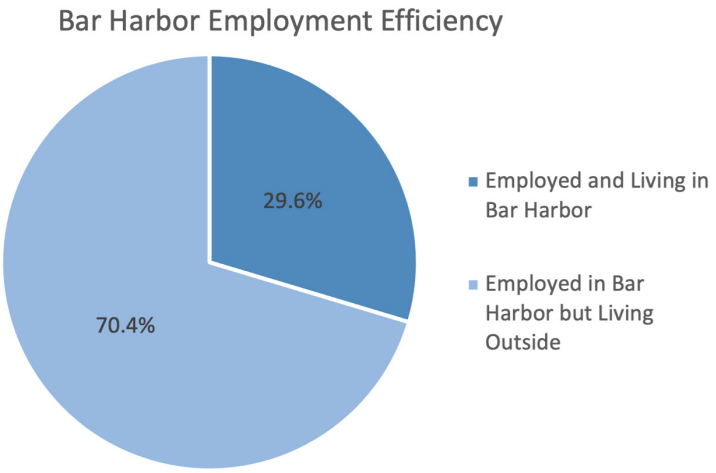


Figure 3.8: Employment Efficiency Data, 2019. U.S. Census.

COMMUTE LOCATIONS AND DISTANCE

According to commute flow data from OntheMap, 30% of employees that work in Bar Harbor are also Bar Harbor residents meaning their daily commutes are relatively short compared to many other workers in town. Approximately 31% of workers in Bar Harbor commute between 10 and 24 miles to work, 15% commute between 25 and 50 miles, and 9% commute more than 50 miles. Workers who commute more than 25 miles make up just over 1,000 total employees of the 4,156 who work in the town. Figure 3.9 shows locations where workers are commuting in from as indicated by the purple dots or purple shading on the map. There are about 1,300 workers commuting in from nearby communities like Ellsworth, Hancock, Mount Desert, Lamoine, and Trenton. However, there are over 100 employees commuting in from places like Bangor which is just under 50 miles and over an hour away in each direction.

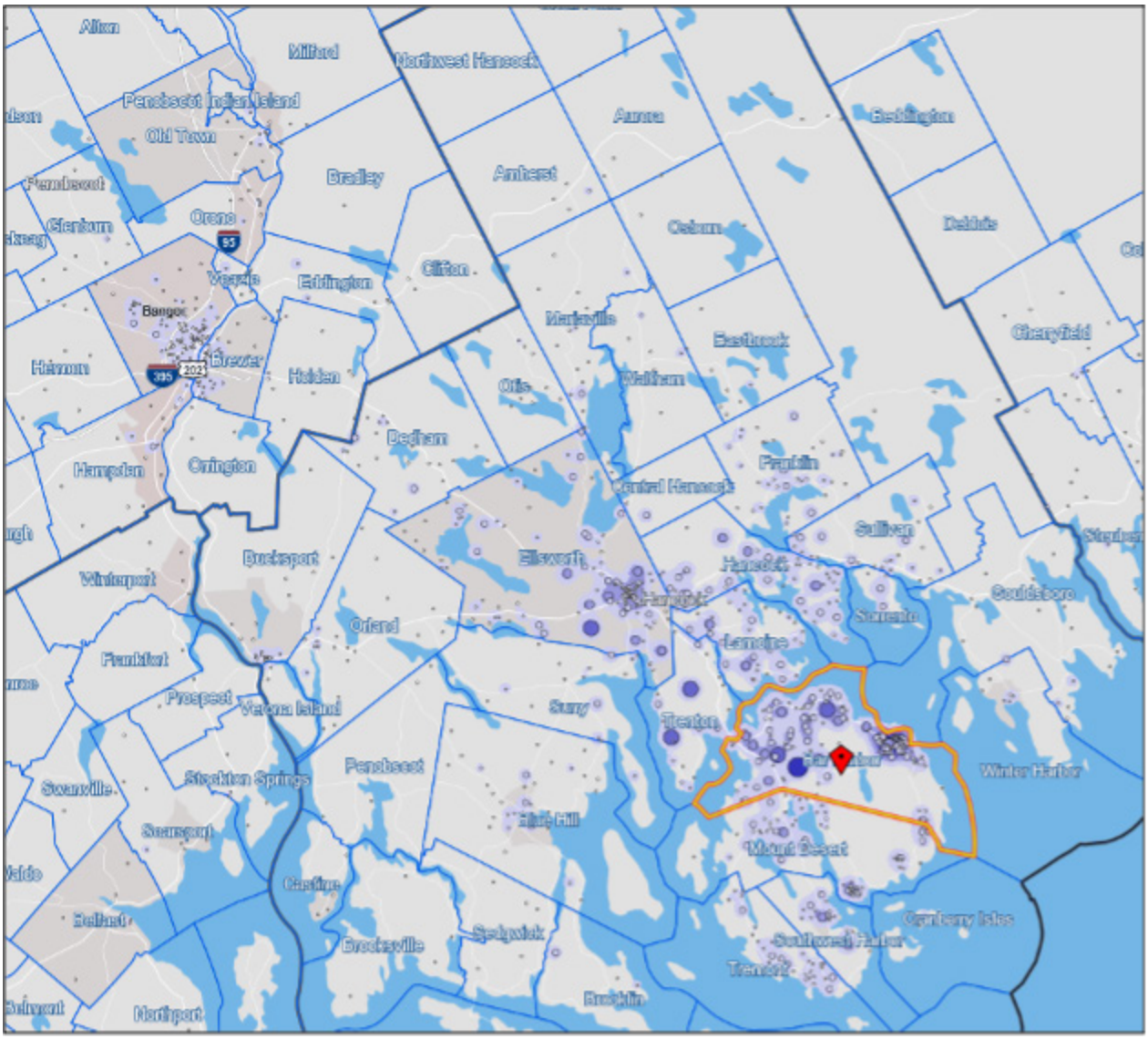


Figure 3.9: Where Employees Who Work in Bar Harbor Live, 2019. U.S. Census OntheMap, 2019.

Conversely, Bar Harbor residents who are employed tend to work much closer to home with 57% working in Bar Harbor itself and another 15% working in Ellsworth, Mount Desert, and Southwest Harbor. Figure 3.10 shows the locations of where Bar Harbor residents work with the larger purple dots representing the commute destinations with the highest numbers of Bar Harbor residents.

TOURISM-BASED ECONOMY

The tourism-based economic sector in Bar Harbor is one of the primary drivers of employment and economic activity for the town. Visitors come from across the United States and international locations to visit Bar Harbor and Acadia National Park. During 2021, in the height of the pandemic Acadia National Park recorded just over four million visits in a year. That was the fourth highest visitation number on record according to data from the National Park Service's Annual Park Recreation Counts dating back to the year 1919 for Acadia.

According to interviews conducted as part of the Comprehensive Plan with town officials, representatives of Acadia, and business owners, the 2021 season brought a very high number of visitors

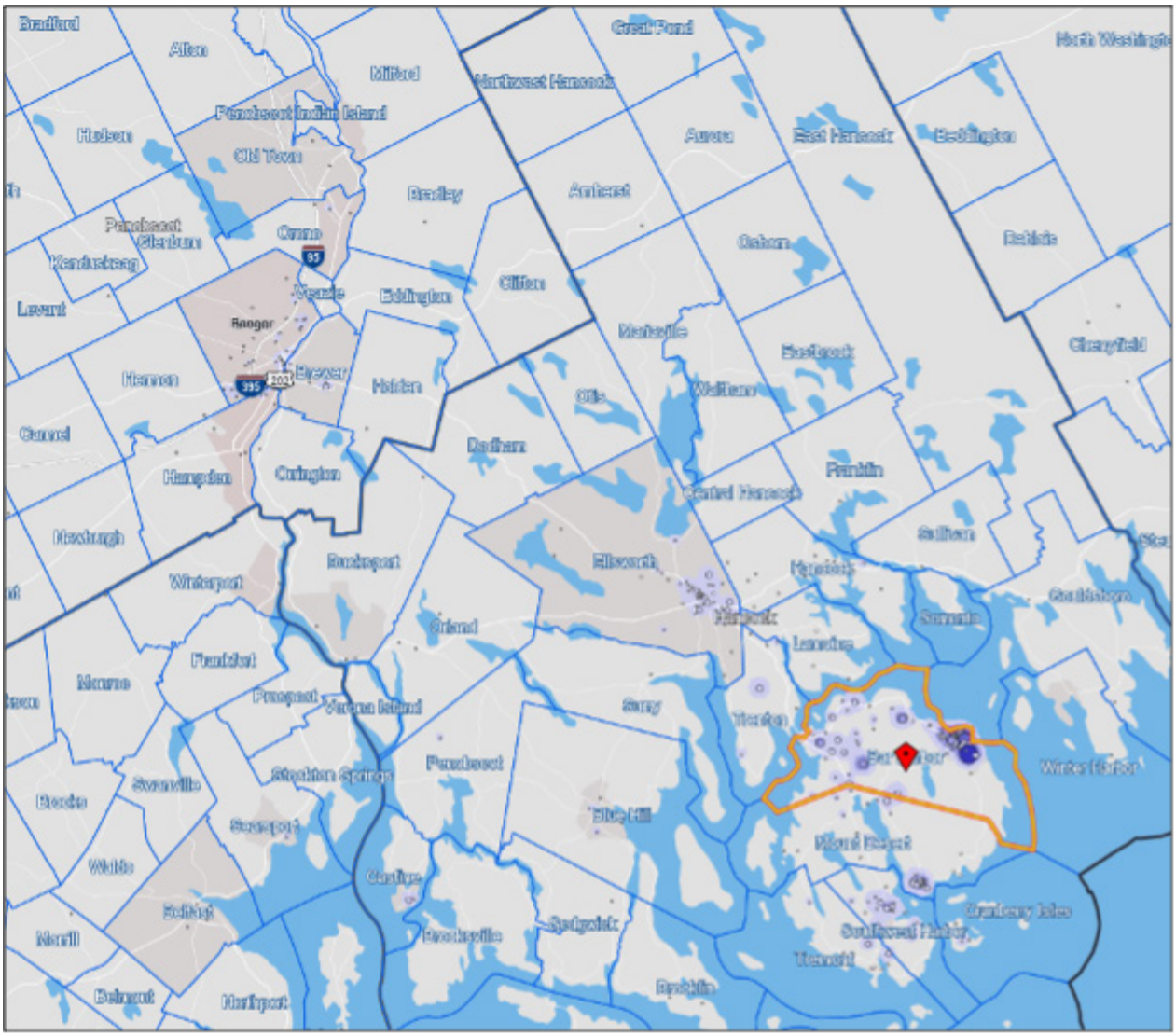


Figure 3.10: Where Bar Harbor Residents Work, 2019. U.S. Census OntheMap, 2019.

to the park and Bar Harbor many of whom had never been to Acadia before. The high visitation volumes during the peak season brought tremendous congestion to local roads making it difficult for residents and employees to get around. For residents who did not live in Bar Harbor during the 1980s when park visitation was also extremely high, the rapid increase in visitation since 2013 is coming as a shock to the system. In addition to visitation to Acadia from land-based tourists who are driving in, the town is also a popular stop for cruise ships coming into port from places like Bermuda, Boston, New York, Baltimore, Halifax, St. John, and Portland, Maine. According to data from Bar Harbor's Harbormaster, both the number of cruise ships and the number of passengers has been steadily increasing since the year 2000. This has led to a feeling among some town residents that there are too many tourists visiting the town on an annual basis when combining both land- and sea-based visitors. Figure 3.12 shows the steady increase in both cruise ships and cruise ship passengers since 2000. There are no figures for 2020 and 2021 as cruise ships were not allowed to enter port in Bar Harbor due to the pandemic.

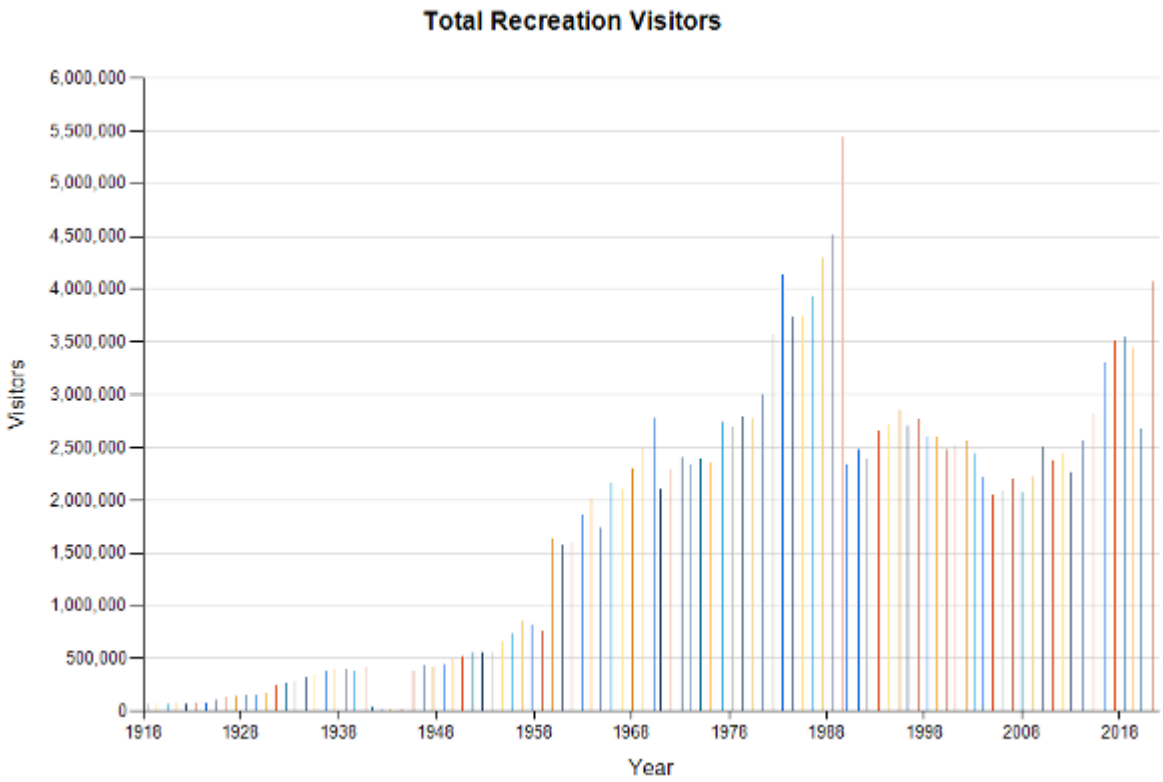


Figure 3.11: Acadia National Park Annual Visitation Figures, 1919-2021. National Park Service, 2021.

In 2022, cruise ships are anticipated to start porting as early as the middle of April and end in early November. Estimates provided by the Town of Bar Harbor show there is a potential for 180 ships to port in Bar Harbor in 2022 with a total passenger count just shy of 288,500. If these estimates are accurate, that would be the largest number of cruise ships to port in Bar Harbor and the highest number of passengers as well. A study by Business Research and Economic Advisors from 2012 found

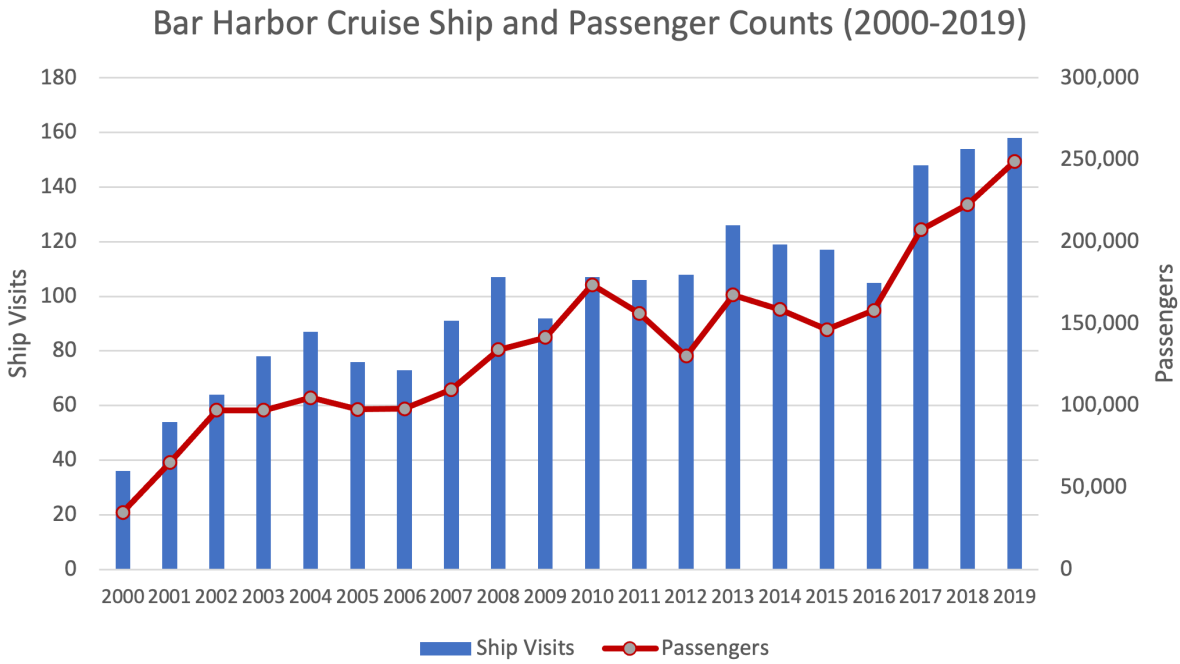


Figure 3.12: Ship and Passenger Counts, 2000-2019. Bar Harbor Harbormaster, 2021.

that an average of 88% of passengers get off the ship to visit the place of port, meaning a total of 253,880 passengers could visit Bar Harbor in 2022.

While the cruise ship passengers do create pedestrian congestion along Harbor Place and West Street and in the areas along the Shore Path and up into Agamont Park, they do spend some money in the downtown area. According to the 2017 Economic Impact Report of Cruise Ships completed by the University of Maine, 96% of cruise ships passengers that got off the ship in Bar Harbor visited at least one store or restaurant while 33% of passengers visited ten or more places. Over 75% of passengers surveyed in this study spent money in one to four stores or restaurants. The average expenditure per passenger was just over $108 with most of that money being spent on meals and drinks, clothing, and souvenirs. Based on this expenditure per passenger amount and the estimated passengers that could depart cruise ships in 2022, there is a potential to capture over $27 million in spending from cruise ship passengers.

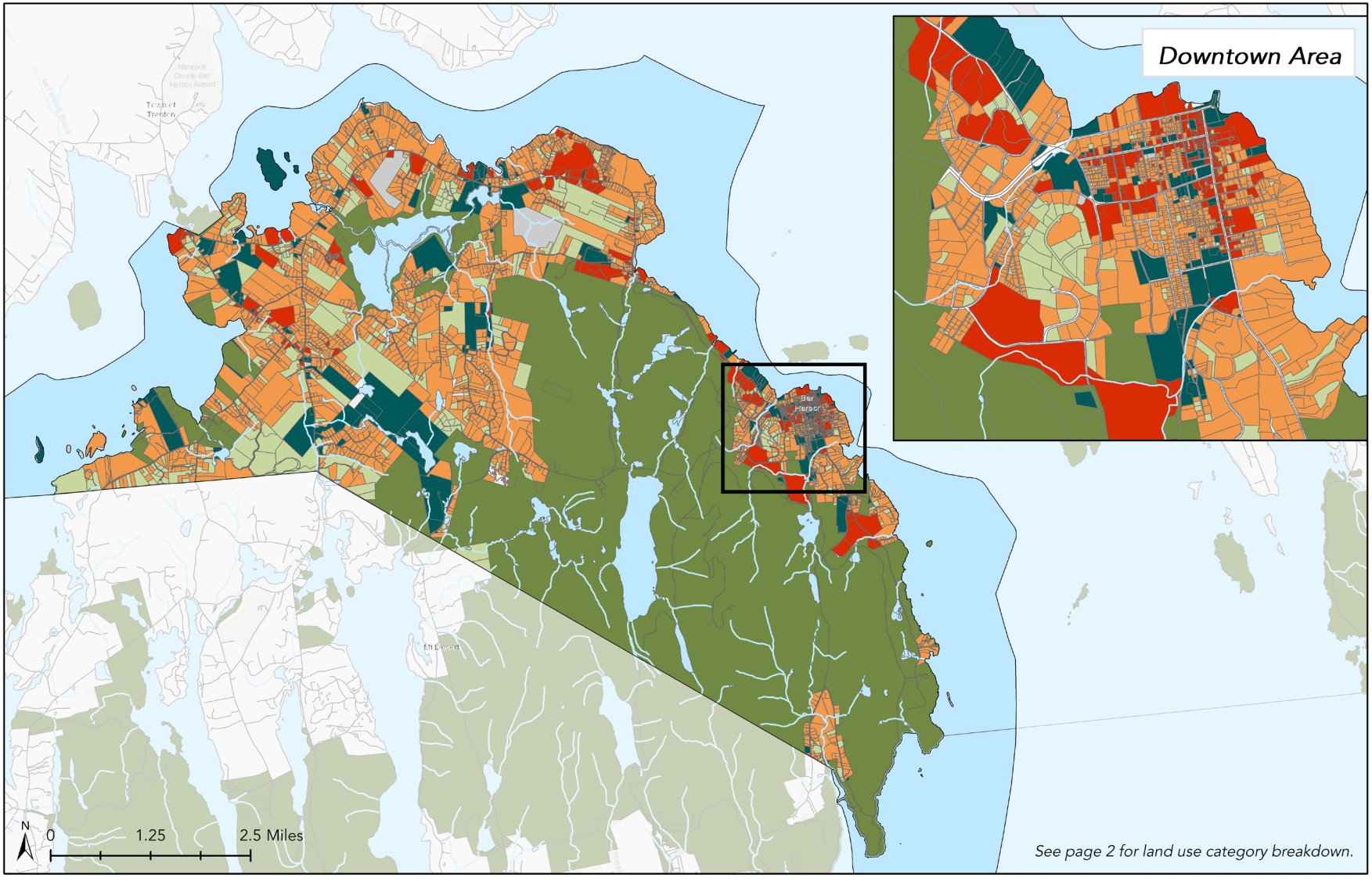
In addition to local spending, the Town of Bar Harbor also receives a portion of the revenue from passenger and port development fees from cruise ships coming into port each year. According to data provided by the Town of Bar Harbor, the Town collected a total of $5,066,348 between fiscal year 2010 and 2018 with nearly $885,000 in fees collected in FY 2018. Expenditure tracking of these funds shows the Town spent much of the money on transportation projects, parks and open space, streetscape improvements, lighting, port security, and added municipal services to improve the tourism experience and ensure public facilities and safety were adequate to support the growing demands of tourism. Based on conversations with town staff and officials, business owners, and others in Bar Harbor, the town is divided on the benefits and impacts of the tourism-based economy and the growing numbers of visitors to Acadia and cruise ship passengers in the downtown. While there are direct monetary benefits to businesses and the town itself, the growing demands on public services and the town's infrastructure, as well as the impacts cruise ships have on the sense of place and community in town, should be a consideration when determining the future economic direction of Bar Harbor.

Lastly, in May of 2022 the CAT Ferry is planning to resume service between Bar Harbor and Yarmouth, Nova Scotia and will run from May to October this year. In the early part of the season, the ferry service will run four days a week increasing to seven days a week between late June and Labor Day. Service will decrease to six days a week between Labor Day and the end of the season in October. The ferry service is available for walk-on passengers as well as the ability to accommodate passengers and their vehicles. The trip across the Gulf of Maine is expected to take 3.5 hours. The ferry will dock along the north side of the ferry terminal pier. The Town of Bar Harbor is currently discussing options for demolishing portions of the old pier and eventually replacing it with a marina that could include new docks, floats, and other publicly accessible amenities.

LAND USE AND ZONING

Map 3.1 shows how the land within Bar Harbor's municipal boundary is currently being used. The red colored parcels of land are all used primarily in support of commercial uses. When looking at the land use map, it quickly becomes apparent just how much of the land area within Bar Harbor's borders is being used for large-lot residential development and how much is dedicated to Acadia National Park. There are many smaller commercial parcels of land within the downtown area, and then some that dot the major roadway corridors that traverse the outskirts of the town within close proximity to the waterfront.

Map 3.1: Generalized Land Use Map, 2022.



LAND USE

BAR HARBOR

Map created for assessment of existing conditions within Bar Harbor.

- Bar Harbor Town Boundary
- Waterbody/Coastal Waters
- Stream
- Road
- Acadia National Park Boundary

Land Use by Major Category

- Residential
- Commercial
- Social/Institutional/Public
- Undeveloped Land
- Other

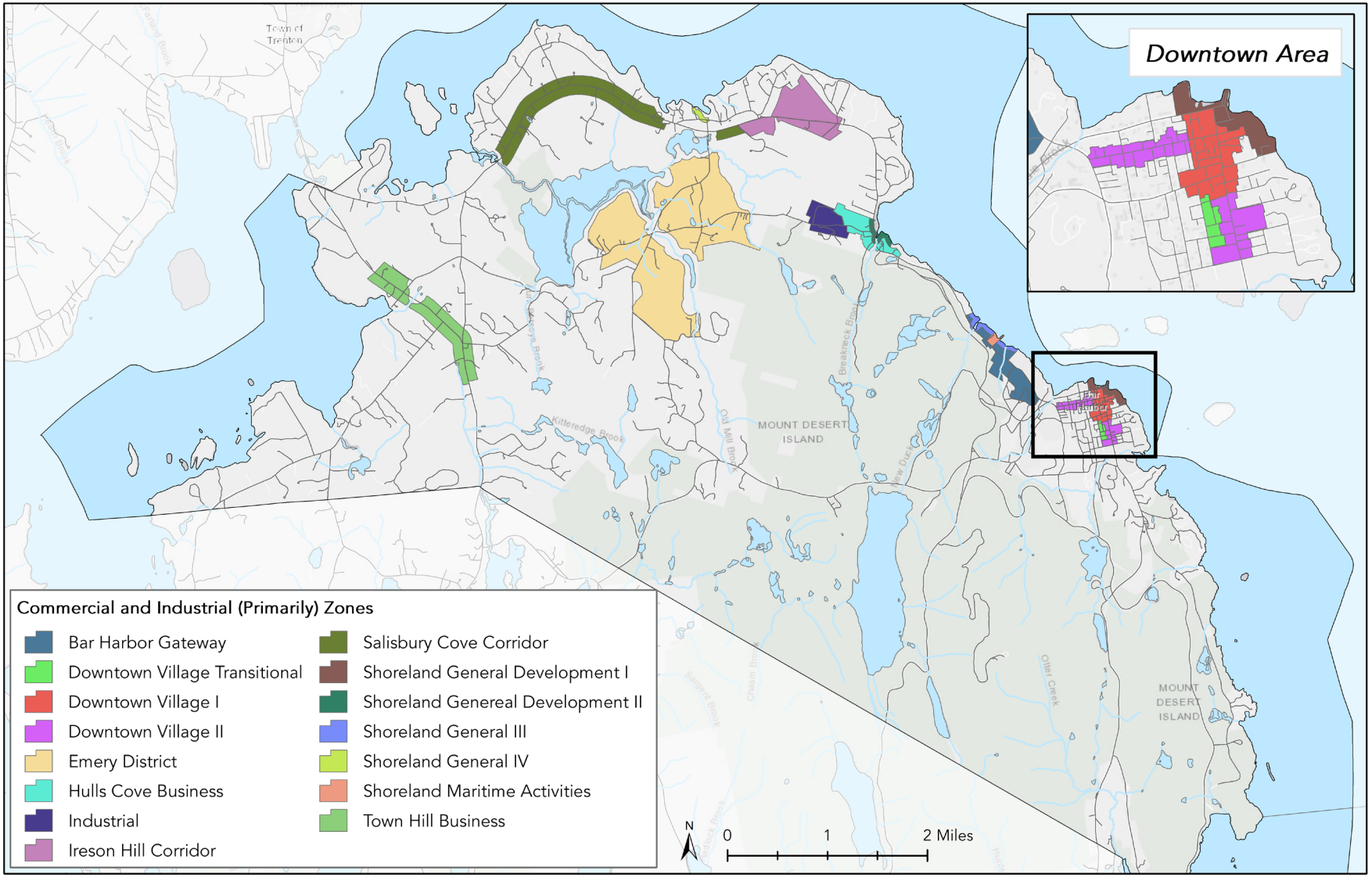
Data Sources: Town of Bar Harbor, Maine Geolibrary, National Hydrography Dataset
Coordinate System: NAD 1983 UTM Zone 19N
Created: FB Environmental
February 2022

FB environmental

From a zoning perspective, commercial and industrial uses are allowed in some of Bar Harbor's zoning districts but far fewer than those that allow residential uses. An analysis conducted by FB Environmental noted 22 of Bar Harbor's zoning districts currently allow at least some commercial or industrial uses. Map 3.2 on the following page provides a zoning map that identifies locations in Bar Harbor where zoning is primarily encouraging commercial and industrial uses on the west side of town. There are also some commercial and industrial uses along Crooked Road and Norway Drive in what is referred to as the Emery District. Small businesses dot the landscape along both roadways.

Please note that in this map, there are developed parcels that have remaining land on those parcels that is undeveloped.

Map 3.2: Generalized Zoning Districts by Allowable Use, 2022.



ZONING - PRIMARILY COMMERCIAL AND INDUSTRIAL

BAR HARBOR

Bar Harbor Town Boundary
Waterbody/Coastal Waters
Stream
Road

Map created for assessment of existing conditions within Bar Harbor.

Data Sources: Town of Bar Harbor, Maine Geolibrary, National Hydrography Dataset
Coordinate System: NAD 1983 UTM Zone 19N
Created: FB Environmental
February 2022

FB environmental

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TRANSPORTATION

BAR HARBOR 2022 EXISTING CONDITIONS SUMMARY

Transportation issues in Bar Harbor are complex. There are a diverse range of transportation users, from residents, to tourists, to employees, that require a safe, convenient, accessible, and efficient transportation network that supports multiple modes of getting around town, including by car, bike, foot, bus, and boat. To achieve this, a coordinated strategy that alleviates existing transportation inefficiencies, especially congestion, will be required.

Visitation levels to Bar Harbor and Acadia National Park have been increasing and are projected to continue increasing in the foreseeable future. In 2021, a total of 4 million visits to Acadia National Park were estimated by the National Park Service, resulting in the highest-ever yearly total of estimated visits to Acadia National Park. The seasonal influx of people, particularly in Bar Harbor's downtown, creates significant vehicle and pedestrian congestion issues, traffic safety concerns at downtown intersections, and puts pressure on the capacity of the town's public infrastructure.

The downtown's narrow roadway network and poor sight lines from parked vehicles create safety issues for pedestrians, bicyclists, and vehicles. As traffic congestion persists on the major roads in the downtown, more vehicles seek alternative routes through adjacent neighborhoods, impacting residents.

Cruise ship traffic contributes to congestion in the downtown area and has been steadily increasing in recent years. However, cruise ship traffic does provide economic benefit to the town and its businesses. This makes this issue complex. After halting cruise ship service during the COVID-19 pandemic, cruise ships will be porting at Bar Harbor again in 2022. Many residents would like to see limits on cruise ship visitation, while others do not.

The CAT Ferry is resuming its service to the island in 2022 and will dock along the north side of the ferry terminal pier. The town is currently exploring options for demolishing portions of the old pier and eventually replacing it with a new marina. A municipal parking lot is also being considered for this area to encourage use of public transportation.

The town has made improvements to its parking program which includes parking meters, kiosks, and permit parking options, however parking issues still persist. Parking issues still exist due to the increase in parking demand with higher visitation levels, and on-street parking on both sides of narrow roadways create safety and sightline issues. Parking fee revenue from the parking program goes directly to projects that improve the transportation system and alleviate issues such as congestion.

According to town staff, there is a need for a more robust pedestrian and bicycle network in town.
Although Bar Harbor does have some pedestrian and bicycle infrastructure, including sidewalks, shoulders, and off-road paths, there is a need for comprehensive town-wide planning for a better connected bicycle and pedestrian network that links key destinations and locations and provides safe, convenient, and accessible biking and walking infrastructure throughout town.

Island Explorer ridership has been increasing in the last five years and year-round bus service is anticipated to increase in upcoming years due to high projected visitation numbers, Acadia National Park's auto-reservation program, and the ferry terminal project. Expansion of bus services, including additional buses, routes, and drivers, is a priority of Downeast Transportation Inc. in the future. This expansion will require the town's collaboration and participation from other partners.

Transportation infrastructure investment should be prioritized town-wide.
While the town is responsible for maintaining all town-owned roads throughout the community, the downtown area is often the focus for infrastructure upgrade projects, even though there is a need for more improvements town-wide.

There are a number of high use public areas in town that are expected to be impacted by sea level rise and flooding including Hadley Beach Lane, Crooked Road, and Park Loop Road. Vulnerable areas include Sand Beach, Hulls Cove, Hadley Point, the piers and shore along downtown, and the bridge to the mainland and roadways leading to the bridge (Routes 3 and 102).

Bar Harbor is actively planning to curb its greenhouse gas emissions and contribution to climate change through investing in a sustainable transportation system.
Sustainable transportation priorities identified in the 2021 Climate Action Plan include supporting the development of electric, active, and public transportation systems across the community.

4. Transportation

INTRODUCTION

Bar Harbor's transportation system is unlike many other communities in coastal Maine. The small town receives millions of visitors each year by land and sea-based travel modes to visit the beauty of the island, the National Park, and the historic and charming coastal community. With that, demand in transportation infrastructure and capacity increases, along with the competing needs of residents, visitors, and commuters who work in town. The Town of Bar Harbor, Acadia National Park, and transportation providers agree that to meet these varying demands requires a robust, multi-modal transportation network that provides efficient transportation connections and hubs, provides alternative transportation options, and encourages public transportation. The Town Council identified the following goals in 2021 (paraphrased below) to focus on related to transportation including:

- Develop more walking and biking trails and other recreational amenities that encourage residents and visitors to attain greater health and reduce automobile congestion.
- Monitor and improve the town's seasonal parking and seek additional solutions to on-going parking and congestion problems including promotion of walking, biking, and shuttle-bus alternatives to private automobiles in the downtown.
- Continue to explore ways in which application of revenue from parking and cruise-ship visitors, and the possibility of a local-option sales tax, can address needs for infrastructure and other programs related to costs of tourism that are currently funded through property taxes.

The following sections provide information on Bar Harbor's roadway infrastructure, an inventory of its transportation facilities, current transportation projects underway, and future transportation planning considerations.

PRELIMINARY ISSUES, CHALLENGES, AND OPPORTUNITIES

Transportation studies, initiatives, and projects that have been completed in Bar Harbor in recent years indicate a desire to create a well-coordinated and connected multi-modal transportation system that prioritizes, encourages, and promotes a combination of public transportation, bicycling, and walking options. Bar Harbor's compact downtown creates opportunities for a well-connected biking and walking network. The influx of visitors that arrive on the island to visit Acadia National Park have created opportunities for public transportation that typically do not exist for a community of Bar Harbor's size. While high visitation levels are presenting Bar Harbor a myriad of challenges related to public infrastructure capacity and congestion, a coordinated approach to traffic mitigation, tourism capacity, active transportation expansion, and infrastructure investment has the potential to address these challenges into the future.

ROAD NETWORK

There are about 133 miles of roadway in Bar Harbor, excluding the roads within Acadia National Park. Road class types consist of local roads (town-owned roads), secondary roads (state routes), and private roads (owned by other entities, such as homeowner's associations). The breakdown of these roads by class are shown in Table 4.1. Local roads are town roadways that provide direct access to residential neighborhoods, local businesses, and other land use types in a community. Bar Harbor's 92 miles of local roads are dispersed throughout the

municipality including a higher concentration in the downtown area and as connecting streets to Bar Harbor's state highway routes. Downtown roadways typically have more transportation infrastructure including sidewalks, crosswalks, pedestrian amenities, parking, and signage. Outside of the downtown, local roads have a more rural character with less infrastructure.

Table 4.1: Roadways by Class
Source: Maine Department of Transportation

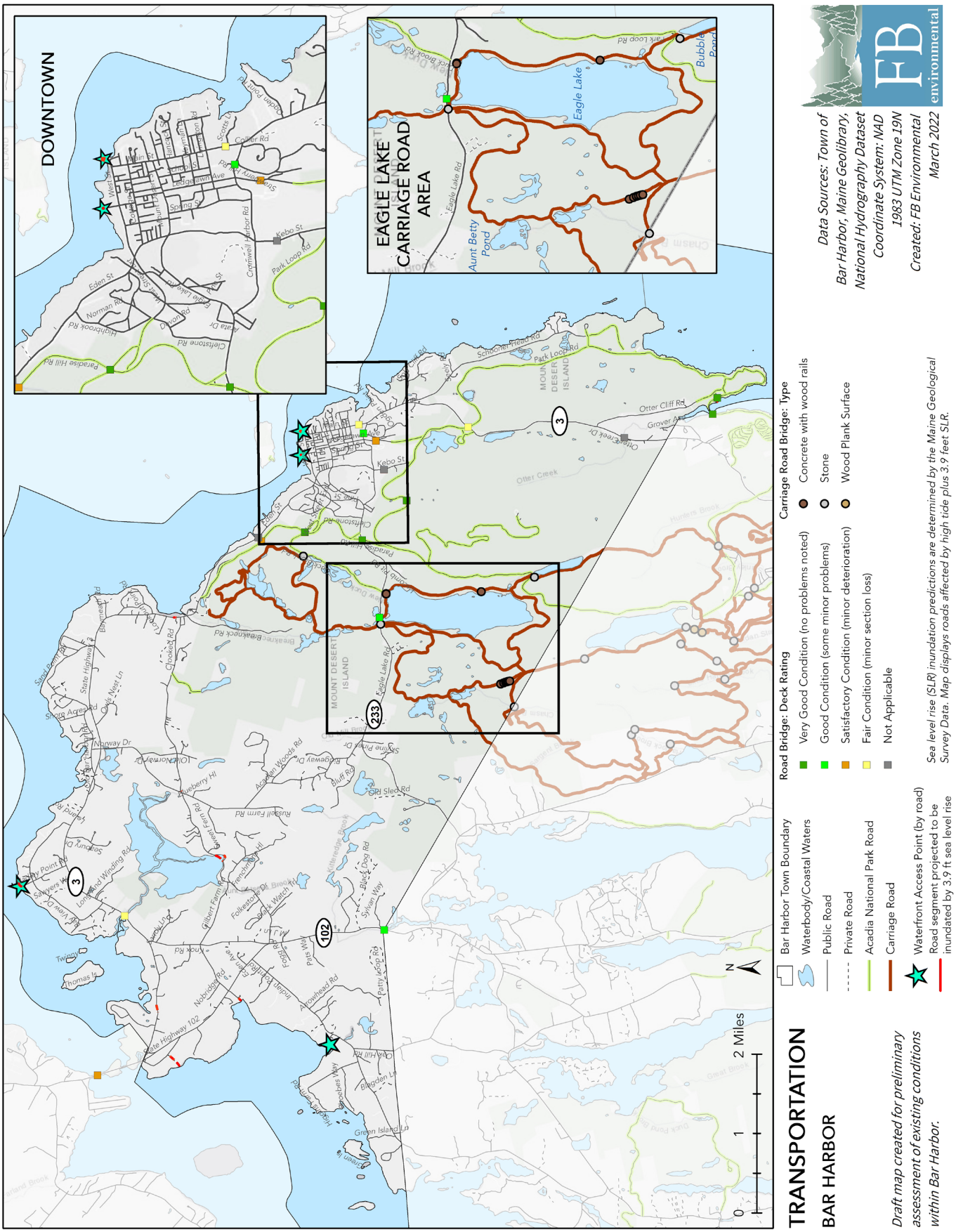
Road Class	Approximate Length in Miles
Local (town-owned)	92
Arterial (state highways)	25
Private (non-town-owned)	13
Other	3
Total	**133.1**

Arterial roads are state highway routes generally accommodate higher speed traffic and connect to other municipalities and off the island. State highways, which are maintained by the Maine Department of Transportation (MDOT), form a system of connected routes throughout the state that primarily serve intrastate traffic. There are 25 miles of arterial roads in Bar Harbor which include Route 3/Eden Street until it reaches downtown, Route 102/198, Route 233, and Route 3 from downtown into Acadia National Park.

There are 24 miles of Acadia National Park roads that are located within the Town of Bar Harbor but are owned and maintained by the National Park System. There are also 19 miles of carriage roads in Acadia National Park that accommodate bicycles, pedestrians, and, more recently, class 1 e-bikes. Portions of these roadways allow horseback riding and snowmobiling. Much of the park's historic transportation infrastructure was constructed in the early 20th century and consists of narrow, twisting roads and low, narrow bridges that were designed for automobile types, speeds, and volumes different than those of today. These roads are not included in the road breakdown table on the previous page.

Bar Harbor's Highway Division maintains 108 lane miles (which refer to a mile of roadway in a single driving lane) of roadway in town, 64 of which are maintained year-round This includes the 92 miles of local roads referenced on the previous page and the sections of secondary roadways that the town is responsible for maintaining through the downtown. The Highway Division is responsible for general street maintenance and repairs, sidewalk maintenance and repairs, snow removal on public roads, and other duties. These are described in further detail in the Facilities, Services, and Utilities section. While the town is responsible for maintaining all town-owned roads throughout the community, the maintenance and construction of downtown transportation infrastructure is often prioritized over roadways outside of the downtown. To create a well-connected transportation network for all transportation modes and different types of users (commuters, residents, visitors, etc.), stronger investment in upgrades and improvements projects outside the downtown should also be pursued more consistently.

Map 4.1 on the following page shows the transportation network in Bar Harbor including the road network, bridge conditions, and roadways projected to be impacted by sea level rise.



Map 4.1: Transportation Network Map (note road segments projected to be inundated by 3.9 ft. sea level rise in red)

ROADS IMPACTED BY SEA LEVEL RISE

The Maine Won't Wait 2020 Climate Action Plan projects that sea level rise will increase by 1.1 – 1.88 feet by 2050 and by 3.9-feet by the year 2100. The second table shows the roadways in town that will be impacted by the state's projections of a 1.6 foot sea level rise scenario. Seven roadways are expected to be impacted in this scenario. Table 4.2 shows roadways impacted by a 3.9 ft sea level rise scenario. 14 roadways are expected to be affected in this scenario. Neighborhoods that are expected to be impacted by sea level rise include the Town Hill neighborhood, Salisbury Cove neighborhood, Emery District, Hulls Cove neighborhood, and downtown Bar Harbor.

The Maine Won't Wait Plan recommends that the state commit to manage for 1.5 feet of relative sea level rise by 2050, and 3.9 feet of sea level rise by the year 2100, but prepare to manage for 3.0 feet by 2050, and 8.8 feet by 2100, all in relation to 2000 local sea level. Roadways projected to be impacted by a sea level rise of 3.9 feet are shown in Table 4.3. Future planning and investment will be needed to address the roadway segments most at risk.

Table 4.2: Roads Impacted by +/- 1.6 Feet Sea Level Rise Scenario
Source: Maine Geological Survey

Roadway	Feet of Road Affected (approximate)
Hadley Beach Lane	275
Crooked Road	267
Windaway Lane	220
Park Loop Road	41
Clark Cove Road	15
Bridge Street	10

Table 4.3: Roads Impacted by +/- 3.9 Feet Sea Level Rise Scenario
Source: Maine Geological Survey

Roadway	Feet of Road Affected (approximate)
Windaway Lane	677
Route 3	567
Crooked Road	538
Hadley Beach Lane	366
Betsys Road	227
Ells Pier	211
Clark Cove Road	194
Fish House Road	65
Park Loop Road	51
Bridge Street	20
Route 102	6
Lumber Lane	1
Norway Drive	1

PAVEMENT CONDITION

The Maine Department of Transportation (DOT) assesses pavement condition for major roadways in Bar Harbor. Pavement condition is calculated based on various factors including ride quality and the presence of rutting, structural cracking, and functional cracking. Map 4.2 shows pavement condition rankings calculated by the Maine Department of Transportation.

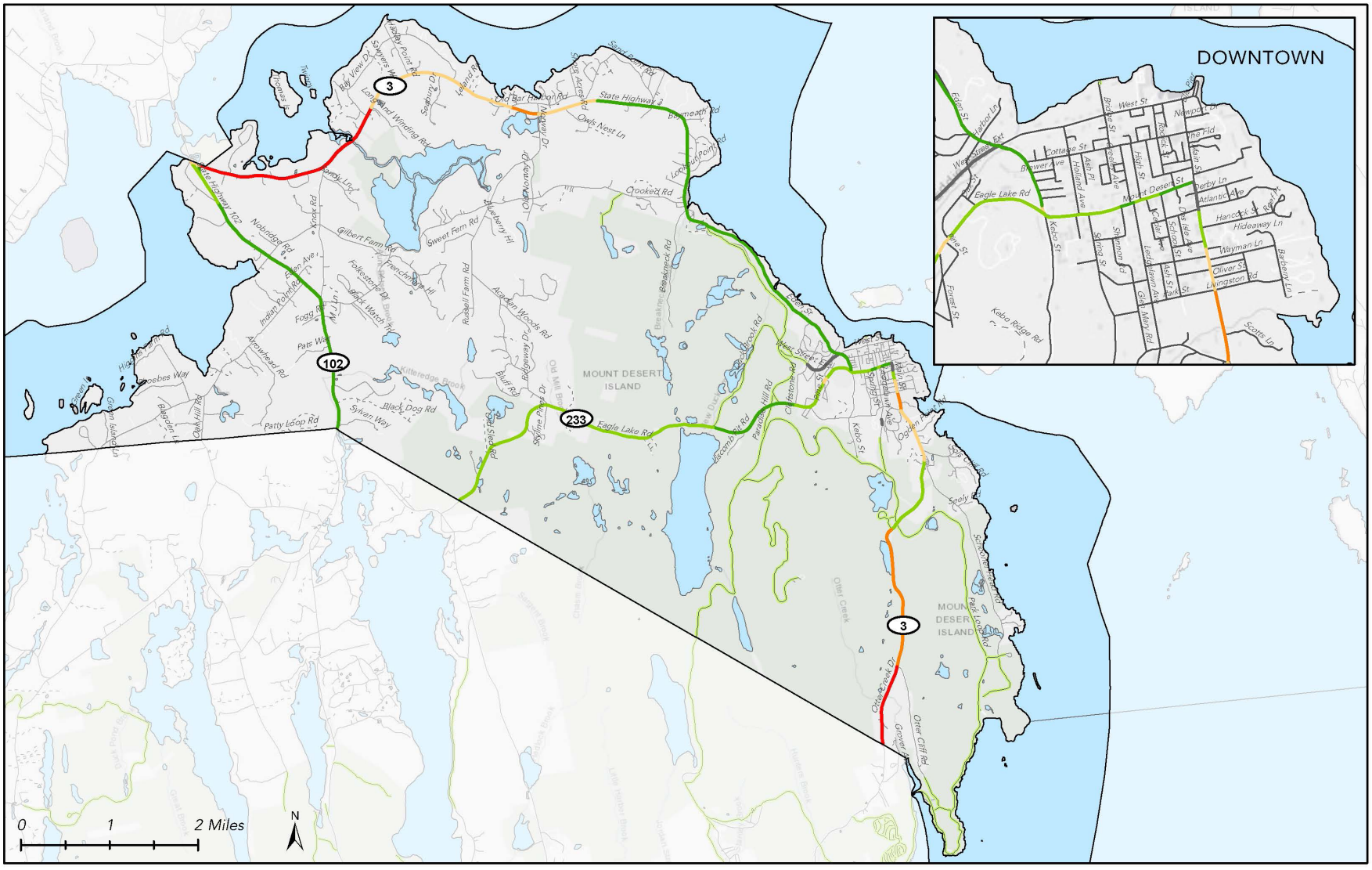
Table 4.4: Pavement Condition Ranking
Source: Maine Department of Transportation

Score	Approximate Miles of Roads Scoring As:
A - Excellent	13
B - Good	9
C - Fair	5
D - Poor	3
F - Unacceptable	5
Unknown	1

Roadways that received a pavement condition score of "D" (indicating poor condition) include:

- Main St/Route 3 between the intersection with Otter Cliff Road north to the intersection with Sier De Monts
- Main St intersection with Cromwell Harbor Road to the intersection with Livingston Road
- Route 3 between the intersection with Norway Drive and the intersection with Old Bar Harbor Road

Map 4.2: Pavement Condition in Bar Harbor



PAVEMENT CONDITION TRANSPORTATION

BAR HARBOR

Draft map created for preliminary assessment of existing conditions within Bar Harbor.

- Bar Harbor Town Boundary
- Waterbody/Coastal Waters
- Public Road
- Private Road
- Acadia National Park Road

Pavement Condition

- A - Excellent
- B- Good
- C- Fair
- D- Poor
- F- Unacceptable
- Unknown

Pavement Condition is calculated by Maine DOT from a score of ride quality (IRI - international roughness index), rutting, structural cracking, and functional cracking (equally weighted).

Data Sources: Town of Bar Harbor, Maine Geolibrary, National Hydrography Dataset
Coordinate System: NAD 1983 UTM Zone 19N
Created: FB Environmental
March 2022

FB environmental

Roadways that received a pavement condition score of "F" (indicating unacceptable condition) include:

- Otter Creek Drive between the Bar Harbor border and the intersection with Otter Cliff Road
- Route 3 between Less Traveled Road and the intersection with State Highway 102

BRIDGES

There are 17 bridges in Bar Harbor (including the mainland bridge). Only two of these bridges are owned by Bar Harbor. The others are owned by federal agencies or owned by the State of Maine. Most of the bridges in town are older, built between the 1920s and 1960s. Maine DOT ranks bridge condition using the following system:

- Very good condition (no problems noted)
- Good condition (some minor problems)
- Satisfactory condition (minor deterioration)
- Fair condition (minor section loss)
- Not applicable

In Bar Harbor, three bridges were identified as being in fair condition including Garland (owned by the Maine DOT), Main Street (owned by Maine DOT), and the Route 3 overpass (federally owned). These bridge locations are in higher traffic areas of town. More about each of the bridges in Bar Harbor including owner, year built, location, and condition can be found in Table 4.5. Bridges in fair conditions are highlighted in the table in blue.

Table 4.5: Bridge Characteristics and Condition in Bar Harbor

Bridge Name	Street Name	Year Built	Design	Deck Rating	Sup Rating	Owner
KEBO BROOK #2	KEBO ST	2011	19 - Culvert	N - Not Applicable	N - Not Applicable	4 municipal
OTTER CREEK BRIDGE	OTTER CREEK RD	1968	19 - Culvert	N - Not Applicable	N - Not Applicable	1 State DOT
GARLAND	STATE HWY 3	1930	01 - Slab	5 - Fair Condition (minor section loss)	5 - Fair Condition (minor section loss)	1 State DOT
MOUNT DESERT *Not technically in Bar Harbor, but is a major contributor to traffic	BAR HARBOR RD	1958	02 - Stringer/ Multi-beam or Girder	6 - Satisfactory Condition (minor deterioration)	6 - Satisfactory Condition (minor deterioration)	1 State DOT
MAIN STREET	MAIN ST	1945	01 - Slab	5 - Fair Condition (minor section loss)	5 - Fair Condition (minor section loss)	1 State DOT
RTE #3 OVERPASS (NPS 0060	MAIN ST	1940	01 - Slab	5 - Fair Condition (minor section loss)	5 - Fair Condition (minor section loss)	5 Federal

Bridge Name	Street Name	Year Built	Design	Deck Rating	Sup Rating	Owner
KITTREDGE BRIDGE	MAIN ST	1935	01 - Slab	7 - Good Condition (some minor problems)	7 - Good Condition (some minor problems)	1 State DOT
OTTER CREEK (NPS # 019P)	PARK LOOP RD	1938	11 - Arch - Deck	8 - Very Good Condition (no problems noted)	6 - Satisfactory Condition (minor deterioration)	5 Federal
OVERPASS (NPS 1700-002P)	PARK LOOP RD	1938	11 - Arch - Deck	8 - Very Good Condition (no problems noted)	6 - Satisfactory Condition (minor deterioration)	5 Federal
KEBO BROOK (NPS# 018P)	PARK LOOP RD	1928	11 - Arch - Deck	8 - Very Good Condition (no problems noted)	6 - Satisfactory Condition (minor deterioration)	5 Federal
MOUNTAIN RD UNDERPASS020P	PARADISE HILL RD	1951	11 - Arch - Deck	8 - Very Good Condition (no problems noted)	7 - Good Condition (some minor problems)	5 Federal
OVERPASS (WEST ST-NPS#010P	PARADISE HILL RD	1951	11 - Arch - Deck	8 - Very Good Condition (no problems noted)	7 - Good Condition (some minor problems)	5 Federal
CROMWELL BROOK #2	CROMWELL HARBOR RD	2016	01 - Slab	7 - Good Condition (some minor problems)	7 - Good Condition (some minor problems)	4 Municipal
DUCK BROOK (NPS#1700-0010)	PARADISE HILL RD	1959	11 - Arch - Deck	6 - Satisfactory Condition (minor deterioration)	6 - Satisfactory Condition (minor deterioration)	5 Federal
CROMWELL BROOK #3	LEDGELAWN AV	1945	10 - Truss - Thru	6 - Satisfactory Condition (minor deterioration)	6 - Satisfactory Condition (minor deterioration)	1 State DOT

DAILY TRAFFIC

The Maine DOT maintains permanent vehicle counters that monitor traffic volumes 365 days per year on an hourly basis at the head of the island on Route 3 and on Route 102/198. Other traffic count and vehicle classification data are collected at other site for 24 hours utilizing road tubes. Using this information, a yearly average daily traffic volume is calculated for each point on the island. It is important to note that the average annual daily traffic data does not specify time of year or day that the count was taken, which is a significant factor for communities that have seasonal traffic fluctuations. Maine DOT has traffic count data for 191 locations in Bar Harbor. Table 4.6 displays the top ten locations with the highest amount of average daily traffic in town for 2017, which is the most recent year that Maine Department of Transportation has data for, along with average traffic count data for these location in 2008.

Unsurprisingly, Mount Desert Street, which is the main roadway that extends through the downtown, has some of the highest traffic volumes in Bar Harbor. Other notable roadways that have high traffic volumes include Route 3/Main Street, another main road into the downtown, and Schooner Head Road, both of which connect to entrance points into Acadia National Park and to the locations of major employers in town (Jackson Lab and Mount Desert Island Hospital). The head of the island and the entry points to the downtown have the greatest volumes of traffic. West Street also has substantial traffic volumes. Please see Map 4.3 to view the traffic count locations.

Independently from Maine DOT, Acadia National Park measures annual traffic count data at one location in Bar Harbor – Sand Beach. Table 4.7 shows data for 2015-2021. In 2021, a total of 4 million visits to Bar Harbor were estimated, resulting in the highest-ever yearly total of estimated visits to Acadia National Park.

Table 4.6 Top 10 Locations in 2017 with the Highest Average Annual Daily Traffic Volumes
Source: Maine Department of Transportation

Street Location	2017	2008
SR 3 (MT DESERT STREET) SE/O SR 3 (EDEN STREET)	7,130	7,260
SR 3 (MT DESERT STREET) W/O ROBERTS AVENUE	6,470	6,520
SR 3 (MT DESERT STREET) E/O LEDGELAWN AVENUE	5,680	6,100
SR 3 (MAIN STREET) N/O ATLANTIC AVENUE	5,650	8,020
SR 3 (MAIN STREET) S/O WAYMAN LANE	4,680	4,880
SR 3 (MT DESERT STREET) W/O MAIN STREET	4,210	N/A
MAIN STREET S/O COTTAGE STREET	4,200	N/A
SR 3 (MAIN STREET) SW/O IR 545 (SCHOONER HEAD ROAD)	4,090	3,470
SR 3 (MAIN STREET) S/O PARK STREET	3,900	4,140
WEST STREET NE/O SR 3 (EDEN STREET)	3,270	3,240

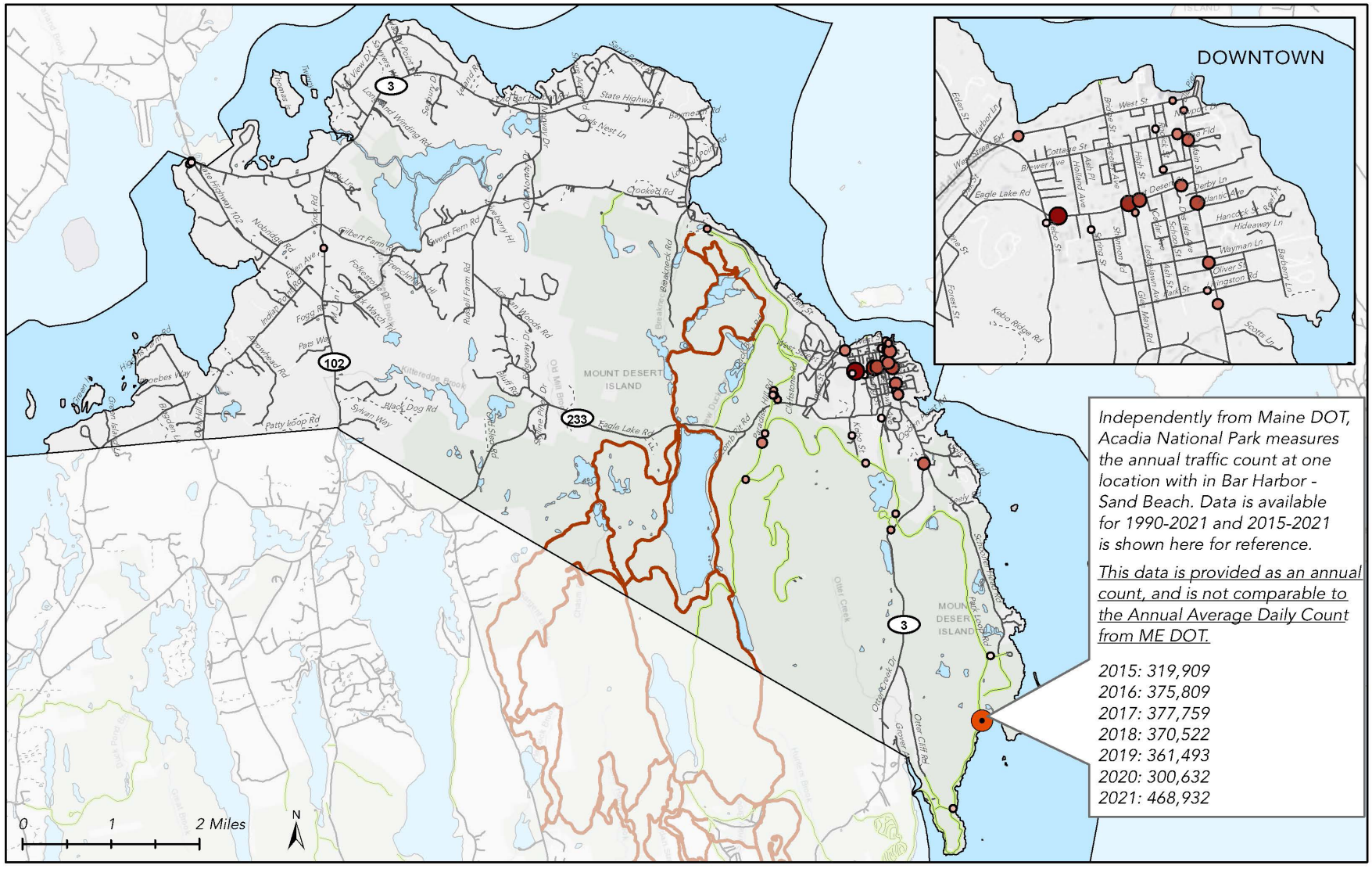
TRAFFIC CONGESTION

Millions of tourists visit Acadia National Park each year during the summer and fall months, many of whom arrive or stop in Bar Harbor to stay, dine, and shop. For a town with a year-round population of 5,470, this additional volume of people strains the capacity of Bar Harbor's community infrastructure and requires significant planning, investment, and maintenance for the seasonal increase in usage. Additionally, several thousand people commute to Mount Desert Island for year-round jobs, and even more seasonal workers commute to the island. Managers of major businesses and institutions such as Mount Desert Island Hospital, the Jackson Laboratory, local hotels, and Mount Desert Island town governments are concerned about commute times because many of their employees live off-island.

