

Town of Swan's Island

Comprehensive Plan

Prepared by The Musson Group
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ACKNOWLEDGEMENTS

The Town of Swan's Island Comprehensive Plan is a collaboration between the Town of Swan's Island Comprehensive Planning Committee and various town departments and committees, stakeholders, and residents. This process began in 2018 as an effort to update and refresh the vision, goals and objectives for the Town of Swan's Island. This plan seeks to articulate the closely held values of the people who live and work on Swan's Island, and to provide a framework for sustaining this unique and beautiful place.

The planning process has benefited greatly from collaboration with town staff, committees, and support of the Board of Selectmen. We received careful review and thoughtful feedback from many different stakeholders and community residents.

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EXECUTIVE SUMMARY

The Swan's Island Comprehensive Plan is a vision for the Town of Swan's Island based on analysis, strategic thinking, and coordination with the island community. This plan brings together the perspectives and desires of island residents, committees and stakeholders and establishes goals, objectives and strategies for achieving an economically and environmentally sustainable future. This plan will serve as a flexible and informative guide for land use decision-making over the next decade.

Comprehensive Plans are necessary under Maine law. There also can be benefits when applying for State grants if projects are consistent with a community's Comprehensive Plan. The State specifies minimum content for comprehensive planning, and reviews plans for compliance with the State's Growth Management Act. This plan conforms to the requirements of the State of Maine's Growth Management Act for comprehensive plans. As required by the Growth Management Act, the Town of Swan's Island's Comprehensive Plan will serve as the basis for the town's zoning and land use regulations.

The Town of Swan's Island last approved a comprehensive plan in January of 1994. This updated plan draws on many of the ideas and strategies identified by those who came before us – in the earlier comprehensive plan and from town committees – while also identifying new opportunities based on today's trends, realities, and stakeholder input.

Community input was integral in the development of this plan. An overview of the community engagement process is provided in the next section. To place this particular Comprehensive Plan in historical context, it is worth noting that over a year and a half of our work took place during the COVID-19 pandemic. Not only has the pandemic challenged our committee, but it also has challenged many aspects of community life on Swan's Island. It will be the task of leaders present and future to discern the appropriate responses to the challenges and opportunities before us.

VISION

Effective land use planning and decision-making rely on a strong vision for the future. The vision statement for Swan's Island illustrates the hopes, values, and aspirations of the community and provides a framework for the goals, objectives and strategies outlined in this plan. The vision in this plan is strengthened by the synthesis of ideas across various topic areas.

> *Swan's Island is a small but thriving community of year-round and seasonal residents who enjoy the various aspects of island life. We value our scenic landscapes, open spaces, working waterfront, and natural environments that comprise much of the Island's character. Swan's Island is a place where residents can live independent of the inconveniences of larger, urban communities. The Island offers excellent schools and public services. The community fosters a strong spirit of volunteerism and has created a supportive place to live, work and raise a family. The vision of Swan's Island respects the rights of individuals to make the best decision for their households while recognizing the need for comprehensive planning that takes into account the needs of future generations and protects the natural environment of the island.*

PLAN STRUCTURE

The plan is structured into the following sections:

- Regional Coordination
- Implementation and Evaluation
- Land Use
- Population and Demographics
- Economy
- Housing
- Natural Resources
- Water Resources
- Agricultural and Forest Resources
- Marine Resources
- Historic and Archeological Resources
- Recreation and Open Space
- Transportation
- Public Facilities and Services
- Fiscal Capacity and Capital Investment

GOALS, OBJECTIVES, STRATEGIES, AND BACKGROUND DATA

Regional Coordination

The Regional Coordination section acknowledges the close coordination between Swan's Island and neighboring off-island communities. These connections are critical for day-to-day life on Swan's Island. The plan identifies several areas for new or improved regional coordination: natural and marine resources; municipal services; housing affordability; transportation; economic development; public health and safety; education; and solid waste management.

Implementation

The plan identifies an ambitious list of recommended strategies and actions in each section, ranging from the broad to the specific. The Implementation section offers guidance on priority actions and strategies from each of the topic areas. While implementation timelines will inevitably vary over the years, this section illustrates current thinking on prioritization and implementation. Land Use

Land Use

The Land Use chapter identifies key findings and includes the data analysis for existing land conditions, zoning and regulations, and current land use trends. Future land use is folded into this Land Use chapter. This discussion acknowledges that the inherent physical limitations on development, coupled with the shared desire to preserve the rural, small-town character of the island is a major community value. As stated in the growth and development strategy section, the identification of future growth areas and rural areas should be considered exempt by the State due to the nature of the island and designating future growth areas and/or rural areas is not a feasible strategy for this place. Despite this, there are still key guiding principles that this plan identifies for the Town of Swan's Island:

- Protect ground water quality and quantity
- Encourage a diversity of economic development
- Protect the working waterfront
- Maintain open spaces and wildlife habitat
- Keep local roads safe to travel
- Provide a variety of housing types
- Encourage thoughtful, orderly development

The following chapters are all divided into six sections: key findings, state goals, objectives, recommended strategies and actions, data analysis, and maps.

Population and Demographics

The year-round population of Swan's Island has remained fairly constant over the last many decades, although the average age of island residents is increasing, and island residents have a higher median household income than Hancock County and the state of Maine. There are no state goals for this chapter and the objectives and strategies elements are folded into the Housing chapter.

Economy

The Economy chapter notes that while fishing and marine-related occupations are the driving force of the Swan's Island economy, the business, science, education and arts occupations increased substantially between 2000 – 2018. The workforce on the island is largely self-employed and nearly all are employed on the island. The goal, objectives, and strategies in this chapter seek to sustain the existing marine economy while also diversifying future job opportunities for residents and potential future residents, and emphasize the need for investments in municipal infrastructure, including telecommunications, that allow island residents to thrive.

Housing

Like many areas in Maine and the United States, affordable housing on Swan's Island is a challenge. The affordability of homeownership is

decreasing and rental affordability is a major challenge for median income renters. In addition, the older housing stock on