Table 4.7: Traffic Counts – Sand Beach Entrance
Source: Acadia National Park

Year	Annual Average Number of Visits
2021	468,932
2020	300,632
2019	361,493
2018	370,522
2017	377,759
2016	375,809
2015	319,909

Map 4.3: 2017 Traffic Counts in Bar Harbor



Independently from Maine DOT, Acadia National Park measures the annual traffic count at one location with in Bar Harbor - Sand Beach. Data is available for 1990-2021 and 2015-2021 is shown here for reference.

This data is provided as an annual count, and is not comparable to the Annual Average Daily Count from ME DOT.

2015: 319,909
2016: 375,809
2017: 377,759
2018: 370,522
2019: 361,493
2020: 300,632
2021: 468,932

2017* TRAFFIC COUNTS TRANSPORTATION

BAR HARBOR

**2017 is the most recent year with ME DOT data available.*

Draft map created for preliminary assessment of existing conditions within Bar Harbor.

- *Bar Harbor Town Boundary*
- *Waterbody/Coastal Waters*
- *Public Road*
- *Private Road*
- *Acadia National Park Road*
- *Carriage Road*

Traffic Count
Annual Average Daily Traffic

- *140 - 1,000*
- *1,030 - 2,000*
- *2,030 - 3,000*
- *3,040 - 4,000*
- *4,090 - 5,000*
- *5,650 - 6,000*
- *6,470 - 7,000*
- *7,130 - 8,000*

Data Sources: Town of Bar Harbor, Maine Geolibrary, National Hydrography Dataset
Coordinate System: NAD 1983 UTM Zone 19N
Created: FB Environmental
March 2022

FB environmental

There is a wide diversity of transportation modes that use the road infrastructure downtown, including vehicles, buses, pedestrians, and bicyclists, as well as travelers arriving to Bar Harbor by cruise ship or ferry. The flood of people into the downtown area creates significant vehicle and pedestrian congestion issues, traffic safety concerns, dangerous pedestrian crossings, and bottlenecking. Other constraints include the downtown's narrow road network and poor sight lines from parked vehicles. As traffic congestion persists on the major roads in the downtown, more vehicles seek alternative routes through adjacent neighborhoods, impacting residents.

There are also traffic congestion issues that persist outside the downtown area. In the evenings, there is often heavy traffic from downtown to the bridge over Union River on Route 1A and on Route 198 heading toward the traffic signal at the head of the island.

Since 2007, two traffic signals have been situated on the island. According to town staff, there are limited individuals locally who can maintain or fix them if they malfunction. Oftentimes, traffic can get backed up at these lights, contributing to congestion issues.

HIGH CRASH LOCATIONS

The Maine DOT keeps records of "high crash locations" where eight or more crashes have occurred within a three-year period. Table 4.8 shows high crash intersections as reported by Maine DOT and verified with the Bar Harbor Police Department from 2012-2021. Please note there were several years that Maine DOT did not identify any high crash locations. However, the data does still show a trend that the intersection of Eagle Lake Road, Eden Street, Kebo Street, and Mount Desert Street has been reported as a high crash location from 2014-2017.

Table 4.8: High Crash Locations
Source: Maine Department of Transportation

Year	Location	Total # of Crashes
2021	No records	-
2020	No records	-
2019	Intersection of Ledgelawn Avenue/Mount Desert Street	9
2018	No records	-
2017	Intersection of Eagle Lake/ Eden Street/Kebo Street/ Mount Desert Street	8
2016	Intersection of Eagle Lake/ Eden Street/Kebo Street/ Mount Desert Street	8
2015	Intersection of Eagle Lake/ Eden Street/Kebo Street/ Mount Desert Street	9
2014	Intersection of Eagle Lake/ Eden Street/Kebo Street/ Mount Desert Street	8
2013	No records	-
2012	No records	-

According to the Police Department, this location is problematic due to the high traffic volumes and intersection movements. The other location of concern is the intersection of Ledgelawn Avenue and Mount Desert Street, which was reported as a high crash location in 2019. According to the Police Department, this location is dangerous due to its hilly topography that creates poor visibility and the fact that a hedgerow along Mount Desert Street on private property creates a blind spot. Other problematic intersections in Bar Harbor beyond the high crash locations Maine DOT reports include the head of the island due to the merging of lanes, and other roadways in downtown Bar Harbor, specifically West Street/Eden Street, West Street/ Main Street, and Main Street/Mount Desert Street. Currently, a safety study is being completed at the Route 3/Eden Street and West Street intersection as part of the major Route 3 road improvement

project. Safety issues include poor vehicle traffic circulation, and unsafe bicycling and pedestrian conditions. It is also important to note that, according to the Police Department, downtown crashes are typically not reported and largely result from traffic congestion issues.

Parked vehicles in downtown also affect sign distances at downtown intersections and can cause pedestrian and vehicle conflicts. Additionally, the Island Explorer buses have had quite a few minor crashes while operating in and around the congested downtown streets. Their main hub is directly outside the Fire Department doors where emergency vehicles come and go all day and night.

PARKING

Being a community that experiences an influx of tourists during the summer and fall seasons, parking issues can be challenging, especially when balancing parking needs among residents, employees, and visitors. In August 2017, The Town Council asked the Parking Solutions Task Force to recommend solutions to the long-standing parking issues in the downtown, including congestion caused by too many people looking for available parking spaces, competition for parking among different users, and the increase in visitors parking in residential areas. The Task Force is focused on implementing strategies that make existing parking in downtown more efficient, and encouraging visitors and residents alike to walk, bike, and use the bus with the aim of reducing demand on limited downtown parking. In 2017/2018, the Task Force developed recommendations including the installation of meters and kiosks, establishment of a parking fund, a parking permit program, and started exploring the development of satellite parking at the ferry terminal with a shuttle to downtown to avoid more traffic congestion entering downtown area. Many of these recommendations have been or are being implemented.

In 2019, the town adopted a permit and paid parking policy and established a coordinated parking program which included parking meters, kiosks, and permit parking options. Parking rates range from $1.50 per hour to $2.00 per hour with certain high demand areas having 4-hour limits and other areas with no limits. Paid parking is enforced between 9 a.m. and 8 PM, Monday through Saturday, and noon to 8 PM on Sunday. Permit parking areas are available for residents, employees, commercial fishing, College of the Atlantic students, and a few other categories. Additionally, the town offers the purchase of “Smart Cards”, which can be loaded with money for use at all town parking meters and kiosks.

In 2021, the high visitation levels to Acadia National Park generated record breaking parking fee revenue for the Town of Bar Harbor. The town collected $2.2 million in revenue between May 1 and October 31, which is up from $1.18 million in 2020. Town officials believe a combination of high visitation, the Cadillac Mountain Reservation program, and the lack of public transportation on Mount Desert Island in 2020 were major contributing factors. Parking fee revenue covers costs of the parking program and goes towards transportation infrastructure related projects. Bar Harbor plans to spend the 2021 revenue on parking improvements at the town-owned ferry terminal, lighting upgrades along Route 3, bike racks, and other infrastructure improvements. Moving forward, parking fee revenue should also be coordinated to strategically plan for phased expenditures on roadway projects that meet the town’s vision for a future multi-modal transportation system and network.

While the implementation of a parking program has alleviated some parking issues, there is more to be done to meet transportation demands, especially in response to the increasing vitiation numbers evident in 2021. The level of parking demand and traffic circulation issues have continued to increase. There is limited accessible parking in the downtown and winter parking policies (i.e., no parking on town roads) remain frustrating for residents. On-street parking on certain narrow roads, like West Street, create limited poor sight lines and dangerous driving conditions. Non-metered local streets are often too narrow for two-way traffic and parking. To avoid congestion, vehicles continue to cut through, and occasionally park, on neighborhood streets and disrupts the character and quality of these areas for residents.

CRUISE SHIP VISITATION

Bar Harbor has become a major port and destination for cruise ships. Over the past decade, the town has seen a dramatic increase in the number of annual visitors from both land and sea-based travel. In 2021, record-breaking visitation levels to Mount Desert Island and Acadia National Park were recorded. This excluded cruise ship traffic that halted services in 2020. Planning for the return of cruise ship traffic, while visitation numbers to the island are increasing in other sectors, will be a major priority for the town in the future. The cruise ship season is typically May through early November. Typically, a few thousand passengers arrive at a time to take bus tours of Acadia National Park or to explore the downtown and waterfront.

Table 4.9: Cruise Visitation Levels
Source: 2019 Cruise Tourism and Traffic Congestion Report; Bar Harbor Harbormaster

Year	# of Ships	# of Passengers
2019	157	250,164
2018	154	222,728
2017	148	207,360
2016	105	158,093
2015	117	146,436
2014	119	158,602
2013	126	167,573
2012	108	130,203
2011	106	156,309
2010	107	173,656

Table 4.9 shows annual data for cruise ship visitation and passenger count numbers. In 2019, Bar Harbor had roughly 170 cruise ship visits, which is nearly an 800 percent increase since 1990, when the town had only 22 cruise ship visits. In 2022, cruise ships will return to Bar Harbor and are anticipated to start porting as early as mid-April. Estimates provided by the Town of Bar Harbor show there is a potential for 180 ships to port in Bar Harbor in 2022 with a total passenger count just shy of 288,500. If these estimates are accurate, that would be the largest number of cruise ships to port in Bar Harbor and the highest number of passengers recorded as well.

While the cruise ship related tourism industry has clear economic benefits from the influx of tourists to Bar Harbor, several negative impacts have been identified due, in part, to increased levels of cruise ship traffic. These include overcrowding by pedestrians and tour buses, pedestrian safety issues, and increased strain on public infrastructure capacity. In 2019, the town administered a community survey to gauge local resident's perceptions of the local cruise ship visitation levels. The survey results indicated that 55% of respondents think the local cruise ship visitation level has a negative impact on the town, and 53% said that they have a negative impact on the town's quality of life. However, 45% of respondents noted that the economic impacts of the cruise ship industry were important. Survey results also indicated that there was broad agreement from respondents across the year-round resident, seasonal resident, and business owner communities on the top suggestions for improving the

management of cruise ship tourism. Additionally, survey results and data gathered indicate that business owners (resident and non-resident) and seasonal residents are more inclined to be positive than year-round residents on issues relating to Bar Harbor's cruise ship business.

Bar Harbor currently manages cruise ship visitation through daily passenger caps of 3,500 passengers per day in July and August, which are peak travel times for tourists. The limit is for 5,500 passengers per day in the other months between May and October. Bar Harbor's Town Council will be developing a policy to limit annual cruise ship visitation in the near future.

THE CAT FERRY

The CAT is a high-speed seasonal ferry service between Bar Harbor and Yarmouth, Nova Scotia accommodating both walk-on passengers and passengers with vehicles. This service ran for 12 years from 1997 to 2009. The ferry then moved to Portland, Maine, a route that was recently halted in 2018. The return of the CAT ferry service to Bar Harbor was originally expected for the 2019 season but construction delays at the Eden Street terminal and the COVID pandemic caused a delay. The CAT ferry is scheduled resumed in May, 2022 and will run through mid-October. The service will run four days per week, increasing to seven days per week between late June and Labor Day. The ferry will dock along the north side of the ferry terminal pier. As noted in the Economic Development section, the town is currently discussing options for demolishing portions of the old pier and eventually replacing it with a marina that could include new docks, floats, and other publicly accessible amenities. This work is being guided by the town's Ferry Terminal Property Advisory Committee.

PEDESTRIAN AND BICYCLE INFRASTRUCTURE

PEDESTRIAN INFRASTRUCTURE

There are 30 miles of sidewalk that the Town of Bar Harbor is responsible for managing. Eight miles of these sidewalks are maintained for winter use as well. Because of the high amount of pedestrian traffic, compact land use pattern, and mix of uses in the downtown, pedestrian infrastructure, including sidewalks and crosswalks, are highest in this area. Several reports have identified the need to add sidewalks on streets that lack pedestrian infrastructure but have higher pedestrian traffic, maintain sidewalks consistently to maintain condition over time, and add or widen road shoulders strategically to encourage and accommodate walking and bicycling.

OFF-ROAD PATHS

Bar Harbor has two short off-road paths that separate pedestrian and/or bicycle traffic from on-street vehicular traffic. These include:

- **Shore Path**
  Bar Harbor's Shore Path is a pedestrian pathway that follows the shore of Frenchman Bay from the town's Ells Pier to Wayman Lane along the East shore. It passes one of Bar Harbor's oldest inns, several historic summer "cottages", and several coastal sights including the Porcupine Islands, Balance Rock, Egg Rock Light and the Schoodic Peninsula. The Bar Harbor Village Improvement Association maintains the path on behalf of the abutting landowners and the town's residents.

- **The Bar**
  The Bar is a multi-use path, also located in the downtown, that begins at the terminus of Bridge Street and at low tide connects to Bar Island, which is part of Acadia National Park.
- **Eden Street Shared-Use Path**
  The Eden Street multi-use path extends along Route 3, past the College of the Atlantic, to the Eden Street-West Street problem intersection. It accommodates both bicyclists and pedestrians and there are plans to extend the path soon (see the Bicycle Infrastructure section below for more details).

BICYCLE INFRASTRUCTURE

There are limited safe bicycling routes in the downtown area. However, bicycling remains a popular activity among residents and visitors, and the downtown congestion, narrow roads, and parked vehicles does not deter the more avid and experienced cyclists. Many tourists arrive to Bar Harbor with bicycles or rent them downtown. This presents an opportunity to encourage and increase bicycling both recreationally and as an alternative transportation option, alleviating congestion and meeting the town's sustainability goals. Bicycle parking is largely limited to the town's parks and open spaces. A more coordinated effort is needed to locate bicycle racks more strategically throughout town.

Outside of the downtown, both pedestrian and bicycle infrastructure is limited. Paved shoulders on some roads provide separate travel space for bicyclists and pedestrians, are of varying quality across the town. Other roadways have no shoulders, such as Crooked Road and Norway Drive, which are collector roads that could connect bicyclists to downtown if the infrastructure were present. Additionally, there are few signs on roadways alerting vehicles of bicycle and pedestrian traffic in general. A bicycle facilities study or assessment could help to develop a more coordinated and detailed plan for a town-side bicycle network with supporting infrastructure including bike lanes, shoulders, multi-use paths, bike racks, and connections to key destinations in town (such as major employers, local businesses, bus stops, etc.). To create and implement such a study and implement the recommendations, increased communication and collaboration with landowners between villages would need to occur.

There are a number of bicycling opportunities in Acadia National Park, but they are not all easily or safely accessibly due to the narrow roadways and limited bicycle connections outside Acadia National Park.

E-bikes are starting to increase in popularity as a recreation and commuting mode. It is similar to a human-powered bicycle, but is also equipped with an electric rechargeable motor that can be used for up hill, longer distances, etc. In the future, better understanding of the needs of this bike technology will aid transportation planning efforts.

ROUTE 3 PROJECT

In 2016, the town partnered with Maine DOT on a road reconstruction and rehabilitation project for Route 3 in Bar Harbor which included 4.8 miles, starting 0.57 miles west of Sand Point Road and extending easterly to Route 233. Work included sidewalks, a multi-use path, paved shoulders, and several bus turnouts. The Route 3 Project is estimated at $17.9 million. In addition, utility companies made improvements along the project route concurrent to clearing and drainage improvements. Route 3 now has paved shoulders for bicyclists and pedestrians, new sidewalks, sidewalk improvements to meet American with Disabilities Act standards, safe crossings with electronic crossing signs, an upgraded of the intersection of Mt Desert Street and West Street, improved drainage, and new road surface and

striping. Additionally, the Eden Street shared-use path, which currently stops at West Street, will be extended down to the Bar Harbor Historical Society, and eventually down the rest of West Street to connect to the Acadia National Park entrance.

STREETSCAPING PROJECTS ON COTTAGE AND MAIN STREET

A streetscaping project is currently in the works for roadway and sidewalk improvements on Main Street and Cottage Street. This is being completed in conjunction with sewer system upgrades within these road rights-of-way. Streetscape issues on Cottage Street are identified in the 2017 Cottage Street Streetscape Plan. These include an undersized street corridor, narrow sidewalks, and lack of pedestrian crossing visibility. Outcomes from the streetscaping projects will include sidewalk reconstruction and restoration, narrowing of road lanes, burying utilities, and additional beautification measures (such as street trees).

ACADIA NATIONAL PARK TRANSPORTATION PLAN

In 2020, the National Park Service created a comprehensive transportation plan to guide future transportation improvement projects in Acadia National Park and within the surrounding communities. It was created with the intention of improving the visitor experience and to protect natural, cultural, and structural resources within the transportation network itself and at the park attractions accessed by the transportation network. The Plan includes several provisions for managing the increasing number of visitors to Acadia National Park, including the expansion of the Island Explorer bus system, which will require more buses, more funding, and more drivers. A major goal is to incorporate the park's transportation planning efforts with those of neighboring communities regarding the Island Explorer service enhancements and other transportation projects such as the reuse of the Bar Harbor ferry terminal and parking solutions in the downtown.

In general, transportation issues related to Acadia National Park are diverse. Traffic consists of a wide range of transportation modes including private vehicles, concession tour buses, commercial motor coaches, taxis, vans, the Island Explorer, bicycles, and pedestrians. The high volume of visitors in a short season causes gridlock, overcrowding, traffic congestion, emergency response delays, cultural and natural resource damage, safety concerns, and burdens visitor facilities. All of this impacts the quality of the visitor experience and creates a demand for parking and road access that exceeds the capabilities of the historic transportation related infrastructure. The 2020 Transportation Plan includes recommendations to alleviate these issues in the future.

DOWNEAST TRANSPORTATION

Downeast Transportation, Inc. (DTI) is a nonprofit organization that provides public transportation for Bar Harbor and greater Hancock County, including year-round, fixed-route, and midday service to 17 towns plus subscription commuter service to the Jackson Laboratory and other agencies. DTI also provides a seasonal, propane-powered shuttle service, the "Island Explorer", for transportation throughout Acadia National Park and the surrounding

Table 4.10: Downeast Transportation Ridership Data

Source: Downeast Transportation, Inc.

Year	Commuter	Midday	Total
2019	35,831	14,657	50,488
2018	37,855	11,955	49,810
2017	49,373	9,645	59,018
2016	41,515	10,439	51,954

**This does not include Island Explorer ridership. 2020 and 2021 were excluded due to limited service during these seasons because of the Covid-19 pandemic.*

communities with a passenger hub located in Bar Harbor. DTI ridership from 2016-2019 is show in Table 4.10.

YEAR-ROUND BUS SERVICE

COMMUTER ROUTES TO THE JACKSON LABORATORY

DTI operates commuter routes to the Jackson Laboratory (JAX) in Bar Harbor from Bangor, Brewer, Milbridge, Franklin, and Ellsworth five days per week based on the lab's daily work hours. JAX covers roughly one-third of the cost through direct subsidies to DTI. The JAX commuter bus program increases the available labor force for JAX, lowers employee commuting costs, and reduces the number of vehicle miles traveled (decreasing carbon emissions).

MIDDAY BUS SERVICE BETWEEN BAR HARBOR AND BANGOR

DTI operates a weekday, round trip bus to Bangor with a morning departure from Bar Harbor and an early afternoon return trip from Bangor. This service is available Monday through Friday. Bangor stops include the Bangor Airport, Bangor Mall, Downtown Bangor, Eastern Maine Medical Center, and the Concord Coach bus terminal, allowing Bar Harbor travelers to transfer to and from these intercity travel modes. A variety of residents and visitors utilize this service. Bar Harbor to Bangor shopping trips are especially popular with international workers who come to Bar Harbor for the summer and fall without cars.

MIDDAY BUS SERVICE BETWEEN BAR HARBOR AND ELLSWORTH

DTI provides multiple midday round trips between Bar Harbor and Ellsworth Monday through Friday. Destinations in Ellsworth include Walmart, the Maine Coast Mall, the Ellsworth Shopping Center, and Downtown Ellsworth. The main stop for this service in Bar Harbor is the Malvern-Belmont senior apartment complex. These Bar Harbor-Ellsworth buses provide a midday link for JAX employees traveling between the Jackson Laboratory's Bar Harbor and Ellsworth facilities. The Lab subsidizes this midday bus service. Depending on future JAX travel patterns, additional support from the Town of Bar Harbor may be needed to ensure continuation of this service.

BAR HARBOR SHUTTLE

An in-town Bar Harbor shuttle provides multiple round trips within Bar Harbor every Tuesday. The bus picks up at senior citizen apartment complexes and provides access to Hannaford, the post office, the library, MDI Hospital, and the YMCA.

ISLAND EXPLORER

Since 1999, the year of its inception, the seasonal bus system, the Island Explorer, has carried over 7 million passengers during the busy summer and fall seasons on Mount Desert Island and in Acadia National Park. It operates a series of bus routes linking hotels, inns, campgrounds, and the ferry terminal with destinations in Acadia National Park and the village centers of Bar Harbor, Northeast Harbor, and Southwest Harbor free of charge. The bus service is provided by DTI and includes 30 propane powered vehicles. The Island Explorer system is designed to let out-of-town visitors leave their cars in parking spaces provided at their hotels, inns, rental homes, and campgrounds. Past ridership suggests that Island Explorer buses reduce parking demand in Bar Harbor throughout the summer by several hundred parking spaces each day.

MAP 4.4: 2022 ISLAND EXPLORER SHUTTLE MAP

Table 4.11: Island Explorer Ridership Data Source: Downeast Transportation, Inc.							
Year	Annual Total Riders	Summer Total Riders	Summer One-Day Peak	Average Daily Summer Riders	Fall Total Riders	Fall One-Day Peak	Average Daily Fall Riders
2019	648,105	480,879	10,229	7,398	163,574	5,993	3,338
2018	624,076	483,527	9,602	7,217	137,464	5,200	3,353
2017	581,305	461,388	9,887	6,591	119,917	5,259	2,789
2016	575,397	459,738	9,179	6,568	115,659	4,696	2,690
2015	533,359	425,252	9,285	6,075	108,107	4,936	2,514
2014	503,224	410,866	9,551	5,870	92,358	3,330	2,148
2013	423,998	349,470	7,969	4,992	74,065	3,223	1,949
2012	439,053	365,247	8,404	5,218	73,806	2,812	1,942
2011	403,754	330,150	7,486	4,716	73,604	3,142	1,840
2010	412,132	338,223	8,010	4,832	73,909	3,139	1,803
**2020 and 2021 were excluded due to limited service during these seasons because of the Covid-19 pandemic.*							

The Island Explorer primarily serves the tourist industry, but also provides transportation for year-round residents. According to DTI, approximately 22% of the ridership, amounting to well over 100,000 trips, consists of year-round residents. Additionally, many seasonal restaurant, retail, and hotel workers rely on Island Explorer bus routes for access to job sites. Many middle school and high school students also utilize the Island Explorer buses for cross-island travel during the summer months.

DTI's budget for the Island Explorer is approximately $2.8 million per year. Financial support for the buses and the operations are provided by the National Park Service (largely through park entrance fees), federal and state grants, and contributions from local municipalities, businesses (such as LL Bean), and nonprofit agencies (such as Friends of Acadia). According to DTI, the Island Explorer system has far exceeded its initial ridership goals. While DTI has increased the frequency of service on key bus routes in the national park, these routes continue to operate at or near capacity. Ridership numbers for the Island Explorer are provided in Table 4.11. The Island Explorer Shuttle map shows the Island Explorer 2022 bus system route.

PLANNING FOR BUS SERVICE IN THE FUTURE

EXPANDING BUS SERVICE

DTI anticipates significant growth for the Island Explorer over the next five years as Acadia National Park implements its Transportation Plan. This growth will likely include a longer season, opening earlier in the spring and closing later in the fall, as well as additional routes and more frequency of buses on existing routes, and will require fleet and employee growth. To help increase service for the bus system, the Town Council has endorsed a plan to increase the town's annual funding for the system by more than 700 percent. Officials with the bus system have noted that passenger-carrying capacity needs to be increased along Eden Street, where many hotels and campgrounds are located, and on its Sand Beach run, which operates between downtown Bar Harbor and Sand beach in Acadia National Park. To fund

the increased operating expenses, the bus system is asking for additional funds from the town in addition to the approximately $40,000 Bar Harbor gives Island Explorer currently each year. The additional money would be funded from the town's paid parking revenue and from cruise ship fees.

ACADIA NATIONAL PARK RESERVATION SYSTEM

A large percentage of the cost of Island Explorer operations is covered by Acadia National Park entrance fees. The National Park Service is implementing a reservation system for automobiles seeking to enter the park to address congestion and other issues. This will require increasing the capacity of the Island Explorer shuttle system. As demand increases for in-park bus service, fewer National Park Service funds will be available to pay for service expansion outside the national park. Municipalities will also likely need to cover the full cost of town-focused service increases, especially evening service and for municipal parking lot shuttles.

ACADIA GATEWAY CENTER

Part of the 2020 Transportation Plan included the planning for a new transportation facility called the Acadia Gateway Center. The State of Maine constructed this facility on Route 3 in Trenton. This facility provides parking for day visitors (over 200 spaces), multiple charging stations for electric cars, and a terminal area for visitors waiting to board Island Explorer buses. DTI plans to add a shuttle route from the Acadia Gateway Center to the Hulls Cove Visitor Center, with through service to Sand Beach and the Park Loop Road. Out-of-state motor coaches will also be able to transfer tour groups to smaller local charter buses at the facility.

EDEN STREET FERRY TERMINAL PARKING

When the town purchased the ferry terminal property on Eden Street, one of the anticipated uses was municipal parking. The Parking Task Force has proposed creating between 50 and 100 temporary parking spaces on the site in 2022. DTI redesigned the Eden Street shuttle route to accommodate this anticipated demand. Ferry terminal parking and shuttle operations can be funded in part by cruise ship fees to compensate the town for downtown parking spaces lost to cruise ship activity. Parking meter revenues provide another source of available funding for parking lot shuttle service.

ACCOMMODATING BUSES IN DOWNTOWN

Lower Main Street (south of the Village Green and between Mount Desert Street and Hancock Street) and West Street's narrow roadway width present challenges for bus services. These roads were not designed to accommodate large vehicle traffic. Parking on both sides of the road creates narrow travel lanes making it difficult for buses and other commercial vehicles to navigate these roads safely. Buses often detour several miles to avoid these narrow blocks during the spring, summer, and fall. Additionally, the turning radius that the Island Explorer buses need to make throughout the day from Firefly Lane onto Mount Desert Street is tight, resulting in the bus taking up both lanes when turning.

RECRUITMENT OF DRIVERS

Housing employees, especially seasonal workers, continues to be a challenge for many on the island, including DTI. This is especially important if public transportation demand is expected to increase, and service is to be expanded. DTI recently increased their wages from $11.25/hour to $15.25/hour to enhance driver recruitment and retainment. They've also hired a full-time, year-round Transportation

Manager to recruit drivers year-round and provide for smoother transition to the summer tourist season. They've also had to generate more creative solutions, as well including sharing drivers with Sugarloaf and employing commuter drivers who work at the Jackson Laboratory during the day.

LONG-DISTANCE TRAVEL

Greyhound and Concord Coach both operate buses from Boston to Bar Harbor. Private taxi and van companies include Bar Harbor Shuttle (providing van service between the Bangor transportation terminals and Bar Harbor), and Bar Harbor Coastal Cab and Tours (providing park tours and long-distance taxi services upon request). Uber and Lyft services are still relatively new to the island but appear to have a presence.

AIRPORT

The Bar Harbor, Hancock County Airport is in Trenton, about 12 miles from downtown. The airport serves commercial and private traffic. About 50 miles away, Bangor International Airport provides direct and connecting commercial flights to domestic and international destinations, as well as private and charter services.

CLIMATE CHANGE AND TRANSPORTATION

The 2021 Bar Harbor Climate Action Plan identifies priority strategies, as well as related goals and actions, to mitigate greenhouse gas emissions across the community's municipal operations. Transportation remains a significant producer of greenhouse gas emissions, which exacerbates climate change and related impacts. Goals for reducing greenhouse gas emissions in the transportation sector include replacing municipal and school vehicle fleets with electric vehicles (to the greatest extent possible) by 2030 and to support the development of electric, active, and public transportation systems across the island. It also notes the importance of the town partnering with key community partners (Acadia National Park, Downeast Transportation, College of the Atlantic, The Jackson Laboratory, etc.) to research and develop incentives and resources for sustainable transit for residents and visitors.

Electric vehicle charging infrastructure is critical to support the development of a sustainable, energy efficient transportation system. Bar Harbor currently has ten electric vehicle charging stations in town. Locations include the College of the Atlantic, Mount Desert Regional High School, Acadia National Park headquarters, the Abbe Museum, Jackson Lab, and several hotels and inns. To meet climate change goals and the increasing demand for electric vehicles, an assessment of current charging infrastructure and coordinated investment of additional infrastructure should be prioritized.

Downeast Transportation has developed rough estimates of the potential impact of Bar Harbor transit services on vehicle miles traveled, which can be found in Table 4.12. Annual vehicle miles removed by the Island Explorer system can be estimated by dividing total boardings by the average group size of 2.7 and then multiplying this estimated number of automobile trips by an average trip length of 8 miles. This suggests that the shuttle program eliminates close to 2 million automobile miles per year. Island Explorer buses operate roughly 500K

4.12: Island Explorer Vehicle Miles Removed

Passenger boardings	Average group size	Estimated average miles per trip	Annual automobile VMT reduction
647,098	2.7	8	1,917,327

miles per year. This leaves a net reduction of roughly 1.5 million vehicle miles.

Projections for longer-distance vacation travel assume 30 participating families per day and a 70-day summer season. Table 4.13 shows the relative potential impact of shifting travel groups from cars to intercity motor coaches and local buses.

4.13: Long-Distance Automobile Trips, 30 Families per day during a 70-Day Season

Travel origin	Miles per round trip	Miles per day	Annual VMT
Boston	574	17,220	1,205,400
New York City	976	29,280	2,049,600

These estimates suggest that the most effective climate change strategies involve commuter buses and vacation travel. Local midday buses are important for people who do not drive, but they have limited impact on carbon and climate.

RESOURCES

- Comprehensive Plan Update, Bar Harbor, Maine. June 2007.
- State of Maine Department of Transportation Data Package
- 2021 Town Council Goals
- Town of Bar Harbor
- 2019 Cruise Tourist Traffic Congestion in Bar Harbor Report
- 2017 Parking Solutions Task Force Report
- 2020 Acadia National Park Transportation Plan
- Town Reports (2018-2020)
- 2019 Bar Harbor Ferry Steering Committee Recommendations
- 2017 Ferry Terminal Property Advisory Committee Report to BHTC
- 2021 Climate Action Plan
- 2017 Cottage Street Streetscape Plan
- Downeast Transportation Summary of Services and Ridership Data Package
- Direct Correspondence and Data from
  - Bar Harbor Public Works Director
  - Bar Harbor Police Chief

PUBLIC FACILITIES, SERVICES, AND UTILITIES

BAR HARBOR 2022 EXISTING CONDITIONS SUMMARY

Bar Harbor's municipal facilities, such as Town Hall, the Public Works Department, the Fire Department, and its school system, and public infrastructure, including water, sewer, and other utilities, provide essential services to its residents. As a community changes over time, it is crucial to examine the quality and adequacy of the town's public facilities and services to meet the needs of current and future residents over time. Stewardship of community resources, such as its public water supply, is also critical as the town considers its future.

Bar Harbor's facilities and services, and the demand placed on them, are much more extensive than that of a town of 5,000 residents on the coast of Maine. Given this fact, there is concern that the 2035 Comprehensive Plan may call for extending infrastructure service areas or increasing infrastructure capacity that will likely create additional demand that cannot be met by the existing infrastructure or staffing.

Major investment is needed on Bar Harbor's municipal infrastructure. This includes a recent bond for updating the wastewater collection system, stormwater, and water systems. However, this will not address all capacity limitations or future demands. Approximately 5% of Bar Harbor's population is served by sewer infrastructure and 16% of the town is served by water infrastructure.

Attracting and maintaining municipal staff is a challenge for several external reasons. Affordable housing options within Bar Harbor and on Mount Desert Island present the biggest challenge for the municipality and other employers.

Protection of the Eagle Lake watershed is important to ensure this drinking water source retains its Filtration Avoidance status with the U.S. Environmental Protection Agency. Should this waiver ever be rescinded, the Town of Bar Harbor would face the need to locate, design, construct and operate a filtration system. This would be extremely expensive and should be avoided at all cost.

The Conners Emerson School buildings have been identified as being in need of major infrastructure investments. There is a desire by some decision makers to coordinate this facility planning with this comprehensive planning process as it is directly related to other community issues.

Bar Harbor's school facilities require investment and upgrades to address space needs. The Bar Harbor School Committee is currently using the approved bond to hire an architect for the design and budgeting for a proposed demolition of the Conners School and the potential renovation and addition to the Emerson building so that it may serve as the new school.

Prioritizing and planning for other major infrastructure investments is a need identified by the Town Council and Municipal Staff. This will require data collection and management. The implementation of an asset management program for municipal facilities and infrastructure would help anticipate and plan for needed maintenance and investment.

Park and recreation related duties now constitute a major portion of the Highway Department's work. Addressing this through the hiring of additional staff or through the creation of a Parks and Recreation Department would free up the Highway Department to focus on other duties and projects.

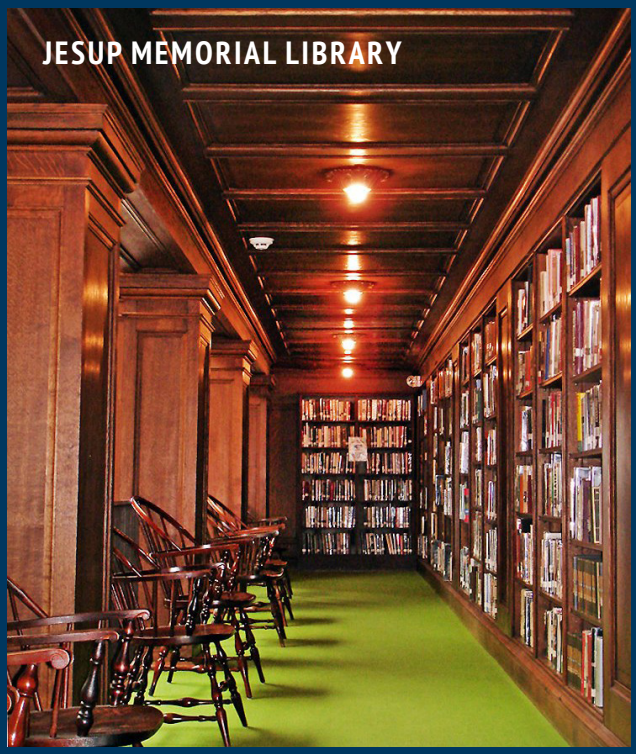
The Municipal Office building has been renovated and has room for expansion if needed. A renovation of the second-floor auditorium is still pending, and the hiring of a sustainability coordinator is planned for 2022.

An **upcoming study** commissioned by the Police Department is expected to address the **employment structure** and a location for a **shared police station** with the Town of Mount Desert.

Leasing of a municipal fiber network connecting all municipal facilities is currently underway.

The pier and other waterfront access points, such as the Ferry Terminal, need evaluation and investment, and the mooring field needs realignment to gain more space, add moorings, and accommodate larger fishing vessels. Both projects should be coordinated and planned for in the Capital Improvement Plan.

In 2021, over 4,800 patrons held library cards at the Jesup Memorial Library. The Jesup Memorial Library has been working to raise funds for the renovation and expansion of this historic 1911 building.



5. Public Facilities, Services, and Utilities

INTRODUCTION

The Public Facilities, Services, and Utilities chapter inventories and analyzes Bar Harbor's municipal facilities and services, and the public and private services and utilities that residents, businesses, and visitors depend on. As the community continues to grow and change, the services and utilities will also need to evolve to reflect the needs of the community. Maintenance of this infrastructure requires careful tracking and annual investments, and over time aging facilities will need to be replaced and/or upgraded. Existing town services may also need to be adjusted and adapted to meet code updates, changes in technology, available methods for increased efficiency, and staffing realities.

These changes will impact the way in which services are provided, the buildings which house them, the staff and equipment required, and therefore the town budget. The information presented in this section was compiled from a review of previous studies, documents, and Town Annual Reports, as well as interviews with department heads and other organizational contacts. This background information helped to identify documented needs, current and pending capital improvements, and actions that are needed to ensure these services continue to be delivered at the highest quality possible.

PRELIMINARY ISSUES, CHALLENGES, AND OPPORTUNITIES

The municipal departments within the Town of Bar Harbor are all providing services to the residential population and a large seasonal population within a constrained landscape. Many of these departments also have a small portion of the year when they can complete capital improvements without impacting local businesses, residents, and visitors. They also see the largest demand for services during the summer months. All of this contributes to challenging conditions to operate within. Many of the educational and healthcare oriented services identified in this section provide tremendous service to the community, and also require the support of municipal staff and infrastructure. They too have their own staffing and financing challenges, but together contribute to a community with a high standard of living.

Bar Harbor's municipal departments are also finding it difficult to recruit and retain staff given the lack of housing opportunities and overall expense of living in the community. Some of these departments are also running into limitations related to the services they can provide, and issues related to the age and capacity of existing infrastructure. These challenges must be addressed through the addition of staffing and investments in infrastructure in the coming years, and these realities should inform the desired development pattern and improvements that will be considered through this comprehensive planning process.

The Town of Bar Harbor is currently using a Capital Improvement Planning process very effectively to schedule investments in municipal buildings, vehicle and equipment replacements, and infrastructure upgrades. However, the process used by each department to inform this Plan is not currently informed by an asset management program. The addition of a user-friendly asset management program would allow for easy tracking of repairs, improvements, and scheduled upgrades for all municipal buildings and infrastructure.

Looking ahead, investments in municipal facilities and services should also be informed by a community sustainability and resilience

perspective to ensure Bar Harbor incorporates energy conservation, building electrification, renewable energy production, and environmental design into all future municipal projects.

MUNICIPAL OFFICE BUILDING

Serving as Bar Harbor's Town Hall, executive office building, and central meeting facility, this structure houses the following municipal departments on the main floor: Town Manager, Town Clerk, Planning Department and Code Enforcement, Technology, Assessing, Finance, and Building Maintenance. One new hire is planned for 2022, a Sustainability Coordinator Position will be filled and this new staff person will also be housed in this facility. The Town's IT servers are located on the lower basement level of the building, and given the renovations completed, all departments report to have the space they need within this facility. The additional space within the building includes several offices that are rented out to non-municipal uses. Currently the tenants include: the Chamber of Commerce, Island Connections, an architect, artists, and a co-working space.

FACILITY DESCRIPTION AND CONDITION

Bar Harbor's Municipal Office building was designed and built by Fred Savage in 1907. The structure was first occupied by the Bar Harbor High School from 1908 until 1968. The residents of Bar Harbor voted at their March 17, 1969 annual town meeting to move the municipal offices from the Odd Fellows block on the corner of Rodick and Cottage Street to this location at 93 Cottage Street. In September 1985, a special town meeting was held and residents voted to build a new municipal complex to house the municipal offices, police station, and a community center on Park Street for an amount not to exceed $1,500,000. A few months later, in December 1985, a special town meeting was held to rescind this vote. In addition, the voters decided to update the existing building in accordance with Federal regulations for enhanced accessibility in the amount not to exceed $370,000. Voters declined a new auditorium or multi-purpose community center at that time. Minor upgrades were completed over the years with the most significant around 1996 when the building's heating plant was switched from a steam heating system to a hot water system.

The next significant improvements began in 2010 after the Maine District Court downsized and moved to Ellsworth. Renovations to the main floor, which houses the municipal offices, was then broken into phases. Phase I included moving the Town Manager's and Town Clerk's offices to the south easterly corner, and renovating the public restrooms. After the approval of $2.2 million bond the roof was replaced, and at that time the 100-year-old supporting wood roof deck was determined to be in excellent condition. The building envelope and exterior masonry walls then received extensive work for nearly a year before being completed in 2015. Immediately following the exterior work, the interior renovations began with the replacement and upgrade of 130 windows and new flooring. Phase II included the renovation of the offices for Planning and Code Enforcement, Assessing, and Finance. This included new heating ventilation and air-conditioning equipment (HVAC), upgrades to the main hallway, the addition of fire and smoke alarms to the entire building, and was completed in May of 2016.

The top floor is occupied by the Council Chambers, an auditorium (used for voting), a small meeting room, a small conference room, and three rental office spaces. The ground floor also houses rental tenants, and the remaining unfinished basement houses the archival vault, server room, records storage, and building infrastructure. While there are no active budgetary plans to renovate the ground floor and

top floor, the next phase of renovation is specifically focused on the auditorium and has been planned for through the Capital Improvement Plan. The renovation of the auditorium is estimated at $750k.

PUBLIC WORKS DEPARTMENT

MISSION: To operate, maintain and improve the Town's infrastructure, including our roads, sidewalks, parks, buildings, storm drain systems, wastewater system, water system, solid waste and recycling facilities, as efficiently and professionally as possible, while treating taxpayers, ratepayers, visitors and employees in a helpful, friendly and courteous manner, and abiding by the American Public Works Association Code

As the largest municipal department in Bar Harbor, the Public Works Department is separated into four divisions:

- Highway
- Solid Waste
- Water
- Wastewater

The Public Works Department has a total of thirty employees within this department. The roles and responsibilities filled by the Public Works Department staff encompass road, sidewalk and parking lot maintenance and improvements; the operations at three wastewater treatment facilities and 13 pump stations; the operations of the public water utility; the solid waste transfer station and recycling facility; and town parks and cemeteries. Public Works is also involved in coordinating most public events occurring on town property, and managing all of the town's other infrastructure maintenance and construction related activity.

Within Public Works the Highway and Solid Waste Divisions are funded through the General Fund Budget, and the Water and Wastewater Divisions are funded through Enterprise Fund Budgets. Enterprise funds are a separate accounting and financial reporting mechanism that is kept separate from all other governmental activities. An Enterprise Fund is used to account for operations that are financed and operated in a manner similar to private business enterprises, where the intent is that the costs of providing services is financed through user charges and not paid for by all taxpayers. In 2022, a $44 Million Dollar bond is being proposed in an effort to address a number of high priority issues through a coordinated approach. This initiative includes major improvements to the wastewater collection system, stormwater, and water system infrastructure. It would also include two major streetscaping projects along Cottage and Main Street.

Across all four divisions the Public Works Department is currently lacking data and consistent asset management planning to inform the maintenance and upgrading of the community's infrastructure. This need for data is critical to the operation of these existing divisions at their current level of service, but will also be needed to anticipate and plan for any expansion of services that is anticipated or called for in the future. User friendly data collection is needed for use by staff in the field and will require an investment. This data would then be available for mapping, analysis, and planning purposes.

Another challenge the department faces is the need to complete major projects during a short construction season when local businesses are also operating. This can be addressed through well planned coordination and communication during the design and implementation of infrastructure projects. This may require the addition of a staff person who can coordinate all parties involved.

PUBLIC WORKS BUILDING

The Public Works Director's office is located with the Highway and Water Division within the Public Works Facility on Crooked Road. This facility is less than ten years old and no major upgrades or expansions are anticipated at this time. This facility is the location of a 288-panel solar array which was commissioned on December 11, 2015. The 73-Kilowatt system was made possible through a 20-year contract with Revision Energy.

HIGHWAY DIVISION

The twelve-person staff within the Highway Division is responsible for a wide variety of functions within the town. These duties include, but are not limited to:

- General street maintenance and repairs (e.g. sweeping, pavement repairs, pothole patching, ditching, sidewalk maintenance and repairs, storm drain maintenance and repairs, culvert replacement and repairs, brush and tree removal, snow removal on public roads, sidewalks, schools and town-owned lots);
- Sign maintenance, repairs and replacement;
- Pavement markings at intersections and crosswalk painting;
- Trash pickup from barrels placed in public areas, general maintenance operations for the parks and recreational facilities, as well as for the comfort stations;
- Emergency storm debris removal;
- Small scale construction projects;
- Vehicle maintenance for many of the town-owned vehicles, including State inspections;
- Oversight of the outside contractors who pave roads, mow the ballfields, parks and cemeteries, tend gardens and clean the public restrooms, and;
- Providing general equipment and support to all other town departments, as needed.

SOME HIGHWAY DIVISION STATISTICS

- 64 miles of year-round maintained road
- 30 miles of sidewalk, 8 miles maintained in winter
- 700 catch basins, 16 miles of storm pipe
- 13 municipal lots
- Hundreds of yards of screened compost available each spring

Like other divisions within Public Works, the Highway Division needs an investment in data collection and asset management planning. Staff recommend the creation of a Transportation Infrastructure Study which addresses the condition and demand for the transportation system, the modes accommodated, circulation patterns, parking, and other variables. This could also include a bicycle and pedestrian study that identifies all major destinations, and how best to accommodate these route connections and amenities. Such a study would guide maintenance and investment decisions, and could include infrastructure investments throughout the town.

HIGHWAY DIVISION FLEET

The Highway Department's fleet currently includes 13 Highway maintenance trucks, and 34 other pieces of Highway equipment (e.g. Loader, Bobcat, etc.). The replacement of these vehicles is planned for through the Capital Improvement Plan. No needs are anticipated outside of this process unless there is a decision to expand services. As an example, there is only one sidewalk plow currently and future expansion of sidewalks and pathways could require the purchase of an additional vehicle.

STORMWATER MANAGEMENT

The Highway Division monitors and maintains the stormwater management infrastructure in Bar Harbor which includes approximately 16 miles of stormwater drainage pipe and 710 catch basins. The stormwater drainage watersheds these drainage systems are capturing cover approximately 1,900 acres of the town's area. This equals approximately 7% of the town's total land area. Within this area, there are 15 distinct stormwater drainage watersheds, the largest being almost 500 acres in area and the smallest being approximately 24 acres in area. This system is experiencing increased demand from larger rainfall events that are a result of climate change. This is an area where more data and analysis, watershed scale modeling, is needed to guide the sizing of stormwater infrastructure.

CEMETERIES

The six cemeteries maintained by the Highway Department include:

- Thomas Cemetery (Bay View Drive)
- Hamilton Station Cemetery
- Higgins Cemetery (Indian Point Road)
- Salisbury Cove Cemetery (Old Bar Harbor Road)
- Old County Road Cemetery
- The Village Burying Ground (Mount Desert Street)

PARKS AND RECREATION

The maintenance of Bar Harbor's municipal parks and recreation facilities is one of the major duties for Highway Division Staff. This includes a collaborative maintenance arrangement with the Acadian Little League (ALL) which benefits all users of this athletic field. Aside from facility maintenance responsibilities Highway Division staff also support a variety of events including the town band performances, art shows, the corvette display, sports games, half-marathons, the Marty Lyons Little League Classic Tournament, seaside cinemas, luminary event, weddings, Acadia Night Sky Festival, and the Pancake Breakfast / Seafood Festival.

These park and recreation related duties now constitute a major portion of the Highway Department's work, which takes away time for other work. Looking ahead, this could be addressed through the hiring of additional staff or through the creation of a Parks and Recreation Department.

PARKS AND RECREATION FACILITIES AND ACTIVITIES

- 5 parks
- 5 comfort stations
- 3 fountains
- 54 benches
- 5 recreation facilities
- 2 playgrounds
- 3 beach/pier facilities
- Street tree and park tree maintenance
- Up to 6 major events per year (typically)
- 30 minor events per year (typically)
- Elementary school baseball and soccer
- Marty Lions Little league tournaments
- Athletic field game schedules, including YMCA

SOLID WASTE DIVISION

The Bar Harbor Solid Waste Facility includes the transfer station and recycling center. The community takes a very proactive approach to solid waste management and recycling, approximately 5k cubic yards of solid waste are collected and processed here annually. The Bar Harbor Recycling Center is a single sort operation with two single sort machines. White goods (appliances, water heaters, etc.) and other scrap metals are also accepted at

this facility. The division also provides a location where leaves and grass clippings may be deposited at this facility and the resulting screened compost is later made available to residents. Three staff members currently operate this facility.

While large items are not accepted in Bar Harbor for disposal, resident can take them to Eastern Maine Recycling (EMR) in Southwest Harbor for a fee. An annual hazardous waste collection event is also offered off-site, typically in the fall, in an effort to help households responsibly dispose of waste materials that are not otherwise accepted at the transfer station. With the unanticipated closing of Coastal Resources of Maine, the division entered into an arrangement with Penobscot Energy Recovery Company (PERC) in Orrington for the disposal of all municipal solid waste. Recyclable materials are handled by Casella Waste Systems.

SOLID WASTE DIVISION FACILITIES

This facility was constructed in 2018 and is located on White Spruce Road .There are no planned improvements or expansions of this facility at this time. The creation of an asset management plan for this and other municipal facilities would help anticipate and plan for needed maintenance and investment.

SOLID WASTE DIVISION FLEET

The Solid Waste Division's fleet currently includes one truck and nine other pieces of equipment. The replacement of these vehicles is planned for through the Capital Improvement Plan. No needs are anticipated outside of this process unless there is a decision to expand services.

WATER DIVISION

During the summer in Bar Harbor the population is significantly larger than the typical year-round population. This results in increased demand on the public water infrastructure during the months of June through September, with July and August being the highest demand experienced annually. Throughout the year water users include residential, commercial, governmental, and lab users. The seven staff members within this division maintain this system which serves approximately 16% of Bar Harbor's population. This Water Service Area totals 7 square miles. Providing drinking water within this service area requires the management and maintenance of approximately 35 miles of water main line infrastructure, and 2 miles of water lateral line infrastructure that is comprised of 313 lateral lines. As of 2018, there were a total of 1,850 connections within this service area.

Bar Harbor has utilized Eagle Lake as its water supply since around 1880. The town currently draws around 2,500 gallons per minute (GPM) from Eagle Lake and has a water treatment plan at Duck Brook that uses a UV light and chlorination process. The most important factor related to the Eagle Lake water source is that it has qualified for Filtration Avoidance status with the U.S. Environmental Protection Agency (EPA), which means the water is so clean that does not require a filtration process. Typically, communities must comply with the U.S. EPA's Surface Water Treatment Rule that requires all public water systems with sources from surface water or groundwater under the influence of surface water to disinfect and filter the drinking water they provide to consumers. Only systems that demonstrate compliance with the stringent water quality criteria set forth in the rule may qualify for filtration avoidance. Maine has nine community water systems that qualify for, and currently maintain, filtration avoidance and Bar Harbor is one of them. Should this waiver ever be rescinded, the town would face the need to locate, design, construct and operate a filtration system. This would be extremely expensive and should be avoided at all cost.

In order to avoid this, the town must continue to work to keep the watershed around Eagle Lake undeveloped. The Duck Brook Water Treatment Facility continues to function well since the upgrade investments were made in 2013. The facility treats approximately 350,000,000 gallons of water annually. The average daily amount treated is approximately 0.95 million gallons with a peak demand that can exceed 2 million gallons per day during the summer.

The water distribution infrastructure includes a significant amount of undersized older cast iron piping. Approximately 22% of these pipes were installed prior to the 1900's. The recent Water Master Plan (2020) identified the need for sequencing water main replacement work on a priority basis. It is recognized that this work may address in coordination with other town-driven roadway or wastewater improvement projects. The community also has 110 public fire hydrants that the town must maintain and flush, and many of the earlier hydrants appear to be in poor condition and have leaded joints. Approximately half of these hydrants (57 estimated) were installed prior to the 1970's and need replacement.

The division has also mapped and identified approximately 273 valves with varying age, depending upon the year of the water line it is associated with. More valves are within the system but not fully located or mapped, but staff continue to work with PeopleGIS to map the water mains, service valves, hydrants and other Water Division infrastructure. This program allows the division to map the infrastructure while performing daily tasks. Although the work of mapping every valve, pipe and fitting will take several years to complete, the information will help the division staff better respond to emergencies. The use of this data within an asset management system will allow to document work orders and keep track of maintenance tasks completed on the individual assets. With many projects needing attention in the years to come this asset management program and the 2020 Water Master Plan are important tools that will inform and guide the infrastructure investments needed within this service area. The recommendations in this Plan should be integrated into the Comprehensive Plan and implemented. This includes the storage tank being proposed for the up island area to improve pressure and storage capacity within the system. Investment in the hydrant replacement program is also needed to address the current backlog of replacements.

WATER DIVISION FACILITIES

The Water Division are located with the Public Works Director and the Highway Division within the Public Works Facility on Crooked Road. This facility is less than ten years old and no major upgrades or expansions are anticipated at this time. This division also manages a water treatment facility on Duck Brook which was upgraded in 2013.

WATER DIVISION FLEET

The Water Division's fleet currently includes 5 trucks and 2 other pieces of equipment.
The replacement of these vehicles is planned for and funded through the Enterprise Fund Budget. No needs are anticipated outside of this process unless there is a decision to expand services.

WASTEWATER DIVISION

The Wastewater Division is responsible for inspections, dig safe related requests, sludge dewatering and hauling, septic receiving, mandated laboratory testing, sewer connection permits, plant tours and safety/ professional/compliance training. Besides these specific tasks, the wastewater staff also perform routine

maintenance on three treatment plants and eleven pump stations. The three treatment plants include the main plant in the downtown which processes 5.2 million gallons per day, the Hulls Cove Plant which handles .25 million gallons, and a package plant at DeGregoire Park that handles .015 million gallons. Currently there are 7 staff members within this division.

Approximately 5% of Bar Harbor's population is served by sewer infrastructure. This number is estimated based on the proximity of existing parcels to sewer infrastructure (within 50 feet). When excluding park lands from the calculation approximately 11% of the town is served by wastewater infrastructure. The infrastructure connecting these customers to the pump stations and treatment plants includes approximately 3 miles of force main sanitary sewer line, and approximately 22 miles of gravity main sanitary sewer line. There are 4 closed combined-sewer outfalls located near Ogden Point, the Bar Bridge, near the Bar Harbor Historical Society, and Hulls Cove. One active combined-sewer outfall is located near Grant Park in the downtown area. Having treatment decentralized at three facilities is problematic and requires more staff time and resources to manage then a central facility would. If capacity needs to be added in the future, it should be constructed at the main treatment plant or through an expansion of the Hulls Cove facility which would require dedicated staff being stationed there. Either option would be more economical then having many smaller treatment plants.

Increases in rainfall volumes have contributed to continued overflow events over the past few years. Both increases in intensity and length of storms are leading contributing factors to these overflows. However, efforts made by the division including main replacements, point source repairs, manhole replacements and flow monitoring, have all contributed to the reduction of infiltration and inflow (I&I) flow into the collection system during storm events. Annual sewer main inspection and cleaning completed by division staff help to determine the condition of the collection system and facilitate the planning of necessary improvements.

Although the town has made progress to reduce CSOs, or combined sewer overflows, volumes still need to be reduced and this will require both time and financial investment to make the remaining improvements to the system. According to the Environmental Protection Agency, a combined sewer system collects rainwater runoff and domestic sewage into one pipe. During heavy rain events, the volume of wastewater can sometimes exceed the capacity of the combined sewer system or treatment plant (e.g., during heavy rainfall events or snowmelt). When this occurs, untreated stormwater and wastewater, discharges directly to nearby waterways. The Wastewater Division is exploring the relining of areas of system where flow metering has identified excessive Inflow and Infiltration. This includes: Hancock Street, Lower Holland Avenue, Main Street, and Cottage Street. Cost estimates for this effort have not yet been developed, but are expected after the hydraulic model is finished and flow meter data has been evaluated (Summer 2022).

WASTEWATER DIVISION FACILITIES

The main treatment facility located on Ledgelawn Avenue is also the oldest facility that Public Works is responsible for, and is in need of many improvements. Aside from some heating system upgrades that have been made more recently, the last major investment in this facility was made in 1997. This facility also lacks sufficient space, has capacity limitations, and will require a significant investment in the future. A Wastewater Facility Plan would inform the division's decision making and planning for such a major infrastructure investment in the future.

WASTEWATER DIVISION FLEET

The Wastewater Division's fleet currently includes 5 trucks and 2 other pieces of equipment. The replacement of these vehicles is planned for and funded through the Enterprise Fund Budget. No needs are anticipated outside of this process unless there is a decision to expand services.

FIRE DEPARTMENT AND AMBULANCE SERVICE

The Bar Harbor Fire Department serves to protect the lives and property of the citizens and visitors of the Town of Bar Harbor. The department provides fire suppression, advanced life support emergency medical services and transport, fire prevention, fire inspections, and education for the community. The department operates out of a central station in downtown Bar Harbor and a substation located in the Town Hill District. In addition to serving the Town of Bar Harbor, the department provides mutual aid response to the surrounding towns for fire suppression and emergency medical care and transport. The department is currently staffed with 13 full-time firefighters and 18 paid per call firefighters. Over the past few years, the department has seen significant increase in the response to fire alarms. The Fire Chief also reported seeing increases in simultaneous calls, especially during the summer months. A significant number of requests are also made by the Mount Desert Island Hospital for interfacility transfers. At this time, the department is not capable of consistently providing that service. The reasons for this are related to staffing levels, call volume, and the need to provide emergency fire and Emergency Medical Service (EMS) services first.

In 2020, the Fire Department responded to 767 EMS calls and 556 fire calls, for a total of 1,323. In 2021, the department experienced an increase in EMS calls related to COVID testing and vaccinations provided to first responders. The overall call volume in 2021 for the Fire Department included 1454 EMS calls and 625 fire calls. Community outreach activities staffed by the department are also popular with the public, but have no dedicated staff so they are provided as time is available. These currently include:

- CPR and Stop the Bleed Trainings
- Fire prevention programs
- The AED App that is now available

Currently, the department is meeting day-to-day calls for service with four on-call firefighters on duty. Increasingly, on-call firefighters are not able to afford to live in town due to limited housing options, and getting them to return to work when there are multiple events is a growing challenge. With simultaneous calls increasing, this is a near-term concern. If this trend continues, it may require the town increase the number of on-call firefighter staff on duty over time. However, increasing the staff will further stress space needs as there are currently 8 bedrooms which are not shared during the same shift.

The current staff scheduling model has been identified as needing updating in the near-term. Currently the department follows a 56-hour work week, but other communities have moved to a 42-hour work week and this makes it difficult for Bar Harbor to attract new employees. Shifting to a 42-hour work week would require additional staff. Training is also becoming harder to come by for fire and Emergency Medical Technician staff. The department has started to work with the College of the Atlantic to recruit staff, and is open to pursuing other alternative recruitment approaches. Another aspect of staffing that

must be planned for is succession planning. The identified changes to the staffing structure are intended to help with this, but department leadership will also need to get people prepared to move up over time.

The department has also identified the need to have a dedicated fire inspector on staff. This would allow the department to be more proactive. As the town grows and gets denser, the department believes bringing a fire inspector on staff will be necessary to address this.

Additional growth and development outside of the downtown will also impact response time. The possibility of sharing a station with Mount Desert could help address this and provide the necessary coverage. Beyond this, the mutual aid alarm system in place includes all of the municipalities on the island and is very successful.

FACILITY DESCRIPTION AND CONDITION

The department's central station was constructed in 1911 and sits in the heart of downtown by the Town Green. The Fire Department staff are proud of this station. Some renovations completed over the past decade include parapet wall repairs, re-pointing of the exterior walls, and support and surface replacement of the floor system. Town staff note that this facility should not need any major investment for 50 more years. Any remaining issues are related to the living quarters available for staff, and the single use restroom facility.

FLEET AND EQUIPMENT

Currently, the Fire Department's fleet and equipment are in good shape overall. Department staff use the Capital Improvement Plan to prioritize for needed replacements. One deficiency is the lack of a spare vehicle for use when a truck is out of service. This is an increasing issue as the Fire Department apparatus ages. Having a spare fire apparatus would address this concern. Currently, the ambulance does have a spare apparatus to address this concern when one of their vehicles are out of service. The Departments current fleet of vehicles and equipment include:

- 2018 E-One 78ft ladder truck (with 1500 gallons per minute pump)
- 2019 E-One Typhoon pumper (with 1500 gallons per minute pump and 1000 gallon tank)
- 2009 Metal Fab Commercial Cab pumper (with 1250 gallons per minute pump and 1000 gallon tank)
- 2003 Metal Fab Commercial Cab tanker (with 1250 gallons per minute pump and 2000 gallon tank)
- 2 Advanced Life Support Ambulances
- 1 Basic Life Support Ambulance (used as a spare)
- Mass Casualty Trailer that can treat up to 50 persons

POLICE DEPARTMENT

The Bar Harbor Police Department is composed of 14 full-time officers. This includes the shared chief, shared captain, one lieutenant, two sergeants, and ten patrol officers, one who is assigned to and reimbursed by the Maine Drug Enforcement Agency (MDEA). These officers work year-round, and are responsible for all of Bar Harbor's jurisdiction as it relates to enforcing state laws and town ordinances. The department also includes four dispatchers. This department is directly connected to the Town of Mount Desert through a formal five-year agreement that provides for sharing the Chief of Police, Police

Captain and an Administrative Assistant between the two towns. The Chief is technically Mount Desert staff leased to the Town of Bar Harbor, the Captain and Administrative Assistant are Bar Harbor staff leased to Mount Desert. This cooperative agreement has provided unique opportunities to align the operations of both departments including a shared patrol schedule. From an operations perspective these two departments now function as one and many efficiencies have been realized.

The Bar Harbor Police Department's mission is to protect life, property, and individual rights of Bar Harbor's citizens and visitors. Through leadership and cooperation with the community, the department's members continually work to uphold peace and safety, build rapport with the public, reduce crime, and improve citizens' and visitors' quality of life. The department's members work to provide the highest degree of ethical and professional police services to ensure the trust, understanding, and confidence of the public that they serve.

The Bar Harbor Police Department has created an agency culture that helps attract and retain staff. Examples of this include the development of an officer wellness program, a pilot project that has embedded two mental health professionals in the department at no cost, and a "less than lethal munitions initiative" which is underway to aid with de-escalation efforts. However, maintaining staff is a challenge for several external reasons. Affordable housing options within Bar Harbor and on Mount Desert Island present a big challenge for employees. Increasingly staff also value time off and that factors into where they choose to be employed. Other communities in Maine have started to offer substantial sign on bonuses, and this has reduced the number of available applicants.

The department is also required to be on site when cruise ships visit Bar Harbor in order to manage the ground transportation and pedestrians related to these visits. Having police on staff during these times requires over time and the department has found that this is not financially sustainable. In 2020, the of Harbormaster position was included within the Police Department for greater efficiency and coordination.

Parking management in Bar Harbor is also staffed and coordinated by the Police Department. Currently, some civilian staff are utilized for day-to-day parking operations. This has proven to be a recruiting tool for college students and others interested in a career in law enforcement.

During 2022, the Police Department established a Special Services Lieutenant who serves as the Harbormaster, manages the paid and permit parking program, manages all cruise ship related department functions and assists with patrol supervision and services during the off season months.

In 2020, the Police Department responded to approximately 4,004 incidents in Bar Harbor. Of these incidents, 103 resulted in individuals being charged with criminal offenses and 43 involved traffic tickets issued for non-criminal traffic infractions. Call volume changes over the past 10 years are difficult to measure due to the department changing records management systems and developing updated procedures for what gets recorded and how those tasks are completed.

FACILITY DESCRIPTION AND CONDITION

The original Police Department and local court House was located at 38 Rodick Street. In 1988, the Police Station moved to its current location which is adjacent to the Fire Department. A public restroom facility was also included in the 1988 building. The public restroom is accessed separately from

the public parking lot adjacent to the building. The original "comfort station" located on the same Fire Fly Lane property is leased by the Island Explorer bus service and is used as an information center and Acadia National Park Pass sales location.

In 2012, a facility assessment completed for the Fire and Police Department facilities determined that the Police Department's current space is four times smaller than current standards would require. Some renovations followed this analysis, and the holding cells were removed. No additional space was constructed at that time. Bar Harbor now has a Capital Improvement Plan item focused on planning for future facilities and changes in department operations. Initial funding for this planning study is estimated at $50k and will address the human resource and employment benefit related concerns that must get resolved to move to a similar employment system for all employees like the one in the Town of Mount Desert. The study will also evaluate the location for a singular police building shared by both communities, and the use of the existing smaller department buildings for work space by officers. Such an investment will also support the establishment of a singular dispatch for both agencies that may include other public safety departments on MDI.

FLEET AND EQUIPMENT

Bar Harbor's Police Department currently has a fleet of vehicles that includes six patrol cruisers, a parking enforcement vehicle, a heavy duty truck for the Harbormaster, a port security boat, and a smaller harbormasters work boat. The department also has a scooter, 2 storage trailers, and 3 speed trailers. The department currently logs approximately 133,000 miles on the fleet annually. With six funded cruisers, officers rely on four front line vehicles with an adequately equipped spare - the sixth is assigned to the shared captain. The plan is to have the cruisers reaching the end of their life as a front-line patrol vehicle at around 100,000 miles. At that point they become the spare cruiser. To stay on track with this approach, Bar Harbor is purchasing one vehicle a year for three years and every fourth year two vehicles are purchased. Each time a new cruiser is purchased, new equipment, which has a four-year life expectancy, must also be purchased and installed. This equipment includes a console, cage, charge guard, graphics, antenna and wiring, trunk tray, computer dock top, siren control, and all related labor. The other equipment found in a cruiser is expected to last eight years, or through the life of two cruisers, and includes the radar, video system, light bar, gun rack, radio and automatic external defibrillator (AED) units. At the end of that eight year cycle, those items also need replacement.

The department also has parking and meter related support equipment and a reserve account established to fund the eventual replacement of this equipment. This account is funded entirely by revenues from the Parking Fund and currently funds 319 meters, 28 kiosks, meter dome censors, and a license plate reader (LPR) system with 4 cameras. In FY22, there are also funds anticipated to be spent on electric vehicle charging stations. The port security boat was purchased in FY08 with a port security grant. Starting in FY12, the Town has funded a reserve account from cruise ship port development fees. This will provide for the replacement of the boat when it is twenty-three years old in FY32.

Another notable piece of equipment includes the Electronic Fingerprint Scanner. All people who are arrested or criminally summonsed are legally required to provide their fingerprints. Officers' arrest and/or summons approximately 300 people annually. Additionally, citizens and visitors routinely rely on the department to have their fingerprints taken in support of brokerage licenses, employment compliance matters and travel documents. The department currently relies on ink pads and paper print cards to collect fingerprints, techniques used 50 years ago. Modern booking facilities often rely on electronic

fingerprinting machines which eliminate the need for ink, paper, the associated mess and mailing them out along with the associated delays caused by each step. The electronic fingerprinting machine will connect the department to the state and national fingerprint databases which could help identify wanted persons or assist in investigations in a timely manner. The department has to conform to the make and model requirements prescribed by the Maine State Bureau of Identification to ensure integration with the state and federal systems. FY24 is the estimated date this equipment will be purchased.

HARBORMASTER

As of 2021, the office of the Harbormaster and all its operations were included under the management and supervision of the Police Department. The primary responsibilities of the Harbormaster include managing operations on the Bar Harbor waterfront including all town waters, the town pier, the assignment of moorings, and coordination of cruise ship visitation. The staff must also follow statutory duties under state and local law which includes managing all aspects of mooring assignment in accordance with federal, state and town regulations and establishing and maintaining anchorage areas and navigational channels.

FACILITY AND INFRASTRUCTURE DESCRIPTION AND CONDITION

The Harbormaster's office was replaced in 2009 and now provides office space for 5 people, and a conference room. This office is used by the Harbormaster, other Police Department staff, and parking enforcement staff. A new heating system was installed in 2021. The Capital Improvement Plan is used to plan for the general maintenance needs of the office and other associated infrastructure. This includes the pier, mooring field, floats, and ramps for the Harbor. The floats are 16' x 24' in size and are on a 20-year replacement cycle. Bar Harbor currently has approximately $400k worth of floats. There is no near-term replacement planned for the ramps, but when ramps are replaced they will need to be compliant with the American with Disabilities Act. As a result, longer ramps will be needed.

The facilities at the town pier are currently serving the commercial fishing industry and other boaters. These facilities are currently undersized and in need of investment. The mooring field and docking facilities need to be expanded to satisfy additional demand, and the fact that boats are often larger than the current facilities were originally designed to accommodate. Additional study is needed to determine how to configure the additional docks and moorings and how many of each can be added. According to the Harbormaster, the percentage of commercial fishing vessels docked or moored at the Pier is around 70%. Currently, there are a small number of recreational moorings and the remaining recreational vessels are docked. There are approximately 100 moorings in the inner harbor at the town pier. This number does not include all of the other moorings within the bay that are considered outside of the Harbor. At the pier, there is 400 feet of transient rental dock space, and this is where the town rents overnight slips to transient boaters. A town vote several years ago resulted in the community deciding not to allow a cruise ship pier to be built at the Ferry Terminal site. No other limits on dock size exist currently.

Two hoists are located on the end of the pier and are primarily used by commercial fishermen. The current hoists are not sufficient and need replacement, and the current plan is to upgrade at least one in the near-term. The pier is built on granite and fill and has some deferred maintenance to address. The pier is space constrained overall, and the current lack of dedicated parking is one factor preventing the expansion of mooring field. Long-term there will be a need to evaluate and rebuild the entire pier.

Near-term there is a need to evaluate the condition of the boat ramp for potential underlying issues and prevent future problems that may emerge if ignored. There is also a need to replace the fender piling system at the end of the pier in the near-term as the current system has deteriorated from age and is no longer sufficient. A mooring re-alignment is needed in order to gain more space and provide additional moorings. As fishing boats have increased in size there are now boats located in areas intended for much smaller vessels, and these boats need to be better accommodated.

FLEET AND EQUIPMENT

The Harbormaster's truck, boats, and such other tools and equipment are all essential to this operation and performance of assigned duties. Currently this includes a 2009 twenty-seven-foot Boston Whaler with twin 250 horse power engines. The eventual replacement of this boot is included in the Capital Improvement Plan. A new sixteen-foot Lund Aluminum Skiff is being delivered in 2022. The Harbormaster also has a 2010 Chevrolet pickup truck with a planned replacement most likely in FY 28 or FY 29. A truck of this size is needed to haul the boat and complete other duties.

LIBRARY

The Jesup Memorial Library is a 501(c)3 nonprofit organization, governed by a Board of Directors and employing 11 staff members. Funding for the library comes from three sources. Approximately one-third of annual operating revenues come from a municipal appropriation, one-third from an annual fundraising campaign, and the remaining one-third from trust, reserve, and endowment earnings. In FY23, the town of Bar Harbor's appropriation to the Jesup Memorial Library is $160,680. Founded in 1911, the Jesup holds more than 39,000 books in its permanent collection, 23,000 books and audiobooks to download, 1,000 books on CD, and 1,200 movies on DVD. Its collection includes books on the history of Maine, MDI, and local Acadia National Park. The library also offers local history resources, including free access to digitized local newspapers dating from 1881 to 1969. Access to any book in the state of Maine and beyond is available to its patrons via the Inter Library Loan program.

The library offers inclusive programming on a variety of topics. It holds author talks on both fiction and non-fiction works, book signings, concerts, and a wide range of informative programs and formats. Programming is free to everyone and open to all throughout the year.

The library serves as a connection point for its community. It offers friendly, helpful staff who are happy to assist with any request, or recommend the perfect book, DVD, CD or research material, and maintain the accessibility and use of its lending and permanent resources. The library offers free WiFi, 4 public-use computers, and printing/scanning. It also offers free online access to databases and services, including Ancestry.com, The Foundation Center, and many research and information databases from any computer or internet-enabled device within the Jesup. In 2021, over 4,800 patrons held library cards at the library. Despite a global pandemic, more than 23,000 people visited the Jesup and borrowed over 29,000 items from its collection. The library delivered over 150 programs with over 2,000 people attending those programs. In a non-pandemic year, the library regularly welcomes between 50,000 and 60,000 visitors through its doors annually.

FACILITY DESCRIPTION AND CONDITION

Built in 1911 and listed on the National Register of Historic Places in 1991, there have been no major changes to the Jesup Memorial Library building for more than 100 years. A mounting number

of problems and limitations require attention to ensure this historic structure is around for future generations. Challenges include: crowded children's room and no teen room, one public restroom for the entire library, lack of accessibility, no dedicated event space, no conference rooms, outdated technology and mechanical infrastructure, no temperature and humidity controlled archival space for unique special collections, and inadequate parking.

Over the past four years, the Jesup has been working through its four campaign phases to renovate and expand the historic 1911 library.

- **2017-2018:** Purchase the adjacent property, pay off the mortgage, and develop architectural and fundraising plans for restoration and expansion.
  $1,700,000 – Complete

- **2019-2021:** Demolish the adjacent building, repair structural supports in our historic building, fully restore the slate and copper roof, repoint the brick facade, and install new foundation drainage tied to the town's storm water system.
  $2,086,000 – Complete

- **2022-2023:** Build the expansion, adding an elevator for accessibility, new restrooms, children and young adult libraries, public meeting space, and a climate-controlled archive for the town's historical records.
  $8,856,000 – Raising Funds

- **2024:** Renovate original library interior. Add humidity control for the archive.
  $1,000,000

EDUCATION

Bar Harbor offers an educational program for grades K through 8 students as part of the Mount Desert Island Regional School System, which includes the towns of Bar Harbor, Cranberry Isles, Frenchboro, Mount Desert, Southwest Harbor, Swan's Island, Tremont, and Trenton. The towns share the services of a superintendent's office and associated expenses. Except for the shared superintendent, Bar Harbor operates and maintains its own school, the Conners-Emerson School, as an independent unit with its own budget and school committee. It houses grades K-8.

Kindergarten enrollment in the fall of 2021 included 34 students - the lowest it has been since the fall of 2013 when there were 33 students enrolled. Elementary school enrollments have dropped almost every year since 2011, with a 24% net decrease in enrollment between 2010 and 2021. In 2021, the total enrollment of grades K through 8 was the lowest its been since before 1998.

Bar Harbor also shares Mount Desert Island High School, which is located in Bar Harbor, with the rest of the island as part of Community School District No. 7. In the fall of 2021, there were 508 students enrolled in the high school. The high school expects enrollments to decrease based on current declining elementary school enrollments. The high school had 61.64 full-time equivalent teachers in the 2021-2022 school year.

CONNERS-EMERSON ENROLLMENTS 2011-2021												
Oct. 1	K	GR 1	GR 2	GR 3	GR 4	GR 5	GR 6	GR 7	GR 8	TOTAL	Change	% Change
2010										438		
2011	43	40	45	52	52	48	35	56	55	426	-12	-2.7%
2012	35	43	40	47	53	51	52	37	56	414	-12	-2.8%
2013	33	36	41	41	49	50	47	52	40	389	-25	-6.0%
2014	39	32	37	38	43	43	48	44	51	375	-14	-3.6%
2015	38	36	31	39	38	44	46	50	44	366	-9	-2.4%
2016	42	41	37	31	41	41	48	46	48	375	9	2.5%
2017	42	41	37	32	38	42	47	44	45	368	-7	-1.9%
2018	38	36	32	37	33	40	44	49	44	353	-15	-4.1%
2019	48	41	33	37	36	41	38	41	43	358	5	1.4%
2020	41	48	34	37	40	38	38	36	38	350	-8	-2.2%
2021	34	36	47	34	34	40	38	33	38	334	-16	-4.6%

Table 5.1: School Enrollment #s; MDIRSS 91, 2010-2021

An Enrollment Analysis and Projections study completed for the regional school system in 2019 also identifies the continued decline in school aged children, which is most likely due to a number of factors including the limited housing supply. However, despite this anticipated decline, school facility needs are changing and are expected to continue changing over time, including an increase in special education/individualized education services, mental health services, and whole family support services.

MOUNT DESERT ISLAND REGIONAL HIGH SCHOOL (CSD 7) 2011-2021							
Oct. 1	GR 9	GR 10	GR 11	GR 12	TOTAL	Change	% Change
2010					539		
2011	132	139	136	123	530	-9	-1.7%
2012	131	128	131	139	529	-1	-0.2%
2013	138	133	132	135	538	9	1.7%
2014	124	138	132	129	523	-15	-2.8%
2015	139	127	135	125	526	3	0.6%
2016	129	137	131	136	533	7	1.3%
2017	147	129	145	123	544	11	2.1%
2018	130	149	127	146	552	8	1.5%
2019	143	130	143	125	541	-11	-2.0%
2020	131	142	130	146	549	8	1.5%
2021	124	119	143	122	508	-41	-7.5%

Table 5.2: School Enrollment #s; MDIRSS 91, 2010-2021

FACILITIES DESCRIPTIONS AND CONDITION

The Conners-Emerson School is composed of two buildings, the Connors building constructed in 1952 and the Emerson building constructed in 1962. Grades K-4 are currently in the Conners building and grades 5-8 are in the Emerson building. Over the last 20 years, many renovations have taken place on these structures. The gym floor, bleachers, and the library floor were replaced, the ceiling in the Conners building main hallway was replaced, the kitchen freezer was replaced, major roofing projects were completed for both buildings, floor tiles in the Conners building were replaced, the addition of student storage units in both the Conners and Emerson buildings, a handicap lift with Americans with Disabilities Act (ADA) compliant ramp was replaced in the Emerson building, and the addition of an ADA ramp to the top entrance of the Conners-Emerson office was completed. However, there is still a great deal of deferred maintenance that needs to be addressed.

A 2018 study revealed that a minimum of $9 million would be needed just to complete the necessary repairs over a five to ten-year period. After this information became public some expressed support for the school to be upgraded to keep the students close to home, others expressed concern that with decreasing school enrollments, efforts should be made to combine resources and have the children attend school in another community. It has been suggested that such a scenario could be limited to one

segment of the K-8 student population or could include the entire student population. Given the needs of these facilities a decision was made and the town voted to fund a $3 million bond to complete a study and design detailing the upgrade of the school building infrastructure. This is based on the idea of demolishing the Conners building, and renovating and adding on to the Emerson building. The estimated cost of such a project before the COVID-19 pandemic was approximately $40 million.

The Bar Harbor School Committee is currently using the approved bond to hire an architect for the design and budgeting for a demolition of the Conners school and the renovation and addition to the Emerson building so that it may serve as the new school. The public will be engaged further in this process in 2022, and a more detailed design and budget for this project are expected by 2023.

The high school is in good to excellent condition currently. A major building project was completed in 2001 which included the new art and music wing, and the addition of the superintendent's office. Since 2001, many renovations and improvements have taken place including replacement of the boilers, major renovations to the gym, a repaving project, wall and window replacements in the classroom wing, and the addition of a storage building for the sports complex. The only major improvements and capital expenditures anticipated for the high school in the next few years include renovating and upgrading the library and science labs.

ADULT EDUCATION PROGRAM

OPERATIONS

The adult education program covers three umbrellas of programming: academic, workforce, and enrichment courses. Historically, the program has reported having 800 people involved in all of these programs collectively on a yearly basis. The program is funded through local contributions, a state subsidy, grants, and tuition fees from enrichment and workforce classes. Academic classes include literacy, English Language Acquisition, high school completion, and college preparation offerings. A grant for Adult Basic Education enables the program to offer adults the opportunity to improve their basic reading, writing and math skills, as well as English Language Acquisition classes. The adult education program also offers High School Equivalency (HiSET) preparation and testing free of charge, and a credit based high school diploma. The Maine College and Career Access Grant allows the Program to also offer free college preparation. The program is also available as a proctoring site for University of Southern Maine students (and occasionally other agencies), as requested.

Workforce classes can include, but are not limited to, certified nurse assistant, certified clinical medical assistant, behavioral health professional, etc. Enrichment classes that have been popular recently include pottery, bird watching, watercolor painting, dog training, homeowner's guide to heating and plumbing, estate planning, cooking, and gardening. Over the past two years (2020-2022) some of the programming can now be offered online via Zoom, which has allowed people from other parts of Maine and elsewhere in the U.S. to join family and friends in these enrichment classes. Using technology has also helped program staff continue working with academic students who have transportation, childcare, or other challenges that make it difficult to attend in person classes. This model will continue to be used moving forward.

In 2017, a full-time teacher/academic coordinator position was created. This person now oversees the academic programs mentioned above. The program continues to also have a part-time evening coordinator who also manages the classes on Zoom. This position may need to expand as the enrichment programming expands both in-person and online. The Program Director also currently serves as the HiSET Chief Examiner for the high school equivalency diploma program.

FACILITY DESCRIPTION AND CONDITION

In 2017 the adult education office and classroom moved to the former Compass Rose building behind the high school. The roof was recently re-shingled (summer 2020), and the deck was rebuilt to locate and fix an ongoing leak into the basement area (summer 2021). Program staff also continue to use the high school classrooms for driver's Education, workforce training, and enrichment classes in the evening. The size and condition of these facilities meet the current needs and usage of programming at this time.

HANCOCK COUNTY TECHNICAL CENTER

The Hancock County Technical Center (HCTC) is a member of Maine's network of career and technical education (CTE) schools, and offers high school level career-oriented education in a variety of programs. Located in nearby Ellsworth, ME, all of the programs at HCTC are scheduled as half day, every day, full year programs. This allows students to schedule their other courses at their primary schools or enroll completely at HCTC. Current programs available to sophomores, juniors, and seniors from Hancock County include:

- Academics
- Automotive Technology I and II
- Biomedical Research Support
- Culinary I and II
- Cybersecurity
- Diesel Technology I and II
- Early Childhood Education
- Health Occupation Programs
- Hospitality/Travel and Tourism
- Law Enforcement
- Marine Services Technology
- Multimedia Design I and II
- Welding

COLLEGE OF THE ATLANTIC

The 38-acre main campus of the College of the Atlantic (COA) is located along Route 3 and on the coast just north of the Bar Harbor's downtown. Beyond this main campus location, the college owns and manages two organic farms, and two offshore island research stations. The student population includes approximately 350 students with the intent of maintaining a small campus community. There are no plans to expand the size of the enrollment, but efforts are being made to house a greater number of students on campus. A new dormitory planned for the campus will house 50 students. Current on-campus housing at COA provides space for 168 students, which is nearly half of the student body. The recently proposed residence hall will bring the total number of students housed on campus to 215. Off-campus housing owned and managed by COA accounts for an additional 60 beds, and the Mount Desert

Center in Northeast Harbor, slated to open in the summer of 2022, will add another 15 beds. In total, COA plans to provide student housing for 290 students, or 83% of the student body. This will reduce demand for rental students by students, but there is also housing demand by COA staff as there is for other employers in the community. The faculty and student populations attract a diversity of people to Bar Harbor. The student population alone includes individuals from more than 40 states and 45 countries. This student population is approximately 24% international and only 17% of students are from Maine. The school year is organized into a trimester schedule with fall, winter, and spring terms of ten weeks each.

THE JACKSON LABORATORY

The Jackson Laboratory (JAX) is an independent, nonprofit, international biomedical research organization headquartered in Bar Harbor. Founded in 1929 to uncover the genetic basis of cancer, JAX pioneered the use of laboratory mice as models for human disease. Today, JAX scientists ombine mouse genetics, human genomics, and computational modeling to define the underlying biology of a broad spectrum of human diseases, including cancer, addiction, Alzheimer's disease, and neuromuscular disorders. Over 2,000 organizations in 64 countries rely on over 12,000 strains of genetically-specialized JAX® Mice and research services in a wide range of therapeutic areas. JAX education programs reach thousands of learners from high school to Ph.D. students to online learners through a year-round program of internships, on-site trainings, and online short courses.

The Jackson Laboratory is the largest employer in Hancock County and is the 14 th largest employer in the State of Maine. The Bar Harbor campus employs 1,500 full-time staff, including over 380 who live in the Town of Bar Harbor itself. JAX is a catalyst of economic activity not only in Bar Harbor, but across the entire state. In 2021, JAX spent $201 million on Maine-based employees and vendors, including $180.0 million for operations (largely, staff salaries) and $21.0 million on bricks and mortar projects. JAX is Bar Harbor's largest consumer of water and sewer services and paid over $720 thousand in related fees in 2021. The Bar Harbor campus consists of over 60 buildings on 169 acres of property, nearly all contiguous. The Laboratory pays property tax on all employee housing units, including 24 apartments completed in 2022. In addition, the Laboratory makes an annual voluntary contribution to the Town of approximately $115 thousand.

MOUNT DESERT ISLAND BIOLOGICAL LABORATORY

The Mount Desert Island Biological Laboratory (MDI Bio Lab) moved to its present site at Salisbury Cove in 1921. The Laboratory was incorporated in 1914 under the laws of the State of Maine as a nonprofit scientific and educational institution. For more than 100 years, leading scientists from throughout the United States and abroad have come to Mount Desert Island to study marine and other organisms in order to learn about the basic biology of life. MDI Bio Lab scientists make critical discoveries about how organisms adapt to their environment and how environment, health and genetics are related. They also investigate the root causes of diseases like cystic fibrosis, study early development and regeneration, and examine the mechanisms that make living creatures age. The staff and visiting scientists are part of the Bar Harbor community, and provide events such as Science Cafés, Family Science Night, and faculty lectures that all contribute to the educational opportunities in the town.

HEALTHCARE FACILITIES AND SERVICES

MOUNT DESERT ISLAND HOSPITAL

Since it was established in 1897, the island's nonprofit hospital has grown to include a retirement community and six primary care health centers, as well as a full-service behavioral health center and a dental clinic. Mount Desert Island (MDI) Hospital serves the island and surrounding communities through a 25-bed critical access facility located in Bar Harbor, and the network of area health centers which provide comprehensive healthcare for residents and visitors. The hospital's Emergency Department serves the Mount Desert Island community 24 hours a day, 365 days a year. In 2021, the hospital accommodated 62,381 outpatient health center visits, and 4,560 Visits to the Emergency Room. Data that would help better understand demand on services includes the number of ER visits broken out by visitors and residents. Currently, MDI Hospital employs more than 550 people and is the second-largest employer on Mount Desert Island. This is up from 300 employees in 2007.

BIRCH BAY RETIREMENT COMMUNITY

Offering a full range of community and healthcare services, Birch Bay Retirement Community is the area's only nonprofit retirement community. Initially constructed in 2001 and a member of the Mount Desert Island Hospital Organization, the community offers healthcare services and a range of residential units. The Main Inn houses one and two-bedroom apartments, residential care suites, memory care units, an adult day program, and a variety of community areas. There is also a neighborhood of one-story cottages.

MOUNT DESERT ISLAND SEARCH AND RESCUE

Established in 1982, MDI Search and Rescue is an all volunteer, nonprofit service organization that provides search and rescue assistance on Mount Desert Island and within surrounding communities. Team members respond to callouts by Acadia National Park, the Maine Warden Service, and local police and fire departments. The capabilities of the team include ground searches for missing persons, emergency wilderness medicine, and technical rope rescue.

PRIVATE UTILITIES

ELECTRICITY

Versant Power is the electric transmission and distribution utility serving Bar Harbor. The company, formerly Emera Maine, was initially formed when Bangor Hydro Electric Company and Maine Public Service merged in January 2014. It is owned by EnMax Corps, based in Canada. Versant Power is responsible for the electric grid on Mount Desert Island including the network of poles, wires, substations, meters and other equipment that make the delivery of electricity possible. Versant's role as a utility includes implementation of state policies and programs. This includes entering into contracts with grid-scale and community-scale renewable generators, selling that power again at wholesale, and administering net energy billing to incentive small-scale renewables. Customers also have a choice about who supplies the electricity that Versant Power delivers. Customers who do not choose a competitive electricity provider receive standard offer service, a default service put out to bid by the Maine Public Utilities Commission. There are two substations located at the corner of Route 3 and the West Street exit and the corner of Gilbert Farm Road and Knox Road. There is one switching station located at the junction of Eagle Lake Road and Norway Drive. The site forms the junction point of the three key electric transmission lines serving the area.

TELECOMMUNICATIONS

Municipal Information Technology Network

The Communications and Technology Committee (CTC) has assisted the Town of Bar Harbor with an analysis of network connection options that will best serve the municipality. The result of their efforts is specifically related to the future of the municipal information technology network, and is now moving forward with guidance and oversight from the Town Council and municipal staff. The town has secured the necessary funding for this infrastructure investment and is now soliciting bids to construct a new fiber network that will connect municipal buildings and facilities. This network will be owned and managed by the town, and will replace the existing network which is the result of an expired franchise agreement that will no longer be provided.

Other Telecommunications Providers

Spectrum, FairPoint, Emera, and Maine Fiber Company all have existing footprints in the town and provide a range of services to residents and businesses. Currently, this includes Digital Subscriber Line (DSL) internet service, commercial level service, and dark fiber connections to customers in Bar Harbor. Dark fiber refers to fiber optic cable that has been laid in the ground but isn't being used. The benefit of using an existing or new dark fiber connection is the speed of this dedicated network. With dark fiber, the municipality can get a direct connection from point A to point B without other non-municipal users also demanding service, which improves performance.

Cellular Service Providers

Cellular coverage has improved in Bar Harbor, but residents report reduced capacity during summer months when the volume of users increases. Currently AT&T, Verizon, T-Mobile, and U.S. cellular all provide coverage in the community for voice, 3G, and 4G service. Both AT&T and T-Mobile also provide 5G coverage.

OTHER POTENTIAL ACTIONS IDENTIFIED

FROM COUNCIL GOALS

- Develop a community solar farm on the Higgins Pit lot to power all town facilities and schools and offer low-cost power for nonprofit organizations and low-to-moderate income households. (2022)
- Replace town vehicles with electric vehicles as vehicle life is reached and suitable vehicles are available.
- Increase the number of electric vehicle charging stations in Bar Harbor.
- Include climate standards for buildings, energy use and transportation in the update of the Bar Harbor Comprehensive Plan and Land Use Ordinance.
- Develop mitigation strategies for projected impacts of sea level rise to protect municipal infrastructure and public and private property.
- Building on lessons learned from our collaboration with the Town of Mount Desert for shared police services, explore additional possibilities in public safety, including dispatching services, and other town services/functions (e.g. human resources and finances), where collaboration among towns could lead to greater effectiveness and efficiency.
- Monitor and improve the town's seasonal parking and seek additional solutions to ongoing parking and congestion problems including promotion of walking, biking and shuttle bus alternatives to

private automobiles in the downtown.

- Strategy 4b: Continue to evaluate opportunities for improved broadband service within downtown and areas of the town not currently served.
- Strategy 4c: While continuing to develop funding sources for streetscape improvements outlined in plans for Cottage and lower Main Streets, direct the Planning Board to address elements of the Land Use Ordinance that tend to make such redevelopment more difficult.
- Strategy 4d: Continue to explore ways in which application of user fees from parking and cruise ship visitors, and the possibility of a local option sales tax, can address needs for infrastructure and other programs related to costs of tourism that are currently funded through property taxes.
- Strategy 4e: Work with the town's Planning, Public Works and Finance Departments to devise a spread sheet/financial model that will allow council discussion and public understanding of pending capital improvement and deferred maintenance projects by the town, along with their likely impact on property taxes and the town's credit rating, and encourage exploration of alternative funding strategies, including grants and a local option sales tax.

CLIMATE ACTION PLAN GOALS

- Hire a Town of Bar Harbor Sustainability Coordinator with the remit of overseeing and implementing all town climate and sustainability efforts, including the development and implementation of the Town of Bar Harbor Climate Action Plan.* (FY 2022)
- Adopt an Electronic Documentation Policy to minimize paper use and printed copy requirements across municipal operations and services, such as town meetings and licensing and permitting services, as allowed by law. (FY 2023)
- Adopt a sustainable procurement policy to ensure that relevant municipal purchasing meets green standards including minimum recycled content requirements and local vendor and provider preferences. (FY 2024).
- Require that all major municipal purchasing proposals, including capital improvement projects, include life cycle costs and estimated greenhouse gas emissions. (FY 2024)
- Conduct an annual greenhouse gas emissions audit across all municipal and school operations in order to measure progress towards town greenhouse gas emissions reduction goals.*
- Build partnerships with local schools, post-secondary educational institutions, and scientific institutions to develop and implement climate change educational programs for students, staff, and community members.
- Engage with town department heads to develop opportunities for local students to directly engage with town sustainability initiatives and supplement town staff capacity to address sustainability issues through work-study positions, internships, independent studies, and volunteer efforts.
- Conduct energy audits across all municipal and school buildings and services, including water and wastewater treatment, to identify high-energy use buildings and necessary efficiency upgrades. (FY 2024)
- Replace #2 distillate oil with sustainably sourced biofuels across municipal and school building heating systems, including backup heating systems, where feasible, as an interim measure to reduce greenhouse gas emissions from heating oil. (FY 2024)
- Develop strengthened building energy efficiency standards for inclusion in the update of the Bar Harbor Comprehensive Plan and Land Use Ordinance* (FY 2024)
- Develop a schedule and begin implementation of fossil-fueled municipal and school building HVAC and water heating system replacement with suitable electric alternatives as existing system lives are reached, to be reflected in the Equipment Replacement Schedule of the Capital Improvement Plan

and annual town budget proposals. (FY 2025)
- Establish energy use monitoring systems across municipal and school buildings. (FY 2025)
- Establish a "Green Revolving Fund" to direct financial savings from reduced municipal and school energy bills towards future climate projects. (FY 2025)
- Complete energy efficiency upgrades for least efficient municipal and school buildings. (FY 2026)
- Collaborate with Public Works, Town, and Mount Desert Island Regional School System staff in order to identify and implement additional building-use modifications in support of energy conservation.
- Develop a solar ordinance to allow the construction and use of free-standing, ground-mounted solar arrays on public and private land within the town.* (FY 2022)
- Transition to 100% renewable electricity purchasing and use across municipal and public school operations.
- Switch municipal electricity supply provided through Versant Power to a 100% renewable Competitive Electricity Provider (CEP). (FY 2023)
- Identify and pursue construction of community solar farms on town property in order to fully power town facilities and schools with local, renewable electricity, as well as offer low-cost, renewable power to nonprofit organizations and low and moderate-income households across Bar Harbor.* (FY 2026)
- Advocate for state policy and support regional action towards a 100% renewable energy Mount Desert Island, including:
- Grid modernization to support renewable energy integration, demand-side management of resources, and renewable energy access equity for all Mainers.
- The alignment of Versant Power's electricity suppliers and progress towards 100% renewable electricity with state and local goals.
- The development of a local microgrid on Mount Desert Island to improve grid reliability and support efforts towards local energy independence.

REFERENCES

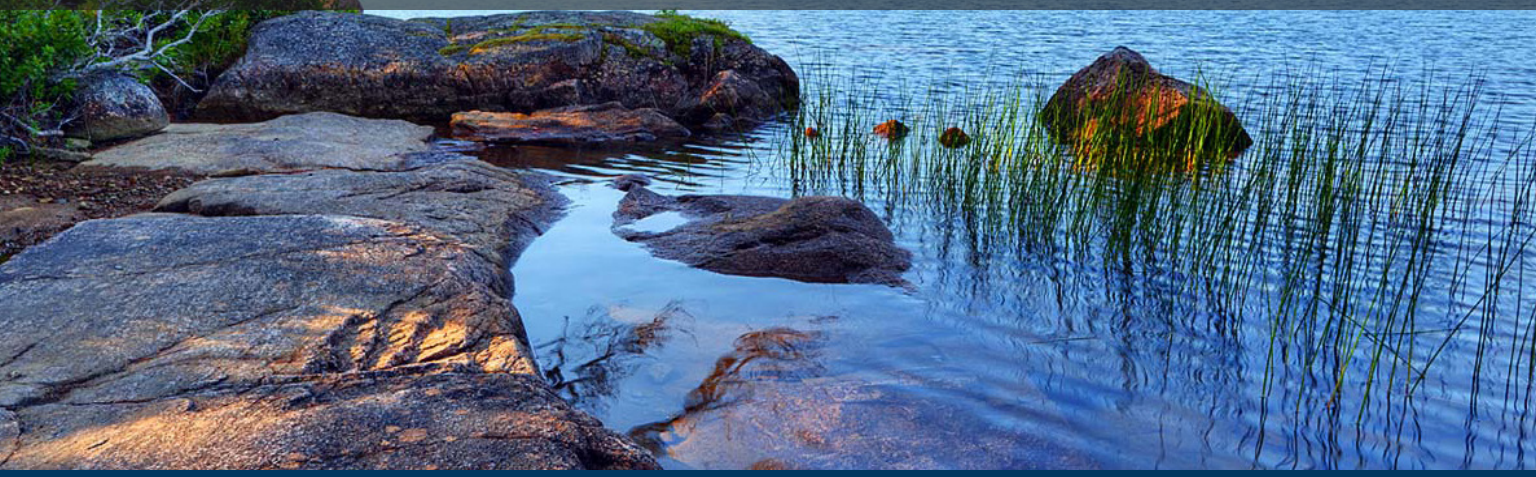
- Energy Audit of Municipal Office Building by Luminosity, 2009
- Warrant Article: Municipal Building Renovations, June 2014
- Capital Improvement Program, 2023-2027
- Police Depart Chief Agreement
- Harbormaster Position description
- Department Mission Documents
- Interviews with Department Heads
- Council Goals and Strategies, 2021
- Climate Action Plan, 2021
- Water Master Plan, 2020
- 2020 Bar Harbor Annual Report
- Municipal Greenhouse Gas Audit, 2021
- Enrollment Analysis and Projections, 2019
- News Article
- Department Budget Presentations, 2022
- College of the Atlantic

- MBI Biological Laboratory Website
- MDI Hospital Website and Annual report
- Versant Power
- Jesup Memorial Library

NATURAL RESOURCES

BAR HARBOR 2022 EXISTING CONDITIONS SUMMARY

Bar Harbor's natural environment is home to diverse species of plants and wildlife. It provides clean water, clean air, and carbon storage capacity (through the presence of vegetation) that mitigates the impacts of climate change. Many community members who live in Bar Harbor are attracted to the beautiful landscapes, scenic views, and plentiful opportunities to be in nature.



Bar Harbor has significant freshwater resources with outstanding water quality. There are no impaired waterbodies in the town, and only Eagle Lake is listed as threatened on the Maine National Park Service Priority List because it has outstanding water quality and is used as the primary public water source.

The Northeast Creek watershed encompasses a large portion of the town and drains numerous freshwater tributaries. Modeling of nutrient loading and corresponding habitat degradation have been incorporated into town land use planning but needs updating.

Prime agricultural soils in Bar Harbor are limited to 4% of the total land area (1,024 acres). An additional 6% of Bar Harbor is considered farmland soils of statewide importance (1,652 acres). Only 8% (80 acres) of Prime farmland soils in Bar Harbor are currently conserved. 37% of soils of statewide importance are conserved.

There has been an 83% decline in the total acreage of active farms in Bar Harbor between 1940 and 2013. Working farmlands face numerous constraints, including limited land area and high land value.

Significant Wildlife Habitat in Bar Harbor is extensive, particularly Deer Wintering Areas, Inland Waterfowl and Wading Bird Habitat, and Tidal Waterfowl and Wading Bird Habitat. The island's native plant and animal communities have the potential to be impacted by climate change through changes in temperature and precipitation.

There are two identified focus areas of statewide ecological significance in Bar Harbor, including Acadia East and the Taunton Bay Focus Area. These areas support rare plants, animals, and natural communities, and are indicative of the noteworthy outstanding natural resources and habitat that Bar Harbor provides.

There are several species of wildlife within Bar Harbor that have statewide protections due to low populations or limited habitat.
Bar Harbor is home to one endangered species (Peregrine Falcon), one threatened species (Harlequin Duck), two species of special concern (Great Blue Heron and Carolina Saddlebags), and one species of conservation need (Purple Sandpiper).

Acadia National Park is a critical undeveloped habitat block, holding 68% of the connected habitat within Bar Harbor.

Bar Harbor faces threats from climate change, sea level rise and storm surges.
Because of its relatively high relief along the coastline, Bar Harbor has some natural resiliency to sea level rise. However, significant threats have been identified, most notably the vulnerabilities of the mainland bridge.

Commercially harvested marine resources are an important part of Bar Harbor's economy, representing a total of $49,035,622 in total value between 2012 and 2020 across eight species. While shellfishing is allowed in the majority of Frenchman Bay, the critical mudflat habitat directly around Bar Harbor's coastline is prohibited for harvesting.

Table 5.8: Ten largest conserved land parcels within Bar Harbor

Conserved Land Parcel	Approximate Area within Bar Harbor (acres)
Acadia National Park	13,290
Kitteredge Brook Forest (including Addition)	524
Stone Barn Farm	134
Indian Point-Blagden Preserve	102
Blue Horizons	85
Acadian Ridge	81
Acadian Woods I	79
Youngs Mountain	69
Fogg Farm	68
Thomas Island	66

Water quality monitoring suggests good water quality in the bay overall.
The Town of Bar Harbor has a relationship with the MDI Water Quality Coalition and the MDI Bio Lab to monitor water quality in the bay.

The town has a recently formed Climate Emergency Task Force.
The Comprehensive Plan should support the initiatives and strategies outlined by this task force in their recent Climate Action Plan and 2022 Updates (in draft form).

6. Natural Resources

INTRODUCTION

The unique physical landscape of Bar Harbor supports a rich diversity of physical and biological resources within the town that have become the cornerstone of the local identity and economy. These natural resources supported early indigenous peoples of the Wabanaki on the island who used these grounds for hunting, fishing, gathering, clam harvesting, and trade prior to colonial onslaught beginning in the 1500s. The recognized natural beauty and ecosystem diversity of the island eventually led to the establishment of the "Sieur de Monts National Monument" in 1916, later renamed to "Acadia National Park" in 1929.

Acadia National Park now comprises 89% of the total conserved land in the Town of Bar Harbor and 68% of the undeveloped habitat blocks within Bar Harbor. These habitat blocks are home to much of the rare, threatened, and endangered wildlife and plant species in the town including the iconic Peregrine Falcon and other lesser-known wildlife species such as the Wood Turtle, Purple Sandpiper, and the Harlequin Duck. The area extending from the park up to the Northeast Creek headwaters has been identified as an area of statewide ecological significance and provides unfragmented habitat and water resource protection for much of Bar Harbor, including Eagle Lake, the public water source for the Town of Bar Harbor.

PRELIMINARY ISSUES, CHALLENGES, AND OPPORTUNITIES

Inland water resources in Bar Harbor have outstanding water quality. All waters in the town meet their state classification and the majority of streams throughout Acadia are assigned the highest water quality classification (Class AA). Streams to the north of the park are primarily listed as Class B, the third highest classification standard, which still requires waters to meet designated uses and to protect habitat. The town is host to twelve different wetland types, dominated by palustrine (non-tidal)-forested and palustrine-scrub-shrub wetlands. The largest continuous wetland is located in the headwaters of Northeast Creek. The diversity of plant and wildlife species present on Mount Desert Island are indicative of these high-quality wetland and water resources, as these species would not continue to survive in the absence of high-quality water. Ongoing protection of both surface water and groundwater in Bar Harbor is critical to the continued support of the strong local biodiversity and ecosystem health.

In addition to expansive inland resources, Bar Harbor relies on its marine resources for recreation, tourism, and commercial use. Marine resources in the town are managed by the Marine Resource Committee with support from partner organizations at the Frenchman Bay Conservancy, MDI Water Quality Coalition, Mount Desert Island Biological Lab, and the Maine Healthy Beaches Program. Water quality monitoring at the four main beaches in Bar Harbor (Hadley Point, Hulls Cove, Sand Beach, and the Town Beach) for fecal contamination has resulted in minimal exceedances of federal Environmental Protection Agency standards for beach recreation safety. More expansive monitoring in the bay near ship anchorage points has served as a warning sign for waste discharge from small and large cruise ships and has provided the town and Harbormaster with data to support conversations with ship captains (specifically those who are not members of the International Council of Cruise Lines) to change discharge practices.

The Frenchman Bay is not a designated "no discharge area" and many of the visiting ships are small (less than 250 passengers), making them

exempt from state discharge standards. The town requires ships to hold waste while in the harbor; however, exemptions from state regulations and challenges with local enforcement pose a threat to future water quality in the bay if not closely monitored.

Maintaining high water quality in the harbor is important for supporting ecosystem health and resilience and in turn, the robust marine economy of the town. Between 2012 and 2020, the landings at the Bar Harbor port represent a total of $49,035,621 in value across eight species. The largest species was the American Lobster, valuing $47,228,320 over this time period. Aquaculture is playing an increasing role in coastal communities of Maine, with a 2% per year growth in the past decade. Aquaculture in Bar Harbor is generally limited to bivalves in the Mount Desert Narrows, however, a recent proposal for salmon aquaculture in Frenchman Bay reveals some of the challenges ahead for Bar Harbor and neighboring communities related to water quality protection and the protection of wild species and habitat.

The Town of Bar Harbor recently formed the Climate Emergency Task Force in 2020 to guide prioritization and implementation of climate action strategies identified by the community. Bar Harbor's natural resources face threats from climate change including changes to temperature (air and water), sea level rise, frequent and intense precipitation, storm surges, drought, soil moisture deficits, and changes to the growing season.

Due to its higher elevation and steep slopes, Bar Harbor is more resilient to some of the coastal climate change hazards faced by other low-lying areas of Southern Maine, however, the town has already seen an increase in flood days with a record number of floods in 2017 (30). This will threaten both vital infrastructure in the town, as well as vulnerable coastal and marine habitat and beaches. Vulnerabilities in Bar Harbor are concentrated along the state highways and developed coastal lands.

The 2021 Climate Action Plan, published by the task force, outlines five strategies to address the climate emergency focused on energy and electrification. The task force is in the process of expanding these strategies to include climate resiliency and adaptation strategies that will be critical for natural resource protection. The town should work closely with this task force on implementing climate-ready planning that considers expected shifts in species ranges, biodiversity, and habitats in Bar Harbor. Climate planning in Bar Harbor to date has been limited and should play an increasing role in future planning, including a full Climate Action Plan with implementation strategies and metrics for success.

In addition to climate change, the town has experienced pressure on natural resources from increased tourism and use of the park, as well as limited land use opportunities for new development to support seasonal and year-round housing for the local community. Current natural resource protections include 75-foot setbacks for waterbodies, wetlands, and vernal pools, as well as 100-foot setbacks for "Great Ponds". Maine state statues define lakes and ponds greater than ten acres in size as Great Ponds. Additional minimum lot sizes are established using nitrate-analysis formulas that are intended to limit septic system discharge pollution to groundwater and downstream waterbodies. Freshwater and coastal setbacks are critical for protecting water resources that support habitat for both wild and cultured species and riparian buffers should continue to meet or exceed state standards. However, minimum lot sizes linked to nitrate-analysis may be causing unintended sprawl development that results in only limited influence on overall nitrate export.

While minimizing septic discharge is critical to protecting downstream resources, current restrictions that factor land use change alone may be an oversimplification of the variables controlling nitrogen export from the landscape. This is encouraging sprawl development that has unintended consequences for other important natural resource protection efforts, such as maintaining unfragmented habitat blocks while simultaneously causing an affordable (and available) housing crisis in the town.

NATURAL RESOURCES

TOPOGRAPHY

The topography of Bar Harbor is mountainous in the southern portion of the town, and hilly with some low-lying areas in the northern portion of the town. A series of coastal and inland wetland complexes in the northern portion of the town are the lowest elevation within Bar Harbor, most notably the Northeast Creek wetland complex, as well Hamilton Pond and the Stony Brook wetland complex that extend east beyond Northeast Creek (inland of Salisbury Cove), and the wetlands that extend inward from Thomas Bay and Clark Cove in the northwestern portion of Bar Harbor. The highest point of the town is Cadillac Mountain at 1,527 feet, located in the southeastern portion of the town within Acadia National Park.

Steep slopes (greater than 25%) are found throughout the Town of Bar Harbor. Approximately 26% of the town is steep slopes. The majority of steeply sloped areas are located in the southern half of the town in the mountainous areas of Acadia National Park. Of the steeply sloped area within the town, approximately 93% is within the Acadia National Park boundary.

GEOLOGY

The landforms of Mount Desert Island feature unique physical features. A series of ridges trending north-south with deep U-shaped valleys between them were created by glacial and post-glacial activity. The ridges' tops are windswept with limited tree growth, and have rounded crests, standing above a predominant forest cover on the lower slopes. Rocky coastlines juxtapose the hilltops, along with low-lying wetlands underlain by marine deposits and poorly drained tills. Some of Mount Desert Island's most prominent mountains are found on the eastern half of the island within Bar Harbor, such as Cadillac Mountain. These unique physical features also allow for varied vegetation and a great concentration of rare plants.

GROUNDWATER & AQUIFERS

The Town of Bar Harbor does not have any significant sand or gravel aquifers within the town. Significant aquifers are present on Mount Desert Island south of the Town in Southwest Harbor and Seal Harbor. Significant aquifers may serve as a potential water supply, depending on their discharge rate.

Groundwater is subsurface water that is recharged by precipitation percolating into the soil. Groundwater recharge and groundwater quality can be protected through limiting impervious surfaces that decrease groundwater recharge, properly siting septic waste disposal systems, and protecting freshwater resources. Eagle Lake is the water source for public water in Bar Harbor. Eagle Lake is fed by groundwater and runoff from a 2,250-acre watershed (including Bubble Pond, southeast of Eagle Lake). The watershed is entirely within Acadia National Park and is forested with mixed deciduous and

evergreen timber and is managed by the National Park Service to be in its natural state with minimal human impact. In addition, the Town of Bar Harbor has a protective ordinance that limits recreational uses on Eagle Lake. Residences not served by the municipal water system draw water from private wells. Residents relying on private wells for their drinking water are responsible for regularly testing and treating their well water. In addition to nutrients, bacteria, and lead, well owners should regularly test for contaminants sourced from the bedrock that may reside in their water, namely the carcinogens: arsenic, uranium, and radon gas. Each of these pollutants has an acceptable level that is allowed within drinking water; concentrations higher than the standard may cause significant health issues. Based on recent studies by the College of the Atlantic, Mount Desert Island Biological Laboratory, and local schools (2016-present) of arsenic and uranium concentrations in ~450 samples from the MDI area, ~15% of wells have arsenic levels at concerning levels (>5ppb) and ~4% of tested wells have concerning uranium levels (>30ppb). Spatially, elevated arsenic levels generally tend to be associated with the metamorphic bedrock of the island while elevated uranium levels tend to be associated with the granitic bedrock, although these hazards were found throughout MDI. Variations in water chemistry were also found seasonally and through rain events. According to data from the State of Maine Health and Environmental Testing Laboratory, 10.1% of nearly 160 wells tested in Bar Harbor between 1999-2013 were above the acceptable standard for arsenic (10 micrograms per liter). 0.8% of wells were above the acceptable uranium standard (30 micrograms per liter) within the same study.

SOILS

The most prevalent soil series found within the Town of Bar Harbor is the Schoodic-Rock outcrop-Lyman complex, composing approximately 15% of the town's land area. The Schoodic-Rock outcrop – Lyman complex is a hilly to steep soil series found on the side slopes of glacial till ridges and mountains. Within Bar Harbor, this soil series is found mostly within mountainous areas of Acadia National Park with Schoodic soils and rock outcrop typically on peaks and upper side slopes, and Lyman soils typically on the lower side slopes. The main limitations of this soil series are shallow depth to bedrock, slope, and erosion hazard – as such, this soil series has limitations for roads. The Lyman-Tunbridge complex is the second most prevalent soil series in Bar Harbor, and is found interspersed throughout the town composing approximately 11% of the town's land area. This soil complex is nearly level to rolling units on the crests and side slopes of upland glacial till ridges, with slopes ranging from 0 to 15%. The remaining 45 soil series found within the town range from 7% of the town land area to <1% of the town land area.

Soil series are classified as seven drainage classes based on the frequency and duration of wet periods in conditions similar to those under which the soil formed. The classes range from excessively drained to very poorly drained. The majority of the soil series acreage within the Town of Bar Harbor are considered excessively drained or somewhat excessively drained at approximately 35% and 27% respectively, located primarily in the mountainous regions of Acadia National Park. Soils that are poorly drained or very poorly drained are considered hydric soils, and typically considered unsuitable for building. Approximately 17% of the land in Bar Harbor is considered a hydric soil, located primarily in the northwestern area of town in and adjacent to the low-lying coastal wetland complexes.

AGRICULTURAL SOILS

Soils classified as areas of prime farmland soils are considered land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is

available for these uses. Approximately 4%, or 1,000 acres, are considered prime farmland, located in the northwestern and northern edges of Bar Harbor. Soils classified as farmland of statewide important include soils that nearly meet the criteria for prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods. Almost 6% (approximately 1,600 acres) of Bar Harbor is farmland soils of statewide importance, interspersed throughout the town. While farmland soils within Bar Harbor are limited, they are important to the town. Only 8% of prime farmland soils are held in conservation and an additional 37% of the soils of statewide importance are conserved. Refer to the Agriculture and Forest Resources subsection below for additional information on agriculture existing conditions in Bar Harbor.

HABITATS

Bar Harbor has significant conserved land, with 54% of the town's land area held in conservation. Approximately 90% of that is held by Acadia National Park. Conserved land in Acadia National Park is home to much of the rare, threatened, and endangered wildlife and plant species in the town. Wildlife species include the state endangered Peregrine Falcon, the species of conservation need purple Sandpiper, and the threatened Harlequin Duck. Additionally, this area is home to four state endangered plant species, two threatened plant species, and two plant species of special concern. As such, the greater Acadia National Park area up to the Northeast Creek headwaters has been identified as a natural area of statewide ecological significance. The diversity of the topography and continuity of undisturbed land is particularly important for maintaining habitat for these rare, threatened, and endangered species. Many species, such as wood turtles, rely on this unfragmented habitat to travel from different habitats to reproduce. The greatest vulnerability to this habitat is the accelerating human use of Acadia National Park. Plant and wildlife species using rocky cliffs and outcrops (e.g., Peregrine Falcon and Mountain Sandwort) are most vulnerable to increased foot traffic from hikers in the park.

Due to its steep slopes and rocky coastline, Bar Harbor habitat is more resilient to projected sea level rise predictions than many other coastal communities in Maine. Sea level rise effects will be most significant in the Northeast Creek estuary, which is part of the Taunton Bay Focus Area of statewide ecological significance. This could impact intertidal species, such as the American sea-blite located in the upper intertidal of the Taunton Bay. In addition to sea level rise, increases in precipitation amounts and intensity will require a greater degree of connection between freshwater waterbodies and their floodplains to accommodate flooding during high intensity precipitation and/or snowmelt events. The Northeast Creek wetland complex is a prime example of an area within Bar Harbor that is expected to experience increased inundation under higher tides and sea level rise. While the wetland is currently classified as freshwater wetland, the highest astronomical tide already inundates the wetland. Future sea level rise will increase the area and frequency of tidal inundation extending beyond the current wetland area, such as at the Crooked Road and Norway Road intersection, which already experiences flooding. In addition, a small island (Old Soaker) found in Newport Cove near Thunder Hole, is home to the Purple Sandpiper and will suffer some coastline inundation from sea level rise that could adversely impact its habitat. Little is known about this species but it has a relatively small population size.

VEGETATION

Vegetation within Acadia National Park and surrounding areas, including Bar Harbor, has been mapped spatially in multiple datasets. The Acadia National Park Vegetation Mapping Project was published in 2003 and completed by the U.S. Geological Survey Upper Midwest Environmental Sciences Center with map class descriptions for vegetation communities. This data was produced from Spring 1997

aerial photography. The Northeast Terrestrial Habitat Classification System (NETHCS), developed by NatureServe and The Nature Conservancy, maps upland and wetland wildlife habitats/ecological systems for the Northeastern U.S., is mapped at 30-meter resolution. The Maine Wildlife Action Plan uses the NETHCS to identify the extent of habitats and community types essential to conservation. Both datasets provide valuable information to assist with natural resource analysis within Bar Harbor.

The Acadia National Park Vegetation Mapping Project identified the Spruce – Fir Forest (mixed phase) as the dominant vegetation type within Bar Harbor at approximately 16% coverage, with Mixed Conifer – Deciduous Woodland as the second most prevalent vegetation type at 10% coverage (Table 5.1). Categorized more broadly, the most prevalent physical vegetation feature are forests and woodlands. Mixed upland forests compose almost one-third of Bar Harbor (28%), found mostly in the northern half of Bar Harbor in the lower elevations, as compared to the second most prevalent feature, deciduous upland woodlands, composing approximately 16% and found mainly in the southern half of the town in the relatively higher elevation mountainous slopes within Acadia National Park. Developed Land Use is identified as composing approximately 10% of Bar Harbor in this dataset, composed mostly of residential and mixed urban land use.

Table 5.1: The Acadia National Park Vegetation Mapping Project vegetation type and categorized physical features found within Bar Harbor

Vegetation Type	Physical Feature	Percent Coverage
Spruce - Fir Forest (mixed phase)	Forest - Mixed - Upland	16%
Mixed Conifer - Deciduous Woodland	Woodland - Mixed - Upland	10%
White Pine - Hardwood Forest	Forest - Mixed - Upland	9%
Aspen Birch Woodland/Forest Complex (forest phase)	Woodland - Deciduous - Upland	9%
Spruce - Fir Forest (conifer phase)	Forest - Conifer - Upland	9%
Red Oak Woodland	Woodland - Deciduous - Upland	5%
Oak - Pine Forest	Forest - Mixed - Upland	3%
Residential	Land Use	3%
Mixed Urban or Built-up Land	Land Use	3%
Pitch Pine Woodland	Woodland - Conifer - Upland	3%
White Pine - Mixed Conifer Forest	Forest - Conifer - Upland	3%
Tidal Algal Zone	Tidal Zone	2%
Fen Complex	Dwarf Shrubland - Evergreen - Wetland	2%
Conifer Swamp Woodland (spruce-mixed phase)	Woodland - Conifer - Wetland	2%
Commercial and Services	Land Use	2%
Mixed Conifer Woodland	Woodland - Conifer - Upland	2%
Perennial Grass Crops	Cultural Vegetation	2%
Beech - Birch - Maple Forest	Forest - Deciduous - Upland	2%
Lake (non-vegetated)	Non-vegetated Water	2%
Blueberry Bald - Summit Shrubland Complex	Dwarf Shrubland - Deciduous - Upland	1%

Vegetation Type	Physical Feature	Percent Coverage
Aspen Birch Woodland/Forest Complex (woodland phase)	Woodland - Deciduous - Upland	1%
White Cedar Woodland	Woodland - Conifer - Upland	1%
Graminoid Shallow Marsh	Graminoid - Wetland	1%
Red Maple - Hardwood Swamp	Forest - Deciduous - Wetland	1%
Alder Shrubland	Shrubland - Deciduous - Wetland	1%
Open Water - Deep Marsh Complex	Forb - Wetland	1%
Transportation and Roads	Land Use	1%
Strip Mines, Quarries, and Gravel Pits	Land Use	1%
Other Agricultural Land	Land Use	1%
Sweetgale Mixed Shrub Fen	Shrubland - Deciduous - Wetland	1%
Mixed Deciduous Shrubland	Cultural Vegetation	1%
Natural Pond (non-vegetated)	Non-vegetated Water	<1%
Tidal Marsh	Graminoid - Wetland	<1%
Aspen Birch Woodland/Forest Complex (shrubland phase)	Woodland - Deciduous - Upland	<1%
Other Urban or Built-up Land	Land Use	<1%
Tidal Mud Flat	Tidal Zone	<1%
Open Headland - Beach Strand	Sparse Vascular - Upland	<1%
Dwarf Shrub Bog	Dwarf Shrubland - Evergreen - Wetland	<1%
Conifer Swamp Woodland (white cedar phase)	Woodland - Conifer - Wetland	<1%
Red Pine - White Pine Forest	Forest - Conifer - Upland	<1%
Jack Pine Woodland	Woodland - Conifer - Upland	<1%
Mixed Grass - Forb	Cultural Vegetation	<1%
Sparsely Vegetated Talus	Sparse Vascular - Upland	<1%
Perennial Grass Crops with Sparse Shrubs	Cultural Vegetation	<1%
Evergreen Plantation	Cultural Vegetation	<1%
Beaver Pond (non-vegetated)	Non-vegetated Water	<1%
Tidal Beach	Tidal Zone	<1%
Small Island with Trees	Small Island with Vegetation	<1%
Dune Grassland	Graminoid - Upland	<1%
Small Island with Rock	Small Island with Vegetation	<1%
Small Island with Shrubs	Small Island with Vegetation	<1%
No Data	No Data	<1%

The Northeast Terrestrial Habitat Classification System (NETHCS) characterized ecological systems and habitats on a regional scale and serves as a standard for assessing habitat distribution and composition across the Northeast. The most prevalent mapped habitat in Bar Harbor using the NETHCS is the Acadian Low Elevation Spruce-Fir-Hardwood Forest at approximately 45% (Table 5.2). The Maine Wildlife Action Plan for 2015-2025 uses this classification system to identify the habitats and communities that are important for conservation of Species of Greatest Conservation Need. Essential and Significant Wildlife Habitats existing conditions within Bar Harbor are discussed in the following sections.

Table 5.2: Habitat types mapped by the Northeast Terrestrial Habitat Classification System within the Town of Bar Harbor

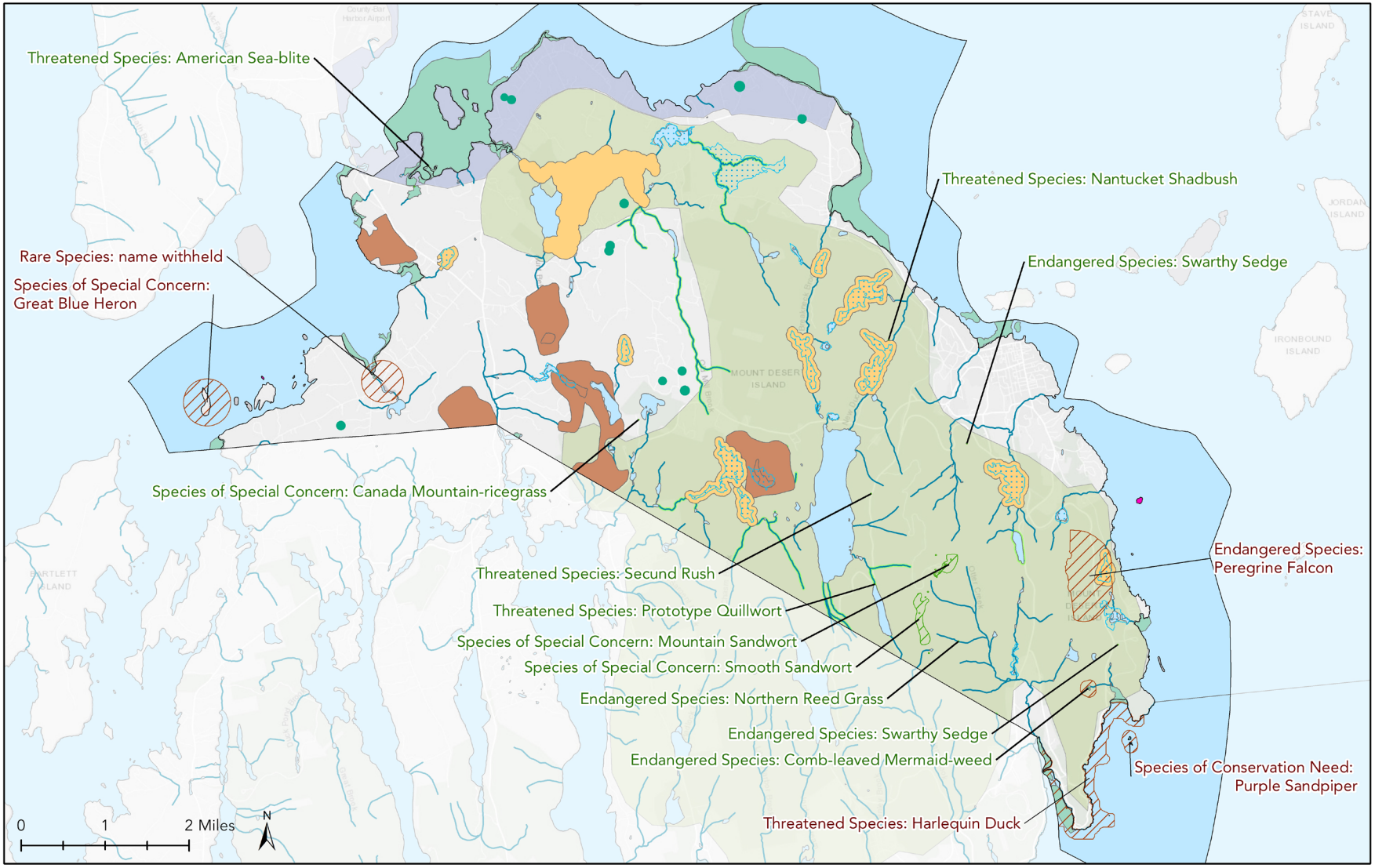
Habitat	% Coverage
Acadian Low Elevation Spruce-Fir-Hardwood Forest	45%
Developed	12%
Laurentian-Acadian Red Oak-Northern Hardwood Forest	10%
Acadian Sub-boreal Spruce Flat	7%
Laurentian-Acadian Northern Hardwood Forest	5%
Northern Appalachian-Acadian Conifer-Hardwood Acidic Swamp	4%
Acidic Cliff and Talus	4%
Open water	4%
Laurentian-Acadian Freshwater Marsh	2%
Acadian Maritime Bog	2%
Boreal-Laurentian-Acadian Acidic Basin Fen	2%
Laurentian-Acadian Wet Meadow-Shrub Swamp	1%
Laurentian-Acadian Alkaline Conifer-Hardwood Swamp	1%
Central Appalachian Pine-Oak Rocky Woodland	1%
Laurentian-Acadian Pine-Hemlock-Hardwood Forest	<1%
Acidic Rocky Outcrop	<1%
Tidal Salt Marsh, Estuarine Marsh	<1%
Calcareous Cliff and Talus	<1%

WILDLIFE HABITATS

Essential wildlife habitat in the Maine is designated by the Maine Department of Inland Fisheries and Wildlife as areas that currently or historically provide physical or biological features essential to the conservation of an endangered or threatened species in Maine and which may require special management considerations. Piping Plover, Least Tern, and Roseate Tern are species that currently have designated essential habitats, however no observations of these species or confirmed use of their habitat is presently known to Maine Department of Inland Fisheries and Wildlife (MDIFW) in Bar Harbor. Significant wildlife habitat is mapped by MDIFW and protected by the Maine Natural Resource Protection Act which is intended to prevent further degradation and loss of natural resources in Maine. In the Town of Bar Harbor, significant wildlife habitat includes deer wintering areas, inland waterfowl and wading bird habitat, wildlife wetlands (other wetlands valuable for wildlife that are not regulated as inland waterfowl and wading habitat), seabird nesting islands, tidal waterfowl and wading bird habitats, and significant vernal pools. Table 5.3 and Map 5.1 on the following pages provides information on significant wildlife habitats within Bar Harbor.

Table 5.3: Significant wildlife habitats within Bar Harbor mapped by Maine Department of Inland Fisheries and Wildlife			
Significant Wildlife Habitat	**Description**	**Acres within Bar Harbor (approximate)**	**Location within Bar Harbor**
Deer Wintering Areas	Forested area possibly used by deer for shelter during periods of deep snow and cold temperatures.	1,140	Deer wintering areas within Bar Harbor are located mainly in central inland Bar Harbor extending into the Town of Mount Desert, and adjacent to Clark Cove on the western coastal shoreline of Bar Harbor.
Inland Waterfowl and Wading Bird Habitat	Freshwater breeding, migration, feeding, and wintering waterfowl or wading bird habitats.	1,422	Inland waterfowl and wading habitat is mostly associated with inland wetland complexes and waterbodies in northern and central Bar Harbor, such as the Northeast wetland complex and the Beaver Dam Pond.
Wildlife Wetlands	Other wetlands valuable for wildlife that are not regulated as Inland Wading Bird and Waterfowl Habitat (IWWH)	667	Wildlife wetlands are located throughout Bar Harbor, such as Hamilton Pond, Witch Hole Pond, and Aunt Betty Pond.
Seabird Nesting Islands	An island, ledge, or portion thereof in tidal waters with document, nesting seabirds or suitable nesting habitat for endangered seabirds.	3	Two seabird nesting islands are located within the Bar Harbor coastal waters boundary, one at Indian Point Ledges in western Bar Harbor, and The Thrumcap, located off Eastern Bar Harbor. Several other seabird nesting islands are located in Frenchman Bay.
Tidal Waterfowl and Wading Bird Habitats **This acreage represents area located within Bar Harbor coastal waters, but mapped habitat extends further into Frenchman Bay.*	Breeding, migrating/staging, or wintering areas for coastal waterfowl or breeding, feeding, loafing, migrating, or roosting areas for coastal wading birds. These habitats include aquatic beds, eelgrass, emergent wetlands, mudflats, seaweed communities, and reefs.	3,764*	Tidal waterfowl and wading bird habitat in bar harbor is present along many coastal shoreline areas throughout Bar Harbor, most notably around Thomas Bay, Hulls Cove, Parker Point, Bar Island, Sand Beach, and Otter Cove.
Significant Vernal Pools	A pool or depression used for breeding by amphibians and other indicator species and that portion of the critical terrestrial habitat within 250 ft of the spring or fall high water mark.	11 Pools	There are 7 mapped significant vernal pools and 4 mapped potentially significant vernal pools, located mainly in the northern and inland areas of Bar Harbor. This represents mapped vernal pools only, not all potential vernal pools.
These significant wildlife habitats represent confirmed and mapped areas only. Additional areas may exist.			

Map 5.1: Nature Resource and Habitat Areas in Bar Harbor



NATURAL RESOURCES HABITAT

BAR HARBOR

Draft map created for preliminary assessment of existing conditions within Bar Harbor.

- Bar Harbor Town Boundary
- Waterbody/Coastal Waters
- Stream
- Acadia East Focus Area*
- Taunton Bay Focus Area*

**Focus areas are natural areas that hold statewide ecological significance, containing unusually rich concentrations of at-risk species and habitats.*

Significant Wildlife Habitat

- Mapped Significant Vernal Pool
- Seabird Nesting Island
- Tidal Waterfowl and Wading Habitat
- Inland Waterfowl and Wading Habitat
- Wildlife Wetland Area**
- Deer Wintering Area
- Wild Brook Trout Habitat

Rare, Threatened, or Endangered Species Locations

- Wildlife Species
- Plant Species

***Wildlife wetland areas are wetlands valuable for willdife that are not regulated as inland waterfowl and wading habitat.*

Data Sources: Town of Bar Harbor, Maine Geolibrary, National Hydrography Dataset
Coordinate System: NAD 1983 UTM Zone 19N
Created: FB Environmental
March 2022

FB environmental

RARE, THREATENED, OR ENDANGERED WILDLIFE

The Maine Department of Inland Fisheries and Wildlife maps recent locations of state-listed animal and their associated habitat based on species sightings. Table 5.4 lists the species and their protection status.

Also of note within Bar Harbor is likely Maine wild brook trout habitat. Maine brook trout fisheries are not afforded any special state or federal regulatory protection but are unique and highly valuable. Brook trout require clean, cool, well oxygenated water and are sensitive to changes in habitat and water quality. Maine is the last stronghold for brook trout in the eastern United States. Within Bar Harbor, likely brook trout habitat is located both within and outside of Acadia National Park, such as in Aunt Betty Pond, Bubble Brook, Chasm Brook, Old Mill Brook, Richardson Brook, Stony Brook, and The Tarn.

Table 5.4: Rare, threatened, or endangered wildlife species in Bar Harbor

Species Common Name	Species Scientific Name	Protection Status
Harlequin Duck	*Histrionicus histrionicus*	Threatened Species
Purple Sandpiper	*Calidris maritima*	Species of Conservation Need
Great Blue Heron	*Ardea herodias*	Species of Special Concern
Carolina Saddlebags	*Tramea carolina*	Species of Special Concern
Peregrine Falcon	*Falco peregrinus*	Endangered Species
Name withheld	*Rare Species*	-

RARE OR EXEMPLARY PLANTS AND NATURAL COMMUNITIES

The Maine Natural Areas Program (MNAP) maps locations of rare plants and exemplary natural communities. Known rare, threatened, or endangered plant occurrences are based on field observations. Natural community habitats are assigned a rarity rank of 1 (rare) through 5 (common) by MNAP. Table 5.5 lists rare plant species and their designation status. Table 5.6 lists natural communities and their rarity rank.

Eelgrass is another notable wildlife habitat located in Bar Harbor waters and Frenchman Bay. Eelgrass grows in sandy or muddy habitats submerged in saltwater and provides attachment

Table 5.5: Rare plant species in Bar Harbor

Common Name	Scientific Name	Protection Status
Alpine Blueberry	*Vaccinium boreale*	Species of Special Concern
American Sea-blite	*Suaeda calceoliformis*	Threatened Species
Canada Mountain-ricegrass	*Piptatherum canadense*	Species of Special Concern
Comb-leaved Mermaid-weed	*Proserpinaca pectinata*	Endangered Species
Mountain Firmoss	*Huperzia appressa*	Species of Special Concern
Mountain Sandwort	*Minuartia groenlandica*	Species of Special Concern
Nantucket Shadbush	*Amelanchier nantucketensis*	Threatened Species
Northern Bog Sedge	*Carex gynocrates*	Species of Special Concern
Northern Reed Grass	*Calamagrostis stricta ssp. inexpansa*	Endangered Species
Prototype Quillwort	*Isoetes prototypus*	Threatened Species
Secund Rush	*Juncus secundus*	Threatened Species
Smooth Sandwort	*Minuartia glabra*	Species of Special Concern
Swarthy Sedge	*Carex adusta*	Endangered Species

Table 5.6: Natural communities in Bar Harbor. Natural community habitats are assigned a rarity rank of 1 (rare) through 5 (common)	
Natural Community	State Rank
Dune grassland	S2
White cedar woodland	S2
Birch - oak talus woodland	S3
Brackish tidal marsh	S3
Jack pine woodland	S3
Pitch pine woodland	S3
Red pine - white pine forest	S3
Spartina saltmarsh	S3
Three-toothed cinquefoil - blueberry low summit bald	S3
Maritime spruce - fir forest	S4
Raised level bog ecosystem	S4

sites for invertebrates and some algae. Benefits of eelgrass include producing oxygen, improving water quality by filtering sediments and excess nutrients, reducing shoreline erosion by absorbing wave energy, and providing food and shelter for fish. For example, eelgrass beds support larval forms of winter flounder, hake, pollock, cod, lobsters, mussels, and crabs. In Frenchman Bay, located on the eastern side of Bar Harbor, eelgrass has declined significantly since 1997. Between 1997 and 2008, there was a 58% decline in eelgrass populations that were surveyed and mapped by state agencies. A study on changes between 2008 and 2018 found that two eelgrass sites completely collapsed (Bar Island West and Hadley Point West), one site completely rebounded (Bar Tide Pool), and other sites that were more stable between 1997 and 2008 still declined by 59% and 60% by 2018. Further mapping efforts and restoration efforts have been underway since 2007.

FOCUS AREAS OF STATEWIDE SIGNIFICANCE

Habitat focus areas are natural areas that hold statewide ecological significance, containing unusually rich concentrations of at-risk species and habitats. Within Bar Harbor, there are two focus areas of statewide significance, the Acadia East and West Area and the Taunton Bay Focus Area. These areas – designated by State of Maine biologists from the Maine Natural Areas Program, the Maine Department of Inland Fisheries and Wildlife, the Maine Department of Marine Resources, the U.S. Fish and Wildlife Service, the Nature Conservancy, Maine Audubon, and Maine Coast Heritage Trust – support rare plants, animals, and natural communities, significant wildlife habitats, and their intersections with large blocks of undeveloped habitat. The goal of "Beginning with Habitat Focus Areas" in Maine is to build regional awareness to provide momentum to municipalities, land trusts, and regional initiatives focused on strategic approaches to conservation.

The Acadia East and West Focus Area encompasses approximately 60,000 acres, half of which is within Acadia National Park. The eastern portion of this focus area includes Acadia National Park and much of Bar Harbor. Mount Desert Island is at a transition between the southwestern portions and the Down East portions of the Maine coastline, which share characteristics with the Canadian Maritimes. Ecologically, these unique features include pitch pine woodlands similar to the "southern" features of the Mid-Coast region, as well as northern boreal features, including headlands with roseroot and beach-head iris, and rocky woodlands with black spruce and heaths. Given Mount Desert Island's nearly

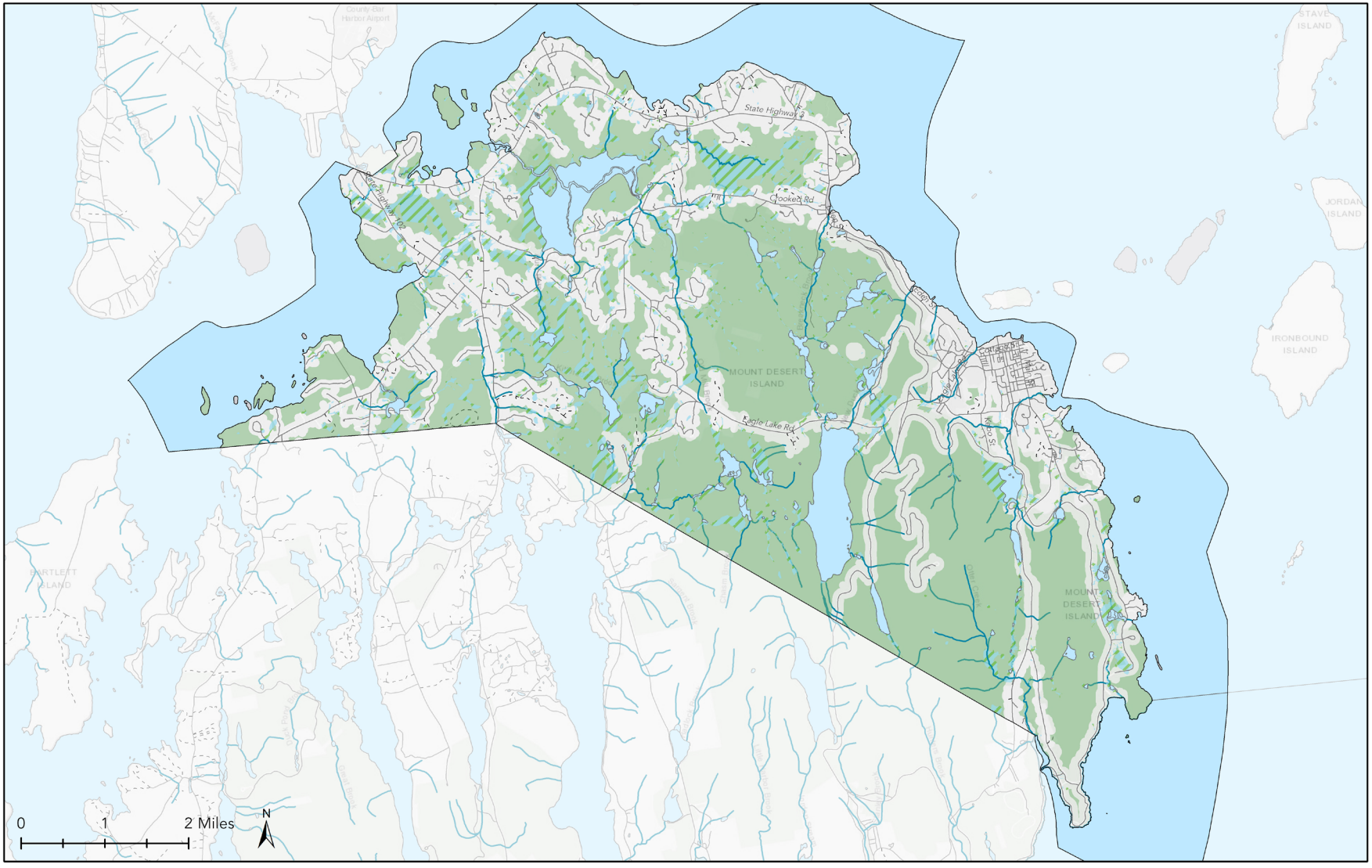
300-year history of settlement, including land clearing for pasture and timber, the island has many areas that are spruce-fir forests in varying stages of post-disturbance succession. Bar Harbor encompasses some of the eastern mountains of Mount Desert Island, including the prominent Cadillac Mountain. Cadillac Mountain and the open ridges south of it include a great concentration of rare plants and varied vegetation, composed of areas of low-elevation summit bald, subalpine heath, krummholz, pitch pine woodland, and jack pine woodland. Other rare and exemplary natural communities in this focus area within Bar Harbor include Fresh Meadow (located on the north side of Crooked Road adjacent to Northeast Creek); Great Meadow; (a tidally influence level bog ecosystem located on the central eastern border of the park); a red maple alluvial swamp and mixed graminoid-shrub marsh; Sand Beach (located the southeastern shorelines of Bar Harbor within the park); a dune grassland that is unique this far downeast, and the shoreline between Sand Beach and Otter Cove (which provides winter habitat for purple sandpipers).

The Taunton Bay Focus Area encompasses coastal lands in northern Bar Harbor, as well as in Lamoine, Hancock, Franklin, Sullivan, and Sorrento. Taunton Bay has high tidal fluctuations that create expansive tidal estuaries, which create incredible productive waters in combination with large tidal amplitude and freshwater tributaries that mix nutrients with dissolve gases. The Mount Desert Narrows, which Bar Harbor borders at its northern end, are one of the three sizable coastal bays within the larger focus area. This area is a notable tidal estuary in the Gulf of Maine. Important organisms found in this focus area within the Mount Desert Narrows include eelgrass, marine worms, shorebirds, and tidal waterfowl and wading birds. In addition, these estuaries provide important spawning habitat for diadromous fish, such as alewives and American eel.

UNDEVELOPED HABITAT BLOCKS

Large, undeveloped blocks of land provide valuable habitat blocks that are relatively undisturbed and have not been fragmented by roads or development. In addition to being important habitat for a diversity of animals and plants, large blocks are also valuable for future forestry, agriculture, and outdoor recreational opportunities. Within Bar Harbor, Maine Department of Inland Fisheries and Wildlife identified almost 16,000 acres of undeveloped habitat blocks. Undeveloped blocks within Bar Harbor are located mainly inland in Bar Harbor, with approximately 68% of them within Acadia National Park. Map 5.2 displays undeveloped habitat blocks.

Map 5.2: Undeveloped Habitat Blocks



NATURAL RESOURCES
UNDEVELOPED HABITAT BLOCKS

BAR HARBOR

Map created for preliminary assessment of existing conditions within Bar Harbor.

Bar Harbor Town Boundary
Public Road
Private Road
Waterbody/Coastal Waters
Stream
Wetland
Undeveloped Habitat Block*

**Undeveloped habitat blocks are large, undeveloped land areas that are relatively undisturbed and have not been fragmented by roads or development. Data source: Beginning With Habitat.*

Data Sources: Town of Bar Harbor, Maine Geolibrary, National Hydrography Dataset
Coordinate System: NAD 1983 UTM Zone 19N
Created: FB Environmental
July 2022

FB environmental

CONSERVED LANDS

The Town of Bar Harbor is unique in that approximately 37% percent of its entire area, including marine waters within the town boundary, is "Conserved Land". Fifty-four percent (54%) of the town's land area is conserved (excluding marine waters but including waterbodies). Table 5.7 provides the breakdown of conservation land by holder type. The largest holder is the U.S. National Park Service, holding almost 90% of all conserved lands within Bar Harbor as federal land as Acadia National Park. The Maine Coast Heritage Trust holds the second largest percentage of conserved land within Bar Harbor at approximately 9%. This includes several large parcels within Bar Harbor, including Kittredge Brook Forest and Stone Barn Farm. Table 5.8 and Map 5.3 displays the top 10 conserved land parcels by acreage within Bar Harbor.

Table 5.7 Conservation lands within Bar Harbor by holder

Holder	Approximate Area (Acres)	Percent of all Conserved Lands
U.S. National Park Service	13,368	89%
Maine Coast Heritage Trust	1,396	9%
The Nature Conservancy	102	1%
Maine Minor Civil Division	92	1%
U.S. Department of Interior	20	<1%
Maine Bureau of Parks and Lands	11	<1%
U.S. Fish and Wildlife Service	7	<1%
Maine Department of Inland Fisheries and Wildlife	6	<1%

AREAS AND VISTAS OF NATURAL BEAUTY

The Town of Bar Harbor is well known for is scenic areas and vistas of natural beauty. Scenic views identified in the 2007 Comprehensive Plan Bar Harbor Vision statement include:

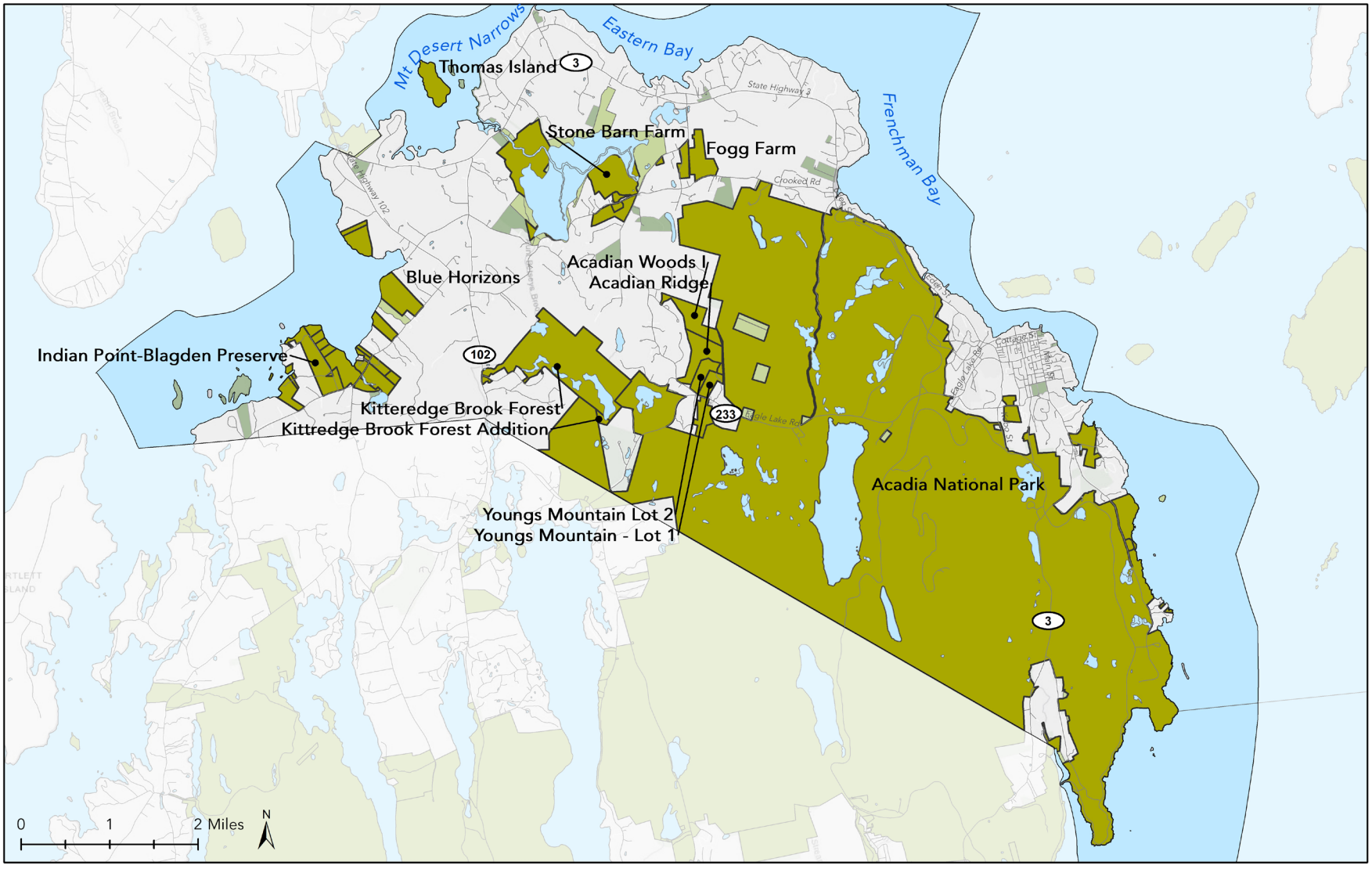
- Bay from West Street
- Bluffs
- Coming into Hulls Cove from Ireson Hill
- Crooked Road
- Downtown from Park
- Dreamwood Hill
- Hamilton Hill
- Marshy areas where we can see waterbirds (near High School)
- Salisbury Cove looking westward
- West over Hamilton Pond from Route 3
- Undeveloped ridgelines that are not part of Acadia

Table 5.8: Ten largest conserved land parcels within Bar Harbor

Conserved Land Parcel	Approximate Area within Bar Harbor (acres)
Acadia National Park	13,290
Kitteredge Brook Forest (including Addition)	524
Stone Barn Farm	134
Indian Point-Blagden Preserve	102
Blue Horizons	85
Acadian Ridge	81
Acadian Woods I	79
Youngs Mountain	69
Fogg Farm	68
Thomas Island	66

Dark skies in Bar Harbor and Acadia National Park are a protected natural resource. The National Park Service protects night skies for many reasons, including to protect natural light cycles for plants

Map 5.3: Largest Conserved Lands in Bar Harbor



CONSERVED LANDS

BAR HARBOR

- Bar Harbor Town Boundary
- Road
- Waterbody/Coastal Waters
- Conserved Land - 10 Largest Parcels
- Acadia National Park Boundary
- Conserved Land (other)

Draft map created for preliminary assessment of existing conditions within Bar Harbor.

Data Sources: Town of Bar Harbor, Maine Geolibrary, National Hydrography Dataset
Coordinate System: NAD 1983 UTM Zone 19N
Created: FB Environmental
July 2022

FB environmental

and animals and to reduce light pollution. Acadia National Park received grants from the National Park Foundation, the Yawkey Foundation, and Musco Lighting to replace light fixtures within the park to be downward shielded and on timer or motion sensors. The Bar Harbor Conservation Commission created a city-wide ordinance called "Light and Glare" to protect the dark night skies of Bar Harbor from light pollution. This requires all outdoor lighting in Bar Harbor to be "night sky friendly", meaning all lighting greater than 1800 lumens should not be visible from above. The Acadia Night Sky festival is held annually to celebrate the starlit skies of Downeast Maine.

AIR QUALITY

The National Park Service Air Resources Division participates in several national, multi-agency air quality monitoring networks to focus on ozone, visibility, particulate matter, and atmospheric deposition of nitrogen, sulfur, and mercury. Air pollution can have effects on human health, wildlife, vegetation, lakes, streams, soils, and visibility, and monitoring data assists with understanding air quality in individual parks in context with nationwide air quality conditions and trends. Bar Harbor is located downwind of a number of large urban areas from states to the south and west. The higher elevation peaks along the island trap this polluted air, resulting in the area receiving some of the highest levels of air pollution in New England.

In 2019, the most recent year with annual trend data, the overall air quality is in fair condition. More specifically, based on the 2015-2019 five year average: the visibility and haze index is in fair condition; the ground-level ozone concentrations are in fair condition for human health; the ground-level ozone concentrations are good for vegetation health; the wet nitrogen deposition levels create fair condition for ecosystem health; the wet sulfur deposition levels create poor condition for ecosystem health; and the particulate matter concentrations for human health are in good condition (3-year average). Nitrogen and sulfur compounds that are deposited from the air may acidify soils and waterbodies, leading to unsuitable living conditions for sensitive species.

THREATS TO NATURAL RESOURCES

COASTAL LANDSLIDE HAZARD

Unstable coastal bluffs due to slope, shape, soil type, vegetation, and erosion levels can be affected by coastal landslides. Landslides, or the rapid movement of earth materials downslope under the force of gravity, have historically occurred along the Maine Coast and in high coastal bluffs composed of muddy sediment. As sea levels rise, the ocean waves can erode beaches and flats at the base of coastal bluffs, steepening the face of the bluff. Without the material to support the base of the bluff, the bluff can slump via a landslide. While the majority of the coastal shoreline of Bar Harbor is composed of low coastal bluffs or non-bluff shoreline that are not at risk of failing in the form of a landslide, there are landslide risk areas along the Hadley Point shoreline in northern Bar Harbor. Along the west facing shoreline of Hadley Point, there are areas of bluff categorized as highly unstable bluffs that are near vertical or very steep with unvegetated sections and a saltmarsh or gravel beach shoreline intermixed with areas of steep to gently sloping unstable bluff with a few bare unvegetated sections. On the east facing shoreline of Hadley Point, there are bluffs categorized as unstable, but no highly unstable bluffs.

CLIMATE CHANGE AND SEA LEVEL RISE

Bar Harbor's ecosystems, people, and economy are influenced by climate and weather and as a coastal

community, Bar Harbor's fishing, tourism, and agriculture face near and long-term challenges to climate risks. Challenges include warming ocean temperatures, frequent extreme precipitation events, storm surges, drought, soil moisture deficits, growing season changes, and rising sea levels. While Bar Harbor does not face the same coastal hazards as low-lying areas of Southern Maine, it does experience strong storm surges from nor'easters and southeasters, and associated flooding.

The Town of Bar Harbor has begun to experience some of these challenges, including increasing frequency and intensity of precipitation events, increase in drought and drought intensity, and rising winter temperatures leading to decreased snowfall. As a response, the town formed the Climate Emergency Task Force, a committee consisting of ten members whose mission is to define and recommend climate goals for the town. This committee has a focus on carbon and greenhouse gas emission reductions. In 2021, the task force published a Climate Action Plan with goals and strategies for climate planning over a five-year period (2021-2026) with five climate action strategies. The initial plan was focused on climate strategies to address renewable energy, electrification, and transportation. Current updates to this Plan include strategies related to land use and climate adaptation and resilience. One such draft strategy recommends the establishment of a "Green Revolving Fund" to direct financial savings from energy shifts towards future climate and energy projects.

In 2021, the Town of Bar Harbor completed the Maine Flood Resilience Checklist, hereafter referred to as the Checklist, a non-regulatory assessment tool developed by the Maine Coastal Program to help coastal communities examine local flood risk, evaluate vulnerability to flood hazards, and identify specific actions for enhancing community-wide flood resilience – the ability to avoid or withstand harm and to recover quickly when damage does occur. The process entailed two workshops during which town officials, staff, and leaders worked through the Checklist and participated in a facilitated discussion about local flood hazards and community resilience. At these workshops, participants discussed the following flood scenario for Bar Harbor: existing regulatory floodplain, special flood hazard area (SFHA), storm surge associated with a category 2 hurricane, and sea level rise at 1.2, 1.6, 3.9, and 6.1 feet. State experts in the 2020 Maine Won't Wait Climate Action Plan suggests that the State should commit to managing for 1.5 foot of sea level rise by 2050 and 3.9 feet or sea level rise by 2100, and should consider managing for 8.8 feet by 2100.

Bar Harbor should therefore consider a range of potential sea level rise scenarios in its planning initiatives, instead of selecting one sea level value for a given year, Bar Harbor should ensure that its planning initiatives are flexible to allow for future changes with updated sea level projections. Completion of the Maine Flood Resilience Checklist highlighted a series of concerns and threats from climate change for Bar Harbor. The geography of Bar Harbor provides a certain amount of natural resilience to flooding: high relief along much of the town's coastline that protects high ground; and very dramatic tidal changes that limit the effects of storm surge at low tide. However, even this naturally resilient stretch of coastline faces significant challenges in coming decades. According to the National Oceanic and Atmospheric Agency's (NOAA) 2018 State of High Tide Flooding and 2019 Outlook, locations across the Northeast are expected to see a 140 percent increase in flooding throughout 2019 compared to what was typical in 2000. NOAA analysis of Bar Harbor's high tide reveals that in 2000 there was an average of 7 floods, and in 2017, Bar Harbor saw a record number of 30 floods. In 2018 and 2019, Bar Harbor had 12 and 6 flood days respectively. NOAA's projections indicate that in 2030 there will be between 20 and 35 flood days, and in 2050 there will be between 45 and 90 flood days. There is some vital infrastructure at risk of being directly impacted by flooding under different sea level

rise scenarios, including the bridge connecting MDI to the mainland, water infrastructure, culverts, stormwater outfalls, and septic systems and water lines near the coast. Vulnerable areas include Sand Beach, Hulls Cove, Hadley Point, the piers and shore along downtown, and the bridge to the mainland and roadways leading to the bridge (Routes 3 and 102). These roads are at risk of flooding even under moderate sea level rise scenarios, such as 1.6 and 3.9 feet.

To date, Bar Harbor has been working to address its risk to flooding from sea level rise, storm surge and extreme weather through planning and policy efforts. The recently formed Climate Emergency Task Force, which focuses on climate outreach and education and mitigating greenhouse gas emissions, could incorporate natural disaster preparation, among other climate issues into its efforts. Additionally, Bar Harbor's Land Use Ordinance states that certain areas of Bar Harbor are subject to periodic flooding, causing serious damages to properties within these areas.

The town participates in the National Flood Insurance Program and complies with the National Flood Insurance Act of 1968. Bar Harbor also states that it intends to recognize and evaluate flood hazards in all official actions relating to land use or areas having special flood hazards. Identifying flood preparedness information is currently underway as the Emergency Operations Plan (EOP) is updated and the Hancock County Hazard Mitigation plan is adapted to be specific to the Bar Harbor community. Bar Harbor is also creating an emergency communication system to use during storm events and natural disasters. Bar Harbor staff will also be using the results of the checklist process to identify areas where the town should prioritize its funds and attention in order to mitigate the threats from flooding during the Comprehensive Plan drafting process.

The Nature Conservancy developed a map of resilient lands that can be used to understand a landscape's resiliency to climate change. Climate-resilient sites are ecologically representative sites with a diversity of connected microclimates and low human modification – essentially a site's ability to maintain species diversity and ecological function as the climate changes. Climate change forces a shift in species ranges and ecosystems, and diverse climatic conditions, including unique topographies, geologies, and habitats, are needed for species and populations to thrive and withstand climate impacts. Within Bar Harbor, there are areas of the highest level of resiliency – located mainly within Acadia National Park at higher elevations, and areas of the least resilience, located mainly along the state highways and developed coastal lands. The Fresh Meadow and Northeast Creek area is identified as migration space for tidal habitat. When compared to the benchmark standard landscape of the Northern Appalachian and Acadian ecosystem, Bar Harbor has average climate resilience and average landscape diversity. The northern Appalachian and Acadian ecosystem generally includes most of midcoast and inland Maine, as well as Nova Scotia and Canada north to the St. Lawrence River. However in terms of local connectedness (the degree of fragmentation of the landscape and the strength of barriers that do not allow species to move through a landscape), Bar Harbor is slightly below average compared to this region, according to the Nature Conservancy's assessment of resiliency for terrestrial conservation."

AGRICULTURAL AND FOREST RESOURCES

AGRICULTURE IN BAR HARBOR

Agriculture has historically played a role in Bar Harbor's working lands and currently has a small but important presence in the town. The Bar Harbor Open Space Plan dated June 2014, was edited in 2020,

and accepted by the Town Council on May 3, 2022. This Plan identifies a vision for working lands in Bar Harbor that "fosters active use of working lands to the realization of numerous benefits" and notes that protecting farmland in Bar Harbor will result in "an increase in the number of small-scale local farms that can supply specialty products to local niche markets".

Historical trends in agriculture show an 83% decline in the total acreage of active farms in Bar Harbor between 1940 and 2013. In 1940, 79 farms comprised approximately 4,016 acres, which decreased to 14 active farms over 811 acres in 1990, according to a Maine Coast Heritage Trust farmland inventory. The most recently updated inventory in 2013 identified 15 active farms over 695 acres. This trend shows that there was a significant decrease in the land area used for farming between 1940 and 1990, and a more modest decrease since 1990.

Major constraints to farming within Bar Harbor are the high land value and limited land area. Given these constraints, the 2014 Bar Harbor Open Space plan identified the best opportunities for sustaining existing agricultural resources and increasing agricultural activities as small-scale local farms that can supply specialty products to local markets or "pick your own" operations for public activities.

Agricultural areas around Crooked Road and Norway Drive are important agricultural areas in Bar Harbor (and also coincide with soils classified as prime farmland and farmland of statewide important). The Stone Barn Farm, an iconic property with a productive farmland history located at the intersection of Crooked Road and Norway Drive adjacent to Northeast Creek, was acquired by the Maine Coast Heritage Trust in 2019 and is now managed as a public preserve. Additional areas in Bar Harbor that are valued by residents for their agricultural character include the Town Hill area, Gilbert Farm Road, the head of the island, Hadley Point, and Hulls Cove.

The Maine Farmland Current Use Tax Program is intended to encourage farmland owners to maintain and improve land that is used for farming, agricultural activities, or horticultural activities. There are three properties that participate in the farmland current use program, composing approximately 147 acres. Comparatively, in 1993 there were two properties in Bar Harbor in the Farmland Tax Program, and between 1999 and 2022 there were five properties, totaling 99 acres in the Farmland Tax Program. Bar Harbor's agriculture can expect to see impacts from changing climate. While much of Maine's coastal commercial agriculture includes blueberry, apple, and cranberry crops that may be notably affected, even the small-scale farming operations in Bar Harbor will be impacted. Impacts from changing climate to coastal Maine agriculture include a slightly increased growing season, warmer temperatures in August and September, changing weather, northward migration of pests, and extreme precipitation events. The growing season has increased by about two weeks compared to the 20th century, and August and September have warmed by approximately 2 to 3 degrees F, but these potential benefits may be offset by negative challenges of northward migration of pests and heavy precipitation that could damage newly planted seeds, and cause erosion and accelerated soil loss. Changes in weather patterns can also increase the likelihood of seasonal droughts or heat waves. For example, increased temperature variation has previously affected Maine apple crops where warmer temperatures in the spring caused plant development before the last freeze.

FORESTRY AND TREE GROWTH

While forest covers a large percentage of land cover in Bar Harbor, only a small percentage of forests are actively managed for timber. The Maine Tree Growth Tax Program is intended to encourage forest

landowners to retain and improve their forestlands, to promote better forest management, and to support the overall forest products industry in Maine. There are 42 distinct parcels that participate in the tree growth current use program in Bar Harbor, composing approximately 1,122 acres. These lands are restricted from development while in the program and subject to a timber management plan. The Maine Forest Service compiles data on timber harvest based on end of year landowner reports. In Bar Harbor, from 1991 – 2018, a total of 1,110 acres of timber were harvested, at an average of 62 acres per year. Seventy-three percent (73%) of the harvest was selection harvest and 27% was shelterwood harvest. Zero percent was clearcut harvest.

The Town of Bar Harbor uses statewide timber harvest standards for land use regulation. The Land Use Ordinance in Bar Harbor had previously required that a) where timber harvesting is allowed, the town requires a forest management and harvest plan prepared by a licensed forester, b) that harvesting does not create openings greater than 7,500 square feet, and c) harvesting can be no more than 40% of the volume of trees over a ten-year period. This ordinance was repealed in 2018 and replaced with forestry regulations administered by the Bureau of Forestry.

WATER RESOURCES

WATERSHEDS/DRAINAGES

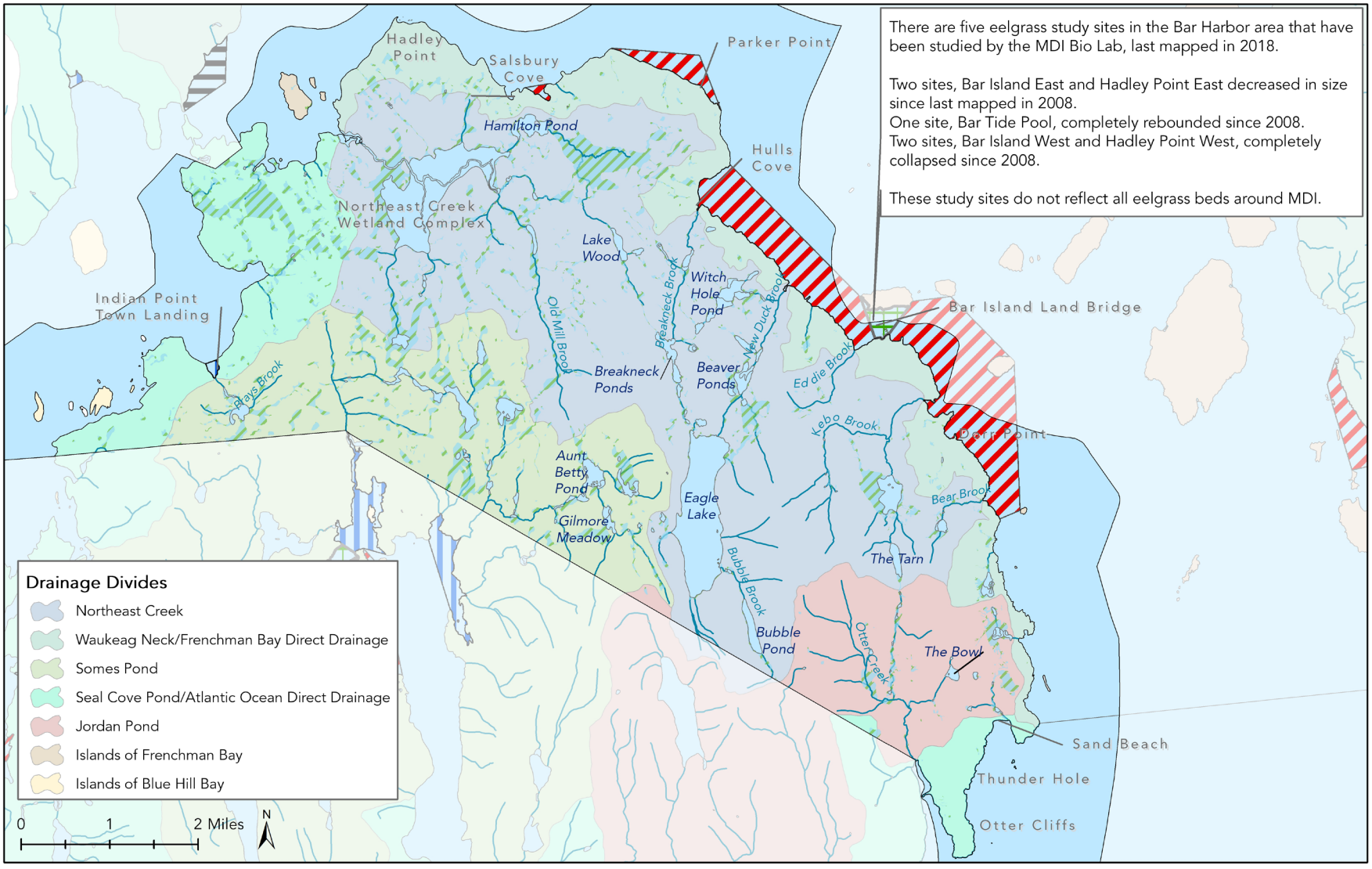
A watershed is the area of land that drains to a specified body of water (see Figure 5.1). The National Hydrography Dataset divides watersheds within the United States into progressively smaller hydrologic units, classified as hydrologic unit codes (HUC). At a watershed scale where Bar Harbor is divided into two major coastal watersheds (the HUC10 scale), the northeastern side of the town drains to Frenchman Bay and the southwestern side of the town drains Blue Hill Bay. When these watersheds are broken down into smaller increments (the HUC12 scale), the largest subwatershed is Northeast Creek which encompasses approximately 49% of the town's land area. The headwaters of Northeast Creek begin on the northern side of Cadillac Mountain and drain north encompassing numerous tributaries and waterbodies and draining into the Northeast Creek wetland complex. The wetland outlets into Frenchman Bay at the Mt Desert Narrows. Map 5.4 shows Bar Harbor's water resources.

Figure 5.1: A watershed, or drainage divide, is and area of land that channels precipitation to tributaries and eventually to an outflow point, such as the ocean.

The remaining portions of Bar Harbor compose the Somes Pond subwatershed (approximately 19%), the Waukeag Neck/Frontal Frenchman Bay subwatershed (approximately 11%), the Seal Cove/Frontal Atlantic Ocean Subwatershed (approximately 11%), the Jordan Pond watershed (approximately 9%), and the islands of Frenchman Bay and of Blue Hill Bay (less than 1%).

Impervious cover includes hard surfaces such as roads and buildings that do not allow infiltration of

Map 5.3: Water Resources in Bar Harbor



NATURAL RESOURCES
WATER RESOURCES

BAR HARBOR

Draft map created for preliminary assessment of existing conditions within Bar Harbor.

- Bar Harbor Town Boundary
- Waterbody/Coastal Waters
- Stream
- Wetland
- Eelgrass (study location)

Shellfish Bed Closures

- Prohibited
- Restricted
- Conditionally Restricted
- Conditionally Approved
- Conditionally Restricted for Relay

Data Sources: Town of Bar Harbor, Maine Geolibrary, National Hydrography Dataset
Coordinate System: NAD 1983 UTM Zone 19N
Created: FB Environmental
March 2022

FB environmental

stormwater runoff. Based on a study from the Center for Watershed Protection, when impervious cover within a watershed exceeds a threshold of 10%, the watershed cannot support a high-quality stream system. This threshold indicates the relationship between stream quality and land use and is a valuable tool in land use planning. Approximately 3% of the Northeast Creek watershed is impervious cover. The U.S. Environmental Protection Agency classifies subwatershed with less than 10% impervious cover as sensitive.

SURFACE WATERS

Bar Harbor has a total of 1,560 acres (2.4 square miles) of freshwater waterbodies, including eighteen named waterbodies (approximately 700 acres and shown in Table 5.9). Approximately 860 acres are unnamed. These waterbodies are listed in Table 5.9, with corresponding acreage with Eagle Lake as the largest at 465.9 acres. There are an additional 859.2 acres of waterbodies. Eagle Lake is listed as a threatened lake on the Maine National Park Service Priority List because it has outstanding water quality and is a public water supply. Protection of the Eagle Lake watershed is critical to the future of this municipal water supply. One lake, The Tarn, is listed as at risk of having an algal bloom by the Maine Department of Environmental Protection (DEP) but with only one bloom year on record and therefore, a low likelihood of future blooms.

Table 5.9 Named waterbodies located in Bar Harbor with acreage. Bar Harbor has an additional 860 acres of unnamed waterbodies

Waterbody Name	Acres
Eagle Lake	465.9
Hamilton Pond	40.7
Bubble Pond	33.0
Aunt Betty Pond	31.5
Breakneck Ponds	29.8
Witch Hole Pond	23.8
The Tarn	18.9
Lake Wood	16.8
The Bowl	10.4
Beaver Ponds	9.9
Beaver Dam Pond	7.5
Fawn Pond	4.1
New Mills Meadow Pond	3.2
French Hill Pond	3.0
Kief Pond	1.1
The Featherbed	0.4
Gilmore Meadow	0.3

Maine surface waters are regulated by the Maine Department of Environmental Protection (DEP) via section 305(b) of the Clean Water Act. The Clean Water Act requires states to submit an Integrated Report to the U.S. Environmental Protection Agency every even-numbered year to assess the ability of Maine's water resources to meet five identified designated uses: (1) drinking water supply after treatment, (2) aquatic life use support, (3) fishing/fish consumption, (4) recreation, and (5) navigation/ hydropower/agriculture/industrial supply. All waterbodies are then put into one of five categories in the Integrated Report with waters not meeting one or more of their designated uses are listed as impaired and requiring the development of a total maximum daily load (TMDL) report. A TMDL is a summary document that identifies the impairment and calculates the total amount of pollutants that a water body can receive to meet water quality standards.

Bar Harbor has a total of 53 miles of documented flow lines, not including flow lines within freshwater and marine waterbodies (Table 5.10). The longest named stream is Otter Creek at 2.62 miles which runs through Acadia National Park and under the bridge and causeway into Otter Cove. The majority of the streams in Acadia National Park are listed as Class AA, the highest classification that is applied

to waters with outstanding natural resources that "…should be preserved because of their ecological, social, scenic or recreational importance." The waters on the northern end of the island are primarily listed as Class B, the third highest classification that allows for some exceptions but still requires waters to meet designated uses and to protect habitat.

Table 5.10. Total flowlines in Bar Harbor, including 30.22 miles of unnamed flowlines

Flowline Name	Miles
Unnamed Flowlines	30.22
Otter Creek	2.62
Old Mill Brook	2.61
Richardson Brook	2.00
Kitteredge Brook	1.85
Cromwell Brook	1.56
Stony Brook	1.45
New Duck Brook	1.37
Breakneck Brook	1.35
Eddie Brook	1.30
Kebo Brook	1.29
Aunt Betseys Brook	1.06
Bear Brook	0.97
Prays Brook	0.77
Chasm Brook	0.76
Canon Brook	0.63
Northeast Creek	0.50
Bubble Brook	0.44
French Hill Brook	0.35
Mount Desert Narrows	0.01

NORTHEAST CREEK ESTUARY

2007 Comprehensive Plan

Policy 1A recommended in the 2007 Comprehensive Plan directed the Town to "protect the quality and manage the quantity of fresh water resources in Bar Harbor…", specifically identifying Northeast Creek (among others) as a focus resource. This Plan utilized nutrient loading data from the U.S. Geological Survey (USGS) Nutrient Load and Estuarine Response Decision Support System Model to develop recommendations for protecting waterways from excess nutrient loading. Of concern were failing or malfunctioning septic systems (i.e., private sewage disposal) that result in waste preemptively discharging from the system and entering local waterways via groundwater. At present, staff at Acadia National Park are working with USGS to identify funding to update the nitrogen loading model for Northeast Creek, which would likely have model results in 2025. The primary water quality concerns resulting from septic system malfunctions is high bacteria *(Escherichia coli)* and elevated nitrogen (in the bioavailable form of nitrate). Resulting from the recommendations in the 2007 Plan, the town adopted a general land use provision (§125-67) that specified nitrate-analysis standards in Site Plan Review. This provision requires a minimum lot size based on a specified formula that incorporates the average septic discharge rate, assumed concentration of nitrate reaching the water table, limiting concentration of nitrate in groundwater, background concentrations of nitrate, and groundwater recharge based on soil types and average annual precipitation. The intent of this provision is to protect groundwater by decreasing septic placement density and increasing dilution of septic discharge prior to entry of downstream surface waters.

Minimizing septic discharge is critical to protecting downstream resources, including Northeast Creek. However, a follow-up study to the 2000 report indicates that simulating nitrogen loads to Northeast Creek via land use change alone is an oversimplification of the variability in nitrogen export. More accurate modeling and observational field monitoring is needed to identify the contribution of additional variables to nitrogen export (e.g., transport time, daily, seasonal and year to year hydrologic conditions, and site-specific soil and geology). Requiring large minimum lot sizes to reduce pollutants from reaching

surface waters may have limited influence on overall nitrogen export and further, has unintended consequences for development potential on vacant, developable land. The town might consider redirecting their efforts to:

- Consider identifying and enforcing maintenance of existing septic systems that may be malfunctioning or failing. This could include mandatory pump-outs via a pump-out ordinance and required septic inspections and performance standards implemented during property transfer above and beyond those required by the State in the coastal zone and along lakes.
- Rather than a blanket minimum lot size requirement, consider strengthening enforcement of new septic system placement (Article V Private Sewage Disposal, §165-18: §165-21) to focus on protecting sensitive areas, as defined in the 2007 Comprehensive Plan as;
  - Areas on or near dug wells
  - Recharge zones (the upper third of a watershed)
  - Localized features like fractures that exhibit strong hydraulic connections with soil and the groundwater beneath septic systems, areas where well yield is marginal relative to bedrock fractures, soil type, groundwater recharge zones, or drought conditions
  - Areas in close proximity to older wells or deep excavations such as rock quarries
  - Areas of thin soils (less than five feet), soils with low recharge rates (5-15%), exposed bedrock, topographic heights, and coastal areas within 200 feet of the shoreline, and other areas where ground or surface water is vulnerable.
- Where possible, consider increasing connection of new development to the sewer system and consider expansion of the sewer system to accommodate targeted areas for new development growth.

By focusing efforts on sensitive areas and maintenance of existing systems, the town will have more opportunity for higher density development to accommodate the increased housing pressures in the town while focusing conservation and protection on sensitive resources. For more information on nutrient loading in Northeast Creek, please see the Appendix.

WETLANDS

Bar Harbor has a total of 4,205 acres (approximately 6.6 square miles) of wetlands across twelve wetland types (Table 5.11). The most common wetland types are an inland forested swamp or wetland (palustrine-forested) and inland shrub bog or wetland (palustrine scrub-shrub) at 1,550.6 acres and 1,447.7 acres respectively. The wetland located in the headwaters of Northeast Creek is the largest continuous wetland which is predominantly classified as a palustrine-scrub-shrub with some palustrine-forested wetland on the perimeter. There is a second significant contiguous wetland to the east of Northeast Creek that is the headwaters of Stony Brook.

Table 5.11. Wetland types, descriptions and corresponding acreage for all wetlands in Bar Harbor

Wetland Type	Wetland Type Description	Acres
PFO	Palustrine-Forested	1,550.6
PSS	Palustrine-Scrub-Shrub	1,447.7
POND	Pond	716.9
PEM	Palustrine-Emergent	243.2
STREAM	Stream	104.5

Wetland Type	Wetland Type Description	Acres
E2EM	Estuarine-Intertidal-Emergent	67.0
PUB	Palustrine-Unconsolidated Bottom	64.3
RUB	Riverine-Unconsolidated Bottom	6.0
E1UB	Estuarine-Subtidal-Unconsolidated Bottom	3.2
E2US	Estuarine-Intertidal-Unconsolidated Shore	0.6
PUS	Palustrine-Unconsolidated Shore	0.4
M2US	Marine-Intertidal-Unconsolidated-Shore	0.1
Total		**4,204.5**

MARINE RESOURCES

Situated within Frenchman Bay, the town relies on its marine resources for recreation, tourism, and commercial use. In addition to the Bar Harbor Marine Resource Committee, local partner organizations, including the Frenchman Bay Conservancy, the MDI Water Quality Coalition, Mount Desert Island Biological Lab, and the Maine Healthy Beaches Program, are critical to marine resource protection efforts in Bar Harbor.

Monitoring for fecal pollution (bacteria) occurs at the four main beaches in Bar Harbor (Hadley Point, Hulls Cove, Sand Beach, and Town Beach). Over the last decade, there have been 25 exceedances above the U.S. Environmental Protection Agency's recommended safety threshold with 10 of these 25 exceedances at the Town Beach. The town issues voluntary contamination advisories based on these data, as well as expected rainfall conditions that will cause an increase in contaminated runoff to the beaches. There have only been four contamination advisories over the last five years, with two of these at the Town Beach, one at Sand Beach, and one at Hulls Cove. In addition to water quality monitoring at the beaches, the MDI Water Quality Coalition has provided the town with seven seasons of monitoring in the bay to identify any pollution threats from cruise ships. The most significant development from this work has been improved communication between the harbormaster and ship captains when a water quality concern is identified.

Fecal contamination is also monitored by the Maine Department of Marine Resources to classify shellfish harvesting areas. Because bivalve shellfish are filter feeders, they can accumulate bacteria that is dangerous for human consumption. A significant portion of Bar Harbor's direct coastline is prohibited to harvesting of shellfish (1,967.63 acres) with one additional area that is conditionally restricted based on combined sewer overflows. Even with these restrictions, the landings data shows that softshell clam harvests have been responsible for $125,422 in total value to Bar Harbor over the last ten years. This falls behind American Lobster, valued at a total of $47,228,320; Elvers, valued at a total of $846,169; and Blue Sea Mussel at $773,216; for a total value between 2012 and 2020. Protection of water quality is critical to these species but they also rely on the protection of habitat. Eelgrass is an especially important habitat in Bar Harbor and Frenchman Bay for many fish and shellfish species. Significant eelgrass restoration efforts have occurred in these waters following a 58% decline in eelgrass populations between 1997 and 2008. Continued focus on eelgrass occurrence and restoration should be a priority for the town to support wild fish and shellfish species.

In addition to wild harvesting, there is an increasing presence and pressure from aquaculture in Bar Harbor, most notably in the Bar Harbor Narrows. With statewide growth of approximately 2% per year in the past decade and greater projections for future growth, aquaculture is poised to offer expanded marine economic growth for the town. With that growth comes an increase in pressure on the town's marine resources. Aquaculture for bivalves and plants can improve water quality due to filter feeding by these organisms, however finfish aquaculture can pose a threat to water quality due to biological waste, feeding inputs, and any chemical or hormonal inputs used to support the finfish population. An increase in aquaculture can also place competing pressures on existing native species. All types of suspended aquaculture have a visual impact to the surrounding area and increase use of working waterfront access points, such as Hadley Point. Historically, aquaculture in Bar Harbor has been limited to plants and bivalves (e.g., kelp, blue sea mussels, oysters) but the town should be prepared for an increase in pressure from additional plant and bivalve operations, as well as finfish aquaculture. A balanced approach to aquaculture expansion should protect marine resources while also supporting the establishment of sustainable local food systems, a goal of the updated Bar Harbor Climate Action Strategies (Draft April 12, 2022).

MAINE HEALTHY BEACHES

Funded by the U.S. Environmental Protection Agency (EPA), the Maine Healthy Beaches Program (MHB) was established to ensure that Maine's salt-water beaches remain safe and clean. The program brings together communities to perform standardized monitoring of beach water quality, notifying the public if health risks are detected, and educating both residents and visitors on what can be done to help keep Maine's beaches healthy. Maine's U.S. EPA-approved single sample maximum safety threshold (or Beach Action Value-BAV) is 104 Enterococci bacteria per 100 milliliters of sample water. Enterococci is a type of bacteria which indicates fecal contamination and the possible presence of disease-causing microorganisms. When Enterococci bacteria levels exceed the safety threshold, there is an increased probability of contracting illness from the water.

Bar Harbor has four beaches listed in the Maine DEP 2022 Integrated Report that are monitored by volunteers at MDI Bio Lab with the Maine Healthy Beaches Program. All beaches are monitored one time per week from Memorial Day to Labor Day. When water quality results are available, they are posted on the Maine Healthy Beaches website (www.mainehealthybeaches.org). Each year, a report is compiled and issued to the U.S. EPA detailing water quality conditions for Maine's participating beaches. The four beaches monitored in Bar Harbor include (1) Hadley Point, (2) Hulls Cove, (3) Sand Beach, and (4) Town Beach. Sand Beach is classified as "SA" and the three remaining beaches are classified as "SB". Class "SA" is the highest classification for estuarine and marine waters.

Advisories and closures are based on bacteria exceedances, as well as, other factors including environmental conditions, risk of pollution, historical water quality, and other known safety hazards (Maine Healthy Beaches Factsheet, 2021). Each participating town/park designates a Beach Manager who consults with the MHB program to make informed decisions when issuing public notifications (advisories or closures) at a beach. The decision to post notifications ultimately rests with the designated Beach Manager. Since advisories are voluntary and dependent on multiple factors, they are not an accurate measure of water quality. Contamination advisories are issued based on bacteria monitoring results and preemptive rainfall advisories are issued as a result of heavy rainfall. Between 2012 and 2021, there were 17 contamination advisories for participating Bar Harbor beaches with the greatest number of advisories occurring at the Town Beach (Table 5.12).

Table 5.12. Contamination advisories from 2012-2021 at the four beaches monitored by volunteers for the Maine Healthy Beaches Program in Bar Harbor											
EPA Beach ID	Beach Name	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
ME806573	HADLEY POINT	1	1								
ME209288	HULLS COVE	2	1	2					1		
ME313199	SAND BEACH			1							1
ME419870	TOWN BEACH	2	2	1							2
	TOTAL:	**5**	**4**	**4**	**0**	**0**	**0**	**0**	**1**	**0**	**3**

The total number of exceedances above the BAV (Beach Action Value) between 2012 and 2021 was 25, with the highest number of exceedances occurring in 2012. Overall, Town Beach had the greatest number of exceedances between 2012 and 2021 (10 total).

CRUISE SHIP WATER QUALITY MONITORING

The Town of Bar Harbor contracts with consulting scientists to conduct water quality monitoring in the bay to determine if there is any pollution from cruise ships. The State of Maine passed legislation in January of 2006 (38 M.R.S.A. 423-D, "An Act to Protect Maine's Coastal Waters") requiring large passenger vessels to obtain a general permit for discharge of gray water or a mixture of gray and black water and to adhere to discharge standards. However, the ships that visit the Town Pier in Bar Harbor are all considered small commercial passenger vessels (less than 250 passengers) and therefore are exempt from these state regulations. Bar Harbor requires all visiting ships to hold waste while in the harbor. Two Pumpout stations exist in Bar Harbor: (1) Bar Harbor Town Dock which is a pier side station located at 21 Ellis Pier and (2) Bar Harbor Whale Watcher which is a pier side station located at 1 West Street. The Bar Harbor Bay is not a designated "no discharge area" which would prohibit the discharge of both untreated and treated sewage.

Cruise ship monitoring reports are available for the following seasons: 2004, 2010, 2011, 2012, 2014, 2015, and 2018. The initial report from the 2004 season, produced by the MDI Water Quality Coalition, was drafted in response to the development of the aforementioned state legislation. It provided a larger spatial coverage of the bay, with water quality collected in the vicinity of 31 large and small passenger vessels. Monitoring typically occurs at the two offshore cruise ship anchorages (Alpha and Bravo), the Town Pier, and a control site at Bell Buoy #7. Sample parameters have included phytoplankton, dissolved oxygen, biological oxygen demand, Enterococci bacteria, chlorine, and nutrients (nitrogen, phosphorus, silica). This initial report concluded that water quality was good when ships that belong to the International Council of Cruise Lines (ICCL) were in the harbor and that some water quality issues were identified when sampling around non-member ships. Degraded water quality results prompted communication with the two non-ICCL member ships and water quality was restored following changes to discharge practices . Water quality monitoring and reporting resumed following observed discharge by a small passenger ship in 2010 and 2011 and was conducted again in 2014, 2015, and 2018. One of the main objectives of this water quality monitoring program is to improve

communication between ship captains and the harbormaster and to provide the harbormaster with data on water quality concerns (e.g., elevated bacteria) that coincide with ship visits to the bay. When instances of water quality exceedances are identified, the harbormaster can act swiftly in communicating with the ship captains to make change. Water quality monitoring are complicated by additional variables affecting water quality (e.g., rainfall, recreational boating, wildlife).

LANDINGS DATA

The Maine Department of Marine Resources (Maine DMR) has landings data for eight species for the Bar Harbor port between 2012 and 2020 (2021 data was not available at the time of this writing). The total value across these eight species for the identified eight-year period is $49,035,621 with American Lobster listed as the highest value ($47,228,320; Table 5.13).

Table 5.13. Landings data from 2012 through 2020 for eight species at the Bar Harbor Port. 2021 Data was not available at the time of this writing

Species	Total Value ($)	Total Weight (lbs.)	Total Trips	Total Harvesters
Lobster American	$ 47,228,320	1,1765,500	16279	461
Elver	$ 846,169	477	791	171
Mussel Blue Sea	$ 773,216	911,496	163	4
Clam Soft	$ 125,422	45,737	728	44
Scallop Sea	**$ 31,955**	**2,785**	**31**	**6**
Bloodworms	$ 24,223	2,026	124	25
Sandworms	$ 3,319	632	16	8
Crab Atlantic Rock	$ 2,998	4,646	52	7

NATIONAL SHELLFISH SANITATION PROGRAM

Maine DMR is responsible for conducting routine sampling in coastal waters in accordance with regulations required by the National Shellfish Sanitation Program (NSSP). This is a cooperative program between the federal government and individual states, as well as the Food and Drug Administration and the Interstate Shellfish Sanitation Conference. The goal of this program is to ensure that harvested molluscan shellfish , which feed through filter feeding, are safe for human consumption. To comply with this program, Maine DMR samples in estuaries with shellfish beds on a routine and rain event basis. Each year the Maine DMR conducts routine random sampling for fecal coliform. Through a random generator, sample sites and dates are selected throughout the year in each estuary with a minimum of six random sampling events each year. Using the fecal coliform data collected from each site, the Maine DMR calculates a geometric mean and a P90 score; calculation of the 90th percentile from the previous 30 fecal coliform scores. This statistical calculation is run for each site and takes into account the previous 30 fecal coliform values. Given this, P90 scores are dynamic, and change each year with additional data collected at each site. Sections of the river and associated shellfish beds are classified based on the P90 scores at sites in that area along with the geometric mean and shoreline surveys. These classifications are revisited annually be the Maine DMR (Table 5.14).

The following data is accurate through May 27, 2021 (Table 5.15). Frenchman Bay is located in shellfish growing area "EI" which extends from Great Head in Bar Harbor to Schoodic Point in Winter Harbor. The majority of Frenchman Bay is approved for harvesting (66,023.92 acres). However, the direct

Table 5.14. Classification types and associated allowable shellfish harvesting activity through the Maine DMR		
Classification	**Status**	**Shellfish Harvesting Activity**
Approved	Open	Harvesting allowed
Conditionally Approved	Open	Harvesting allowed except during specified conditions (rainfall, STP bypass or seasonal) (Note: STP = Standard Temperature and Pressure, 32°F and 1 atmosphere)
	Closed	Harvesting NOT allowed
Restricted	Open	Depuration and/or Relay harvesting only
Conditionally Restricted	Open	Depuration and/or Relay harvesting allowed except during specified conditions (rainfall, Standard Temperature and Pressure (STP) bypass or seasonal)
	Closed	Harvesting not allowed

Table 5.15. Growing area sections in Bar Harbor with listed restrictions to shellfish harvest classifications			
Growing Area Section	**Location Description**	**Classification**	**Area (acres)**
P6	Sand Point to Levi Point	Prohibited	134.51
P7	Salisbury Cove	Prohibited	13.97
P8	West of Lookout Point to Hulls Cove	Prohibited	719.37
P9	Northeast of The Harborside Hotel and Marina to Bar Island and East to Sheep and Porcupine Island	Prohibited	1,099.78
CR1	Bar Island Bar: Bridge Street to Bar Island	Conditionally Restricted (Closed 6/1-6/28 and Combined Sewer Overflows)	70.87

shoreline around Bar Harbor has four prohibited areas: (P6 from Sand Point to Levi Point, P7 Salisbury Cove, P8 Bar Harbor to Hulls Cove (west of Lookout Point to Bridge Street), and P9 Bar Harbor to the Thrumcap (approximately from the Harborside Hotel and Marine property to the eastern tip of Bar Island). There is one additional conditionally restricted area in proximity to the wastewater treatment plant in Bar Harbor, CR1 Bar Island Bar.

AQUACULTURE

Marine aquaculture, the farming of aquatic organisms such as fish, shellfish, and plants in coastal waters, is regulated by the Maine Department of Marine Resources (Maine DMR). Maine DMR offers three different aquaculture lease types: (1) Limited-Purpose Aquaculture licenses, (2) Experimental Leases, and (3) Standard Leases. Limited-Purpose licenses are limited to specific gear, no more than 400 square feet, and one calendar year, and are intended to allow growers to "try out" various locations before applying for a lease. Growers can then either apply for experimental leases – less than 4 acres in size and up to 3 years in length – or standard leases – up to 100 acres in size and 20 years duration. Standard lease aquaculture sites around Bar Harbor are concentrated in the Mount Desert Narrows, with the largest site just outside the Town jurisdiction in Lamoine held by Moosabec Mussels, Inc.. (89.7 ac) for blue sea mussels (Mytilus edulis). A 40.36 ac site for blue sea mussels and Kelp Sugar is located at Hadley Point and leased to Acadia Aqua Farms, LLC. A 22.04-acre site in Thomas Bay is held by the Bar Harbor Oyster Company LLC. A few additional large sites are under review in Frenchman Bay and a handful of Limited-Purpose licenses dot the Mount Desert Narrows landscape.

With aquaculture growing at approximately 2% per year in the past decade and even greater projections for future growth, Bar Harbor should expect to see an increase in aquaculture applications and farms in Frenchman Bay and the Mount Desert Narrows. The increase in farms is a direct result of increasing demand, specifically for oysters, mussels, and salmon, within and outside the town boundary. Bivalves, such as oysters and mussels, are filter feeders and generally pose a lower water quality pollution risk to surrounding waters than fin-fish aquaculture, such as salmon. However, expanding aquaculture sites have caused additional concern for both the visual impact and a loss of fishing ground for competing uses (e.g., lobster). At the time of this writing, two 60-acre salmon aquaculture sites are under review in Frenchmen Bay in the jurisdiction of the Town of Gouldsboro proposed by American Aquafarms. A collaboration of sixteen organizations, led by the Frenchman Bay Conservancy, has requested an Environmental Impact Statement from the U.S. Army Corps of Engineers.

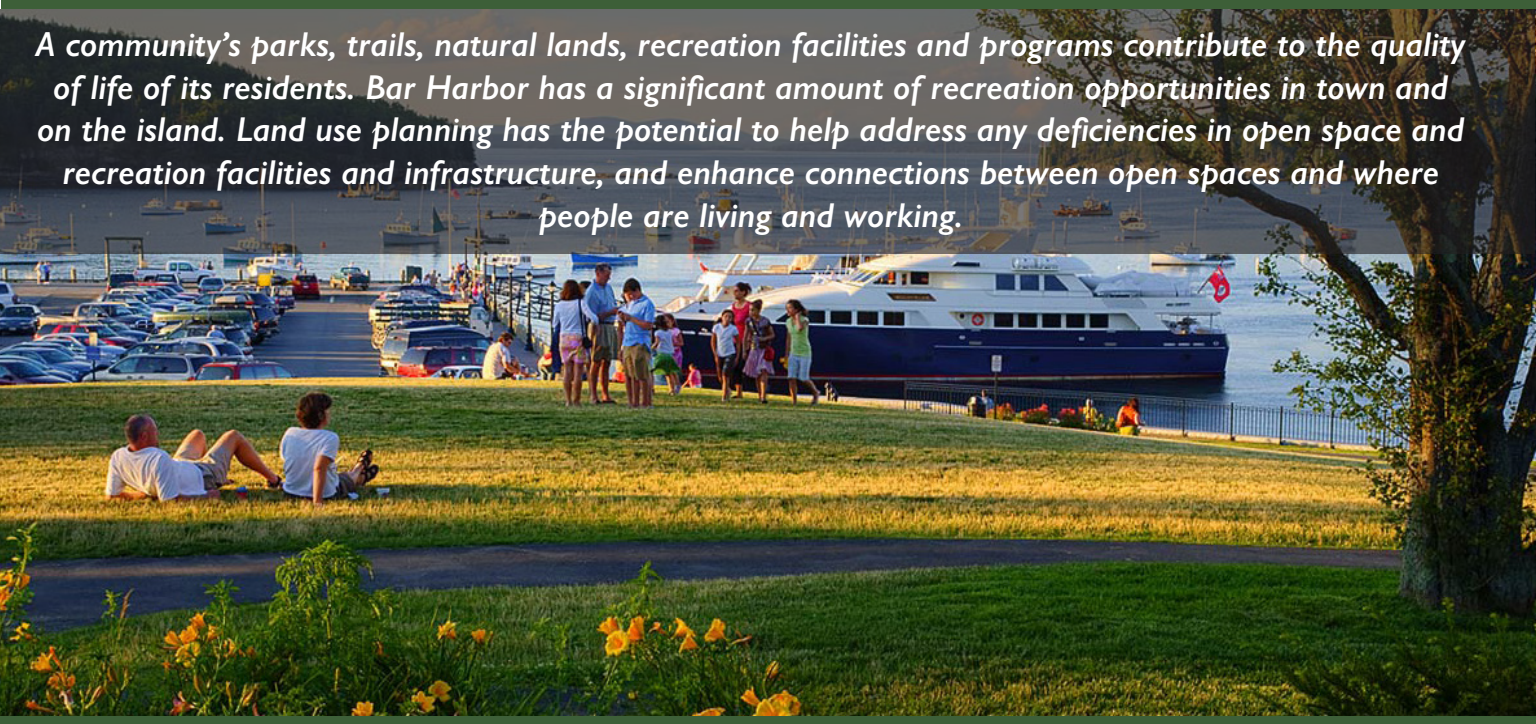
RESOURCES

- Bar Harbor Climate Action Plan, Goals and Strategies 2021-2026. Town of Bar Harbor Climate Emergency Task Force (and 2022 draft update document)
- Comprehensive Plan Update, Bar Harbor, Maine. June 2007.
- Bar Harbor Cruise Ship Monitoring Report, 2018, Community Laboratory at MDI Bio Lab
- Bar Harbor Land Use Code
- Bar Harbor Open Space Plan, 2014-2020 (not adopted), Town of Bar Harbor and FB Environmental
- Changes in Nitrogen Loading to the Northeast Creek Estuary, Bar Harbor, Maine, 2000 to 2010, 2013, Martha G. Nielsen (USGS)
- Coastal Maine Climate Futures, 2018, University of Maine
- Cruise Ship Water Quality Report, 2004, The MDI Water Quality Coalition
- Maine Beginning with Habitat Dataset, Maine Department of Inland Fisheries and Wildlife
- Maine Wildlife Action Plan, Maine Department of Inland Fisheries and Wildlife
- Maine Won't Wait: A Four-Year Plan for Climate Action, 2020, Maine Climate Council
- Results of the Maine Flood Resilience Checklist (Bar Harbor), 2021, FB Environmental
- The Nature Conservancy Resilient Land Mapping Tool, The Nature Conservancy
- Town of Bar Harbor Climate Action Plan, 2021-2026 (not adopted), Town of Bar Harbor Climate Emergency Task Force

PARKS, OPEN SPACE, AND RECREATION

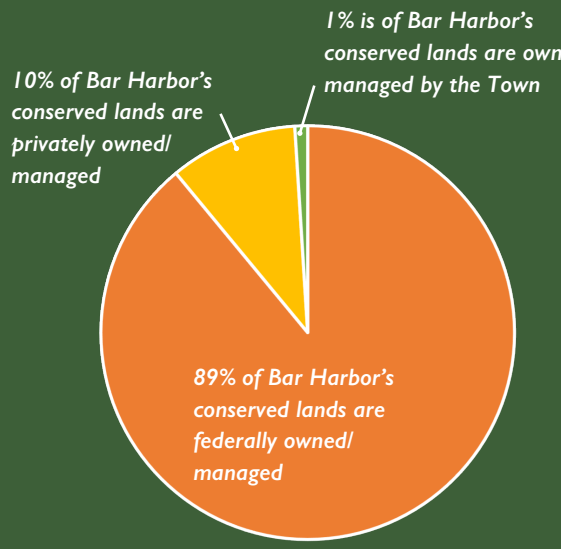
BAR HARBOR 2022 EXISTING CONDITIONS SUMMARY

A community's parks, trails, natural lands, recreation facilities and programs contribute to the quality of life of its residents. Bar Harbor has a significant amount of recreation opportunities in town and on the island. Land use planning has the potential to help address any deficiencies in open space and recreation facilities and infrastructure, and enhance connections between open spaces and where people are living and working.



More than 50% of Bar Harbor 's land area is conserved. The total acreage of conserved lands in town is 15,005 acres. Bar Harbor has a high degree of conservation partners across scales and jurisdictions. While it poses challenges, this should be viewed as a victory.

The multi-jurisdictional nature and physical landscape of open spaces in Bar Harbor provides a tremendous array of recreational opportunities including forested walks/hikes, fresh and saltwater boating, passive playgrounds and picnic areas, cross-country skiing, intertidal shellfish harvesting. While there are biking opportunities, they are not as easily or safely available given the narrow road network and limited bike paths outside of the park.



The downtown municipal parks and open spaces receive a high degree of use from residents and visitors. While these assets are serving a high demand, this puts pressure on limited resources in Bar Harbor – space and municipal staff capacity.

Bar Harbor has many public water access points and offers an array of recreational opportunities. Through a series of management agreements, knowledge of these areas ranges from widely known to rarely used.

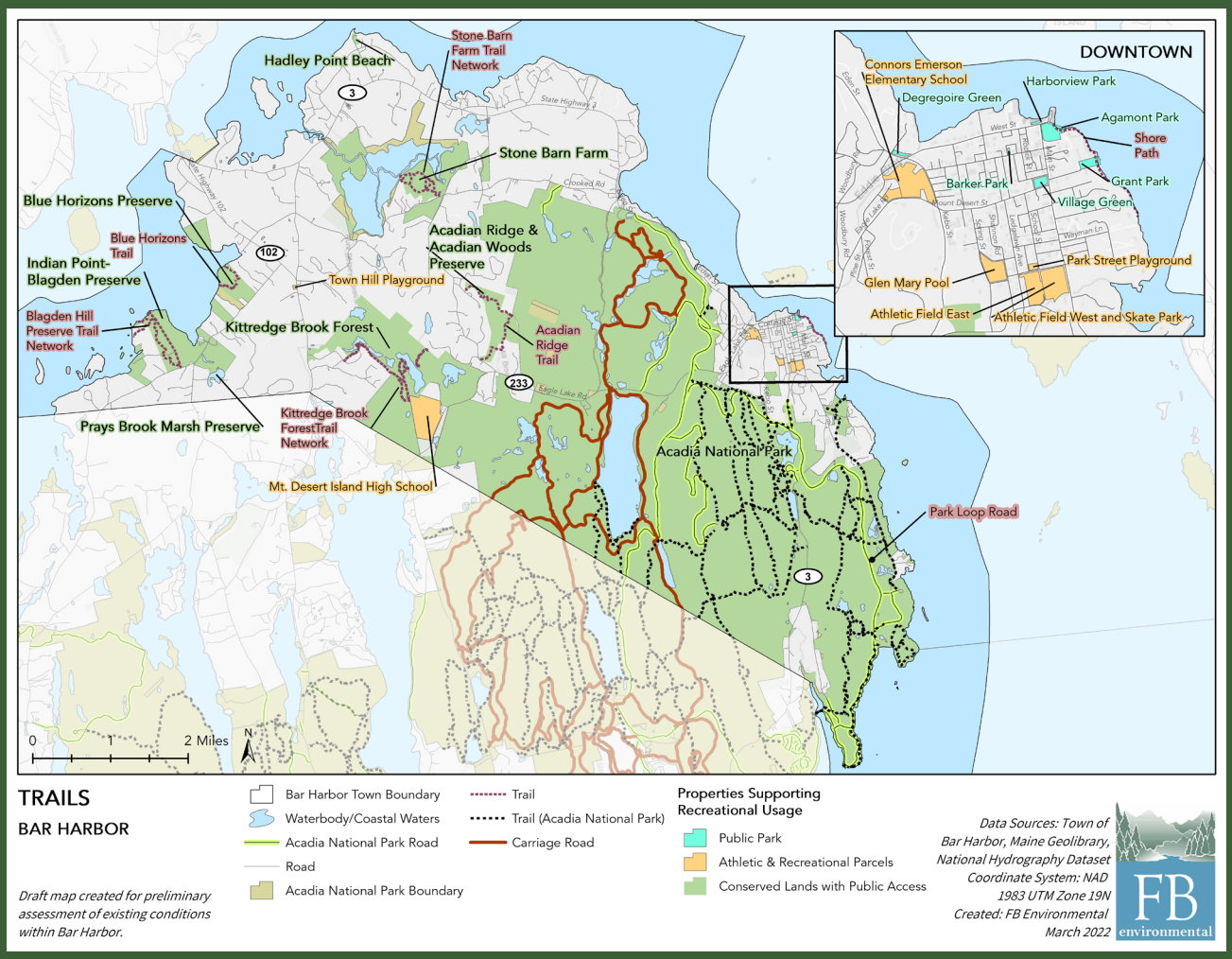
There is a heavy reliance on nonprofits for recreational programs in Bar Harbor considering there is no municipal department providing this type of programming. With that said, the programs offered by these private, nonprofits appear to serve the needs across age groups.

There are many recreational opportunities available for seniors. However, one area of improvement related to senior recreation is the need for improved communication outlets.

The dense downtown of Bar Harbor is frequently used for walking/running and bicycling, although safer alternatives may be available to better integrate these modes of recreation into the streetscape.

Many of the open spaces in areas beyond the downtown offer recreational opportunities for locals that are less frequented by visitors. However, the overall usage of these areas is increasing.

There are limited recreational connections between neighborhoods and open spaces throughout Bar Harbor. Currently, these are viewed as independent areas instead of a cohesive recreational network.



6. Parks, Open Space, and Recreation

INTRODUCTION

Bar Harbor's parks, open space and recreational assets play a vital role in the lives of residents. The diverse landscape of mountains, forests, intertidal coastline, and open ocean, paired with a dense and vibrant downtown offer an array of open space and recreation opportunities for locals and visitors. These aligning factors provide a tremendous suite of offerings ranging from star gazing, picnicking, and playgrounds to rock climbing, hiking, and biking. Along the coast, opportunities range from swimming and tidepooling to shellfish harvesting; and there are access points for sea kayaking, boating, and sailing to explore more of the open ocean. While these recreational and open space resources are great for residents and visitors, the diversity also brings challenges requiring creativity and collaboration across jurisdictions.

PRELIMINARY ISSUES, CHALLENGES, AND OPPORTUNITIES

Limited space, heavy influx of visitor usage especially during summer months, multi-jurisdictional land and methods of recreation managements are substantial challenges facing Bar Harbor. These are compounded by the lack of a formal municipal parks and recreation department. While the town has managed to provide open space and recreational opportunities in many forms from infrastructure to programming, the lack of a formal department, dedicated to serving these needs, will increasingly stress both the carrying capacity of existing assets while taxing other sectors currently charged with maintenance and management of these resources. One manifestation of this can be seen in the lack of a safe and cohesive network connecting parks, open spaces, and recreational areas in Bar Harbor. Many year-round residents, most of which live in neighborhoods outside the dense downtown, mention the need for connections between both neighborhoods and the recreational offerings in those areas. Similar sentiments have been captured in many documents over the years referring to the need for safe, multi-modal connections to downtown.

While the town has done a good job providing open space and recreational offerings to residents and visitors with a volunteer Parks and Recreation Committee and overstretched Public Works Department, many of the complexities unique to Bar Harbor could overwhelm the existing system. However, with challenges come opportunities. Bar Harbor is at a turning point – maintain the current system or, over time, invest in formalizing and strengthening the municipal parks, open spaces, and recreational offerings. There are tremendous resources in Bar Harbor and across Mount Desert Island that, if harnessed effectively, could make dramatic improvements for visitors and year-round residents.

Additionally, Bar Harbor is the gateway to Acadia National Park, one of the nations most visited national parks, which saw over 4 million recreation visits in 2021, nearly doubling the number from 2008. Bar Harbor is visited by people from around the world that come to experience and recreate in the landscape. "A five-hour drive from Boston and 50 miles from Bangor International Airport, Bar Harbor is the heart of island activity…[and] with a thriving year-round population, it also serves as the Downeast region's center of economic activity, supporting a wide range of industries ranging from lobstering and boat building to banking and biomedical research" and countless outdoor recreation businesses. The economic impact of open space and recreation in Bar Harbor cannot be overstated and is covered in the Economic Development section of this document. The

2035 Comprehensive Plan should help Town Council and the Planning Board integrate the work of Bar Harbor's Open Space Plan and the Climate Change Adaptation Plan into decision making and prioritizing.

MUNICIPAL PARKS AND OPEN SPACE

Bar Harbor is known for being the home of Acadia National Park. Acadia National Park accounts for 48% of Bar Harbor (excluding marine waters). Of the 15,005 acres of conserved open space in Bar Harbor, 89% is federally owned and managed by the National Park Service. However, Table 6.1 shows there are other municipal, state, and private open space lands.

Table 6.1: Open Space Lands

Hold Type	Acres	Percent of Open Space Lands in Bar Harbor
Federal	13,397	89%
Private	1,499	10%
Municipal	92	1%
State	17	0.1%
Total	**15,005**	**100%**

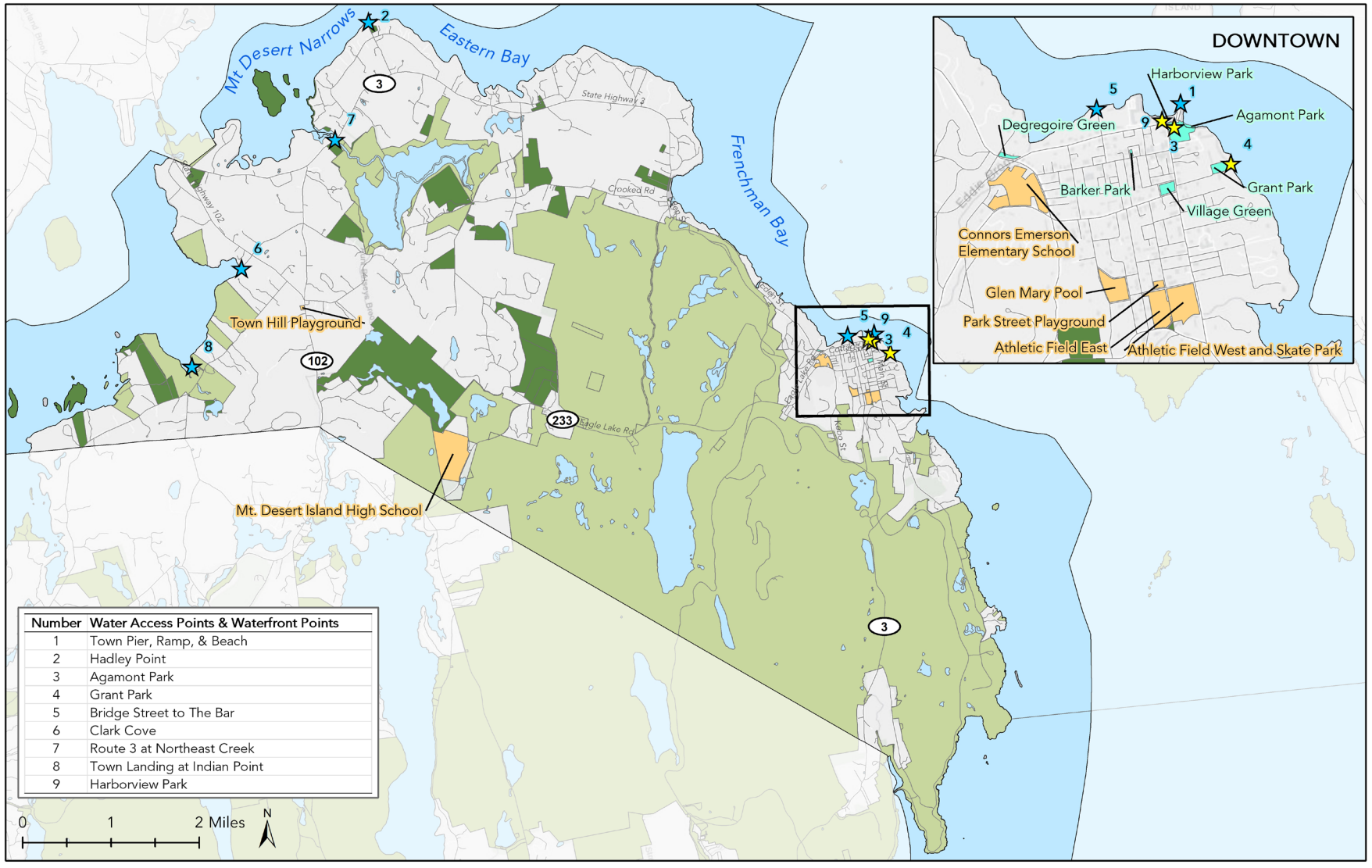
Bar Harbor has an active Parks and Recreation Committee that acts "in an advisory capacity to the Town Council and Town Manager in all matters relating to the development and management of the town's parks and recreation facilities." The Town of Bar Harbor owns and maintains many parks and open spaces totaling approximately 92 acres, which are listed in Table 6.2 and shown in Map 6.1. These areas are located relatively close to the center of town and provide opportunities for residents and visitors. It is worth noting that all municipal parks and open spaces are managed and maintained by the Bar Harbor Public Works Department.

Table 6.2: List of Parks and Open Spaces

Site Name	Description	Address
Agamont Park	This Park includes a partially shrub and tree shaded lawn overlooking the waterfront, harbor, and Porcupine islands. It is located in town and used for events like open-air art shows. The Park adjoins the grounds of the Bar Harbor Inn on the east side. Agamont Park received extensive renovations in 2005.	Main and West St
Athletic Fields	Facilities include: two Little League fields, three soft ball fields, two tennis courts, one basketball court, one skateboard ramp, and two large green areas. A year-round skate park is located at the Athletic Field for skate boarding. One of the town's most popular recreational areas, the ball field is used constantly for games, events, and private pursuits. The Athletic Fields' deed restricts use to recreational pursuits only. Three lots, with about 40 spaces, provide parking for the Ball Field. Parking is also available on nearby streets.	Main and Park St (about three-quarters of a mile from the center of town)
Barker Park	Barker Park is a small in-town park next to the post office. The Park was purchased by the town in 1998. The Park provides bench seating and a granite sculpture.	53 Cottage St

Glen Mary Park	This Park has a wading pool and changing rooms. The pool is open for swimming in the summer and serves as a skating surface in the winter. There is parking for some cars in a lot at the park. Glen Mary Park was conveyed to the Bar Harbor Village Improvement Association in 1894. There are two parking spaces for cars.	Glen Mary and Waldron Rd
Grant Park	This Park is used regularly but not as heavily as Agamont Park and the Village Green. It attracts residents and visitors, has parking for about 45 vehicles, and provides access to the privately owned Shore Path.	On the shore off Albert Meadow
Hadley Point	Hadley Point offers access to the shore for boaters, clammers, picnickers and walkers on Hadley Point Road. It is the most easily accessible spot for recreational clammers. There is also a boat launch. The Park has a small lot for cars.	Hadley Point Rd
Harborview Park	This waterfront park, built in 1989, is a deck between the two largest private wharves along West Street. It is an ideal location to watch harbor and street activities, as well as being a good rendezvous site. Furnishings include benches and a couple of planters. Parking is available in front of the park, along West Street.	West St
Millbrook Preserve	This property surrounds two waterfalls on Old Mill Brook. It was created to provide opportunities for daytime, low-impact outdoor recreation, natural observation, and study by the public. The land was granted to the town in 1995 with protective conservation easements held by the Coastal Resource Center.	N/A
Park Street Playground	The playground is within easy walking distance of several of the town's largest neighborhoods. It was restored through community efforts in recent years.	On Park St across from the Athletic Fields
Town Hill Playground	This is a community-built playground with a woodchip base. While much of the property is owned by the West Eden (Town Hill) Village Improvement Society, a portion is leased from Blackstone Properties LLC.	On Main St across from Bethany Ln
The Village Green	The Park sees a great deal of use both during the day and at night. Parking for the Green exists along the streets and in the nearby municipal lot, which holds about 110 cars. The Village Green was renovated in 2001.	In the heart of downtown on Main and Mount Desert St

Map 6.1: Parks and Recreation Resources in Bar Harbor



Number	Water Access Points & Waterfront Points
1	Town Pier, Ramp, & Beach
2	Hadley Point
3	Agamont Park
4	Grant Park
5	Bridge Street to The Bar
6	Clark Cove
7	Route 3 at Northeast Creek
8	Town Landing at Indian Point
9	Harborview Park

Parks & Open Space

BAR HARBOR

- Bar Harbor Town Boundary
- Road
- Waterbody/Coastal Waters
- Water Access
- Waterfront but no water access
- Public Park
- Athletic & Recreational Facility
- Conserved Land
- Acadia National Park

Draft map created for preliminary assessment of existing conditions within Bar Harbor.

Data Sources: Town of Bar Harbor, Maine Geolibrary, National Hydrography Dataset
Coordinate System: NAD 1983 UTM Zone 19N
Created: FB Environmental
April 2022

FB environmental

There are several municipal water access points in town that each have particular ownership, management, and access agreements. Additionally, there are three municipal waterfront parks that, while they do not allow direct water access through a boat launch and/or swimming, they do provide public gathering spaces along the waterfront. These water access points and waterfront parks are in Table 6.3. Despite the number of water access points in Bar Harbor, many of the public options are limited in many respects. The Town Pier is not fitting the need for boat access and there are limited mooring opportunities elsewhere. Hadley Point is not suitable for all boat types. Other access points have limited parking and/or are rugged and not maintained for traditional boating and sailing.

Table 6.3: List of Water Access Points & Waterfront Parks

Site Name	Type	Notes
Town Pier Ramp & Beach	Water access point	Owned and managed by the Town for public use.
Hadley Point	Water access point	Owned and managed by the Town for public use.
Town Landing Road at Indian Point	Water access point	Public road maintained by the Town. Completely undeveloped and rugged water access point.
Clark Cove	Water access point	Town has a right-of-way (ROW) to beach but no parking. There is no formal boat launch.
Bridge Street to The Bar	Water access point	Bridge Street is a ROW to The Bar. Halfway out to The Bar is the town boundary with Gouldsboro that coincides with Acadia National Park.
Route 3 at Northeast Creek	Water access point	There is a small pull-off for parking just east of the bridge with access to Northeast Creek and other areas further inland.
1 West Street at Harborside Hotel	Water access point	Town has a ROW to beach but no parking. This access is unsigned, and the gate remains unlocked for public use. There is no formal boat launch.
Agamont Park	Waterfront but no water access	Owned and managed by the Town for public use but does not have water access.
Grant Park	Waterfront but no water access	Owned and managed by the Town for public use but does not have water access.
Harborview Park	Waterfront but no water access	Owned and managed by the Town for public use but does not have water access.

MUNICIPAL OPEN SPACE & RECREATION FACILITIES

Beyond the municipal parks mentioned above, the Town of Bar Harbor owns and manages several other open space and recreational facilities as part of the school system. At Mount Desert Island High School, located at 1081 Eagle Lake Road, there is a running track, four tennis courts, and several athletic practice fields. Connors Emerson Elementary School on Eden Street there is a public playground.

OTHER OPEN SPACE PROPERTIES

In addition to the available municipal parks and open spaces, Bar Harbor benefits from many other public open spaces from an array of ownership types including the federal government, the State of Maine, and various other private organizations. These properties are found in Table 6.4.

Table 6.4: Other Open Space Properties in Bar Harbor			
Site Name	Ownership	Acres (in Bar Harbor)	Notes
Acadia National Park	National Park Service	14,091	Land owned or managed by the National Park Service.
The Ledge	Maine Bureau of Parks and Lands	0.3	The Ledge is a small island off the west coast of Bar Harbor.
Eden	Maine Bureau of Parks and Lands	11	This is a conservation easement along the northwest coast of Bar Harbor overlooking Thomas Island and the Twinnies.
Indian Point Ledge	Maine Department of Inland Fisheries and Wildlife	0.4	A small island off the west coast of Bar Harbor adjacent to Green Island.
The Thrumcap	Maine Department of Inland Fisheries and Wildlife	3	A small island about 1/2-mile off the east coast of Bar Harbor.
Green Island Ledge	Maine Department of Inland Fisheries and Wildlife	3	A small island off the west coast of Bar Harbor adjacent to Green Island.
Northeast Creek	Downeast Audubon Chapter	85	Large wetland complex consisting of peatland, bog, marsh and brackish waters. This property has an easement held by Acadia National Park.
Blue Horizons Preserve	Maine Coast Heritage Trust	84	An ideal spot for people seeking a peaceful walk in the woods to a picturesque shoreline.
Kittredge Brook Forest Preserve	Maine Coast Heritage Trust	516	This expansive preserve is within a 2,000-acre block of protected land teeming with wildlife.
Thomas Island and The Twinnies	Maine Coast Heritage Trust	*73	A three-island archipelago in Mount Desert Narrows, these islands offer an off-the-beaten path experience.
Pray's Brook Marsh Preserve	Maine Coast Heritage Trust	17	Bordering Pray's Brook, this is a great location for watching wildlife.
Stone Barn Farm Preserve	Maine Coast Heritage Trust	128	Including an iconic stone barn, the property was recently acquired (2019) with plans for increasing public access.
Indian Point Blagden Preserve	The Nature Conservancy	111	While the property was heavily logged in the past, the forests today are generally mature.
How Memorial	Bar Harbor Village Improvement Association	0.2	There is a stone and bronze sculpture on what is known as Woodbury Park.
Town Clock	Bar Harbor Village Improvement Association	0	The clock is owned by the BHVIA, while the property the clock sits on is owned by the Town of Bar Harbor.

Site Name	Ownership	Acres (in Bar Harbor)	Notes
Glen Mary Park	Bar Harbor Village Improvement Association	7.5	Initially conveyed to the BHVIA in 1894, Glen Mary Park is one of Bar Harbor's most visited public parks.
Schooner Head Path	Jackson Laboratory	Trail connector	Property is owned by Jackson Laboratory with a trail agreement with Friends of Acadia.
Thomas Island 66.1 acres; North Twinnie 3.6 acres; South Twinnie, referred to as Maine Coastal Islands NWR in the GIS data, 3.3 acres			

ACADIA NATIONAL PARK

Acadia National Park (ANP) consists of 47,748 total acres. 35,332 acres are owned by the National Park Service and 12,416 acres that are privately owned and under conservation easements managed by the National Park Service (The Park has an additional 774 acres listed as "Future Fee Acquisition" as of March 2022.). The role the National Park plays in Bar Harbor's open space and recreation network for residents and visitors cannot be overstated – it is a tremendous asset that influences nearly every aspect of the town.

ANP maintains a vast network of trails and carriage roads for walking hiking, and biking; campsites that include picnic areas; locations for rock climbing like the Precipice, Otter Cliff and Great Head; horseback riding; water access for swimming and boating including sea kayaking and sailing; and more passive recreation like bird watching and star gazing. However, because the park is federally owned and managed, it falls outside of the jurisdictional responsibilities of the Town of Bar Harbor; thus, the rest of the Parks, Open Space, and Recreation section will focus on open spaces not owned/managed by the park.. With that said, there are benefits, issues, and opportunities the town needs to understand and address relative to ANP that are discussed in further places of this Parks, Open Space & Recreation section, as well as other Existing Conditions chapters including, but not limited to transportation, public facilities and services, and economic development.

MAINE COAST HERITAGE TRUST

The Maine Coast Heritage Trust (MCHT) is a nonprofit land conservation organization that conserves and stewards Maine's coastal lands and islands for their scenic beauty, ecological value, outdoor recreational opportunities, and contribution to community well-being. MCHT owns and manages five properties in Bar Harbor. While ANP is the primary attraction for visitors to Bar Harbor, the role these MCHT properties play for residents is significant as they are extremely important. While there are no visitation records for these properties, anecdotally there has been a noticeable uptick in usage at these properties since the Covid-19 pandemic began in March 2019.

STATE AGENCIES

Several state agencies own land in Bar Harbor including the Maine Bureau of Parks and Lands. In addition to owning a small island off the west coast of town known as the ledge, the Bureau of Parks and Lands holds an easement across multiple properties overlooking Thomas Island and the Twinnies called Eden. The Maine Department of Inland Fisheries and Wildlife, through management transfer agreements, on three islands – two on the west coast adjacent to Green Island known as Indian Point Ledge and Green Island Ledge, and a third off the east coast called the Thrumcap, which is owned by Acadia National Park.

OTHER PRIVATE LANDOWNERS

Downeast Audubon Chapter owns several large parcels along Route 3 that serve a critical ecological need by both protecting part of the Northeast Creek estuarine wetland complex and connecting these habitats to Acadia National Park.

There are several nonprofit landowners in town that provide public access including The Nature Conservancy (TNC), which owns and manages Indian Point Blagden Preserve. Most of the property was donated to TNC in 1968 and has been adding ecological and recreational value that includes mature forests, over 1,000 feet of ocean frontage on Western Bay, abundant habitat for wildlife, and nearly 4 miles of recreational trails.

The Bar Harbor Village Improvement Association (BHVIA) owns several properties in Bar Harbor including the Glen Mary Park that is listed in Table 6.4. Additionally, BHVIA owns what they refer to as Woodbury Park located at the triangle of Howe Park Rd where a stone and bronze sculpture exists. The BHVIA also owns the historic Town Clock that is located on the Village Green owned by the Town of Bar Harbor. The Town Clock has a long and storied past and adds to the unique character of Bar Harbor and the Village Green.

The Jackson Laboratory (JAX) is an "independent, nonprofit biomedical mammalian research institute and National Cancer Institute-designated Cancer Center…[whose] mission is to discover precise genomic solutions for disease…". JAX owns several large, undeveloped land holdings in Bar Harbor, one of which is open to the public through the Schooner Head Path connecting the downtown area to Acadia National Park. This formalized trail agreement with the Friends of Acadia is discussed further in this chapter. These lands also act as a crucial link between disconnected National Park lands.

MUNICIPAL OPEN SPACE & RECREATION FACILITIES

Beyond the municipal parks, the Town of Bar Harbor owns and manages other open space and recreational facilities as part of the school system. At Mount Desert Island High School, located at 1081 Eagle Lake Road, there is a running track, four tennis courts, and several athletic practice fields; and there is a public playground at Connors Emerson Elementary School, on Eden Street.

RECREATIONAL PROGRAMS IN BAR HARBOR

Bar Harbor does not have a Parks and Recreation Department. Instead, it relies on a volunteer Parks and Recreation Committee. Because of this, there are no official recreational programs offered by the municipality. However, several key public-private relationships have developed that serve as de facto municipal offerings.

The Mount Desert Island YMCA is a membership based nonprofit organization located on Park Street. The YMCA offers recreational programs for all ages from youth and after school programs to strength and balance classes for seniors. These programs are open to the public and, for all intents and purposes, act as an extension of the Parks and Recreation Committee on behalf of the Town of Bar Harbor. For an up-to-date list of all programs available, visit the Mount Desert YMCA website.

Acadian Youth Sports (AYS) is a local nonprofit providing opportunities for the youth of Mount Desert Island to explore athletic interests in cheerleading, baseball, softball, basketball, football, and golf. These individual pursuits are categorized as follows:

- Cheerleading
- Acadian Little League
- Acadian Basketball Association
- Acadian Football League
- Acadian Golf Association

These athletic programs are overseen by a board of 10 (as of April 2022) with representatives from the various communities on Mount Desert Island including a delegate from the MDI High School. These programs are open to the public and, for all intents and purposes, act as an extension of the Parks and Recreation Committee on behalf of the Town of Bar Harbor. For an up-to-date list of all offerings available, visit the Acadian Youth Sports website.

RECREATIONAL OFFERINGS FOR SENIORS

Recreational offerings for seniors are often overlooked in many communities. However, Bar Harbor seems to be doing a good job providing programming to this population. Beyond the YMCA programs for senior, there is another grassroots effort created by and for an older population. The group Footloose Friends is a hiking club primarily for retired adults meeting every Tuesday morning at a central location on Mount Desert Island offering both strenuous and beginner hiking opportunities. Additionally, 94% of respondents of the Age-Friendly Community Survey mentioned they use Acadia National Park for social and recreational engagement.

According to the 2018 Bar Harbor Age-Friendly Community Survey Results, nearly 85% of respondents mentioned that formal recreational opportunities are available. Similarly, only 16% of respondents replied that recreation needs the most work to make Bar Harbor a place where they can remain as they age (there were several more pressing concerns for an aging population including housing, transportation, health services, and communication). When asked to rate their satisfaction with Bar Harbor's outdoor spaces, enough benches in public parks were one of the highest rated with nearly 60% of respondents in agreement.

While there are more pressing concerns for seniors in Bar Harbor, the 2018 Bar Harbor Age-Friendly Community Survey Results describe one significant issue for consideration related to senior social and recreational opportunities:

There were clear themes about barriers to accessing social [and recreational] events stemming from the timing of events and the timeliness of announcements about events. Identifying strategies for providing more timely information about social [and recreational] activities to community members would provide value and increase access to socialization opportunities. Another aspect of social connectedness is facilitating ways for unconnected people to become a greater part of the community if they wish to. The 5% who indicate they never socialize likely includes a number of people who want and could benefit from more opportunities. Given the significant impacts of isolation on health and wellbeing, focusing on this issue could have major value. Survey findings about how community members learn about town government and social [and recreational] activities may point the way to the most efficient strategies to inform community members about what is available.

RECREATIONAL RESOURCES

It is no surprise that recreation plays a critical role in Bar Harbor for both residents and visitors. The landscape and diversity of landowners and managers provides an array of recreational resources in town. Exploring the spatial distribution of these resources in Bar Harbor, it is clear to see three distinct levels exist – (1) downtown, (2) the intersection of downtown and beyond, and (3) areas beyond downtown. These distinct areas are shown on Map 6.2. on the following page. Map 6.3 shows parks and recreational resources located in Downtown. Map 6.4 shows the documented trail network in Bar Harbor.

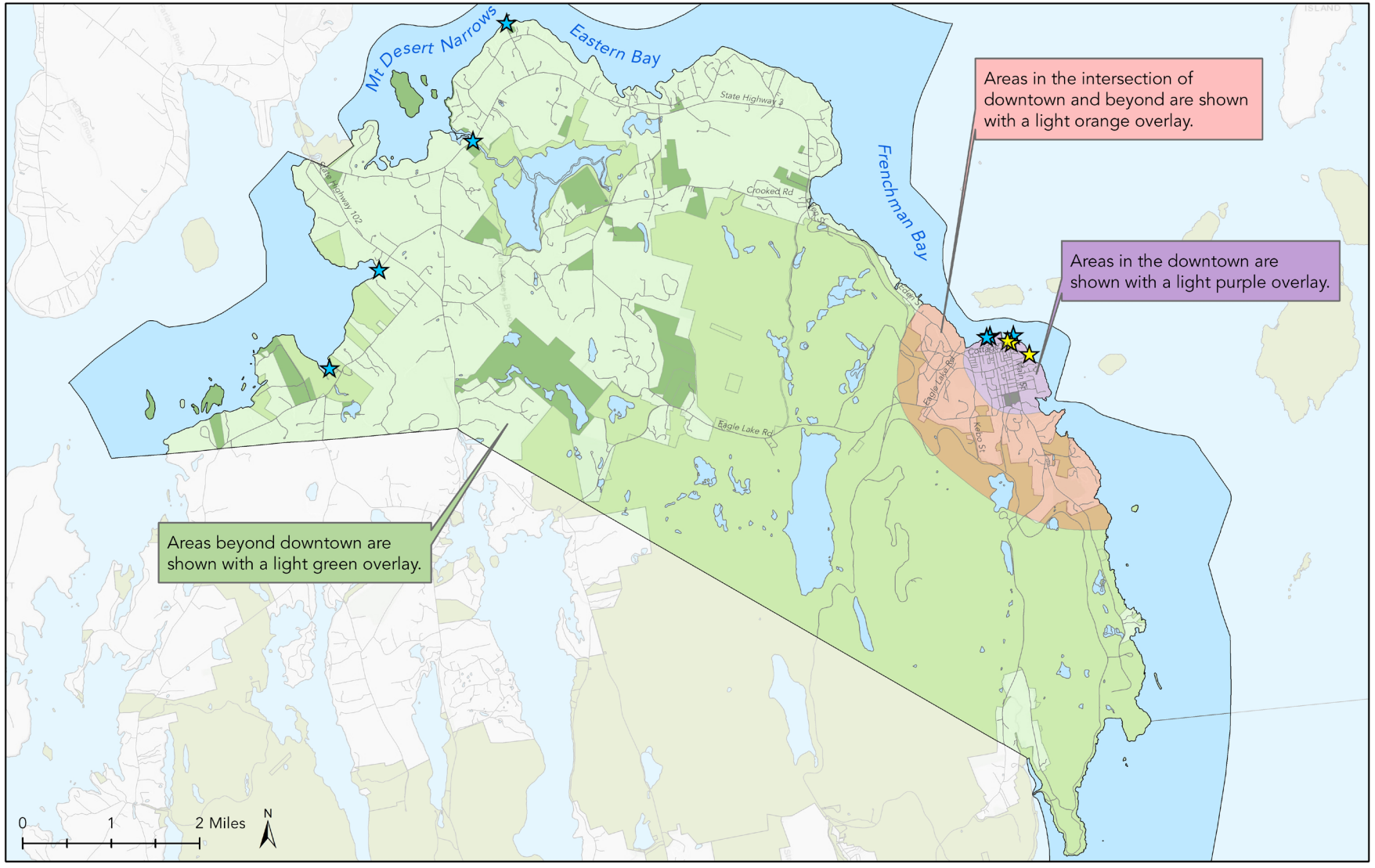
DOWNTOWN – WALKING

IMAGE 6.1 DOWNTOWN WALK/RUN USAGE
SOURCE: WWW.STRAVA.COM

The dense downtown in Bar Harbor creates a vibrant and energetic neighborhood with many recreational resources in a relatively small geographic area. In addition to the municipal and other parks and recreational resources located downtown (Map 6.3), other forms of recreation exist including bicycling and walking. The Shore Path begins at the Town Pier next to Agamont Park and heads southeast along the shore of Mount Desert Island for a little over half a mile terminating in two locations at Hancock Street and Barberry Lane. It should be noted that while the Shore Path provides great waterfront access for the public, that access is a privilege provided by many private landowners and should not be taken for granted. Another walking path downtown is The Bar, which begins at the terminus of Bridge Street and, at low tide, connects to Bar Island which is part of Acadia National Park. In addition to these more traditional recreational resources, downtown Bar Harbor also has a vibrant network of roads and sidewalks available for walking and bicycling. While it is challenging to identify recreational sidewalk usage, there are innovative ways to assess the popularity or use of existing recreational assets in Bar Harbor. Strava, self-described as a "social network for athletes," tracks and analyzes the activity movements of its users by connecting to the individual's device (phone, watch, GPS, etc). Strava collects the locational information of its users, which is public, and provides usage maps (also known as heatmaps) wherever their users recreate. It should be noted that the data provided by Strava represents a slice of recreation users in town and should not be used to represent all recreational users in Bar Harbor.

To learn more about how Strava's heatmaps are built, visit https://www.strava.com/features
Images 6.1 and 6.2 show the Strava heatmap of walkers and runners in downtown Bar Harbor. It is clear to see certain streets act as primary locations for these activities with Main and West Streets having the highest usage. Mount Desert and Cottage Streets and Ledgelawn Avenue also display high usage as well as smaller streets like Park Street, Livingston Road, and Wayman Lane, which may see high activity because of their proximity to the Shore Path. Interestingly, specific streets displaying moderate usage that appear to connect Main Street to the Shore Path include Albert Meadow and Hancock Street.

Map 6.2: Parks and Recreation Resources in Bar Harbor



Recreational Areas

BAR HARBOR

Draft map created for preliminary assessment of existing conditions within Bar Harbor.

- Bar Harbor Town Boundary
- Road
- Waterbody/Coastal Waters
- Water Access
- Waterfront but no water access
- Acadia National Park
- Conserved Land

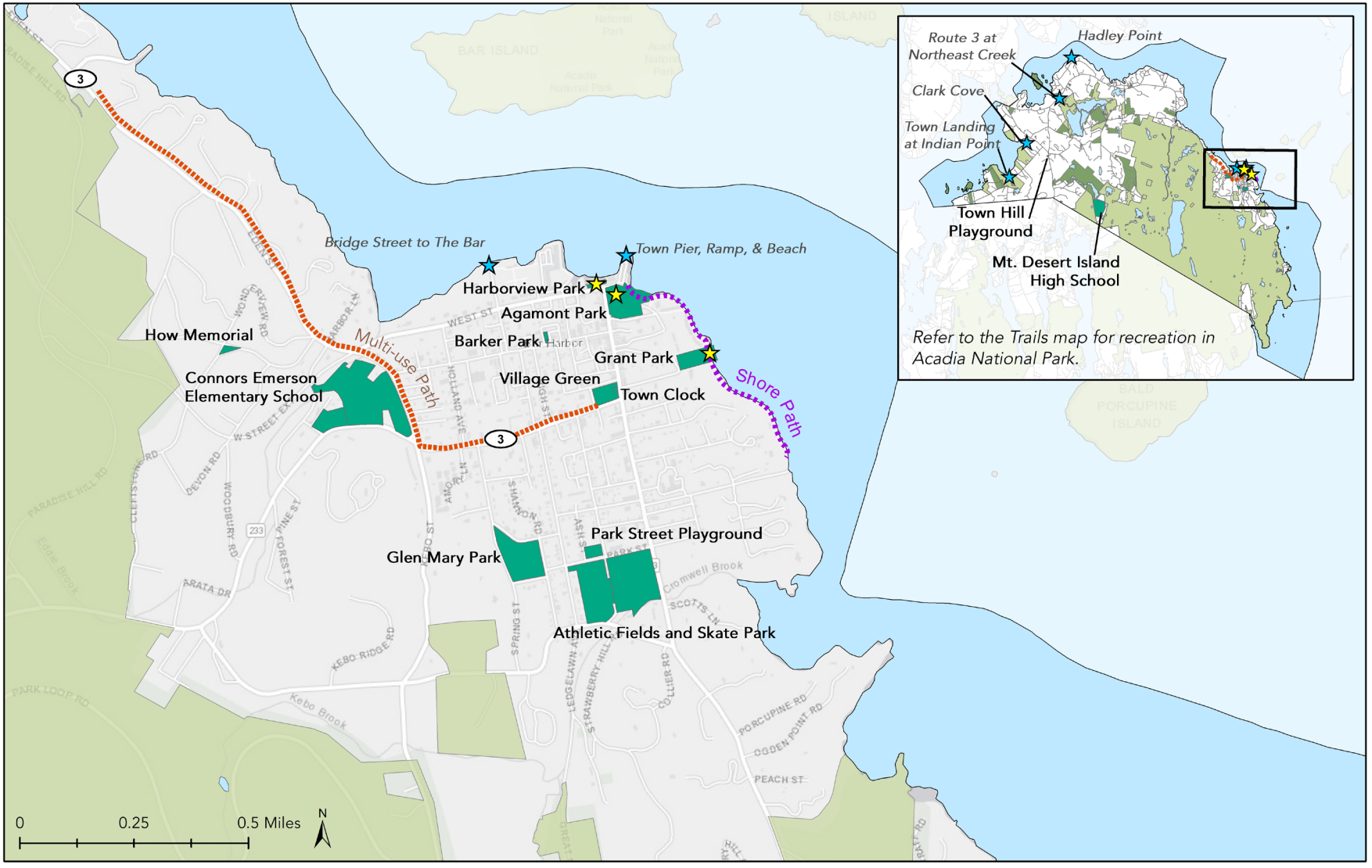
Recreational Areas of Town

- Downtown
- Intersection of Downtown and Beyond
- Areas Beyond Downtown

Data Sources: Town of Bar Harbor, Maine Geolibrary, National Hydrography Dataset
Coordinate System: NAD 1983 UTM Zone 19N
Created: FB Environmental
April 2022

FB environmental

Map 6.3: Recreation resources in Downtown Bar Harbor



RECREATION

BAR HARBOR

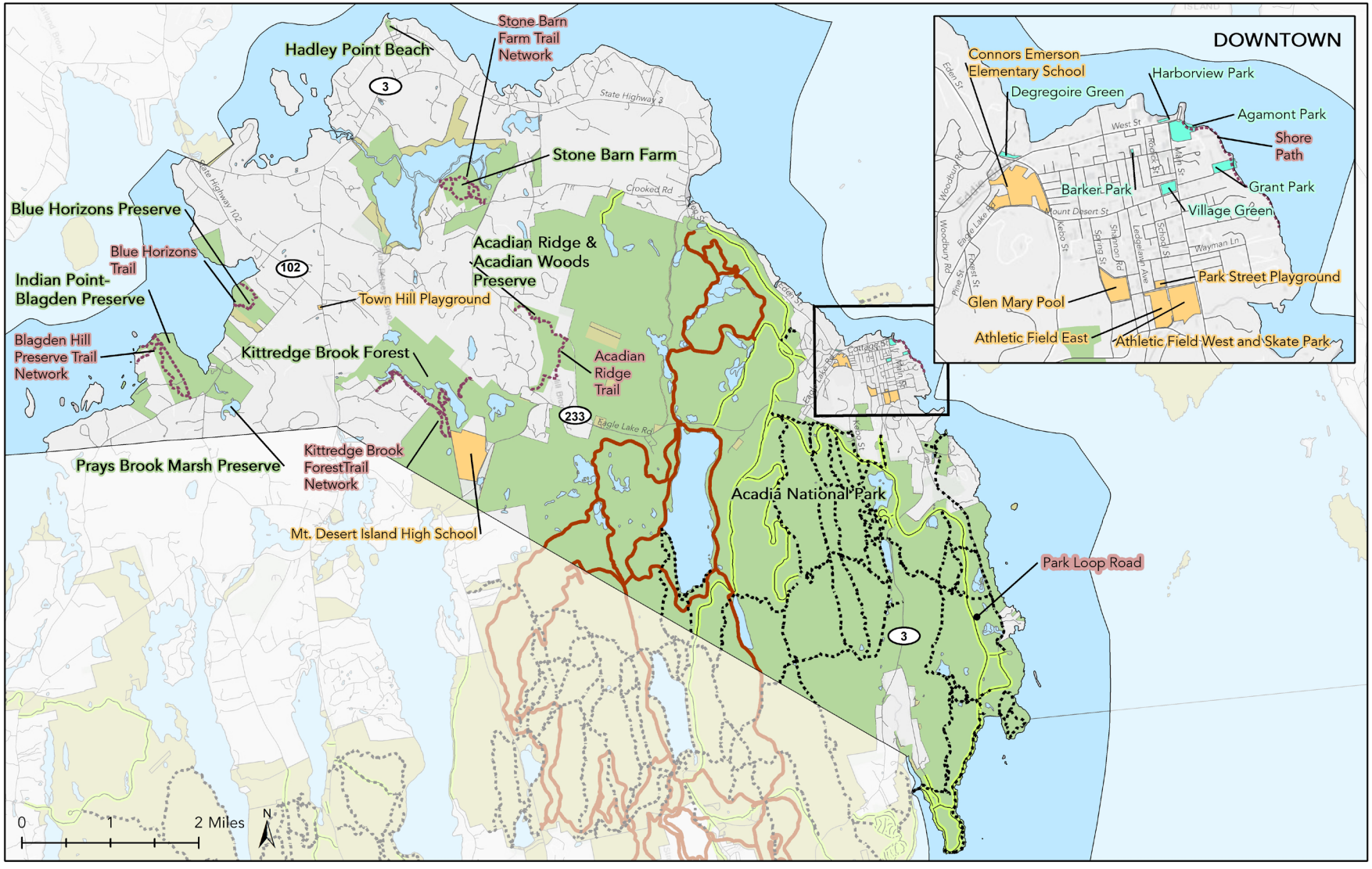
Bar Harbor Town Boundary
Waterbody/Coastal Waters
Acadia National Park
Conserved Land
Water Access
Waterfront but no water access
Multi-use Path/Sidewalk
Shorepath
Municipal Parks & Open Space

Draft map created for preliminary assessment of existing conditions within Bar Harbor.

Data Sources: Town of Bar Harbor, Maine Geolibrary, National Hydrography Dataset
Coordinate System: NAD 1983 UTM Zone 19N
Created: FB Environmental
April 2022

FB environmental

Map 6.4: Documented Trails in Bar Harbor



TRAILS

BAR HARBOR

Draft map created for preliminary assessment of existing conditions within Bar Harbor.

- Bar Harbor Town Boundary
- Waterbody/Coastal Waters
- Acadia National Park Road
- Road
- Acadia National Park Boundary
- Trail
- Trail (Acadia National Park)
- Carriage Road

Properties Supporting Recreational Usage

- Public Park
- Athletic & Recreational Parcels
- Conserved Lands with Public Access

Data Sources: Town of Bar Harbor, Maine Geolibrary, National Hydrography Dataset
Coordinate System: NAD 1983 UTM Zone 19N
Created: FB Environmental
March 2022

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While many of the most used streets in town have sidewalks, there are other streets offering recreational value that do. Worth noting on streets that do have sidewalks is the condition of those sidewalks varies greatly. The 2014-2020 Bar Harbor Open Space Plan mentions that a vast majority of residents support "widening road shoulders and adding sidewalks to encourage walking and biking." Over the years, sidewalks have been a topic of discussion in many documents reviewed including the 2020 Town Report, which identified the strategy of more walking paths in town to increase year-round livability and quality of life for Bar Harbor citizens. Additionally, the 2021 Bar Harbor Council Goals mentioned developing more walking routes for residents and visitors not only for recreational purposes, but also to reduce congestion and increase safety in town. The town has chosen to reinvest the revenue from parking into the downtown streetscapes including sidewalks. Equally encouraging is the remote parking area for the ferry terminal that will help alleviate congestion and pedestrian safety in town. However, understanding that people will be asked to walk and bike into town from the satellite lot, infrastructure investments will be needed. Relative to downtown Bar Harbor recreational resources, sidewalks provide fantastic opportunities that should be invested in for years to come. For a detailed look at other impacts of sidewalks in town, see the transportation and economic development chapters.

IMAGE 6.2: DOWNTOWN BICYCLE USAGE
SOURCE: WWW.STRAVA.COM

DOWNTOWN – BIKING

It is widely known that there are limited safe bicycling options downtown. As far back as the 2001 Vision for Bar Harbor Village, providing bicycle parking and bicycle lanes were identified as needs. This is also reflected, twenty years later, in the 2021 Bar Harbor Council Goals – to develop more biking routes for year-round livability and quality of life. While the bike path along Route 3 from Hulls Cove adjacent to College of the Atlantic into downtown Bar Harbor is an improvement, other roads are not considered as safe for bicycles as they could be.

With that said, there is a lot of bicycle usage downtown. The two highest used roads are West and Main Streets, with Mount Desert and Cottage Streets and Ledgelawn Avenue also displaying high activity. While these roads represent the highest bicycle usage, it is clear to see there are many other streets that are used for cycling downtown.

Considering the overlap in high pedestrian and bicycle usage on certain streets, there is an opportunity to better integrate these recreational resources into the existing streetscape.

THE INTERSECTION OF DOWNTOWN AND BEYOND (IDB)

The intersection of downtown and beyond (IDB) is an important area of Bar Harbor and acts as

the intermediary zone between the dense and bustling downtown that has specific and restricted recreational resources and the more open spaces offering very different forms of recreation. This corridor from downtown to areas beyond downtown offers specific challenges given the finite resource – space – that exists in Bar Harbor. It is critical for residents and visitors to be able to connect from the downtown area to other neighborhoods and open spaces throughout Bar Harbor (see map 6.2 on page 142).

Access to Acadia National Park from downtown is a significant challenge made more present considering the limited space and private ownership of land and topography in the IDB. However, there are several key recreational access points downtown that connect to the Park. Through an effective combination of private philanthropy, volunteerism, and strong partnerships, the nonprofit Friends of Acadia has developed several village connector trails that enhance the character of Mount Desert Island's villages. Additionally, these village connector trails have improved the quality of the island's air by reducing the number of cars on the island. As a result of the limited Park access points from downtown, Kebo Street and Ledgelawn Avenue are being used as cut-through routes. The village connector trails serving pedestrians in Bar Harbor are in Table 6.5.

Table 6.5: Friends of Acadia Village Connector Trails

Trail Name	Allowed use	Location and Description
Duck Brook Connector	Walking and hiking (please walk bikes)	Access beside the Acadia Inn on Route 3 across the street from College of the Atlantic. Connects to the Duck Brook Road and the Duck Brook carriage roads.
Great Meadow Loop	Walking and hiking (please walk bikes)	Access off Cromwell Harbor Road. Connects to Jesup Path, Kebo Connector Trails, and much more.
Schooner Head Path	Walking and hiking (please walk bikes)	Access off the Compass Harbor Trail. Passes by the Jackson Lab and out to Schooner Head.

In addition to access from downtown outward, worth consideration is the flow into downtown through the IDB. Recognizing the vital role pedestrian and bicycle travel and recreation plays downtown, it is that much more important that individuals can walk and recreate safely in the IDB. Traffic calming measures are already beginning at the intersection on Route 3 by the Jackson Laboratory, but there are likely other problem intersections that need to be addressed. For more information on problem intersections, refer to the transportation chapter. Similarly, the need to connect the downtown to other neighborhoods and open spaces throughout Bar Harbor is important. In this way, planning in the IDB is critical for any of these efforts to ensure safe and accessible options exist.

AREAS BEYOND DOWNTOWN

While Acadia National Park is a tremendous recreational resource for residents and visitors, there are many more areas that play vital roles in the life of Bar Harbor's residents. Properties owned and managed by the Downeast Audubon Chapter, Maine Coast Heritage Trust (MCHT), and The Nature Conservancy (see Table 6.4: Other Open Space Properties in Bar Harbor) all offer recreational opportunities for locals that are less frequented by visitors.

More traditional recreational resources exist like hiking and walking trails, but there are plenty of other assets available including water access (see Table 6.3: Bar Harbor List of Water Access Points).

Specifically, the Northeast Creek pull-off along Route 3 provides access to other inland wetlands and open spaces by small boat. Image 6.3 shows all forms of Strava recreational usage along Northeast Creek by water and trail usage at the MCHT Stone Barn property. Several other points ring the intertidal coast of Bar Harbor providing water access to Mount Desert Narrows, and Eastern and Frenchman Bays as shown in Map 6.1.

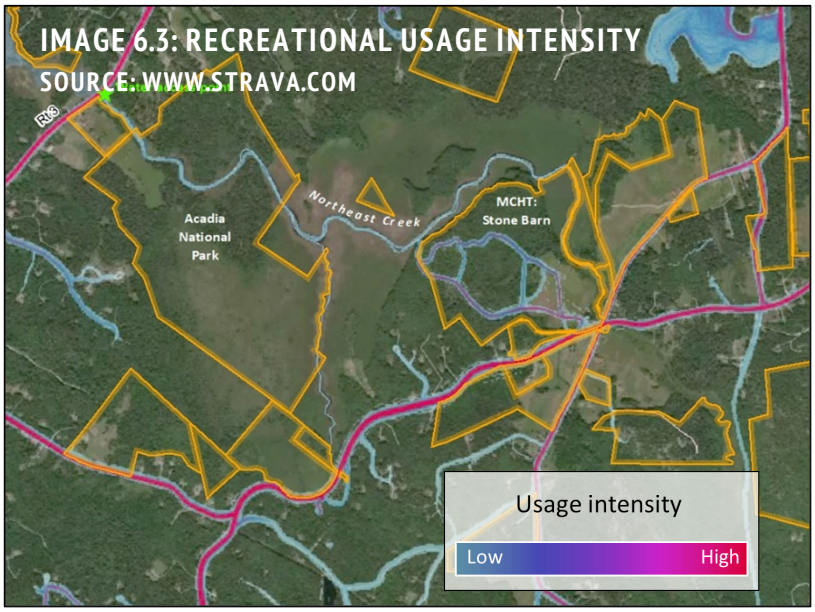


IMAGE 6.3: RECREATIONAL USAGE INTENSITY
SOURCE: WWW.STRAVA.COM

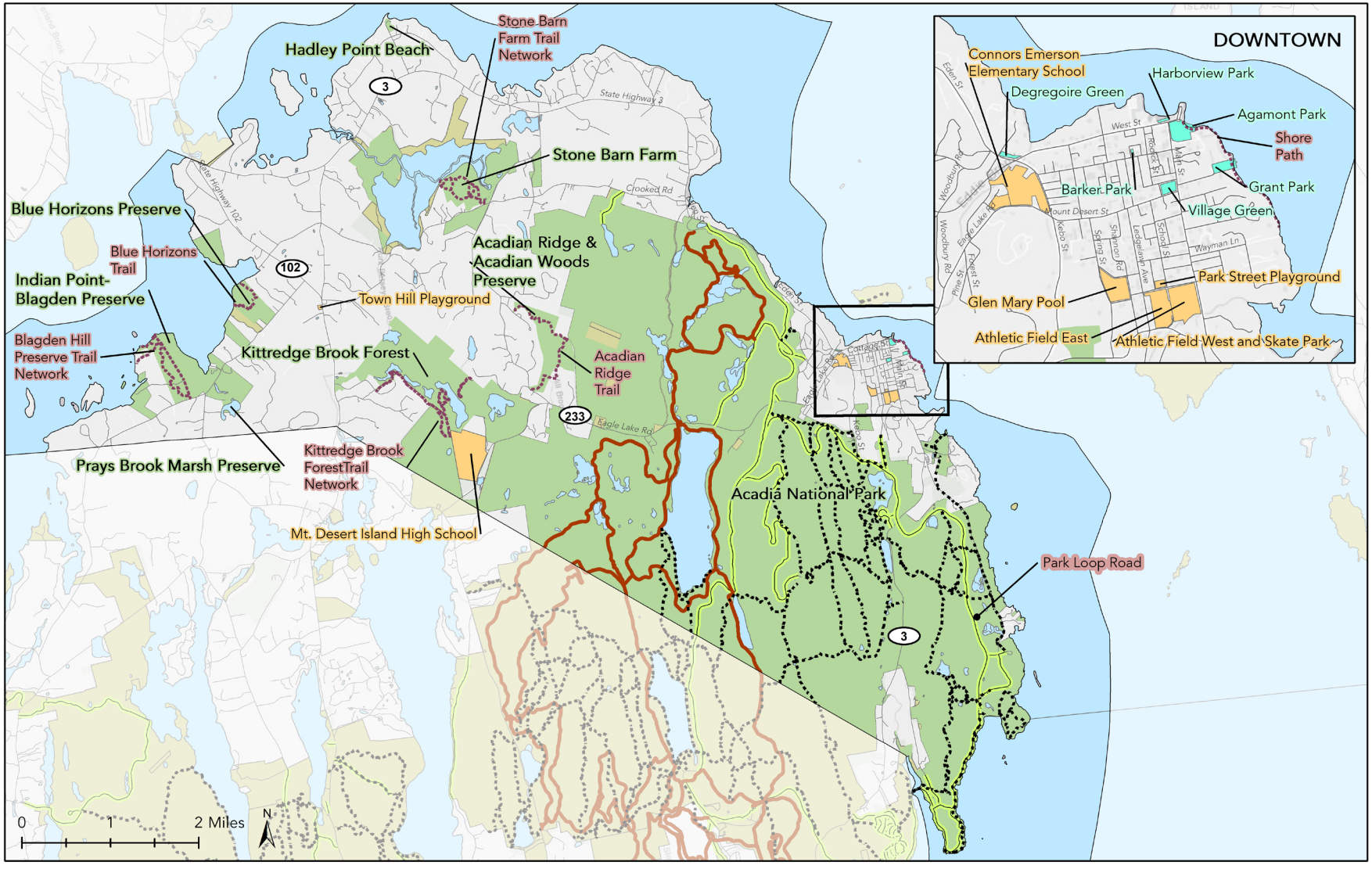
Hadley Point is a multi-use recreation area that, in addition to more traditional recreation options, includes access to shellfish and worm harvesting. "The harvesting of soft-shell clams in the Hadley Point mudflats is monitored and managed by Bar Harbor's Marine Resources Committee. Several other species are harvested at Hadley Point, most notably blue mussel and bloodworms, both of which are managed and monitored by Maine Department of Marine Resources." (Hadley Point Kiosk)

While formal biking options are limited in downtown Bar Harbor, the road network throughout the rest of town can and does accommodate a great deal of road biking. The carriage roads in Acadia National Park show the highest bicycle usage according to Strava; however, many of the primary roads throughout Bar Harbor show a significant amount of bicycle activity. With that said, there are concerns about the safety of the road network for biking considering the relatively narrow road system, lack of sufficient shoulder in critical areas, and lack of bike lanes. Beyond the national park carriage roads, mountain biking options are limited in Bar Harbor.

However, there is one unmaintained trail called Breakneck Road, which starts near Hulls Cove and runs southerly near Breakneck Brook and Breakneck Ponds culminating west of the ANP parking area at Eagle Lake that offers the opportunity for mountain biking. This is not a well-known trail to visitors and is mainly used by locals. While the trail cuts through ANP, it is not officially part of the Park. Instead, the Town of Bar Harbor has a right-of-way on this unmaintained path. It should be noted here that mountain biking is not allowed on any trails inside Acadia National Park or any other open space recreational trails in Bar Harbor.

Of growing concern for residents is the increased exposure these surrounding municipal and privately owned open space and recreational lands are receiving, especially in light of the Covid pandemic. Increased usage creates a need for added maintenance and management of the areas. It is reasonable for the town to begin questioning the carrying capacity of these properties and think creatively about mitigation strategies. On that topic, the On that topic, the 2019 Cruise Tourism & Traffic Congestion in Bar Harbor report commissioned by the Cruise Line Industry Association at the request of the Bar Harbor Town Council was tasked with "assessing other town-owned properties capable of alleviating

Map 6.4: Documented Trails in Bar Harbor



TRAILS

BAR HARBOR

Draft map created for preliminary assessment of existing conditions within Bar Harbor.

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- Road
- Acadia National Park Boundary
- Trail
- Trail (Acadia National Park)
- Carriage Road

Properties Supporting Recreational Usage

- Public Park
- Athletic & Recreational Parcels
- Conserved Lands with Public Access

Data Sources: Town of Bar Harbor, Maine Geolibrary, National Hydrography Dataset
Coordinate System: NAD 1983 UTM Zone 19N
Created: FB Environmental
March 2022

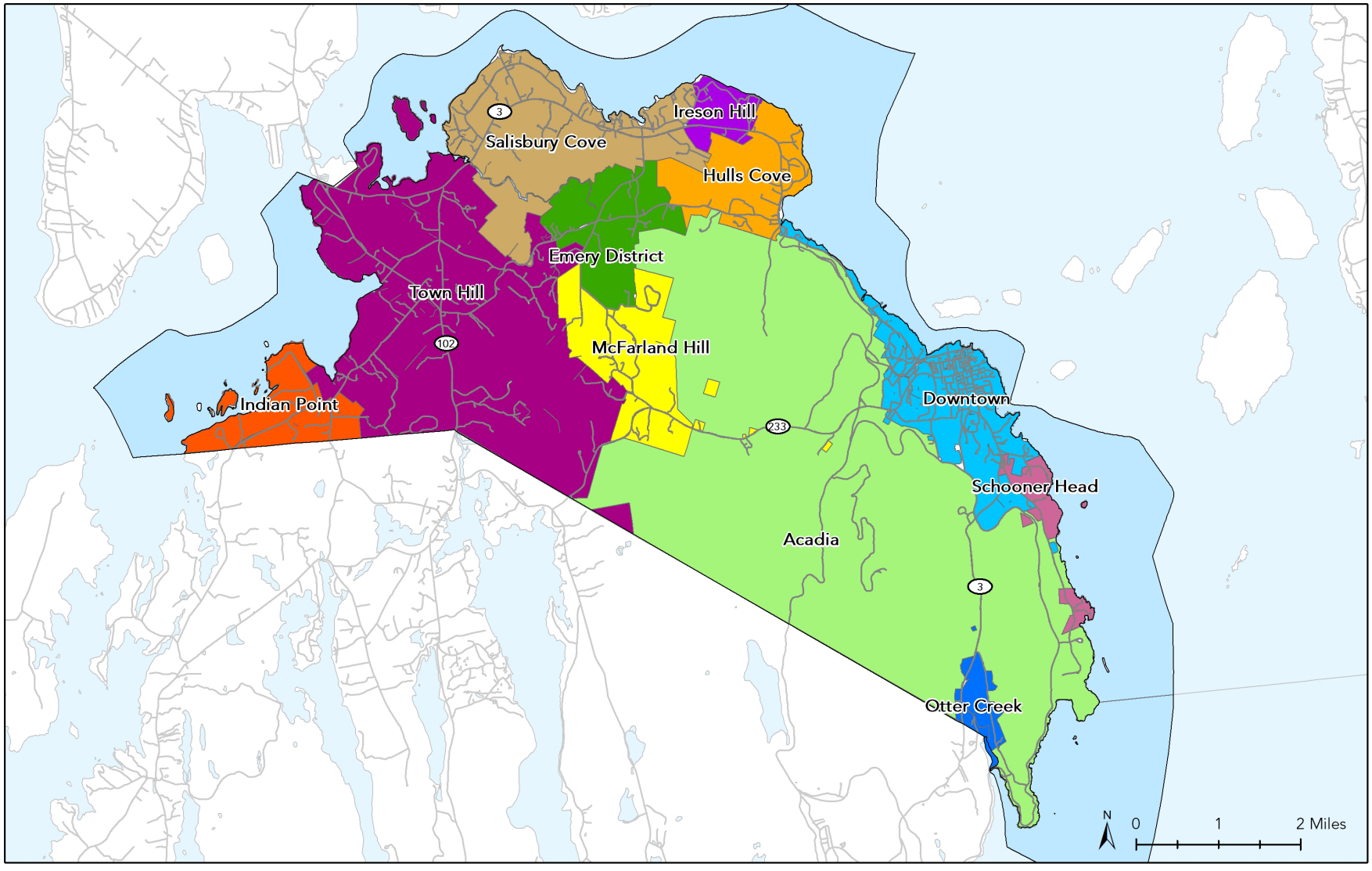
FB environmental

congestion created by tourism" in the downtown. A similar approach of assessing other properties capable of alleviating congestion could be explored for possible fee or easement acquisition by the town that may provide residents with additional recreation and open space options.

One significant need that has been identified is the ability to connect the neighborhoods of Bar Harbor shown in Map 6.4. Recreational resources exist throughout these neighborhoods, but many of them are viewed as independent areas rather than a cohesive network of options. The ability to link these neighborhoods and recreational assets through a multi-use path would create a more connected and united network of recreation alternatives throughout Bar Harbor. On that point, the 2014-2022 Open Space Plan references a 2002 Maine Department of Transportation (DOT) Bikeway Plan for Mount Desert Island, where "Over 70 miles of potential bikeways were presented for further analysis. The plan concluded that bicycling could be best encouraged and promoted by widening road shoulders in appropriate locations and by providing bicycle racks at key destination points and downtown locations to ensure secure and convenient bicycle parking."

However, there is no evidence of any broader network of bicycle or pedestrian paths for Bar Harbor or Mount Desert Island, despite significant support for widening road shoulders and encouraging walking and biking across the island. Equally, the 2007 Comprehensive Plan lays out a strategy for establishing a cross-island trail to provide connections between neighborhoods, open space, and recreation opportunities. The 2007 Comprehensive Plan also lists a strategy to "develop a plan for park, open space, and pedestrian and bicycle access in designated villages…and work toward future development of pedestrian/bicycle/multi-use trails either along or off roadways in all areas of the community." Much like the Maine DOT Bikeway Plan, there is no evidence of a cross-island trail or a network of multi-use paths in Bar Harbor. The desire for multi-use trails is clear and has been laid out many times in planning documents over the years; however, critical pieces are missing to move these initiatives from idea to reality. The town's reliance on a volunteer Parks and Recreation Committee with limited funding, capacity, and reach is a main reason. Without a dedicated Parks and Recreation Department with staff, an annual budget, and partial jurisdiction over municipal open spaces and road networks, there is not the capacity needed to act on complex and lengthy projects like a network of multi-use paths.

Map 6.4: Existing Land Use and Neighborhoods in Bar Harbor



EXISTING LAND USE NEIGHBORHOODS

BAR HARBOR

PRELIMINARY MAPPING FOR EXISTING CONDITIONS ANALYSIS

Bar Harbor Town Boundary
Road
Coastal Waters

Neighborhoods

- Otter Creek
- Schooner Head
- Downtown
- Hulls Cove
- Ireson Hill
- Emery District
- Salisbury Cove
- McFarland Hill
- Acadia
- Town Hill
- Indian Point

Data Sources: Town of Bar Harbor, Maine Geolibrary, National Hydrography Dataset
Coordinate System: NAD 1983 UTM Zone 19N
Created: FB Environmental
March 2022

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REFERENCES

- Bar Harbor Age-Friendly Action Plan
- Bar Harbor Age-Friendly Community Survey Results
- Town Reports - 2020, 2019, and 2018
- 2021 Bar Harbor Council Goals AMENDED
- Cruise Ships: Cost Estimates of Bar Harbor Recommendations
- Cruise Tourism Traffic Congestion in Bar Harbor 2019
- A Vision for Bar Harbor Village 2001
- Hadley Point kiosk
- Resource Management in Small Marine Town
- Bar Harbor Shellfish Ordinance
- Clam Surveys and Management in Bar Harbor
- Maine Shellfish Handbook
- Ferry Terminal Property Advisory Committee Report to BHTC 2019
- Climate Action Plan 2021 – Public Education and Engagement
- Comprehensive Plan Update, Bar Harbor, Maine. June 2007.
- Maine Department of Transportation Complete Streets Policy
- Abbe Museum
- National Park Service
- Maine Coast Heritage Trust
- The Nature Conservancy
- Bar Harbor Village Improvement Association
- Town Hill Village Improvement Society
- Bar Harbor, Maine
- Bar Harbor, Maine: Public Site MapsOnline
- Footloose Friends
- Friends of Acadia

HISTORIC AND ARCHAEOLOGICAL RESOURCES

BAR HARBOR 2022 EXISTING CONDITIONS SUMMARY

Bar Harbor's historic, archaeological, and cultural resources are plentiful, reflecting a legacy of natural resource stewardship, a historic tourism industry, a legacy of waterfront living, and a strong coastal community character. Preserving and capitalizing on these unique resources will contribute to the Town's community development and enhancement efforts.

The Town of Bar Harbor has a rich and unique history as seen in its coastal location, architecture, working waterfront, Wabanaki heritage, Acadia National Park, and tourism legacy.
This unique history can be seen throughout the town in its historic resources including buildings, carriage roads, bridges, shipwrecks, shell middens, quarries, camps, and more.

Acadia National Park's natural and cultural history are an important part of Bar Harbor's past, present, and future.
Many of Bar Harbor's historic resources and historically significant sites are in the park's boundaries.

Bar Harbor has 22 properties and route historic districts that are listed on the National Register of Historic Places.
This properties and neighborhoods add to the character, sense of place, and identity of the community.

The Maine Historic Preservation Commission has inventoried and identified 15 significant prehistoric archaeological sites in Bar Harbor.
According to the inventory "most or all are shell middens located in the shoreland zone." These sites are threatened by human impacts from development, amateur digging, and natural forces such as sea level rise and storm erosion.

Nine properties on the National Register of Historic Places are at risk for being impacted by sea level rise. This is according to future sea level rise scenarios projected by the State of Maine.

To date, 92 historic archaeological sites have been documented for the Town of Bar Harbor. Many of these sites consist of shipwrecks. Others include sawmills, camps, farmsteads, cemeteries, and quarries. Future archaeological surveys should focus on the identification of potentially significant resources associated with the town's agricultural, residential, and industrial heritage.

Bar Harbor has several examples of unique adaptive reuse projects that includes the contemporary reuse of historic structures and properties, while also maintaining their historic integrity (such as the La Rochelle mansion, Stone Farm, etc.)

The night skies of Bar Harbor are known for having the largest expanse of naturally dark sky east of the Mississippi River. The town has taken steps to regulating lighting and the illuminating of signs to preserve its dark skies.

Bar Harbor's Design Review Overlay District was established to create a clean process for proposed changes to historically important structures within this area of the downtown. Projects must comply with these standards to preserve a visually harmonious environment within the overlay district and to protect and enhance the historic character of the villages in Bar Harbor.

Bar Harbor has an extensive network of organizations and partners in the town and the greater Mount Desert Island that work to protect, promote, and educate the public about the island's history and cultural resources.

There is a movement to restore the naming of key historic, cultural, and natural features with colonial names back to their original indigenous names. There may be opportunity to work with the Abbe Museum on future projects to accomplish this at specific locations in Bar Harbor.

7. Historic and Archaeological Resources

INTRODUCTION

Bar Harbor's historic and cultural resources contribute to the community's sense of place, identity, and local character. To guide Bar Harbor's protection of its historic and cultural resources in the future, an analysis of historic resources and historic preservation efforts has been completed. Specifically, this section provides information on:

- Bar Harbor's history
- Local historic archaeological and architectural resources
- Historic preservation efforts in Bar Harbor
- Historic preservation and cultural organizations

PRELIMINARY ISSUES, CHALLENGES, AND OPPORTUNITIES

A number of organizations, and the town itself, has invested in historic preservtation efforts to preserve the historic integrity and character of Bar Harbor's built environment and the legacy and heritage of its natural landscapes. Public education about the importance of Bar Harbor's history is prevalent in the community and has created an awareness of how much Bar Harbor's history and culture impacts its unique sense of identity. The town boasts an active Historical Society, a world-renowned Native American museum, historic buildings, shipwrecks, farmsteads, and other sites, unique bridges, trails, and other historic infrastructure within Acadia National Park, Wabanaki sites of importance, and several historic districts in its downtown.

As Bar Harbor plans for its future, the town and community members will need to assess where and how it wants to focus on future preservation efforts and activities, while also balancing goals related to transportation, housing, and other issues.

BAR HARBOR'S HISTORY

The Town of Bar Harbor is located on the northeast shore of Mount Desert Island and is defined by its seacoast character, marine ecosystems, tourism heritage, bustling downtown, working waterfront, and scenic coastal beauty. According to the Bar Harbor Historical Society, the town was originally incorporated in 1796 as the town of Eden, referring to the original document signed by Samuel Adams. The town's name was later changed to Bar Harbor in 1918. It is in a coastal region of Maine referred to as "Down East", a term which dates back over 200 years when large schooners carrying goods on their way back to Europe had to sail downwind to the east from larger population centers in Boston, New York, and elsewhere.

NATIVE AMERICAN HISTORY

The first inhabitants of Bar Harbor and Mount Desert Island were the Wabanaki people (including the Passamaquoddy, the Penobscot, and others), who called the island "Pesamkuk", meaning "range of mountains" or "mountains seen at a distance". Archaeologists have uncovered evidence that native Wabanaki people have been living on Mount Desert Island for thousands of years, adapting to changing environments and making a sustainable living. Throughout history, Wabanaki people lived on the coastline of Mount Desert Island, relying on fishing, hunting, gathering, and foraging for clams and other shellfish in the area. The Wabanaki's place name for the town now known as Bar Harbor is "Moneskatik", or clam gathering place, highlighting the importance of clamming and fishing as a way of life, which is reflected in the 60 shell middens on Mount Desert Island (described in further detail in the Pre-Historic Archaeological Resources sub-section). European settlers started arriving on Mount Desert Island in the early 1600s. Throughout the 1800s and early 1900s, the ancestral lands of the Wabanaki people were

occupied by European settlers and the Wabanaki were displaced from their homelands. By the mid-1800s, colonialism changed the Wabanaki lifestyles drastically, as the loss of access to traditional lands left them with few resources.

It is important to note that the Wabanaki still have a contemporary presence on the island and in Maine today. Currently, the four federally recognized groups of Native American tribes present in Maine are the Maliseet, Micmac, Penobscot, and Passamaquoddy, known collectively as the Wabanaki, or "People of the Dawnland." Each tribal community maintains its own government, schools, cultural center, and its respective lands. Although most of Maine's native people belong to one of these four groups and reside on tribal lands, others live in towns and cities across the State.

EUROPEAN SETTLEMENT

In 1604, French explorer Samuel de Champlain landed on Mount Desert Island, officially dubbing it "Isles des Monts Deserts". Prior to the Revolutionary War, the English and French vied for land on Mount Desert Island. During this period, the island's mountains were used as navigation aids by passing vessels, its lands were hunted by fur trappers, and its shorelines were used by the Wabanaki. Very little European settlement occurred on Mount Desert Island, as the French and English battled for territory. In 1759, after a century and a half of conflict, British troops triumphed at Quebec, ending French dominion in Acadia. This led to an influx of settlers arriving to settle on the island. By the early 1800s, fishing, ship building, farming, and forestry were major occupations of settlers.

In the mid-1880s, the island and its natural beauty began to attract artists from New York. Thomas Cole, Fitz Hugh Lane, William Hart, and Thomas Birch, among others, drew inspiration from the mountains and seascapes for their art. Once these artists exhibited their work in major cities further south, tourists started arriving by steamboats and yachts, establishing the village of Bar Harbor as a popular resort in the summer for the wealthy elite. The first hotel in Bar Harbor was built in 1855 by Tobias Roberts, called the Agamont House. More and more hotels and summer cottages were built to house "rusticators" (tourists and summer residents) that came to the island by train and the Mount Desert Ferry. The area became a popular summer location for wealthy families including the Rockefellers, Fords, and the Vanderbilts. By 1880, there were 30 hotels that had been built, leading to the boom in tourism on the island. From the 1870s to the 1930s, basketmaking became an important economic activity for the Wabanaki people to participate in the tourism economy. The Wabanaki people have been making baskets for thousands of years, a practice grounded in stewardship of the environment, preservation of cultural heritage, and honoring spiritual connections.

The increase in tourist presence and large numbers of summer residents on Mount Desert Island began to put pressure on the island infrastructure. In the mid-late 1800s, George B. Dorr, Charles W. Eliot, and later, John D. Rockefeller Jr. organized an effort to create Acadia National Park, formerly known as Sieur des Monts, in 1916. The name changed in 1919 to Lafayette National Park and in 1929 to Acadia National Park. The formation of the Village Improvement Associations (one of which is in Bar Harbor) were integral to the formation of Acadia National Park. These groups gathered to build an island wide trail system and many of the wealthier contributors of these groups purchased land that would later be donated to the U.S. government for the national park. Established by Woodrow Wilson in 1916 with 6,000 acres, Acadia now covers more than 49,000 acres. The park encompasses nearly half of Mount

Desert Island, a scattering of smaller islands, and the Schoodic Peninsula. Acadia National Park was the first park created from private lands gifted to the public through the efforts of conservation minded citizens.

THE 1947 FIRE

In the fall of 1947, sparks at a cranberry bog near Town Hill started a wildfire that intensified for ten days due to strong winds. Nearly half the eastern side of Mount Desert Island burned, including 67 "cottages" and 5 historic grand hotels. Over 10,000 acres of Acadia National Park were destroyed. The town's downtown business district was spared, including Mount Desert Street. After the fire, most of the permanent residents rebuilt their homes, but many of the grand summer cottages were not replaced. The estates on Millionaires' Row have been replaced by motels that house the ever-increasing tourist population.

BAR HARBOR'S WORKING WATERFRONT

For over 10,000 years, softshell clams, quahogs, mussels, and oysters have been harvested or gathered along coastal Maine. Shellfish have long supported livelihoods for coastal communities. The Wabanaki people traveled along coastal areas by birchbark canoe and chose camping locations on islands easily accessible by boat and near clam flats. Archaeological research of shell middens reveals that the Paleo-Indians, the ancestors of the Wabanaki people, relied heavily on the sea for sustenance. These coastal settlements were important for trade networks and where people gathered to share tools, information, and stories.

As European immigrants settled in coastal Maine, the sea provided their primary means of travel. Coastal communities relied first on the sail and later steam to navigate from island to island for essential resources. Across the coast of Maine, lighthouses were built to guide ships to safe harbor as early as the 1950s. Historically, early settlers learned some of their fishing and lobstering techniques from the native Wabanaki people, including how to construct and operate herring weirs. European settlers later developed their own ways of lobstering and fishing over time. One of the first changes to coastal management and access to clamming areas occurred during this colonial era. The English colonists operated under the king's rule, whereby the King of England owned all lands below high tide and managed resources and reserved rights for fishing, shell fishing, and navigation for people below the high tide line. As settlements continued to be built further north into what is now Maine, actions would be taken that shaped who had access to waterways and resources.

In the Civil War era, Frenchman Bay was one of the most prolific cod fishing grounds in the world. Currently, lobsters are the primary species landing at the Bar Harbor Town Pier and nearby private wharves, however scallops, shrimp, urchin, sea cucumbers, glass eels, and other species are also harvested in nearby waters. Today, Bar Harbor's working waterfronts cater to commercial fishing, shellfish aquaculture operations, ferries, and water taxis, sailing and fishing charters, sea kayak outfitters, boat tours, whale watch vessels, marine labs, and more.

HISTORIC AND ARCHAEOLOGICAL RESOURCE INVENTORY

The Maine Historic Preservation Commission established guidance for local communities to address and protect historic resources. They inventory three types of historic and archaeological resources by community. They are:

- Historic structures—buildings and other above-ground structures
- Prehistoric archaeological sites—Native American sites prior to European arrival including campsites, village locations, rock quarries, sites with petroglyphs or rock carvings, and others
- Historic archaeological sites—mostly European, after written records; include cellar holes from houses, foundations of farm buildings, mill boatyards, wharves, and near-shore shipwrecks

The history and story of how Bar Harbor came to be is reflected in the town's historic, cultural, and natural resources. These resources are described in further detail in the next few sub-sections.

NATIONAL REGISTER OF HISTORIC PLACES

The National Register of Historic Places is the official list of the country's historic places worthy of preservation. The register documents historically significant buildings, structures, sites, and districts based on the National Register's criteria for evaluation and is administered by the National Park Service. According to the Maine Historic Preservation Commission, the National Register:

- Identifies and documents historically significant buildings, structures, sites, objects, and districts, according to the National Register criteria for evaluation
- Encourages the preservation of historic properties by documenting their significance and by lending support to local preservation activities
- Enables federal, state, and local agencies to consider historic properties in the early stages of planning projects
- Provides for review of federally funded, licensed, or sponsored projects which may impact historic properties
- Makes property owners of historic sites eligible to apply for grants for preservation activities
- Encourages the rehabilitation of income-generating historic properties which meet preservation standards through tax incentives

A list of properties in Bar Harbor that are on the National Register of Historic Places can be found in Table 7.1.

Table 7.1: Bar Harbor Properties listed in the National Register of Historic Places
Source: Maine Historic Preservation Commission – May 2020

Property Name	Property Address	Property Location
Turretts	105 Eden Street	Eden Street at the College of the Atlantic
Redwood	10 Barberry Lane	---
Highseas	260 Schooner Head Road	Schooner Head Road
The Carriage Paths, and Gatehouses Historic District, Acadia National Park	---	Town of Bar Harbor and Mount Desert
Eegonos	145 Eden Street	---
Criterion Theatre	35 Cottage Street	---
West Street Historic District	---	---
Sproul's Café	128 Main Street	---
Reverie Cove	7 Harbor Lane	Harbor Lane

Property Name	Property Address	Property Location
Robert Abbe Museum of Stone Age Antiques	---	at Sieur Des Monts Spring in Acadia National Park
Nannau	396 Main Street	Lower Main Street
Jesup Memorial Library	34 Mount Desert Street	---
John Innes Kane Cottage	45 Hancock Street	Off Hancock Street
Saint Savior's Episcopal Church and Rectory	41 Mount Desert Street	---
Cover Farm	46 Cover Farm Road	Off ME 3 (Hulls Cove)
Hulls Cove School	6 Neighborhood Road	ME 3
Church of Our Father	91 State Highway 3	ME 3
Cleftstone	92 Eden Street	---
Stone Barn Farm	487 Crooked Road	Junction of Crooked Road and Norway Drive
Higgins Barn	256 Oak Hill Road	---
Garland Farm	1029 ME 3	---
Seawall Campground	---	Seawall Harbor
The Farm House	15 Highbrook Road	---
Harbor Lane	---	Eden Street Historic District

HISTORIC DISTRICTS

The purpose of historic districts is to promote, encourage, and assist the preservation and protection of historic sites, buildings, and neighborhoods in Bar Harbor through their maintenance as landmarks in the history and architecture of Bar Harbor.

Harbor Lane-Eden Street Historic District

The Harbor Lane-Eden Street Historic District is a neighborhood of summer cottages and outbuildings that were designed and built by some of the nation's top architects between 1879/80 and 1936. The district is located northwest of the downtown and fronts Frenchman Bay. It includes nine houses that survived a devastating 1947 fire, which destroyed many other summer estates in town. It is on the National Register of Historic Places. The architectural styles represented in the cottages include Queen Anne, Shingle Style, Colonial Revival, Italian Renaissance, and details associated with Tudor Revival and Craftsman style houses.

West Street Historic District

The West Street Historic District is adjacent to the downtown and encompasses well-preserved summer cottages built in the early 20th century. The West Street District extends along West Street from its western junction with Eden Street to Billings Avenue in the east. Seventeen historically significant summer houses built between 1870 and the 1910s are in the district. Buildings included in this district include the Kedge, Petunia Cottage, La Rochelle, and the Bar Harbor Club.

Carriage Paths, Bridges, and Gatehouses Historic District

The historic trails throughout Acadia National Park were originally created by the Native American settlers and utilized as hunting trails. Later, the trails were utilized by European settlers to connect villages to forests for lumbering purposes. In the mid 1800's, rusticators came to visit Mount Desert

Island to bask in the natural glory of the undisturbed landscapes. They hiked the trails through the forest which inspired an era of active trail building in the late 1800s. There were over 200 miles of trails by 1915. By 1920, the trail building network ceased due to an interest in constructing motor roads once Maine had lifted Mount Desert Island's ban on automobiles. Acadia's carriage roads provide a glimpse of how the roads were constructed at the turn of the 20th century. Additionally, the historic bridges in Acadia National Park are significant due to their craftsmanship and impressive engineering for the time.

Acadia National Park's carriage paths, bridges and gatehouses were accepted and listed as a historic district on the National Register of Historic Places in 1979. The district includes 47 miles of carriage paths, 13 bridges, the Brown Mountain Gatehouse complex, and the Jordan Pond Gatehouse complex. Due to the large area that the paths encompass, in registering this area as a historic district, a set of quadrants was created and connected to have some boundary distinction of where and what the carriage paths, bridges, and gatehouses historic district is. Between 1992 and 1995, the National Park Service and nonprofit organization Friends of Acadia conducted extensive rehabilitation of the carriage paths. Now, user fees also help fund the rehabilitation of the carriage paths throughout the National Park.

A FEW OF BAR HARBOR'S LOCAL HISTORIC PLACES

While there are many important historic sites in Bar Harbor, a few are explained in further detail below to show the diversity of resources and time periods that are evident in Bar Harbor. These sites also highlight historic preservation stories where these structures now serve important contemporary roles in the community today.

The Turrets

This structure was designed in 1893 by Bruce Price, a New York Architect who previously designed the Chateau Frontenac in Quebec City. Bruce Price created the Turrets structure for John J. Emery as a vacation residence. The Turrets became the only remaining Bruce Price designed building on Mount Desert Island after the 1947 fire. The cottage-era architectural design was supplied by the granite cut from Eagle Lake. It is now owned by the College of the Atlantic and was listed on the National Register of Historic Places in 1975. From the 1970s-the 2000s, the College of the Atlantic initiated several projects to restore the integrity and functionality of the building. Today, the Turrets serves as both an academic and administrative office for the college. The College of the Atlantic and their project team were granted an award in 2014 for the rehabilitation of the structure.

Hulls Cove Schoolhouse

The current schoolhouse was constructed in 1909 as a replacement to the previous schoolhouse that was first constructed in 1863 by Capt. Jonathan I. Stevens on land that he donated for the future of the town. The reconstruction of the schoolhouse was necessary due to overcrowding with increased number of student attendees. The Schoolhouse was converted from a schoolhouse to a community center after World War II and has remained a community center ever since. The building now hosts many programs and events such as wedding receptions, banquets, dances, suppers, meetings, and annual events including the Wayback Ball and the Longest Night. Starting in the 1990's, the schoolhouse underwent many renovations to preserve the historical integrity of the Schoolhouse and is listed on the Maine and National Register of Historic Places.

La Rochelle

This mansion was designed by Andrew, Jaques, and Rantoul from Boston in 1903 and was constructed for George Sullivan Bowdoin, who was the great grandson of Alexander Hamilton, and his wife Julia. The La Rochelle mansion was the second brick structure built on Mount Desert Island. The original sunken garden design at the mansion was designed by Beatrix Farrand. Local speculator Bun Cough bought the La Rochelle mansion in the 1940's and purchased the caretaker home across the street where he lived with his family. The ownership was later transferred from Mr. Cough to Tristram Colket who was a chemist that invented condensed soup and became the founder of Campbell's Soup Company. The mansion was then donated to the Maine Seacoast Mission in 1972 and was utilized as their headquarters for 49 years. In 2019, the Bar Harbor Historical Society bought La Rochelle and moved their operations and displays into the building. The La Rochelle mansion is listed on the National Register of Historic Places.

Stone Barn Farm

This 128-acre historic agricultural property has been farmed since the 1800s, and was added to the National Register of Historic Places in 2001. In the 19th and 20th centuries, the farming industry declined on the island, and development encroached on its agricultural lands. The Stone Barn Farm survived the pressure of development because the farmland was productive enough to survive the economic pressures of the second half of the nineteenth and the first half of the twentieth century. The barn was built in 1907 by a family of masons and farmers. According to the application for the National Register of Historic Places, "the stone barn's first story is constructed of glacial stone with granite sills and lintels, the whole of which is covered by an expansive gambrel roof with wood shingled frame end walls. Although it is not positively known why the Shea Brothers constructed a barn of stone, if nothing else it demonstrated their skill in building in such a material." In 2018, Maine Coast Heritage Trust (MCHT) acquired the farm and turned it into a public preserve where community members can walk, bird, cross country ski, and ice skate. MCHT is currently working on renovations to the barn that will keep with the historic character of the structure but also make the necessary improvements required for its longevity. They're also planning to raise funds to create additional parking, expand programming, improve the site as a gathering place, and create community gardens.

LOCAL HISTORIC RESOURCES

The Town of Bar Harbor regulates notable historic properties within the downtown through their Design Review Overlay District. The purpose of this overlay district is to identify historic properties that must comply with design standards to protect the historic integrity and character of properties over time. The district establishes and enforces these design standards to create harmonious, historically preserved villages consisting of a variety of architectural styles and treatments. A list of historic properties within the Design Review Overlay District can be found in Table 7.2.

Table 7.2: Historic Properties in Bar Harbor's Design Review Overlay District Source: Town of Bar Harbor, Nov. 2021					
Historic Name	**Address**	**Present Name**	**Date Built**	**National Register**	**Significance**
Villa Mary 77 Eden Street Villa Mary	105 Eden Street	Eden Street at the College of the Atlantic	1879-80	Yes	National Register property
Bagatelle (home and carriage house only)	75 Eden Street	Bagatelle	1883	Yes	National Register property
Fenwold	6 Harbor Lane	Fenwold	1891	Yes	National Register property
The Breezes	125 West Street	The Breezes	c. 1900	Yes	National Register property
Greenlawn	123 West Street	Greenlawn	1884	Yes	National Register property
Saltair	121 West Street	Saltair	1887	Yes	National Register property
The Tides	119 West Street	The Tides	1887	Yes	National Register property
The Sunset	115 West Street	The Sunset	1911	Yes	National Register property
The Bar Harbor Club	111 West Street	The Bar Harbor Club	1929-30	Yes	National Register property
Guelph	111 West Street	Rosebriar	c. 1875	Yes	National Register property
Blanchfield House	37 Eden Street	Blanchfield House	c. 1865		Architectural/ historical
	41 Eden Street	Caruso residence	c. 1890		Architectural/ historical
The Crossways	4 Holland Avenue	The Crossways	1901	Yes	National Register property
Westfield	120 West Street	Westfield	1901	Yes	National Register property
Maisonette	118 West Street	Maisonette	1886	Yes	National Register property

Historic Name	Address	Present Name	Date Built	National Register	Significance
Chantier	116 West Street	Chantier	1887	Yes	National Register property
The Kedge	112 West Street	The Kedge	c. 1870	Yes	National Register property
Bar Harbor High School	93 Cottage Street	Bar Harbor Municipal Building	1907-08		Architectural/ historical
Robert Hodgkins residence	69 Cottage Street	Cottage on Cottage			Architectural
Petunia Cottage	110 West Street	Petunia Cottage	1887	Yes	National Register property
Foster Cottage	108 West Street	Foster Cottage	1878	Yes	National Register property
Boscobel	106 West Street	Manor House Inn	1887	Yes	National Register property
Dr. Norton's office	67 Cottage Street	Dr. Parks' office			Architectural
Thankful Cottage	1 Billings Avenue	Thankful Cottage	c. 1850		Architectural
U.S. Post Office	55 Cottage Street	U.S. Post Office	1909	Yes	National Register property
	17 Main Street	Galyn's	c. 1892		Architectural
	23 Cottage Street	Cadillac North Face	c. 1900		Possible National Register district
	29 Cottage Street	Cadillac AG	c. 1910		Possible National Register district
Criterion Theatre	35 Cottage Street	Criterion Theatre	1932	Yes	National Register property
Odd Fellows Hall	39 Cottage Street	Odd Fellows Hall	c. 1937		Local landmark
Haraden residence	130 Cottage Street	2 Cats	c. 1884		Architectural
	73 Mount Desert Street	Primrose Inn	c. 1878		Architectural
Ash Cottage	69 Mount Desert Street	Mira Monte Inn	1864		Architectural
H.A. Brown Furniture	74 Cottage Street	Salon NaturELLES			Architectural
Christian Science Church	57 Mount Desert Street	White Columns Inn	1937		Architectural/ historical

Historic Name	Address	Present Name	Date Built	National Register	Significance
Stonethrow	67 Mount Desert Street	Stonethrow	c. 1860		Architectural
American Legion Hall	70 Cottage Street	American Legion Hall	c. 1928		Architectural/ historical
	47 Mount Desert Street	Thornhedge Inn	1900		Architectural
	45 Mount Desert Street	Stratford House Inn	1900		Architectural
St. Saviour's Church and rectory	41 Mount Desert Street	St. Saviour's Church and rectory	1900	Yes	National Register property
Central House	60 Cottage Street	Central House	1887		Architectural/ historical
Bar Harbor Congregational Church	29 Mount Desert Street	Bar Harbor Congregational Church	1951		Architectural/ historical
	46 Cottage Street	Rosalie's	c. 1900		Architectural
	14 Cottage Street	Pink Pastry Shop	c. 1889		Possible National Register district
	8 Cottage Street	Epicurean			Architectural
Emery Block Building	103 Main Street	Bar Harbor Savings & Loan Assn.	c. 1900		Architectural
Lyford Woodard Building	109 Main Street	Bar Harbor Law Offices	c. 1887		Architectural/ historical
F.H. Moses Florist Shop	113 Main Street	Stone Soup	1904		Architectural
Bar Harbor Police Station	38 Rodick Street	Coston & Mclsaac	c. 1900		Architectural/ historical
Comfort Station	Firefly Lane	Information Building			Architectural/ historical
Bar Harbor Fire Station	Firefly Lane	Bar Harbor Fire Station	1911		Architectural/ historical
Village Green	Main and Mount Desert	Bandstand, clock, fountain	Various		Local landmark
	74 Mount Desert Street	Holbrook House Inn	c. 1890		Architectural
Holy Redeemer Roman Catholic Church	56 Mount Desert Street	Holy Redeemer Roman Catholic Church	1907		Architectural/ historical
YWCA	36 Mount Desert Street	YWCA	1913		Local landmark
Jesup Memorial Library	34 Mount Desert Street	Jesup Memorial Library	1911		Architectural/ historical

Historic Name	Address	Present Name	Date Built	National Register	Significance
YMCA	26 Mount Desert Street	Abbe Museum	1928		Local landmark
McKay Cottages	227 Main Street	McKay's Restaurant			Architectural
	194 Main Street	Ivy Manor			Architectural
	166 Main Street	Window Panes			Architectural
Butterfields	154 Main Street	Sailor & Hook			Architectural/ historical
Pine and Palm (original facade only)	134 Main Street	Acadia Corporation	c. 1883		Architectural/ historical
Sproul's Cafe	128 Main Street	Ward Building	1880	Yes	National Register property
Bee's Candy	116 Main Street	Hemporium	c. 1880		Architectural/ historical
Caleb's	112 Main Street	The Barnacle	c. 1900		Architectural
First National Bank (original building only)	102 Main Street	First National Bank			Architectural/ historical
Grant Building	80 Main Street	Dali's Jewelry	1897		Architectural/ historical
The Mount Desert Reading Room (original reading room only)	8 Newport Drive	Bar Harbor Inn	1887		Architectural/ historical
Morrison Building	62 Main Street	Morrison Building	1897		Architectural/ historical
Sherman's Bookstore	56 Main Street	Sherman's Bookstore			Architectural
Agamont Park fountain	3 Newport Drive	Agamont Park fountain			Local landmark
Bar Harbor Banking & Trust	82 Main Street	Bar Harbor Banking & Trust	1887		Architectural/ historical
Bass Cottage	14 The Field	Bass Cottage Inn	1885		Possible National Register district
Ullikana	16 The Field	Ullikana	1885		Possible National Register district
Bangor Hydro Building	18 Edgewood Street	Bangor Hydro Building			Architectural/ historical
Edgar Morang residence	278 Main Street	Project Social	1924		Architectural
Bar Harbor Water Co.	337 Main Street	Anchor Space			Architectural
Signs					
Geddy's Pub Moose	19 Main Street	Geddy's Pub Moose			Local landmark
Criterion Theatre marquee	35 Cottage Street	Criterion Theatre marquee	1932	Yes	National Register property

Historic Name	Address	Present Name	Date Built	National Register	Significance
West End Drug stained glass	105 Main Street	West End Drug stained glass			Architectural/ historical
First National Bank clock sign	102 Main Street	First National Bank clock sign			Architectural/ historical
Bar Harbor Banking & Trust awning sign	82 Main Street	Bar Harbor Banking & Trust awning sign	1887		Architectural/ historical

ARCHAEOLOGICAL RESOURCE INVENTORY

The Maine Historic Preservation Commission (MHPC) identifies two types of archaeological sites that need consideration during growth management planning: prehistoric archaeological sites (Native American, before European arrival) and historic archaeological sites (mostly European-American, after written historic records about 1600 A.D.). Prehistoric sites may include campsites, village locations, rock quarries, petroglyphs, and rock carvings. Historic archaeological sites may include cellar holes from houses, foundations of farm buildings, mill boatyards, wharves, and near-shore shipwrecks. MHPC provides each community in Maine a list of known historic and prehistoric archaeological sites in that municipality, as well as known information about site location and significance.

PREHISTORIC ARCHAEOLOGICAL SITES

As of May 2020, the Maine Historic Preservation Commission has inventoried and identified 15 prehistoric archaeological sites as being historically significant in Bar Harbor. According to the inventory "most or all are shell middens located in the shoreland zone (along tidal water)." Mapping is not available currently for these sites. These sites date back as far as 6,000 – 7,000 years ago. Most or all relate to Ceramic Period shell middens located in the shoreland zone (along tidal water).

According to the University of Maine, a shell midden is a cultural space created by indigenous peoples during thousands of years of coastal living. They're often found in two distinctive locations: in sheltered coves or bays, located near tidal flats and often near tidal/inland streams and on more exposed, seaward facing bluffs or beaches. Middens are composed of shells (oyster, clam, mussel), faunal remains (mammal, fish, bird, and reptile bones and teeth), and, to a lesser degree, botanical remains, mostly seeds. Some middens contain evidence of dwellings, burials, and tool fragments. Living and activity areas were often associated with these "landfills" of shells, bone refuse, and broken tools. Some sites represent seasonal residences, others, year-round villages.

In general, Bar Harbor's shell midden sites are all threatened by human impacts from development and amateur digging, as well as by natural forces such as sea level rise and storm erosion. According to the University of Maine, the largest factors threatening shell middens including coastal erosion, increasing freeze/thaw events, and looting. Coastal erosion is caused by a combination of sea level rise and storm driven waves, increasing the amount of coastal erosion associated with storms. Freeze/thaw activities represents a less dramatic, but also significant erosion factor. Looting, or the act of digging in shell middens to take artifacts, also exacerbates natural erosion process and disrupts the integrity of the middens.

HISTORIC ARCHAEOLOGICAL SITES

To date, 92 historic archaeological sites have been documented for the Town of Bar Harbor. Many of the sites consist of shipwrecks represented by actual wrecks and those identified through documentary sources. A complete list of historic archaeological sites documented in Bar Harbor can be found in Table 7.3 on the following pages.

Table 7.3: Historic Archaeological Sites
Source: Maine Historic Preservation Commission – May 2020

Site Name	Site Number	Site Type	Periods of Significance
Winskeag Settlement	ME 028-001	domestic	1676-1725 (1688)
Indian Point House	ME 028-002	domestic	1840-1860
Duck Brook Saw Mill	ME 028-003	mill, sawmill	by 1785- by 1855
School Street Indian Camp	ME 028-004	camp	1880-1907
Old Farm Estate	ME 028-005	domestic	late 19th century - post 1927
Cadillac Mountain Cross	ME 028-006	petroglyph	Late 19th c. marking 17th-c. event?
Wauwinnet	ME 028-007	wreck, steamer	1883-1890
Maud Maloch	ME 028-008	wreck, schooner	Jan. 19, 1907
Bodwell	ME 028-009	wreck, vessel	1924
Otter Cliffs Radio Station	ME 028-010	radio station	1917-1934
Decked Shallop Wreck	ME 028-011	wreck, shallop	c. 1672
Dump	ME 028-012	dump	20th century
Schooner Head Battery	ME 028-013	military, battery	c. 1898
Pitcher find	ME 028-014	artifact find, ceramic	1907? Late 19th or 20th c.
Pray Meadow House #1	ME 028-015	domestic	Mid 19th to early 20th Century
Pray Meadow House #2	ME 028-016	domestic	Probably mid 19th century
Robert Young Farmstead	ME 028-017	farmstead	mid 19th c.- early 20th c.
David Thomas	ME 028-018	farmstead	mid 19th c. - c. 1930
H. Bunker	ME 028-019	farmstead	19th c.
Fabbri	ME 028-020	domestic, summer house	early 20th c.
Otter Cliff Radio Station-2 (tower)	ME 028-021	radio station	early 20th c.
Diana	ME 028-022	wreck, gas screw	1900-1923
Dog Watch	ME 028-023	wreck, oil screw	1960-1975
David Bracy's Fishhouse	ME 028-024	fish house	19th c., before 1888.
Satterlee Estate	ME 028-025	domestic, summer house	1910-1949
Green Mountain Cog Railway	ME 028-026	railroad	1881-1893
Yeoman	ME 028-027	wreck, sloop	1879-1913
Tay	ME 028-028	wreck, vessel	Wrecked at Great Head, Mount Desert Island on July 29, 1911

Site Name	Site Number	Site Type	Periods of Significance
Astral	ME 028-029	wreck, vessel	1902
Cadillac Mountain Cast-iron Pot	ME 028-030	artifact find, iron pot	mid-19th century
Brewer Ice House	ME 028-031	industrial, ice works	1875-1951
Cadillac Mountain Farm	ME 028-032	farmstead	Unknown, Probably late 19th c to early 20th c
Fabbri Memorial Plaque	ME 028-033	monument	erected circa 1937
Rowell Lookout estate	ME 028-034	domestic, summer house	early 20th c; circa 1910
unidentified cistern/well	ME 028-035	well, cistern	probably early 20th c
Summit House	ME 028-036	hotel	1883-1890s
Route 233 Shack and Dump	ME 028-037	domestic, camp	Early 20th c
Duck Brook Reservoir	ME 028-038	reservoir	Late 19th or early 20th c
Otter Creek "store"	ME 028-039	commercial, store	circa 1850
Lakewood Dump	ME 028-040	dump	late 19th to early 20th c
CJ Hall Quarry	ME 028-041	quarry, granite	Late 19th century or early 20th c
Paradise Hill road reservoir	ME 028-042	reservoir	Late 19th or early 20th c
Upper Witch Hole Pond camp	ME 028-043	domestic, summer house	circa 1904
U.S. Coast Survey Station	ME 028-044	survey station	after 1854
Old Otter Cliff Road	ME 028-045	road	Late 19th c and early 20th c
Greystone estate	ME 028-046	domestic, summer house	circa 1875 to 1947
Beaver pond camp	ME 028-047	domestic, summer house	pre-1935 to 1947
L. McFarland - Newman Farmstead	ME 028-048	farmstead	1860s to 1930s
George Newman Grave & Foundation	ME 028-049	cemetery	Marked 1887 as death
Kane- Bridgham Memorial	ME 028-050	monument	circa 1930
Lakewood facilities	ME 028-051	bathhouse	1940s-1960s
Lookout estate	ME 028-052	domestic, summer house	circa 1896
McFarland ski lift	ME 028-053	ski tow	1940s to 1960s
Atwater Kent Field Monument	ME 028-054	monument	Early 20th c
Lakewood Bridge	ME 028-055	bridge	Early 20th c
Duck Brook Quarry	ME 028-056	quarry	1930s-1950s
Eagle Lake House	ME 028-057	commercial	circa 1874
Glen Eyrie estate	ME 028-058	domestic, summer house	circa 1875 to 1940s
Mount Kebo Spring Bottling Co.	ME 028-059	industrial, bottling	1906 to 1929
Duck Brook Sand Filtration structures	ME 028-060	water treatment facility	Built 1905
Hare Forest estate	ME 028-061	domestic, summer house	Early 20th c
High Seas estate cistern	ME 028-062	well, cistern	Early 20th c
LN Kettle estate	ME 028-063	domestic, summer house	Early 20th c
Water Tower or Standpipe	ME 028-064	tower, water	circa 1880 to circa 1900
Eagle Lake Lot	ME 028-065	unidentified	unknown; probably late nineteenth or early twentieth century

Site Name	Site Number	Site Type	Periods of Significance
Eagle Lake Quarry	ME 028-066	quarry, granite	1930s
Otter Point Foundation	ME 028-067	structure, unidentified	1930s
Otter Creek Small Home	ME 028-068	domestic	Probably early to mid twentieth century
Archbold estate	ME 028-069	domestic, summer house	circa 1900 to 1947
West Beaver Pond estate	ME 028-070	domestic, summer house	Probably late nineteenth and early twentieth century
Homan estate	ME 028-071	domestic, summer house	pre 1880 to circa 1950
Oak Hill estate	ME 028-072	domestic, summer house	1940s
New Mills Meadow House	ME 028-073	domestic	perhaps abandoned by 1850s
New Mills Meadow Road	ME 028-074	road	before 1850s to after 1875
Cadillac Tavern	ME 028-075	tavern and military, barracks	1930s to 1940s
Curran House	ME 028-076	hotel	ca. 1885 to ca. 1900
Summit House #2 (1885)	ME 028-077	hotel	1885-1897
Green Mountain House	ME 028-078	hotel	ca. 1860s - ca. 1883
U.S. Military radar station #1	ME 028-079	military, radar station	1942-1944
U.S. Military radar station #2	ME 028-080	military, radar station	ca. 1944-ca. 1945
Cadillac Mountain Cross #2	ME 028-081	petroglyph	date uncertain, 17th-20th centuries
Cadillac Mountain North Ridge Road	ME 028-082	road	ca. 1854-ca. 1925?
F.L. Lowell	ME 028-083	wreck, schooner	8-Feb-08
Palm	ME 028-084	wreck, steam screw	10-Oct-20
Susie and Winnie	ME 028-085	wreck, gas screw	4-Mar-14
Sieur de Monts Spring Visitors Center	ME 028-086		
Cadillac Mt. Lower Road	ME 028-087	road	late 19th- early 20th-century?

HISTORIC PROPERTIES AND CLIMATE CHANGE

The Maine Historic Preservation Commission has developed a Geographic Information System (GIS) map (see Image 7.1) that depicts the locations of properties in Bar Harbor listed in the National Register of Historic Places, National Historic Landmarks or museums/archives along with layers depicting potential threats to these properties including flood, sea-level rise, storm surge. The map also shows current National Oceanic and Atmospheric Agency (NOAA) hazards and watches. To evaluate which historic properties in Bar Harbor are at risk for being impacted by storm surges, sea level rise, and climate change, the State of Maine's 2018 Sea Level Rise Storm Surge Scenarios data was analyzed. This evaluated several sea level rise scenarios including 1.2 ft. events, 1.6 ft. events, 3.9 ft. events, 6.1 ft. events, and more.

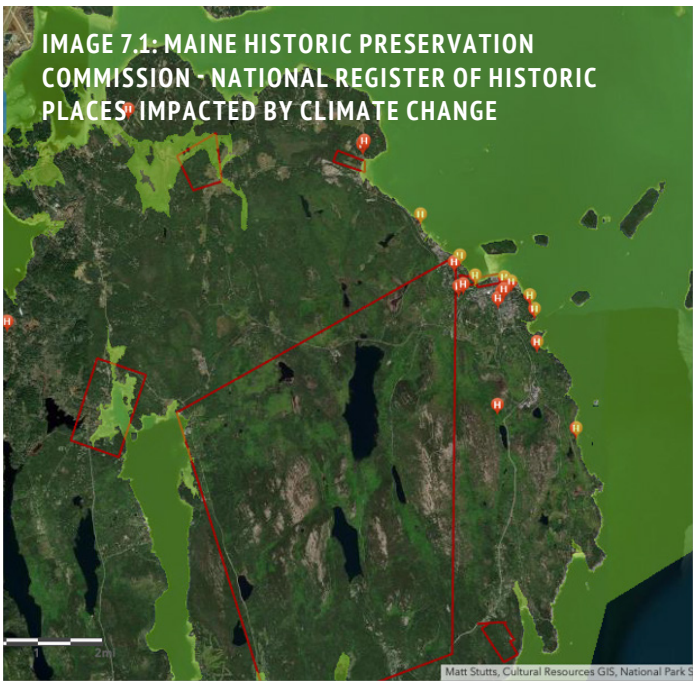


IMAGE 7.1: MAINE HISTORIC PRESERVATION COMMISSION - NATIONAL REGISTER OF HISTORIC PLACES IMPACTED BY CLIMATE CHANGE

The following National Register of Historic Places sites in Bar Harbor that are most at risk during these storm surge scenarios include:

- Eegoenos – 145 Eden Street
- Turrets – 105 Eden Street
- Harbor Lane – Eden Street Historic District
- Reverie Cove – 7 Harbor Lane
- Criterion Theatre – 35 Cottage Street
- John Innes Kane Cottage – 45 Hancock Street
- Redwood – 10 Barberry Lane
- Nannau – 396 Maine Street
- Highseas – 260 Schooner Head Road

HISTORIC PRESERVATION

BAR HARBOR'S DESIGN REVIEW BOARD

The Design Review Board reviews project proposals for development, redevelopment, rehabilitation and/or preservation that affect the visual quality of the district. The Design Review Board reviews all projects in the Design Review Overlay District which includes jurisdictions of the downtown village districts, the Shoreland General Development I District, Town Hill Business, and the Village Historic District. A Certificate of Appropriateness is an approval from the Design Review Board that indicates the project was reviewed and deemed compliant with the historic architecture of that village. Projects

include any proposed changes to historic properties and may include building renovations, signage, lighting, outdoor storage and display, fencing, and landscaping.

The Town's Design Review Handbook provides guidance and examples of appropriate design elements that keep with the historic integrity of the district and explains the design review process to applicants. The document also describes the construction elements that would necessitate approval from the Board before the project is conducted.

THE DARK SKIES OF MOUNT DESERT ISLAND

Maine's spectacular rocky coast is home to Acadia National Park, and some of the last pristine, star-filled night skies in the eastern United States. Here, the Milky Way shines bright in the largest expanse of naturally dark sky east of the Mississippi River. With the rapid loss of dark skies to light pollution, Maine is increasingly being referred to as one place that "still has stars". The Bar Harbor Conservation Commission created a city-wide ordinance called "Light and Glare" to protect the dark night skies of Bar Harbor from light pollution. This requires all outdoor lighting in Bar Harbor to be "night sky friendly", meaning all lighting greater than 1800 lumens should not be visible from above.

HISTORIC RESOURCE INVENTORY NEEDS

The following recommendations were provided by the Maine Historic Preservation Commission for the Town of Bar Harbor.

- **Historic Buildings and Structures:** A comprehensive survey of Bar Harbor's above-ground historic resources needs to be undertaken to identify additional properties that may be eligible for listing in the National Register.
- **Historic Archaeological Sites:** Future archaeological survey should focus on the identification of potentially significant resources associated with the town's agricultural, residential, and industrial heritage, particularly those associated with the earliest Euro-American settlement of the town in the 18th and 19th centuries.
- **Prehistoric Archaeological Sites:** Much of the shoreline has been surveyed by professional archaeologists. However, intensive-level survey is necessary at some sites to determine National Register eligibility. Additionally, MHPC recommends that the shoreline north of downtown to Salisbury Cove needs to be surveyed.

HISTORIC AND CULTURAL ORGANIZATIONS

The following organizations in Bar Harbor are involved in the preservation, protection, and education about Bar Harbor's cultural and historic resources.

BAR HARBOR HISTORICAL SOCIETY

The Bar Harbor Historical Society was founded in 1946 after George Door, known as a founder of Acadia National Park, passed away. The first location of the society was the Jessup Memorial Library until 1977 when the Society purchased their own building (the St. Edward's Convent on Ledgelawn Avenue). In 2019, the Historical Society purchased the La Rochelle Mansion which the Society's permanent collection and offices were moved and now reside. La Rochelle is a repository and research center for Bar Harbor's history including documents, books, photos, artworks, and furnishings. It serves as a museum that displays artifacts from the area. The museum location also provides a view of the past

with a furnished bedrooms to the historical era. Some exhibit highlights are the Dorr and Rockefeller Family Libraries, Wabanaki Waterfront history, and the Beatrix Farrand Flower Room. The museum is open from May through October. The museum is also available for rent for events, such as weddings.

JESUP MEMORIAL LIBRARY

The Jesup Memorial Library is a nonprofit organization and the town's library for Bar Harbor. The library is not only a community resource but also an important gathering place. The library offers periodical rooms, research, and historical archive files. The first library in Bar Harbor was built in 1877 and moved a few times before "George Door's visionary library" came to surface in 1909. Maria Dewitt Jesup, wife of Morris K. Jesup who was a New York financier and summer colony member, agreed to cover the cost in Morris' memory and be the caretaker of the library in which George Dorr dubbed "Jesup Memorial Library" in 1911. Due to the fire of 1947 in Bar Harbor, the library lost some historical documentation.

ABBE MUSEUM

The Abbe Museum was first founded in 1926. The museum became the first archaeological research museum in Maine that conducted extensive excavations and promoted archaeological research. The museum was founded by Dr. Robert Abbe, a New York Physician who was known for his radiology therapy practices. He collected Native American artifacts and encouraged others to collect these objects of the past to preserve them for education and viewing purposes. The museum holds the largest documented collection of Maine Wabanaki made basketry which represents 12,000 years of Native American culture in Maine. Due to the museum's extensive collection, in 1997, the Abbe Museum purchased the former YMCA located in downtown. The relocation was able to provide 17,000 square feet of space for exhibitions, galleries, indoor and outdoor program spaces, a research lab, and collections storage. In 2018, the Abbe Museum became a Smithsonian Affiliate, which establishes a long-term partnership between the Museum and the Smithsonian Institution. This partnership will support collaboration between the organizations, expand the Museum's visibility in the marketplace, and honor the robust Native American heritage and culture in Maine.

BAR HARBOR VILLAGE IMPROVEMENT ASSOCIATION

The Bar Harbor Village Improvement Association (BHVIA) is an organization that is dedicated to protecting and maintaining the character of Bar Harbor. This group's efforts center around public education about local history and local beautification. Since 1881, BHVIA has been preserving the unique beauty and history of the community. They focus on:

- Educating visitors and residents about our history through programs like our Museum in the Streets.
- Revitalizing local landmarks and green spaces, including a recent project building DeGregoire Park.
- Maintaining properties owned by the town, including the Shore Path and the Veterans Memorial.
- Preserving our own local properties, such as Bald Rock, Glen Mary Park, and the How Memorial.

The BHVIA, in collaboration with the Bar Harbor Historical Society and the Town of Bar Harbor, established a free walking tour and heritage discovery trail called the Museum in the Streets, which features 26 placards and photographs through town, allowing residents and visitors to explore Bar Harbor's history by foot. 20 newer panels were added in 2019. The purpose of this project was to foster a sense of historical identity, educate, and encourage the preservation of local historic sites and promote knowledge of stories, events, and traditions.

FRIENDS OF ACADIA

Friends of Acadia is a nonprofit organization guided by the principles of stewardship, advocacy and education, citizen engagement, collaboration, and leadership. They partner with Acadia National Park in activities like park philanthropy, advocacy, volunteerism, and communications. They provide and support education of the public regarding the legacy of Acadia, the conservation values it represents, the threats it faces, and the ways in which citizens can help protect it. They manage programs like Wild Acadia, which is a partnership-based, interdisciplinary, and updated approach to managing Acadia's natural and cultural resources threatened by climate change, land stewardship education programs, support for the Island Explorer bus system, trail and carriage road maintenance, preservation of lighthouses and bridges, and maintenance of the Wild Gardens of Acadia.

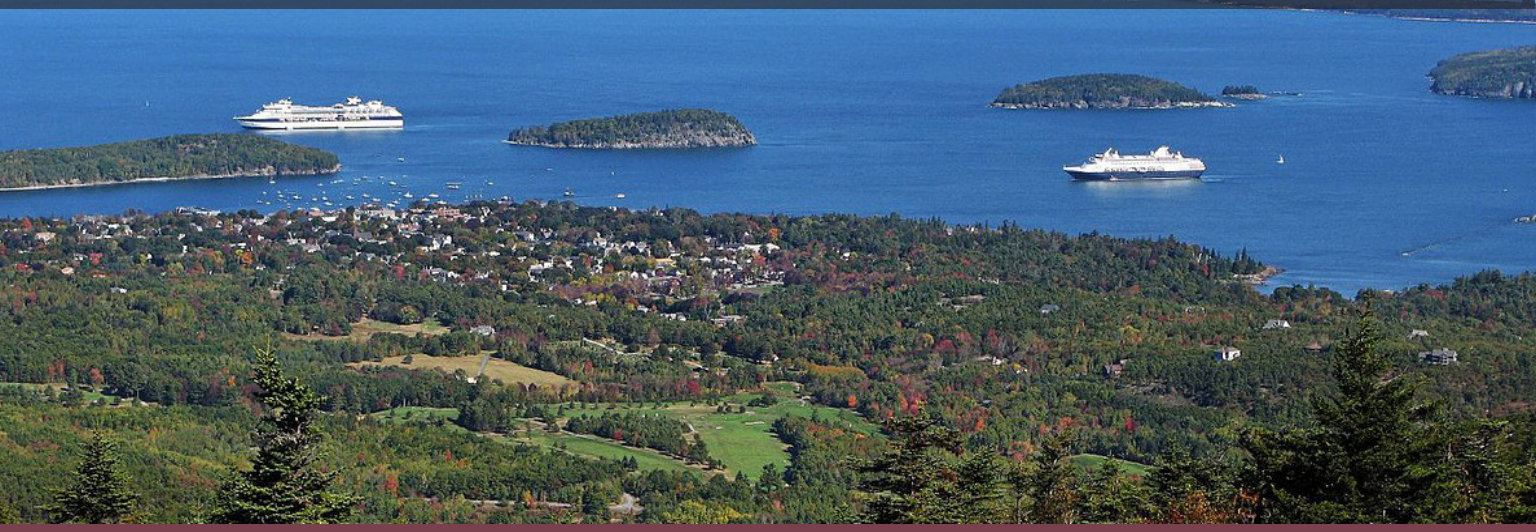
REFERENCES

- Comprehensive Plan Update, Bar Harbor, Maine. June 2007.
- Maine Historic Preservation Commission Inventory Data Package for Municipal Growth Management Plans.
- Design Review Overlay District Design Review Handbook. Town of Bar Harbor.
- Weathering Maine: Mapping Threats to Maine's Historic and Cultural Resources. Maine Historic Preservation Commission.
- The Abbe Museum
- Bar Harbor Historical Society: "A Town History"
- National Park Service: History and Culture of Acadia National Park
- Jessup Memorial Library
- Bar Harbor Open Space Plan
- Maine Historical Society – Maine Memory Network
- Downeast Fisheries Trail
- "What is a Midden?". University of Maine.
- The Mudflat – Maine Shellfish Learning Network
- Maine Coast Heritage Trust
- Acadia Night Sky Festival
- Town of Bar Harbor
- Visit Bar Harbor

LAND USE

BAR HARBOR 2022 EXISTING CONDITIONS SUMMARY

Land use refers to how land is being used in a community and the location, distribution, and character of those uses. Land use has a direct relationship with transportation, natural and cultural resources, infrastructure, and housing. Land use changes, over time, have the potential to impact how walkable, livable, resilience, and vibrant a community is.



Over half of the land area in Bar Harbor is conserved. This removes a large area of the town from potentially developable land. This high percentage of conserved lands is an important part of Bar Harbor's character, and is an asset and challenge at the same time.

29% of Bar Harbor is developed land, 15% is undeveloped land, and the remaining area is permanently conserved. Much of the town's development is concentrated in the downtown area, however lower density residential occurs throughout town.

Townwide, only 2% of the developed parcels acreage are actually covered by building footprints. This may indicate opportunities for infill development and higher density in some areas.

Aside from land used for Acadia National Park, the **most prevalent land use in Bar Harbor is residential.**

Vacant land specifically has fallen by approximately 33% since the 2007 comprehensive plan.
This indicates that there is an increasingly smaller amount of land that could be developed in town. The neighborhood with the greatest percent of decreased vacant land acreage is the Emery District, followed by the Town Hill neighborhood. The areas of Bar Harbor that were previously vacant land in 2007 and are no longer vacant land use have primarily been converted to residential land use followed by conservation and education uses.

Of the developed and undeveloped parcels within the town (excluding conserved lands), approximately half are impacted by environmental constraints. This includes wetlands, waterbodies, tributaries, buffers around these features, hydric soils, and steep slopes.

The most prevalent land cover in Bar Harbor is forested land at 66%.
This is correlated with the high amount of conserved land in town. Developed land covers approximately 9% of the land surface in Bar Harbor.

Bar Harbor has 40 unique zoning districts.
Over half of these zones are very small, or less than 1% each of the Town land area (less than approximately 250 acres).

The Town of Bar Harbor can be divided into 11 neighborhoods.
Neighborhoods include the Downtown, Schooner Head, Otter Creek, the Emery District, Hulls Cove, Indian Point, Ireson Hill, McFarland Hill, Salisbury Cove, Town Hill, and Acadia National Park.

The coastal neighborhoods – such as Downtown, Schooner Head, and Ireson Hill, and Otter Creek **have the highest average assessed land value per acre** as compared to all neighborhoods.

The Downtown neighborhood has the single highest total land value at approximately $517 million, and also has the highest assessed land value per acre at approximately $366 thousand per acre.

Land use regulations that encourage walkable neighborhoods and downtown streets to promote sustainability and reduce traffic congestion have been identified as an important land use element that could be improved in Bar Harbor

Agriculture has been identified as an important natural resource to protect by the town and faces major constraints of high land value and limited land area available for agriculture in Bar Harbor.

The town owns very little municipal land at **approximately 149 acres.**

8. Land Use

INTRODUCTION

The most notable features of existing land use in Bar Harbor are first, that just over half of the land area in the town is conserved land, and second, that the majority of the remaining parcels are already developed, and while some parcels could accommodate more development overall, there is little room for new development in the town. The limited number of parcels and acreage that are currently undeveloped and have development potential in the future underscores the land use challenges faced by Bar Harbor, including high housing prices, high land prices, and parks and open space that receive a high demand of use from visitors and residents that put pressure on limited space.

The composition of Bar Harbor with the presence of Acadia National Park and such a high percentage of conserved lands is very unique. This benefits the town with pristine habitat, natural beauty, and a wealth of tourism opportunities, but also challenges the town with reduced land area for development, a lack of affordable housing for residents and workers, and heavy tourism use that outstrips the town's ability to support it. In turn, the influx of tourism has the potential to threaten the natural beauty and habitats in town. In Acadia National Park and the town's public resources, tourism creates traffic congestion, crowding, heavy use on popular trails, damage to sensitive vegetation, soil compaction, erosion, and disruption of wildlife activities. Some of Acadia's characteristic alpine and coastal ecosystems are especially vulnerable to damage from trampling. This existing land use chapter looks further into the challenges and opportunities of land use in Bar Harbor, including a breakdown of land use by neighborhood, assessed land value, developed lands and undeveloped lands, and potential for redevelopment. The following summary explains key insights.

PRELIMINARY ISSUES, CHALLENGES, AND OPPORTUNITIES

While many communities and coastal small towns in Maine face development pressures, the loss of desired rural character, and threats to infrastructure from climate change, among other challenges, Bar Harbor faces a unique combination of challenges. This includes a small amount of buildable land, intense summer tourism, great variation between summer and winter populations, a lack of affordable housing, complex zoning, and heavy traffic congestion from visitors and commuters. Over time, land use changes have the ability to impact a community's walkability, vibrancy, livability, and resiliency.

Fifty-four percent (54%), or approximately 24 square miles, of the Bar Harbor's land area is not developable in the future because it is permanently conserved. Developed areas of Bar Harbor compose 29%, or approximately 12.5 square miles of the town land based on assessor parcel data. The remaining 15%, or approximately 6.5 square miles, are undeveloped parcels. The remaining undeveloped land in town has become increasingly valuable as population and seasonal visitors increase.

These statistics reinforce sentiments identified by the Comprehensive Planning Committee about a lack of remaining developable land in Bar Harbor and indicate this is a topic that should be explored through a public forum. The data also lends context to affordable housing challenges identified by the town – meaning, with such a large component of the town undevelopable due to conservation constraints, constraints to development, and lands already developed, there is little opportunity for new development to address the lack of housing and affordable housing.

Redevelopment and infill development within Bar Harbor on existing developed parcels face challenges from the town's land use regulations, namely the land use regulations that specify minimum lot sizes, front/side/rear setbacks, and minimum area per family. These land use regulations control development density, sprawl, and neighborhood and town character. For example, large minimum lot sizes cause low density (sometimes where lots do not necessarily need to be as large). In addition, large setbacks cause houses to be further from the road to facilitate rural character, whereas when front setbacks are smaller, this can foster slowed traffic speed and increase walkability.

Land use regulations are a powerful tool that are beneficial, for example, in facilitating the rural character of a town and protecting critical habitat for wildlife species. Land use regulations can also be detrimental to a town's growth and should be reassessed or adjusted based on the relevant challenges a town faces with development. The housing analysis observed that from a zoning perspective, residential uses are allowed in many of Bar Harbor's zoning districts today. Thus, the housing issues in Bar Harbor, from a regulatory perspective, may be less about the types of uses allowed in many districts and more about the dimensional regulations, parking, heights, and densities of residential uses, as well as demand for developing other types of uses.

For example, while 77% of the parcel acreage in the downtown neighborhood of Bar Harbor is considered developed, only 8% of the area of the developed parcels are actually covered by building footprints (see Figure 8.1). Townwide, only 2% of the developed parcels acreage are actually covered by building footprints. It is important to note that 100% building coverage of developed parcels is not required (nor desired, typically) to accomplish

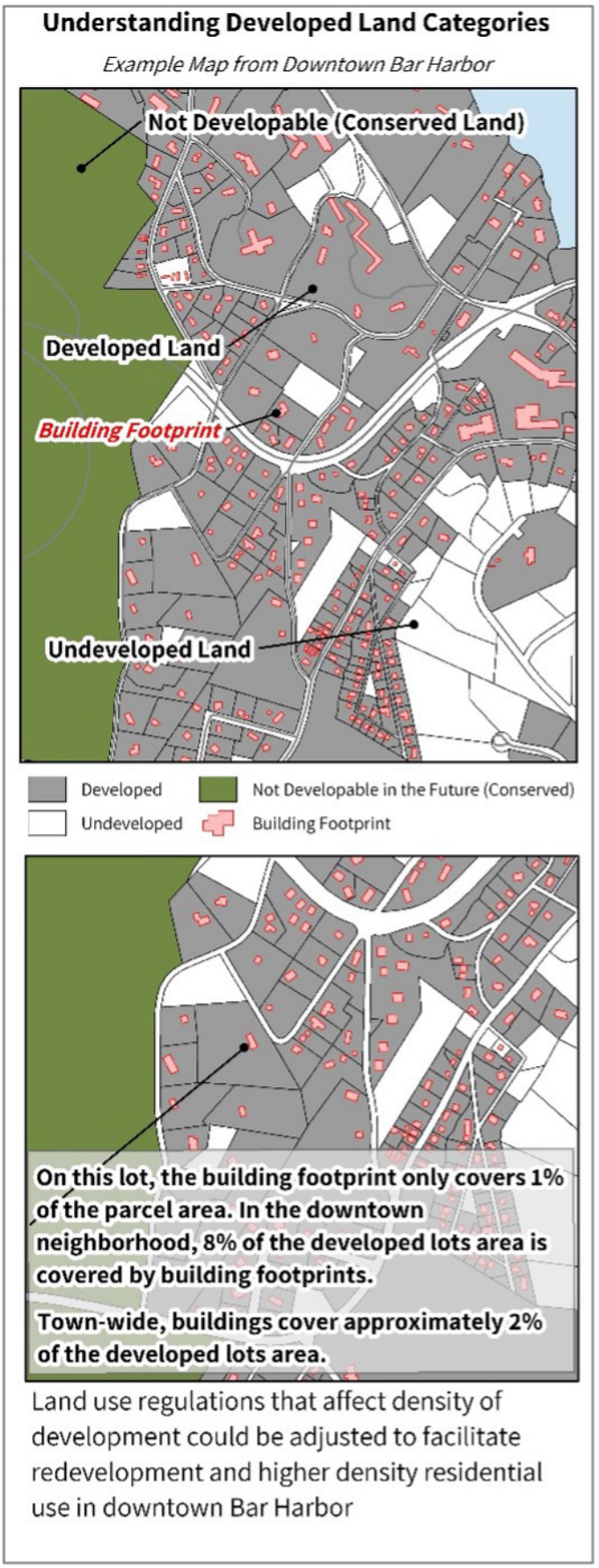


Figure 8.1: Developed land categories

a goal such as increasing housing availability – however, adjusting land use regulations to facilitate higher density housing and higher walkability in some areas of the town (such as downtown or adjacent neighborhoods) is one available method to address the challenges Bar Harbor faces.

The Bar Harbor Climate Task Force also identified encouraging development of walkable, accessible, and energy efficient neighborhoods in Bar Harbor to minimize greenhouse gas emissions from employee commuting and building energy use. As the task force suggests, this may be accomplished in part through adjusting land use policies such as neighborhood districting, minimum lot sizes, and allowed uses in the Bar Harbor land use regulations. As noted by the Bar Harbor Comprehensive Planning Committee, the current zoning in Bar Harbor further facilitates these land use challenges. Both residents and developers would benefit from simpler zoning. Anecdotally, developers are unsure if they will have approval to build based on the complicated zoning, which compounds the lack of new, affordable housing in the town. Of the town's 40 individual zones, the majority of them are very small, each composing <1% of the town land area – which again reinforces the complicated nature of the town's zoning. Redevelopment, infill development, and structural retrofits may be achieved through simpler zoning.

While land use regulations do have the potential to constrain or facilitate development, environmental constraints are also a key factor in determining development density in a town. Of the developed and undeveloped parcels within the town (excluding lands that will never be developable, i.e., conserved lands), approximately 48% percent will be constrained by environmental constraints. This includes wetlands, waterbodies, tributaries, buffers around these features, hydric soils, and steep slopes.

To protect surface waters, Bar Harbor has shoreland zoning provisions spread throughout the Land Use Ordinance. Some of these regulations are more stringent than the state regulations. For example, the town applies shoreland zoning provisions for areas that are within a shoreland district as a whole regardless if it is a mapped resource or not – it applies to the entire zone. Furthermore, the town regulates within 250 foot of resources that the state does not.

According to the Planning Department, this creates confusion. Staff and developers struggle to understand how to implement the regulations, resulting in a lack of confidence. And, as Bar Harbor did not adopt the state minimum regulations and as the town spreads the regulations throughout the ordinance, keeping up with minimum state standards is a challenge. Presently the state is conducting a review of the town's Land Use Ordinance to identify the areas where we do

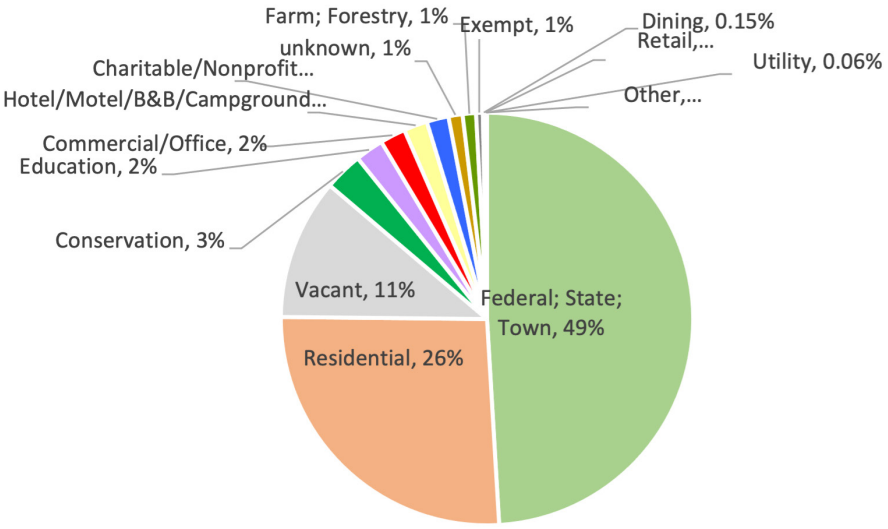


Figure 8.2: Land use in Bar Harbor. Data comes from the town's assessor database.

not meet minimum standards. Finally, the over-regulations often decrease the amount of buildable land on a lot and thereby increasing the building costs especially relating to housing subdivisions where developers will get less return on investment. For example, a developer may, through a rational thinking process, expect to get 10 lots out of a parcel but because of the town's more stringent shoreland zoning provisions, the developer may only get 5 lots. The State of Maine has done a remarkable job with its shoreland zoning regulations both to protect viewshed and to protect the quality of abutting resources and the Town of Bar Harbor would benefit from adopting state regulations as is. This would help with interpretation of the language, decrease confusion, increase confidence, and provide a better return on investment, all while adequately protection sensitive resources.

The 6.5 square miles of undeveloped area within Bar Harbor is composed of parcels that do not currently have any buildings, including vacant land and undeveloped land used for farming, forestry, education, utilities, and by nonprofit or governmental uses. Vacant land specifically has fallen by approximately 33% since the 2007 comprehensive plan. The neighborhood with the greatest percent of decreased vacant land acreage is the Emery District, followed by the Town Hill neighborhood. The areas of Bar Harbor that were previously vacant land in 2007 and are no longer vacant land use have primarily been converted to residential land use (47% of the previously vacant land), followed by conservation (33% of the previously vacant land) and education (12% of the previously vacant land). Unsurprisingly, the neighborhood of Bar Harbor that has the highest total land assessed value and the highest average assessed land value per acre is the Downtown neighborhood. In addition, the coastal neighborhoods – Schooner Head, Ireson Hill, Hulls Cove, and Salisbury Hill have the highest average assessed land value per acre as compared to all neighborhoods. These neighborhoods continue to face development pressure due to their desirability. Lastly, in addition to housing, agriculture is another land use identified as important by the town that faces major constraints due to high land value and limited land area in Bar Harbor. Although agriculture is allowed in many of the town's zones, it composes a relatively small percentage of the town.

LAND COVER AND LAND USE OVERVIEW

The Town of Bar Harbor total land area is approximately 43 square miles, excluding coastal waters. An additional approximately 20 square miles of offshore surface water are located within the municipal boundaries. Land cover refers to the characteristic of the land surface, of which the most prevalent in Bar Harbor is forested land (66% of land cover). Developed land cover covers approximately 9% of the land surface in Bar Harbor, most densely present in the downtown neighborhood. Land use refers to how land is utilized in Bar Harbor, and is determined by zoning. Land use data is cataloged using the Town of Bar Harbor assessor database and categorized for analysis. The most prevalent land use in Bar Harbor falls under the Federal/State/Municipal land use category at 49% of Bar Harbor's land area (most of which is composed of Acadia National Park). The second most prevalent land cover is residential land (26%), located throughout the town, especially densely along the coastlines.

LAND COVER

Within Bar Harbor, the most prevalent land use is forested land, including evergreen, deciduous, and mixed forest. Forests compose approximately 66% of the land area in Bar Harbor. Wetlands within Bar Harbor also compose a significant percentage of the land area, composing approximately 14%, and including palustrine forested, palustrine emergent, palustrine scrub/shrub, estuarine emergent, and estuarine scrub/shrub wetlands. Developed land, including low intensity, medium intensity, high intensity

developed and developed open space, compose approximately 9% of the land area in Bar Harbor (note: varying land cover datasets estimated developed land in Bar Harbor between 9-12%. 9% comes from the nationally standardized land cover inventory, last updated in 2016). Developed land in Bar Harbor is located mainly in the downtown area, as well as along Route 3 along the northern and eastern coastal areas. Less than 1% of Bar Harbor is categorized as pasture, hay, or cultivated land.

LAND USE

Almost half (approximately 49%) of the land within Bar Harbor is categorized as Federal/State/Town land. More specifically, of this category of Federal/State/Town land, the majority of that land is federal land (Acadia National Park). Within this land cover breakdown, Acadia National Park is categorized as federal land, not conserved land (conserved lands is further categorized in a following section). Residential Land use is the second most prevalent land use at 26%, including single family, multi-family, condos, etc. Vacant lands compose at 11% of the land use in Bar Harbor. Refer to Map 8.1 to view mapped land use. The following section provides further analysis of land use by neighborhood within Bar Harbor.

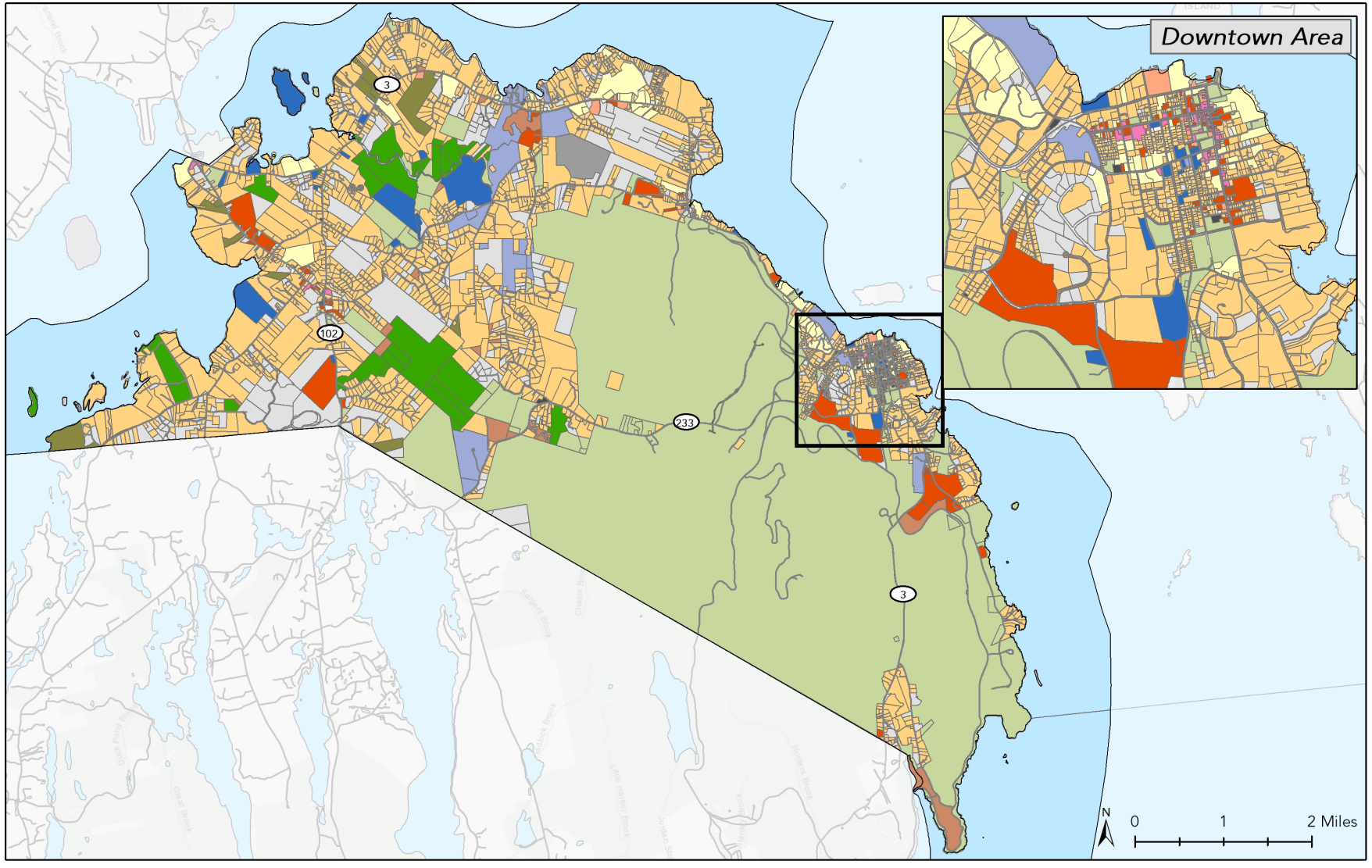
DEVELOPED AND UNDEVELOPED LANDS & FUTURE REDEVELOPMENT

Parcels in Bar Harbor can be divided into three categories: developed, undeveloped, and not developable in the future (conserved lands) based on the Bar Harbor assessor database (Figure 8.1; Table 8.1).

> Developed parcels include residential, hotel/motel/campground, commercial, retail, and dining uses. In addition, developed parcels include the following uses if there is a building on the parcel: farm/forestry, Federal/State/Town buildings, education, utility, charitable/nonprofit organization, other, and exempt uses. These parcels have opportunity for redevelopment only.
>
> Undeveloped parcels include the vacant parcels, and parcels from the following land uses if there is no building on the parcel: farm/forestry, Federal/State/Town buildings, education, utility, charitable/nonprofit organization, other, and exempt uses. These parcels have opportunity for new development.
>
> Non-developable in the future parcels include conserved lands. These parcels will never be developable.

Existing conservation land in Bar Harbor makes up 54% (24 square miles) of the town and is not developable in the future. 29% (12.5 square miles) of the town is developed and 15% (6.5 square miles) is undeveloped (Map 8.3).

Map 8.1. Existing land use in Bar Harbor. Data comes from the Bar Harbor assessor database.



EXISTING LAND USE NEIGHBORHOODS

BAR HARBOR

PRELIMINARY MAPPING FOR
EXISTING CONDITIONS ANALYSIS

Land use data from Bar Harbor Assessor's database. Some parcels have multiple land uses assigned; only one is displayed.

- Bar Harbor Town Boundary
- Road
- Coastal Waters

Land Use, by Parcel

- Residential
- Commercial/Office
- Hotel/Motel/B&B/Campground
- Dining
- Retail
- Charitable/Nonprofit Organization
- Education
- Conservation
- Farm; Forestry
- Federal; State; Town
- Utility
- Vacant
- Exempt
- Other
- Unknown

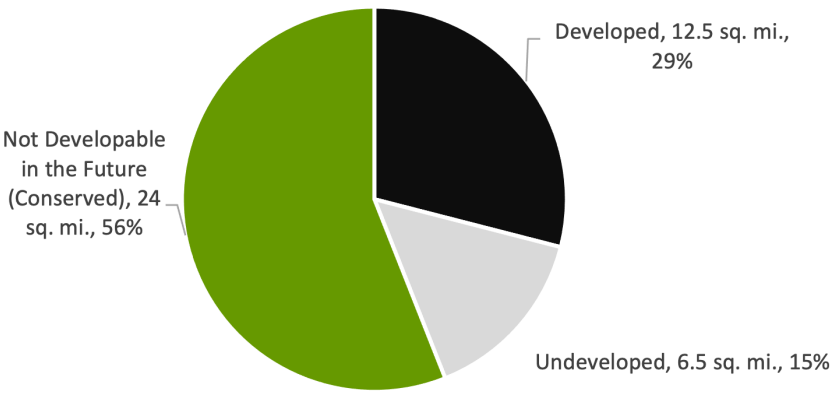
Data Sources: Town of Bar Harbor, Maine Geolibrary, National Hydrography Dataset
Coordinate System: NAD 1983 UTM Zone 19N
Created: FB Environmental
March 2022

FB environmental

Table 8.1. Categories of developed, undeveloped, and not developable in the future		
Developed Parcels Include the following land uses	**Undeveloped parcels include the following land uses**	**Not Developable In Future**
Residential Hotel/Motel/B&B/Campground Commercial Office Retail Dining	Vacant	Conservation Conserved lands
Uses considered developed if there are buildings on the parcel: Farm; Forestry Federal; State; Town Education Utility Charitable/Nonprofit Organization Other Exempt	*Uses considered undeveloped if there are no buildings on the parcel:* Farm; Forestry Federal; State; Town Education Utility Charitable/Nonprofit Organization Other Exempt	
These parcels have opportunity for redevelopment only.	**These parcels have opportunity for new development.**	**These parcels will never be developable.**

To understand the potential for redevelopment in Bar Harbor, the building footprint size can be compared to the size the developed parcel. Town-wide, there are approximately 12.5 square miles of developed parcels. However, only 2% of that developed parcel area is actually covered by building footprints (refer to Map 8.2). Downtown, 8% of the developed lots area is covered by building footprints. This small percentage indicates that there may be potential for redevelopment on some parcels, however it is important to note that 100% coverage of a developed parcel is not typically desirable. The land use regulations control how building take place on each parcel by minimum lot sizes,

Figure 8.4: Developed land breakdown in Bar Harbor



setbacks, parking rules, etc., in turn controlling development density. The Town of Bar Harbor may wish to explore adjusting land use regulations to facilitate higher density development in downtown areas of Bar Harbor or adjacent neighborhoods.

VACANT LAND

Vacant land in the Town of Bar Harbor has decreased by approximately 33% percent since the previous Comprehensive Plan in 2007 (Map 8.2). The neighborhood that has experienced the largest decrease in vacant land, by acres, is the Emery District at an approximately 60% decrease.

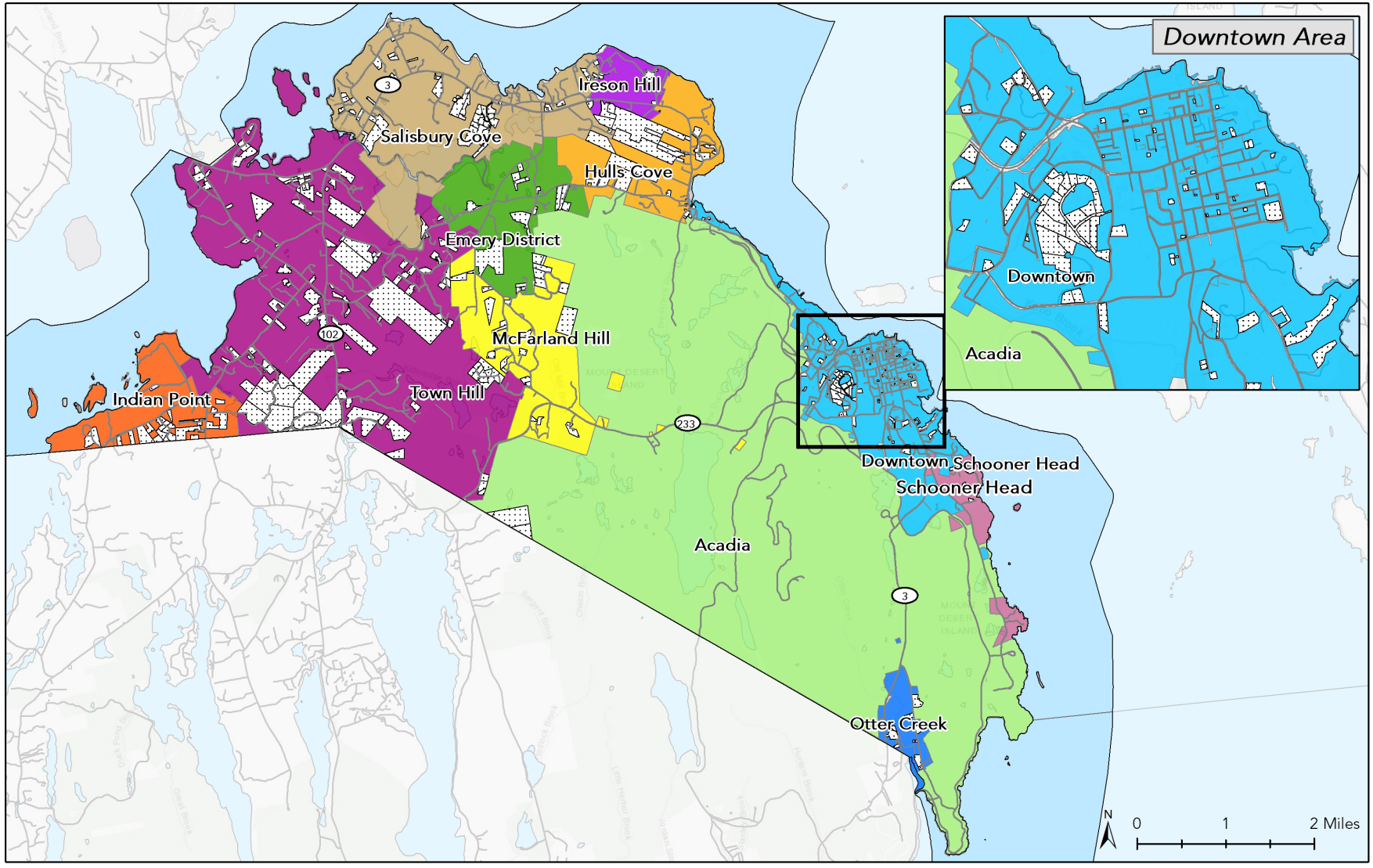
The areas of Bar Harbor that were previously vacant land in 2007 and are no longer vacant land use have primarily been converted to residential land use (47% of the previously vacant land), followed by conservation (33% of the previously vacant land) and education (12% of the previously vacant land). The remaining 9% of changes are due to farm/forestry, Federal/State/Town, hotel/motel/B&B/campground, charitable/nonprofit organizations, and commercial/office land use changes. Refer to the individual neighborhood summaries for additional detail on how each neighborhood has changed.

Table 8.2. Neighborhoods within Bar Harbor and percent change in acres of vacant land between 2007 and 2022

Neighborhood	2007	2022	Percent Change
McFarland Hill	538	370	31% decrease
Emery	346	137	60% decrease
Indian Point	280	178	37% decrease
Ireson Hill	71	51	27% decrease
Schooner Head	20	14	29% decrease
Town Hill	2,455	1,527	38% decrease
Otter Creek	63	51	18% decrease
Salisbury Cove	404	289	28% decrease
Hulls Cove	322	309	4% decrease
Downtown	84	124	48% increase
Acadia	-	-	no change
Total	**4,583**	**3,052**	**33% decrease**

Data source: Bar Harbor assessor database. 2007 values from the 2007 comprehensive plan.
**Downtown vacant land appears to increase. This may be due to use changes, or lots being split up and recategorized.*

Map 8.2: Vacant land in Bar Harbor. Data comes from the Bar Harbor assessor database.



VACANT LAND NEIGHBORHOODS

BAR HARBOR

PRELIMINARY MAPPING FOR
EXISTING CONDITIONS ANALYSIS

Bar Harbor Town Boundary
Road
Waterbody/Coastal Waters
Vacant

Land use data from Bar Harbor Assessor's database.

Data Sources: Town of Bar Harbor, Maine Geolibrary, National Hydrography Dataset
Coordinate System: NAD 1983 UTM Zone 19N
Created: FB Environmental
March 2022

FB environmental

ENVIRONMENTAL DEVELOPMENT CONSTRAINTS

Development constraints are locations where development cannot occur due to unsuitable building conditions or land use regulations that restrict building. Map 8.3 displays the following development constraints.

Environmental development constraints include:

- Permanently conserved parcels
- Wetlands, ponds, lakes, and tributaries
- Tidal areas
- Poorly drained and very poorly drained soils (hydric soils)
- Steep slopes greater than 25%

In addition, land use regulations that serve as development constraints include:

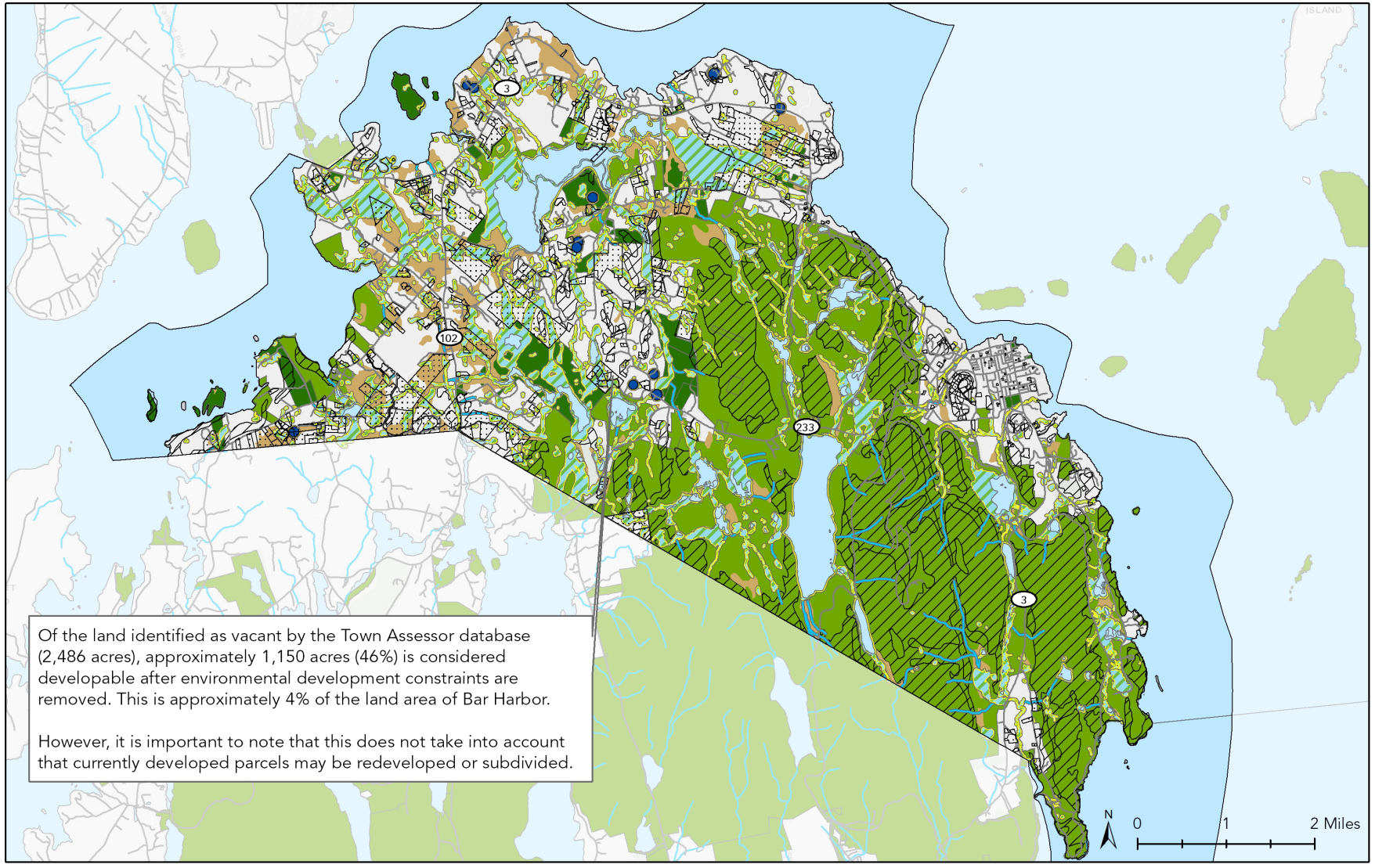
- Shoreland Zone restrictions that dictate setbacks from ponds, rivers, streams, significant vernal pools, and wetlands.

Though not included in this map, there are additional constraints that affect future development, including minimum lot size, lot setbacks, building size (refer to the prior section). There are also factors that would affect land suitability, such as floodplain areas and unmapped natural development constraints such as ledge.

Of the 6.5 square miles of undeveloped parcels in Bar Harbor, 62% percent of this area would be restricted by environmental development constraints.

Of the 12.5 square miles of developed parcels in Bar Harbor, 40% of this area would be restricted by environmental development constraints (during subdivision or redevelopment, for example).

Map 8.3. Environmental development constraints in Bar Harbor.



DEVELOPABLE LAND

BAR HARBOR

PRELIMINARY MAPPING FOR
EXISTING CONDITIONS ANALYSIS

Land use data from Bar Harbor Assessor's database.

- Bar Harbor Town Boundary
- Road
- Waterbody
- Significant Vernal Pool
- Wetland
- Great Pond 100 ft setback
- Waterbody, Wetland, and Vernal pool 75 ft setback
- Tributary
- Tributary 75 ft setback
- Hydric Soils
- Steep Slopes
- Acadia National Park
- Conserved Lands
- Vacant
- Coastal Waters

Data Sources: Town of Bar Harbor, Maine Geolibrary, National Hydrography Dataset
Coordinate System: NAD 1983 UTM Zone 19N
Created: FB Environmental
March 2022

FB environmental

NEIGHBORHOODS & LAND USE

Existing land use within Bar Harbor is categorized by 11 neighborhoods within the town. The boundaries of these neighborhoods are the same as the 2007 Comprehensive Plan. Map 8.4 shows the neighborhood boundaries. These neighborhoods include:

1. Acadia National Park
2. Downtown
3. Emery
4. Hulls Cove
5. Indian Point
6. Ireson Hill
7. McFarland Hill
8. Otter Creek
9. Salisbury Cove
10. Schooner Head
11. Town Hill

In summary, the largest neighborhood areas are the Town Hill neighborhood and the Salisbury Hill neighborhood (excluding the Acadia National Park "neighborhood"). However, the neighborhood with the largest total land assessed value is the Downtown neighborhood at nearly four times more value than the next largest total land assessed value, Town Hill neighborhood. While unsurprising, this confirms that the Bar Harbor downtown area is an important and valuable area of town.

Looking at the average assessed land value per acre provides insight into the most highly valued areas of Bar Harbor. The Downtown neighborhood has the largest average assessed land value per acre at approximately $365,000 per acre, significantly above the median of approximately $37,200 per acre. The Schooner Head neighborhood, Ireson Hill neighborhood, Hulls Cove, and Salisbury Cove neighborhood all also have average values above the median. Schooner Head and Ireson Hill neighborhoods are some of the smallest neighborhoods, indicating that these are some of the least affordable neighborhoods in terms of assessed land value. Downtown, Schooner Head, Ireson Hill, and Salisbury Hill neighborhoods are all coastal neighborhoods and face development pressure due to their desirability.

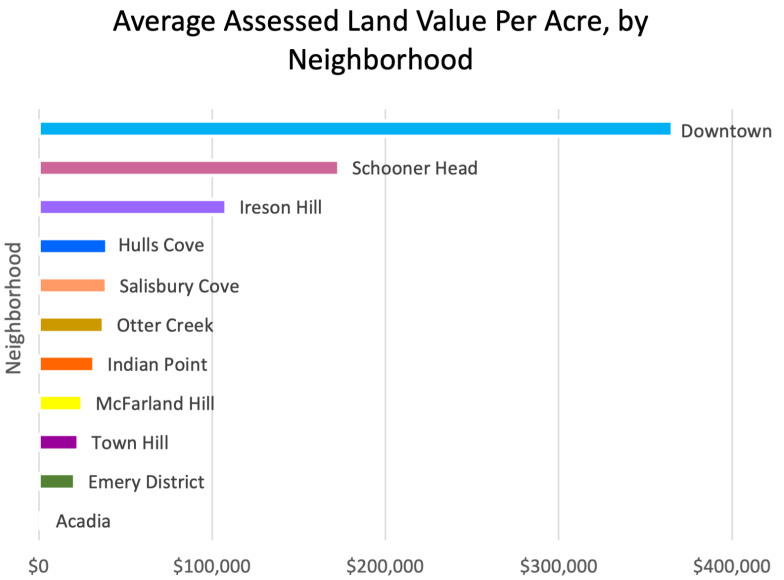


Figure 8.4. Average Assessed land value per acre, by neighborhood in Bar Harbor.

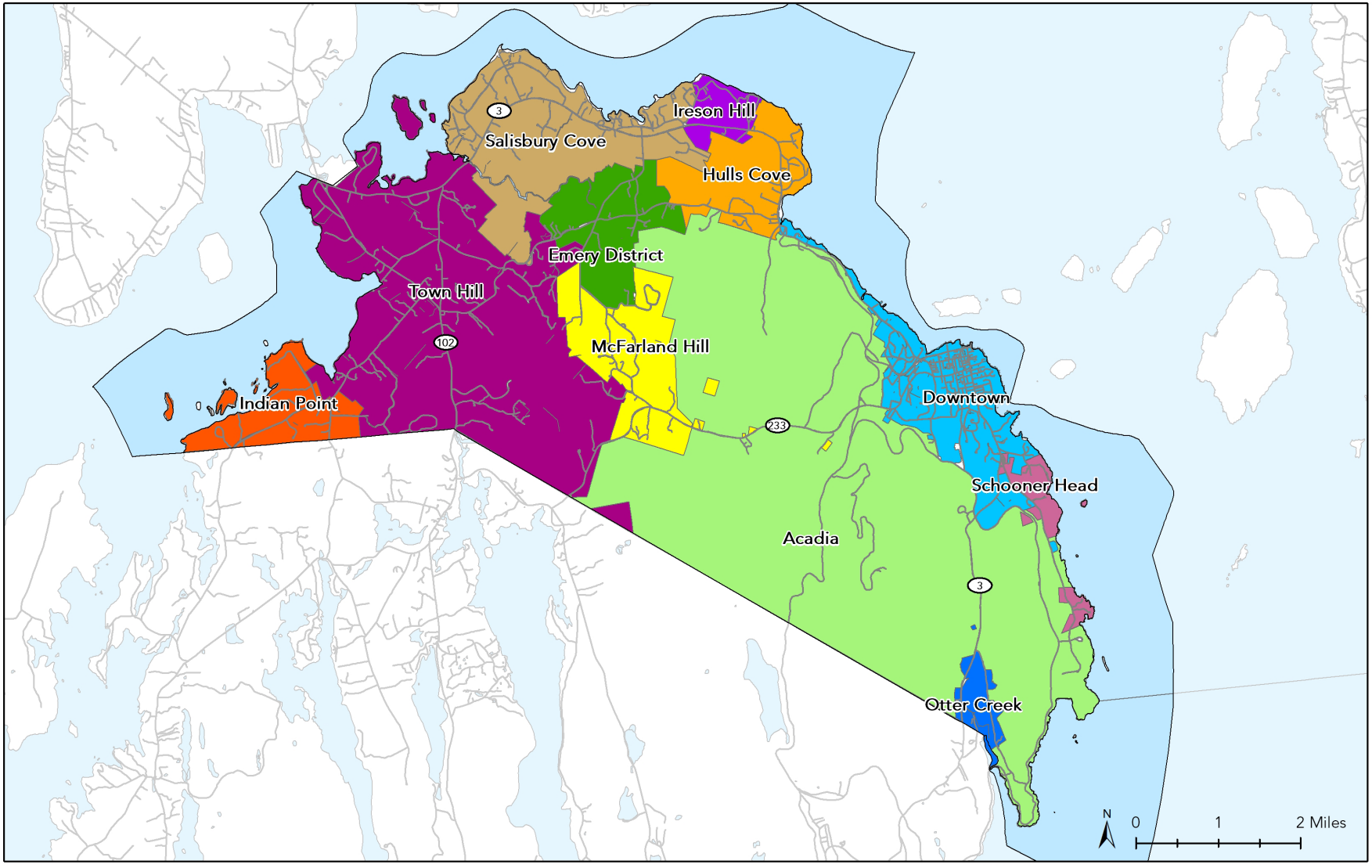
The most affordable neighborhoods in terms of average land assessed value per acre are the Emery District, Town Hill, and McFarland Hill. These are mostly located in inland Bar

Harbor, while Town Hill does border the western coast of Bar Harbor. Refer to Table 8.3 for summary values by neighborhood and Table 8.4 for detailed value information.

Table 8.3. Summary statistics for Bar Harbor neighborhoods based on assessed land value					
Neighborhood	# of Parcels	Avg. Parcel Size (Acres)	Approximate Total Acres	Avg. Assessed Land Value Per Acre	Total Land Assessed Value
Downtown	1434	1.0	1,416	$365,645	$517,647,000
Town Hill	816	7.1	5,763	$22,589	$130,179,200
Salisbury Cove	388	6.0	2,320	$38,834	$90,104,200
Schooner Head	66	4.4	292	$173,042	$50,589,900
Hulls Cove	187	5.7	1,074	$39,162	$42,048,900
Ireson Hill	147	2.3	331	$107,900	$35,719,200
McFarland Hill	197	6.6	1,302	$24,953	$32,484,700
Indian Point	122	7.0	849	$31,882	$27,065,500
Acadia	23	459.7	10,573	$2,091	$22,113,100
Emery District	149	7.1	1,053	$20,573	$21,667,200
Otter Creek	73	3.5	252	$37,220	$9,387,700

Map 8.4 on the following page shows the location of Bar Harbor's neighborhoods.

Map 8.4. Neighborhood boundaries within Bar Harbor. The neighborhoods were determined for the 2007 comprehensive plan.



EXISTING LAND USE NEIGHBORHOODS

BAR HARBOR

PRELIMINARY MAPPING FOR
EXISTING CONDITIONS ANALYSIS

Bar Harbor Town Boundary
Road
Coastal Waters

Neighborhoods

- Otter Creek
- Schooner Head
- Downtown
- Hulls Cove
- Ireson Hill
- Emery District
- Salisbury Cove
- McFarland Hill
- Acadia
- Town Hill
- Indian Point

Data Sources: Town of Bar Harbor, Maine Geolibrary, National Hydrography Dataset
Coordinate System: NAD 1983 UTM Zone 19N
Created: FB Environmental
March 2022

FB environmental

INDIVIDUAL NEIGHBORHOOD SUMMARIES

The following sections accompany Map 8.4 and summarize key points from Table 8.2 and Table 8.3, by neighborhood. Data is from the Bar Harbor assessor database. A description of each of the neighborhoods in Bar Harbor are outlined below.

ACADIA NATIONAL PARK

This "neighborhood" is land owned by the federal government. The non-federally owned land is water company owned utility land for the drinking water supply infrastructure from Eagle Lake.

DOWNTOWN

This neighborhood includes the Bar Harbor Village, associated residential areas between the village and the park and the area north along Route 3 to Hulls Cove. This area is mixed land uses including residential, commercial, hotel/bed and breakfast, dining, retail, town-owned land, and educational land uses. This is the most densely developed area in Bar Harbor. The total assessed land value for this neighborhood is approximately $518 million, the highest neighborhood in Bar Harbor. The assessed land value per acre is approximately $365 thousand, also the highest value in Bar Harbor compared to other neighborhoods. Vacant land within the Downtown neighborhood has increased slightly since 2007, potentially due to lots being split up or recategorized.

EMERY DISTRICT

Located in central inland Bar Harbor, this district is mixed land use, including residential, commercial, charitable/nonprofit, education, conservation, farm/forestry, and state and federally owned land. Vacant land in this district has decreased by 60% since 2007, from approximately 326 acres to 137 acres. The vacant land use changes are primarily due to new educational land use area and a small amount of new residential land use. This district has the second lowest average assessed land value at approximately $20 thousand per acre.

HULLS COVE

This District, located on coastal and inland areas of northeast Bar Harbor, is mixed land use, including residential, commercial, hotel/motel/bed and breakfast/campground, dining, retail, charitable/nonprofit, and state and federally owned land. There is approximately 309 acres of vacant land identified in this neighborhood, a decrease from 322 acres identified in the 2007 Comprehensive Plan of approximately 4%. The vacant land use changes are primarily due to new residential land use and a small percentage of new commercial/office land use. Public sewer and water is available in areas of this neighborhood. The Hulls Cove neighborhood's average assessed land value is just above the townwide neighborhood median at approximately $39 thousand per acre.

INDIAN POINT

Located in the furthermost west area of Bar Harbor, this district borders the Mount Desert Narrows in Union Bay. Land use in this neighborhood is primarily residential, as well as conservation, farm/forestry, and Federal/State/Town-owned land. There are approximately 178 acres of vacant land in Indian Point, down from 280 acres identified in the 2007 Comprehensive Plan at an approximately 37% decrease. The vacant land use changes are solely due to new residential land use. The Indian Point neighborhood's average assessed land value is in slightly below the townwide neighborhood median at approximately $31 thousand per acre.

IRESON HILL

One of the smaller neighborhoods, this district is located in the northeast tip of coastal Bar Harbor. Land use in this neighborhood is primarily hotel/motel/bed and breakfast/campground and residential, and also includes smaller amounts of commercial, dining, retail, and Federal/State/Town-owned lands. There are approximately 51 acres of vacant land in the Ireson Hill neighborhood, down from 71 acres in 2007 at a 27% decrease. The vacant land use changes are primarily due to new residential land use. The Ireson Hill neighborhood has the third highest average assessed land value at approximately $107 thousand per acre.

MCFARLAND HILL

This district is located in central inland Bar Harbor, north and west of Acadia National Park. This neighborhood is primarily residential land use. It also includes some conservation land, Federal/Town/State owned land, and utility land. There are approximately 370 acres of vacant land in this neighborhood, significantly down from 538 acres in 2007 at a 31% decrease. The vacant land use changes are primarily due to new residential land use, followed by new conservation lands. The McFarland Hill neighborhood's average assessed land value is below the townwide neighborhood median at approximately $25 thousand per acre.

OTTER CREEK

A relatively small neighborhood located in southern Bar Harbor, this district is surrounded by Acadia National Park lands. This neighborhood is primarily residential land use, along with some Federal/State/Town-owned land uses and a small amount of commercial use. There are approximately 51 acres of vacant land within this neighborhood, down from 63 acres in 2007 by approximately 18%. The vacant land use changes are solely due to new residential land use. The Otter Creek neighborhood has the lowest total land assessed value (likely due to its small size), but the average assessed land value is in line with the town median at $37 thousand.

SALISBURY COVE

Located in the northern coastal tip of Bar Harbor, this district is mixed land use, including residential, commercial, hotel/motel/bed and breakfast/campground, dining, charitable/nonprofit, educational, conservation, farm/forestry, and Federal/State/Town land uses. There are approximately 289 acres of vacant land within this neighborhood, down from 404 acres in 2007 at a 28% decrease. The vacant land use changes are primarily due to new residential land use, as well as some new farm/forestry land use, Federal/State/Town land use, and hotel/motel/campground/B&B land use. The Salisbury Cove neighborhood's average assessed land value is in line with the townwide neighborhood median at approximately $38 thousand per acre.

SCHOONER HEAD

This District is located along the eastern coast of Bar Harbor and is primarily residential and Federal/Town/State owned land, as well as some commercial, and educational land. There are approximately 14 acres of vacant land, compared to approximately 20 acres in 2007, down by 29%. The vacant land use changes are solely residential land use. Schooner Head has the second highest average assessed land value at approximately $173 thousand per acre.

TOWN HILL

One of the largest neighborhood (aside from the Acadia "neighborhood"), this District is located in western Bar Harbor. Land use includes residential, commercial, hotel/motel/B&B/Campground, Dining, retail, Charitable/nonprofit, educational, conservation, farm/forestry, and Federal/State/Town land and utility uses. There are approximately 1,527 acres of vacant land in Town Hill, by far the largest of any town neighborhood. Still, this is a decrease from 2007 when 2,455 acres were identified. The decrease is approximately 38% and the vacant land use changes are primarily conservation lands and residential land use, as well as some new farm/forestry land use and charitable/nonprofit land use. The Salisbury Cove neighborhood's average assessed land value is below the townwide neighborhood median at approximately $22 thousand per acre. Though, likely due to its size, Town Hill has the second largest total land assessed value at approximately $132 million.

Table 8.4 on the following pages includes detailed information about the valuation of parcels in each neighborhood.

Table 8.4: Land use, parcel size, and assessed land value within Bar Harbor by neighborhood						
Neighborhood	Land Use (Simplified Category*)	# of Parcels	Avg. Parcel Size (Acres)	Approximate Total Acres	Avg. Assessed Land Value Per Acre	Total Land Assessed Value
Downtown	Residential	927	0.66	612	$505,101	$309,121,100
	Commercial/Office	77	2.97	229	$125,136	$28,661,800
	Hotel/Motel/B&B/Campground	67	2.13	143	$342,002	$48,910,000
	Dining	44	0.34	15	$1,419,266	$21,161,800
	Retail	82	0.14	12	$3,000,006	$34,569,600
	Charitable/Nonprofit Organization	14	2.14	30	$270,652	$8,120,300
	Education	5	16.54	83	$52,850	$4,370,400
	Federal; State; Town	51	2.31	118	$280,964	$33,086,300
	Utility	4	0.52	2	$651,577	$1,347,900
	Vacant	128	0.97	124	$215,070	$26,726,700
	Other	8	0.34	3	$585,863	$1,571,100
	unknown	27	1.69	46	-	-
	Subtotal	1434	0.99	1,416	$365,645	$517,647,000
Emery District	Residential	116	4.41	512	$34,962	$17,894,900
	Commercial/Office	1	1.05	1	$89,010	$93,900
	Charitable/Nonprofit Organization	2	67.31	135	$1,342	$180,700
	Education	10	22.55	226	$6,317	$1,424,700
	Conservation	1	5.38	5	$2,921	$15,700
	Federal; State; Town	3	12.64	38	$8,684	$329,300
	Vacant	16	8.55	137	$12,629	$1,728,000
	Subtotal	149	7.07	1,053	$20,573	$21,667,200

Neighborhood	Land Use (Simplified Category*)	# of Parcels	Avg. Parcel Size (Acres)	Approximate Total Acres	Avg. Assessed Land Value Per Acre	Total Land Assessed Value
Hulls Cove	Residential	131	4.18	548	$62,870	$34,432,200
	Commercial/Office	7	5.64	39	$25,328	$999,600
	Hotel/Motel/B&B/Campground	3	4.71	14	$32,147	$453,800
	Dining	2	1.30	3	$113,601	$295,800
	Retail	3	0.28	1	$519,577	$432,000
	Charitable/Nonprofit Organization	2	0.53	1	$229,616	$245,100
	Federal; State; Town	5	3.43	17	$27,686	$474,600
	Vacant	33	9.37	309	$15,199	$4,700,100
	Exempt	1	141.58	142	$111	$15,700
	Subtotal	187	5.74	1,074	$39,162	$42,048,900
Indian Point	Residential	63	7.58	477	$38,834	$18,539,100
	Charitable/Nonprofit Organization	6	16.28	98	$39,448	$3,853,800
	Conservation	2	12.92	26	$21,536	$556,500
	Farm; Forestry	1	65.40	65	$2	$100
	Federal; State; Town	1	0.12	0	$805,629	$97,900
	Vacant	38	4.68	178	$22,602	$4,018,100
	unknown	11	0.43	5	-	-
	Subtotal	122	6.96	849	$31,882	$27,065,500

Neighborhood	Land Use (Simplified Category*)	# of Parcels	Avg. Parcel Size (Acres)	Approximate Total Acres	Avg. Assessed Land Value Per Acre	Total Land Assessed Value
Ireson Hill	Residential	97	1.04	101	$280,204	$28,234,800
	Commercial/Office	1	3.00	3	$133,461	$400,800
	Hotel/Motel/B&B/Campground	13	11.87	154	$20,077	$3,097,000
	Dining	3	5.78	17	$40,281	$698,800
	Retail	1	0.70	1	$109,148	$76,600
	Federal; State; Town	3	0.68	2	$166,834	$338,500
	Utility	1	0.36	0	$568,626	$203,900
	Vacant	25	2.06	51	$51,838	$2,668,800
	unknown	3	0.37	1	-	-
	Subtotal	147	2.25	331	$107,900	$35,719,200
McFarland Hill	Residential	154	4.99	769	$ 36,984	$28,438,700
	Conservation	1	39.91	40	$ 1,867	$74,500
	Federal; State; Town	5	17.21	86	$ 7,471	$642,900
	Utility	1	3.86	4	$ 81,149	$313,600
	Vacant	30	12.35	370	$ 8,139	$3,015,000
	unknown	6	5.43	33	-	-
	Subtotal	197	6.61	1,302	$24,953	$32,484,700
Otter Creek	Residential	49	3.52	173	$39,591	$6,836,800
	Commercial/Office	1	3.69	4	$34,405	$126,800
	Federal; State; Town	3	7.85	24	$36,604	$862,400
	Vacant	19	2.71	51	$ 30,368	$1,561,700
	unknown	1	0.87	1	-	-
	Subtotal	73	3.46	252	$ 37,220	$9,387,700

Neighborhood	Land Use (Simplified Category*)	# of Parcels	Avg. Parcel Size (Acres)	Approximate Total Acres	Avg. Assessed Land Value Per Acre	Total Land Assessed Value
Salisbury Cove	Residential	251	3.91	982	$69,924	$68,662,400
	Commercial/Office	7	4.28	30	$ 97,323	$2,918,400
	Hotel/Motel/B&B/Campground	8	9.16	73	$ 30,313	$2,220,600
	Dining	1	4.42	4	$ 33,694	$149,000
	Charitable/Nonprofit Organization	8	13.72	110	$ 6,027	$661,500
	Conservation	11	23.19	255	$1,783	$454,900
	Education	11	15.32	169	$22,434	$3,781,700
	Exempt	1	0.41	0	$310,209	$125,900
	Farm; Forestry	5	28.57	143	$ 1,047	$149,600
	Federal; State; Town	12	17.67	212	$ 7,974	$1,690,400
	Vacant	70	4.13	289	$ 32,129	$9,289,800
	unknown	3	17.60	53	-	-
	Subtotal	388	5.98	2,320	$ 38,834	$90,104,200
Schooner Head	Residential	44	3.03	133	$271,948	$36,258,800
	Commercial/Office	7	5.98	42	$24,516	$1,025,500
	Education	1	0.23	0	$493,758	$112,200
	Federal; State; Town	6	16.97	102	$111,613	$11,364,000
	Vacant	7	2.02	14	$129,242	$1,829,400
	unknown	1	1.00	1	-	-
	Subtotal	66	4.43	292	$173,042	$50,589,900

Neighborhood	Land Use (Simplified Category*)	# of Parcels	Avg. Parcel Size (Acres)	Approximate Total Acres	Avg. Assessed Land Value Per Acre	Total Land Assessed Value
Town Hill	Residential	561	4.75	2,666	$ 36,299	$96,787,600
	Commercial/Office	21	9.23	194	$ 14,119	$2,737,400
	Hotel/Motel/B&B/Campground	4	28.92	116	$23,424	$2,709,400
	Dining	2	0.75	1	$ 141,432	$211,600
	Retail	7	1.66	12	$ 74,689	$870,200
	Charitable/Nonprofit Organization	15	13.21	198	$22,236	$4,405,300
	Conservation	12	46.56	559	$ 2,120	$1,184,500
	Education	2	62.46	125	$ 5,021	$627,200
	Farm; Forestry	8	9.36	75	$ 25	$1,900
	Federal; State; Town	14	15.99	224	$ 7,580	$1,697,000
	Utility	1	0.58	1	$ 398,564	$233,000
	Vacant	162	9.43	1,527	$ 12,059	$18,416,100
	Other	2	2.08	4	$ 71,649	$298,000
	unknown	5	12.26	61	-	-
	Subtotal	816	7.06	5,763	$ 22,589	$130,179,200

CONSERVED LAND

This section is discussed in more detail in the Natural Resources section and the Open Space and Recreation Section.

The Town of Bar Harbor has a uniquely high amount of conserved land at 54% of the total Town land area (or 37% when including marine waters), with the majority of it being held federally by the National Park Service as Acadia National Park. 89% of conserved lands are federally owned or managed, while 10% are privately owned or managed. The remaining, approximately 1%, is town-owned. Table 8.5 provides the breakdown of conservation land by holder type. The largest holder is the U.S. National Park Service. The Maine Coast Heritage Trust holds the second largest percentage of conserved land within Bar Harbor at approximately 9%. This includes several large parcels within Bar Harbor, including Kittredge Brook Forest and Stone Barn Farm. Table 8.6 displays the top 10 conserved land parcels by acreage within Bar Harbor.

Table 8.5. Conservation lands within Bar Harbor by holder

Holder	Approximate Area (Acres)	Percent of all Conserved Lands
U.S. National Park Service	13,368	89%
Maine Coast Heritage Trust	1,396	9%
The Nature Conservancy	102	<1%
Maine Minor Civil Division	92	<1%
U.S. Department of Interior	20	<1%
Maine Bureau of Parks and Lands	11	<1%
U.S. Fish and Wildlife Service	7	<1%
Maine Department of Inland Fisheries and Wildlife	6	<1%

Table 8.6. Ten largest conserved land parcels within Bar Harbor

Conserved Land Parcel	Approximate Area within Bar Harbor (acres)
Acadia National Park	13,290
Kitteredge Brook Forest (including Addition)	524
Stone Barn Farm	134
Indian Point-Blagden Preserve	102
Blue Horizons	85
Acadian Ridge	81
Acadian Woods I	79
Youngs Mountain	69
Fogg Farm	68
Thomas Island	66

CURRENT USE PROGRAMS

There are four types of current use property tax programs in Maine – the Farmland, Open Space, Tree Growth, and Working Waterfront tax programs. Properties in the current use program are not under permanent protection as the current use status can be discontinued.

FARMLAND

The Maine Farmland Tax Program is intended to encourage farmland owners to maintain and improve land that is used for farming, agricultural activities, or horticultural activities. There are three parcels that participate in the farmland current use program, composing approximately 147 acres. Comparatively, in 1993 there were two properties in Bar Harbor in the Farmland Tax Program, and between 1999 and 2022 there were five properties, totaling 99 acres in the Farmland Tax Program.

The town has identified agriculture as an important natural resource to protect but faces major constraints due to high land value and limited land area in Bar Harbor. Agricultural areas around Crooked Road and Norway Drive in Bar Harbor are important agricultural areas (and also coincide with soils classified as prime farmland and farmland of statewide important). The Stone Barn Farm, an iconic property with a productive farmland history located at the intersection of Crooked Road and Norway Drive adjacent to Northeast Creek, was acquired by the Maine Coast Heritage Trust in 2019 and is now managed as a public preserve. Additional areas in Bar Harbor that are valued by residents for their agricultural character include the Town Hill area, Gilbert Farm Road, the Head of the Island, Hadley Point, and Hulls Cove.

OPEN SPACE

There are three parcels that participate in the open space current use program, composing approximately 27 acres. As of 2013, one parcel was enrolled in the state's current use program.

TREE GROWTH

The Maine Tree Growth Tax Program is intended to encourage forest landowners to retain and improve their forestlands, to promote better forest management, and to support the overall forest products industry in Maine. There are 42 distinct parcels that participate in the tree growth current use program,

Table 8.7: Conservation lands within Bar Harbor by holder

Zone	Area (Acres)	% Of Town
Acadia National Park	12,445	44.9%
Bar Harbor Gateway District	90	0.3%
Downtown Residential	113	0.4%
Downtown Village I	36	0.1%
Downtown Village II	41	0.1%
Downtown Village Transitional	7	0.0%
Educational Institution	37	0.1%
Emery District	862	3.1%
Hulls Cove Business	63	0.2%
Hulls Cove Residential	77	0.3%
Hulls Cove Rural	418	1.5%
Indian Point Residential	579	2.1%
Indian Point Rural	141	0.5%
Industrial	62	0.2%
Ireson Hill Corridor	181	0.7%
Ireson Hill Residential	163	0.6%
Marine Research	31	0.1%
McFarland Hill Residential	401	1.4%
McFarland Hill Rural	711	2.6%
Mount Desert Street Corridor	25	0.1%
Otter Creek	226	0.8%
Resource Protection	1,112	4.0%
Salisbury Cove Corridor	263	1.0%
Salisbury Cove Residential	563	2.0%
Salisbury Cove Rural	586	2.1%
Salisbury Cove Village	21	0.1%
Schooner Head	40	0.1%
Scientific Research for Eleemosynary Purposes	115	0.4%
Shoreland General Development I	22	0.1%
Shoreland General Development II (Hulls Cove)	16	0.1%
Shoreland General Development III	20	0.1%
Shoreland General Development IV	6	0.0%
Shoreland Limited Residential	1,845	6.7%
Shoreland Maritime Activities District	8	0.0%
Stream Protection	230	0.8%
Town Hill Business	177	0.6%
Town Hill Residential	1,630	5.9%
Town Hill Residential Corridor	217	0.8%
Town Hill Rural	2,953	10.7%
Village Historic	312	1.1%
Village Residential	857	3.1%

composing approximately 1,122 acres. As of 2013, 35 tree growth parcels were enrolled in this tax program.

WORKING WATERFRONT

The Maine Working Waterfront tax program is intended to encourage landowners located in the intertidal zone to maintain the primary use for that land to support or provide access to the conduct of commercial fishing activities. As of 2013, no Bar Harbor properties had taken advantage of the tax program. This is still currently true in 2022.

ZONING DISTRICTS

The Town of Bar Harbor has 40 unique zones. The largest zone, the Town Hill Rural Zone, composes approximately 11% of the Town. Over half of the zones are each <1% of the Town land area (or smaller than 250 acres each, or 0.4 square miles each).

PRELIMINARY OBSERVATIONS OF LOCAL LAND USE REGULATIONS

The following observations were developed as an outcome of analyzing the 2007 Comprehensive Plan. While some issues and concerns have been identified, a regulatory audit would need to be completed to understand how effective various regulations are.

It has been noted that a clearer regulatory process and less complex land use regulations has the potential to meet the town's goals in creating regulations that are easy-to-understand and navigated by the public, property owners, and developers, and for managing growth through effective, yet flexible, land use regulations. Additionally, there are opportunities to increase density in certain areas of town to meet goals related to housing, transportation, and others. There is currently language in the town's Land Use Ordinance that incentivizes cluster development and affordable housing (using bonuses for open space set aside or for creating more affordable housing units), but the program is not being used. This conservation subdivision program may not be used because of the high price of development or inadequate incentives.

INCORPORATING CLIMATE ACTION STRATEGIES INTO LAND USE PLANNING

The Bar Harbor Climate Task Force has identified a goal for Bar Harbor to establish sustainable land use and development practices across Bar Harbor. This includes an action item to prioritize climate action in land use planning efforts by integrating climate mitigation and climate adaptation as priorities to address town vulnerabilities and mitigate green house gases.

More specifically, the first action item the task force suggests 1) including a goal to anticipate and respond to sea level rise in the town, and 2) amending the shoreland zone to include areas inundated by the 1.6-3.9 ft sea level rise scenario (refer to the Natural Resource existing conditions section for additional detail on sea level rise predicted inundation in Bar Harbor). The second land use planning action item is to create more walkable and energy efficient neighborhoods to minimize greenhouse gas emissions, specifically the Downtown neighborhood, Hulls Cove neighborhood, and Town Hill neighborhood. The third action item is to assess all policies in the Bar Harbor land use code to assess where green house gas emissions could be reduced through adjusting land use through neighborhood

redistricting, adjusting lot dimensional requirements, allowed uses, and the permitting process. The fourth action item is to enhance carbon sequestration capacity within Bar Harbor through the local natural lands and waters.

SHORELAND AND RESOURCE PROTECTION ZONES

Bar Harbor's shoreland regulations are currently more stringent than the state's requirements. In Bar Harbor, shoreland standards require that new structures be:

- Set back at least 100 feet from the shoreline of great ponds, and 75 feet back from all other waterbodies, tributary streams, significant vernal pools, the upland edge of wetlands.
- In the Resource Protection zone, the setback requirement is 250 feet.
- In the Stream Protection District, any structure associated with municipal facility grounds or uses or small structures accessory to the permitted uses must be setback 75 feet from the shoreline.

The Bar Harbor Resource Protection Zone and Stream Protection District are intended to only allow land use activities that are "activities necessary for managing and protecting the land, such as surveying, fire protection, emergency operations, etc.; non-intensive recreational uses not requiring structures, such as hunting, fishing and hiking; and public utility installation". In the Resource Protection Zone, agriculture/homesteads are also permitted.

ACCESS TO SEWER/WATER

Access to public water is available in the Downtown Village of Bar Harbor, as well as extending south to Schooner Head Road and north up Route 3 to Hulls Cove and Salisbury Cove. Access to public wastewater is also available downtown, in the Hulls Cove area, and in the Degregoire Park neighborhood. There are currently no sewer/water expansion plans at the time of the writing of this report.

TOWN-OWNED LAND

The Town of Bar Harbor holds very little land, approximately 149 acres over 59 unique parcels. The largest parcel is located just north of the Northeast Wetland Complex and is approximately 40 acres, and is held under a fee conservation easement.

FLOODPLAINS

The Federal Emergency Management Agency (FEMA) maintains flood maps of areas with the highest risk of flooding. Within the Town of Bar Harbor, there are three zones within the Special Hazard Flood Zone – Zones A, AE, and VE. There are approximately 3,900 acres (6.1 square miles) in total within the 100-year flood plain (1% annual change flood) within Bar Harbor, including coastal shoreland areas, areas around tidal wetland complexes, and areas along tributaries. Table 8.8 below provides the breakdown of flood hazard zones within the town.

Table 8.8: FEMA flood hazard zones within Bar Harbor			
Zone	Description	Approximate Acres in Bar Harbor	Location within Bar Harbor
A	100-year floodplain (1% annual chance flood); no base flood elevations determined.	630	Areas adjacent to tributaries including, Northeast Creek, Aunt Betseys Brook, Old Mill Brook, Stony Brook, Kitteredge Brook, and Prays Brook.
AE	100-year floodplain (1% annual chance flood); base flood elevations determined.	723	Tidal wetland complexes, including the northeast wetland complex, the Thomas Bay wetland complex, the Otter Cove wetland complex, and the wetlands complex behind Sand Beach.
VE	100-year floodplain (1% annual chance flood); coastal flood with velocity hazard (wave action); base flood elevations determined.	2,556	All Bar Harbor coastal shoreline areas
X	Area of Minimal Flood Hazard (unshaded).	All other areas	

REFERENCES

- Comprehensive Plan Update, Bar Harbor, Maine. June 2007.
- Bar Harbor Land Use Code
- Bar Harbor Open Space Plan, 2014-2020 (not adopted), Town of Bar Harbor and FB Environmental
- Assessor database, Town of Bar Harbor 2022.
- Bar Harbor Climate Action Strategies, April 12, 2022 [Stakeholder Draft for Comment]
- Maine Beginning with Habitat Dataset, Maine Department of Inland Fisheries and Wildlife
- NOAA Office for Coastal Management Land Cover Dataset
- FEMA Flood Map Dataset

FISCAL CAPACITY

BAR HARBOR 2022 EXISTING CONDITIONS SUMMARY

The town's fiscal health, which is evaluated by assessing its valuation, tax rate, revenue and expenditures, debt obligations, and planned capital improvements, impacts the longevity and quality of its facilities, services, and assets.

Bar Harbor's local property valuation increased to a high of $1.93 billion in FY 2022 which was a 27% increase in one fiscal year.

Bar Harbor was able to reduce the tax rate from $11.90 in FY 2021 to $9.74 in FY 2022 due to the large increase in property valuations.

Although the tax rate has fallen, **the property tax bill for a house valued at the town's current median increased by about $800 a year.**

Property taxes comprise about 84% of the town's total revenue stream and the top ten taxpayers in the town cover close to 10% of that tax levy. Most of those taxpayers are in the hospitality industry.

Expenditures continue to rise in Bar Harbor, particularly with the additional tax revenue being generated by the increase in property valuation.

The town maintains a robust Capital Improvement Plan document which is updated annually and covers a five-year period. This document guides municipal investments in the community.

9. Fiscal Capacity

INTRODUCTION

The fiscal capacity chapter provides an overview of the current fiscal health and financial commitments the town has made. This chapter will review the town's valuation, tax rate, revenue and expenditures, debt obligations, and planned capital improvements.

PRELIMINARY ISSUES, CHALLENGES AND OPPORTUNITIES

The following is a preliminary list of issues, challenges and opportunities posed by the findings of the inventory of existing conditions of Bar Harbor's fiscal conditions. These findings are subject to change with the preparation of goals and objectives not yet drafted at the time of this existing conditions report.

ISSUES AND CHALLENGES

Prior to FY 2022, Bar Harbor's tax rate continued to increase year over year despite the small increases in property valuation. It was not until FY 2022 that the large increases in property valuation due to the pandemic created a boost in revenue which allowed the town the decrease the property tax rate to help offset the rise in assessed values. The Town Manager's FY 2023 proposed budget once again shows an increase in the tax rate by 8.3% over FY 2022, despite the continued rise in property assessments. If property taxes keep rising it may have the effect of pricing out low to moderate income households, or seniors on a fixed income who can no longer afford the cost of housing and taxes in Bar Harbor.

Eight of the top ten largest taxpayers in Bar Harbor are either hotels or restaurants and comprise nearly 7% of the town's total tax levy. The town's reliance on tourism and hospitality as a source of revenue to pay for capital and operational expenses poses a potential risk if future public health or public safety issues arise, or future environmental risks and climate change impact the natural environment which draws visitors to Bar Harbor. Large institutions like The Jackson Laboratory , MDI Hospital, College of the Atlantic, and MDI Bio Lab own large swaths of land and have built expensive buildings and purchased expensive equipment but pay relatively low payments in lieu of taxes (PILOT) to the town. For example, in FY 2021 College of the Atlantic paid a PILOT of $7,000 and MDI Bio Lab paid a PILOT of $5,000. Jackson Lab paid a much higher PILOT payment of $107,000 but that is likely a lower amount than what would be required if Jackson was taxed as a private entity. The combination of reliance on tourism business revenues and relatively low tax payments from large institutions places the town at some risk should the economy change or shift in a significant way again in the future.

Lastly, the town does gain financially from both land- and water-based tourism which both help to offset capital and operational costs on an annual basis. That was clear in 2020 when cruise ship and parking revenues dropped significantly, the town had to forego some capital expenditures and cut back on operational costs to balance the budget. Between FY 2018 and FY 2020, Bar Harbor received between $900,000 and $1.1 million each year from passenger service fees and port development fees alone. If the town decides to scale back the number of cruise ships and tourists that visit Bar Harbor, there must be recognition that those decisions will have some impact on town revenues, as well as revenues to local businesses. If businesses that directly benefit and derive sales from tourists are assessed on an income approach by the town to generate property taxes, lower sales may then translate to lower tax receipts. The following sections describe the fiscal conditions in Bar Harbor.

VALUATION

In the State of Maine, property valuations for municipalities are calculated by the state and the municipality. The state valuation is used to determine the levy of county taxes, state funds for education and revenue sharing, and in establishing bond debt limits. The State's valuation is informed by field work and meetings with local assessors to determine appropriate ratios of full value for which local assessments are made. Adjustments are made to local assessments using those ratios to equalize valuations at 100 percent of full and fair cash market value.

The second form of valuation occurs at the municipal level and is used to determine local taxes. The town's valuation is based on assessed values for real estate and personal property as determined by the Town Assessor. The assessed value of property is based on recent sales of comparable properties around Bar Harbor. In fiscal year 2021, the town's local valuation was set at $1,530,257,000, which equals a 4 percent increase since FY 2016.

Figure 9.1 shows the local and state valuations for Bar Harbor from FY 2016 through FY 2021. The State's valuation for Bar Harbor shows a fairly sharp upward trajectory starting in FY 2017 to a high of $1.7B in FY 2021.

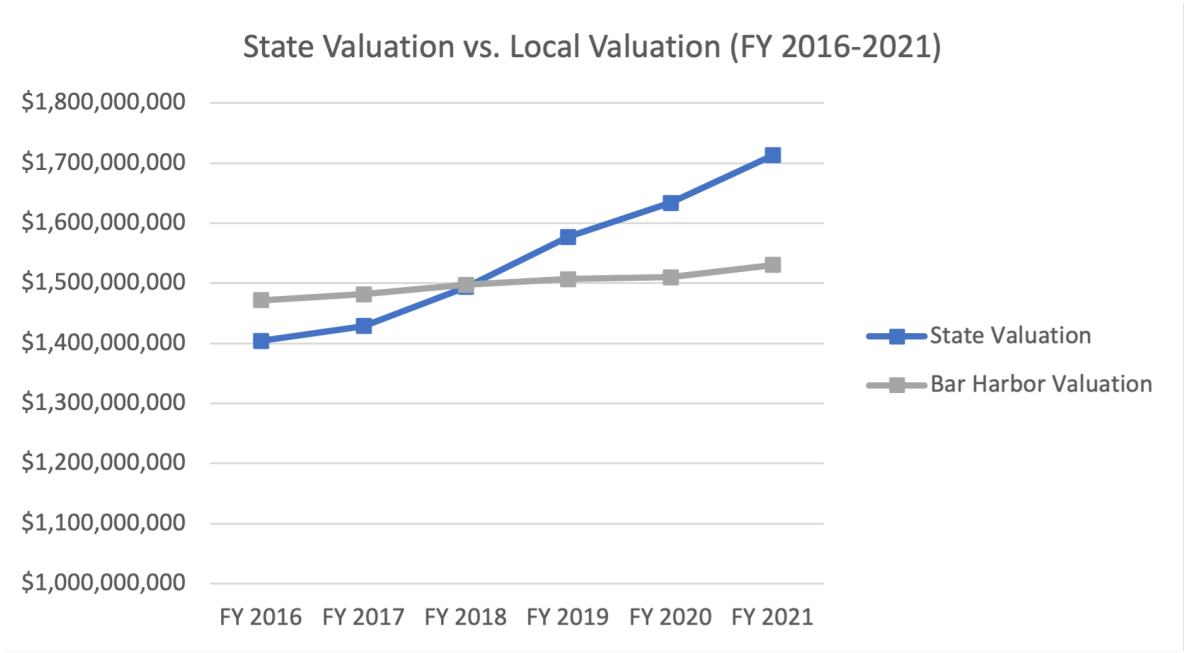


Figure 9.1: State vs. Local Valuation, 2015-2020, Maine Revenue Services.

TAX RATE

After the Town Assessor determines the total local valuation of eligible property within the town, the tax rate (or Mill Rate) is calculated. The tax rate is the assessment to each property owner for their share of the tax levy. The tax rate is calculated by dividing the total amount of taxes needed to support the town's budget divided by the local valuation. The tax rate is assigned on a one-thousandth of the assessed value of a piece of property. In fiscal year 2021, the approved tax rate in Bar Harbor was $11.90 per thousand dollars of valuation. As an example, if a property was worth $100,000 the owner would be responsible for paying $1,190 in taxes in FY 2021. Figure 9.2 shows the growth in Bar

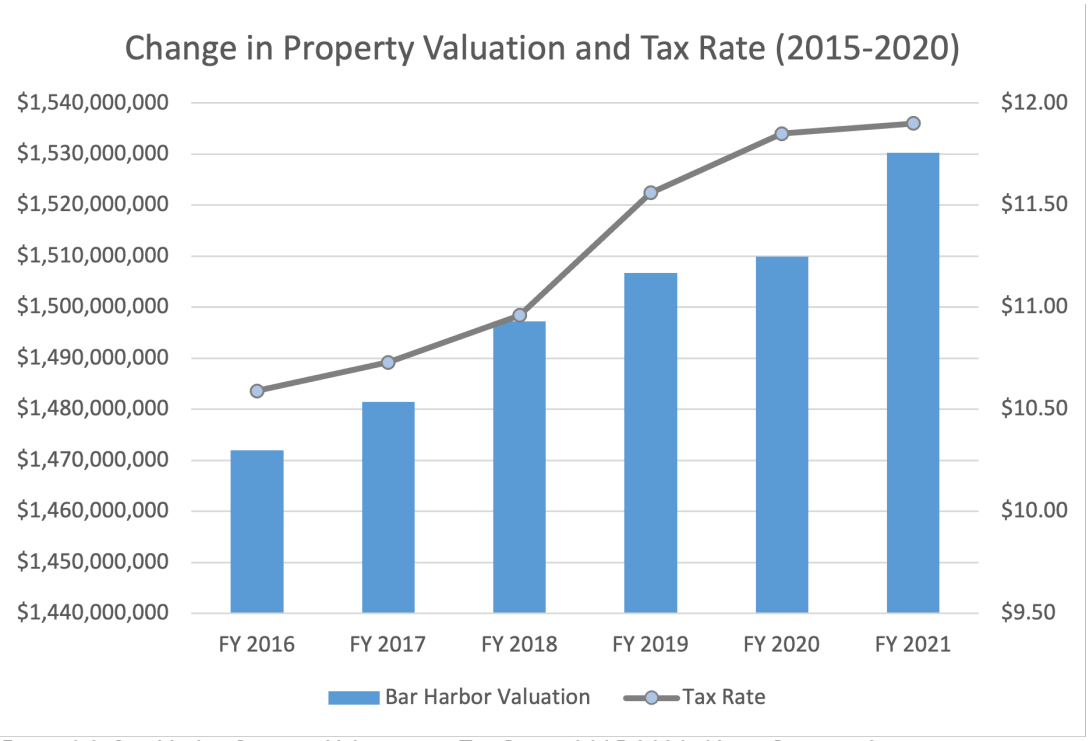


Figure 9.2: Bar Harbor Property Valuation vs. Tax Rates, 2015-2020, Maine Revenue Services.

Harbor's local valuation and tax rate from FY 2016 to FY 2021. Between FY 2016 and FY 2021 the tax rate increased from $10.59 to $11.90 or 12.4%.

According to the Town Manager's FY 2023 budget memo, the total valuation in Bar Harbor jumped from $1.53B in FY 2021 to $1.93B in FY 2022. This was a 27% increase in one year which allowed the town to decrease the tax rate from $11.90 to $9.74. Much of this increase in valuation and the subsequent drop in the tax rate is likely due to the increase in residential property valuations from pandemic-related real estate purchases. According to the Town Manager's budget memos from FY 2021 and FY 2023, the median value of a home in Bar Harbor jumped from $286,700 to $400,700 in two years. The increase in assessed value between FY 2021 and FY 2022 was nearly $400 million which allowed the town to reduce the tax rate. The Town Manager's most recent FY 2023 budget memo from January 2022 has a proposed tax rate of $10.55 or an 8.3% increase over FY 2022's adopted budget and tax rate.

With the increase in the median home value and changes in the tax rate, a single-family homeowner in Bar Harbor would have paid an annual property tax in FY 2021 of $3,397 and could pay $4,227 in FY 2023 based on the increase in median home values and the increased tax rate. That is an $830 increase in property taxes between those two fiscal years.

REVENUE

According to the approved FY 2022 budget document on the town's website, total revenue in fiscal year 2022 was $22,553,113. Property tax revenue made up 84% of the total, and departmental revenues making up another 5.1%. The remainder was shared between unclassified revenue, transfers, other taxes, and intergovernmental revenues. Budget information provided by the Town Manager note that

revenues have been steadily increasing year over year since FY 2012. Figure 9.3 shows the breakdown of revenue sources for fiscal year 2022. In addition to revenue generated locally by the municipality, the State of Maine also provides revenue sharing funding back to each municipality based on a set formula which accounts for State Valuation, population, and tax assessments. According to data from the Office of the State Treasurer for Fiscal Years 2017 through 2022, Bar Harbor's revenue sharing reimbursements have increased 192% over the six-year period. This is largely due to increases in the state's valuation and tax assessments with respect to Bar Harbor where property values grew substantially as a result of the pandemic. Bar Harbor's state aid revenue grew from $128,985 in FY 2019 to $369,670 in FY 2022.

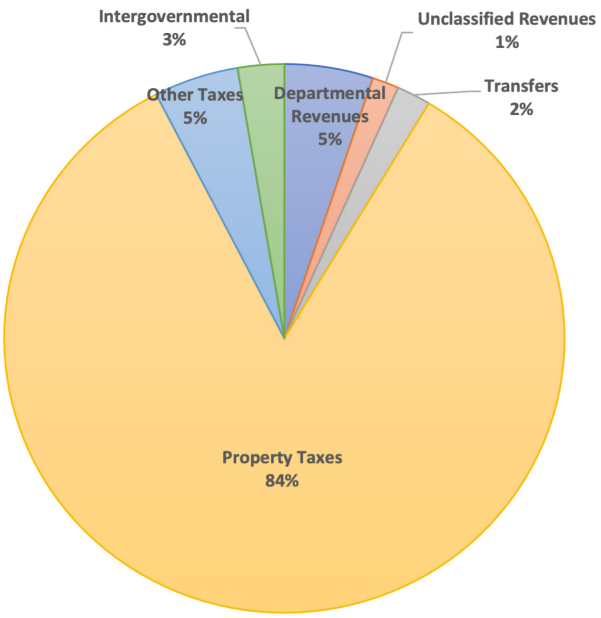


Figure 9.3: Bar Harbor Revenue Sources. Source: FY 2022 Budget.

EXPENDITURES

In FY 2022, the town spent $22,553,113 on departmental budgets, services, and schools. Of the twenty-two million in expenditures, 44% went to cover departmental expenses and 42% went to cover transfers for schools. In Bar Harbor 9% of the budget went to support capital projects through the town's Capital Improvement Plan (CIP). The FY 2022 expenditure budget represented a $1.3 million dollar increase over the FY 2021 budget. This is in part due to cuts that were imposed because of the loss of revenue to the town from the pandemic. The Town Manager's budget report from May 28, 2020, discusses revenue losses of $1.14 million in FY 2021 from the loss of cruise ships and parking funds, both sources directly associated with the drop in tourism in that fiscal year. In FY 2022, land-based tourism returned to Bar Harbor and property assessments were much higher providing an opportunity to lower the tax rate and increase some expenditures. The budget for FY 2023 proposes to increase expenditures by nearly $3 million with an 8.3% increase in the tax rate.

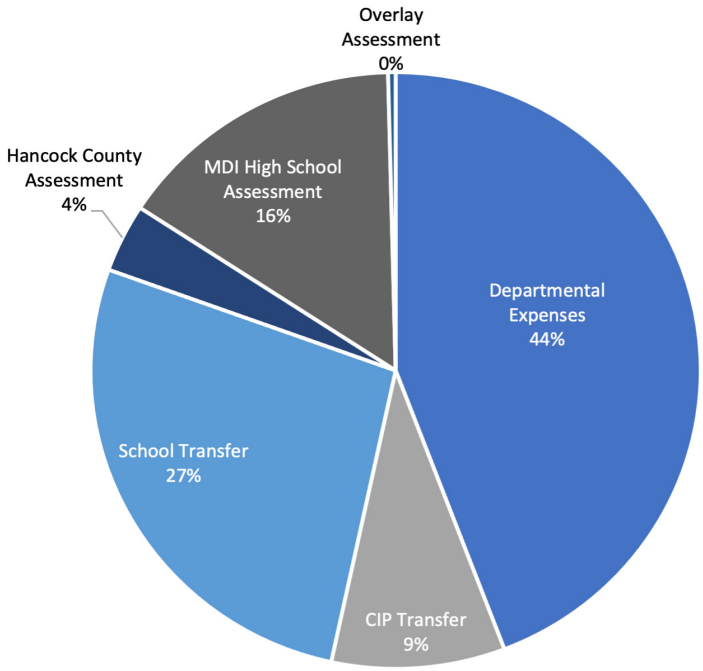


Figure 9.4: Bar Harbor Expenditure Sources. Source: FY 2022 Budget.

DEBT

Municipal debt maximums are set by the State of Maine. A municipality cannot incur debt in excess of 7.5 percent of its last state valuation. This does not include debt for schools, which can raise the debt limit to 10 percent of the state valuation. Municipalities can also take on debt for stormwater and sewer infrastructure purposes, airport expenses, and special district purposes, but at no point can that total debt exceed 15 percent of the state's equalized valuation for Bar Harbor.

Since 2002, the town has taken on debt to help fund sixteen capital projects which include:

1. $750,000 – Water Tank Project
2. $805,000 – School (MMBB)
3. $800,000 – Beach Wall
4. $800,000 – Sewer/Hulls Cove
5. $3,700,000 – Roads & Sidewalks
6. $600,000 – Water System
7. $1,316,000 – Sewer System
8. $1,224,000 – Water System
9. $2,514,000 – Water Project
10. $2,679,150 – Water (SRF)
11. $3,350,000 - Public Works Building
12. $2,442,000 – Municipal Building
13. $2,100,000 – Public Safety Building
14. $3,070,000 – Transfer Station
15. $2,875,000 – Ferry Terminal Parking Meters and Purchase
16. $1,225,000 – Ferry Terminal Purchase

As of June 30, 2022, the town's total remaining debt obligation will be a principal amount of $16,401,462 or 0.9% of the State Valuation. The most recent bond rating completed for the town placed it at Aa2 for Moody's and AAA for S&P, which is the highest bond rating a municipality can achieve. Some additional bonds have been approved but at the time of this writing had not been issued. They include:

1. $750,000 - Municipal Fiber Connection
2. $3,000,000 - Elementary School Architectural Design
3. $4,350,000 - Solar Array
4. $43,897,600 - Priority Infrastructure Improvements

CAPITAL IMPROVEMENT PROGRAM

The purpose of the Capital Improvement Program (CIP) is to establish a framework for the financing of different capital needs over time. It represents a plan to commit to and pay for capital improvements. Bar Harbor's CIP is approved every year and covers five consecutive fiscal years. Section C-30A of the town's Charter requires that projects costing more than $5,000 and meeting one of the following criteria be listed in the CIP:

- Construction time extends to two or more fiscal years;
- Includes planning for, construction of or major renovation of a town building, wharf, public way, sewer, drain, or appurtenant equipment; or
- Replacement or acquisition of equipment with life expectancy of five years or longer.

The FY 2023 recommended CIP listed a total spending estimate of $4.24 million which is slated to cover a very wide array of capital expenses given any request over $5,000 is to be listed and programmed in the document. By way of example, the FY 2023 capital requests vary from technology such as printers and servers to fire and police vehicles to ferry terminal improvements to purchasing and constructing solar array systems.

REFERENCES

- Municipal Valuation Return Summary, Maine Revenue Services. 2015-2020.
- Bar Harbor Bond Rating Book, Moors & Cabot Investments. April 2020.
- Bar Harbor 2023 Budget Message, Kevin Sutherland, Town Manager. January 2022.
- Bar Harbor 2021 Budget Message, Cornell Knight, Town Manager. May 2020.
- Bar Harbor FY 2023 Capital Improvement Plan. January 2022.

Appendix

Northeast Creek
Changes in Nitrogen Loading

The following section is summarized from the 2013 report "Changes in Nitrogen Loading to the Northeast Creek Estuary, Bar Harbor, Maine, 2000 to 2010" written by Martha G. Nielsen and provided by the National Park Service and the Town of Bar Harbor.

Northeast Creek is located in the northwest corner of Bar Harbor. It has a total watershed area of 26.25 km^2 and its headwaters are an extensive palustrine scrub-shrub wetland (inland, non-tidal wetland). In addition to its own drainage basin, it receives water from four freshwater tributaries: Stony Brook, Old Mill Brook, French Hill Brook, and Aunt Betsey's Brook. It then flows under Bar Harbor Road before outleting into Thomas Bay in the Mount Desert Narrows. Northeast Creek plays an important role in water resources within the Town of Bar Harbor and within Acadia National Park. The Water Resources Program at Acadia National Park has identified non-point source pollution and cultural eutrophication as one of its program objectives and the "Water Resources Management Plan" for the Park identifies water quality as the highest water-resources priority to ensure overall ecosystem health. The Northeast Creek Estuary is the second largest estuary surrounding the park, and as such, is important for water quality and habitat of water resources within and around the Park.

Beginning in 1998, as a result of concerns over rapid land use change in the Northeast Creek watershed, the National Park Service began working collaboratively with the U.S. Geological Survey, the Town of Bar Harbor, and a myriad of research scientists, to characterize the hydrology and nutrient dynamics in Northeast Creek. More specifically, scientists have focused on characterizing nitrogen dynamics in the estuary. Nitrogen is a limiting nutrient in estuarine environments. Increased inputs of nitrogen can cause an increase in algae growth that depletes available oxygen and causes habitat degradation for aquatic organisms and other submerged aquatic vegetation.

Initial research into nitrogen loadings conducted during the 1999-2000 season identified significant differences in nitrogen loading rates from the tributary watersheds, likely a result of variation in land use across these watersheds. Loading rates from this study were lower than yields from watersheds of eutrophic estuaries elsewhere on the East Coast. As a result of this initial study, follow-up work was completed to fully characterize land use in the watershed and simulations of the nitrogen loading rates from these land uses (forest, agriculture, urban/suburban, wetlands, open water, and quarry/bare rock/gravel). An additional study was conducted within the estuary using mesocosm study plots (1 square meter each) to identify the point at which nutrient additions changed the structure and function of the estuary. This resulted in a threshold for the transition between "health" and "degrading" to be 2.2 kg/ha/yr. for the entire watershed and the threshold between "degrading" and "degraded" as 4.4 kg/ha/yr. Together, these land use simulations and nitrogen loading thresholds were identified in the 2007 Comprehensive Plan and have subsequently been used to guide land use planning decisions in the watershed.

In 2010, the Town of Bar Harbor worked with the National Park Service and the U.S. Geological Survey to perform follow-up studies in the Northeast Creek estuary to identify the change in nitrogen loading to the Northeast Creek estuary ten years after the initial study and to evaluate the efficacy of the predictions used from the simulations to inform the effectiveness of using these simulations for land use planning. These follow-up studies used updated aerial imagery to update the land use Geographic Information System (GIS) file for the watershed, using the same land use categorization scheme as the earlier study. Despite a noted 40% increase in the number of rural houses in the watershed from 2000 to 2008 (data provided by the Town), there was only a 2.6% change in land use categories. This 2.6% change in land use, primarily from forest/agriculture to urban/suburban, accounted for a simulated 7% increased total nitrogen load for the Northeast Creek watershed (predicted load of 2.12 kg/ha/yr.).

In contrast, estimated total nitrogen loads from each of the tributaries, determined using streamflow and water quality data for each tributary, increased significantly between the 2000 and 2010 study period (a combined 66% higher during the 2010 study for the five main tributaries representing a shift from 1.9 kg/ha/yr. to 3.1 kg/ha/yr. for the tributaries). These results suggest that the modeled simulations of total nitrogen export as a result of only land use change may not be an accurate predictor of nitrogen load especially given additional factors that may increase total nitrogen loading during a specific time period (primarily changes to climate conditions) but they may be a good tool for estimating total nitrogen load changes as a result of only changes to land use. Wetter conditions (increased rainfall and streamflow) during the 2010 study may be responsible for a significant portion of the observed increase in total nitrogen loading.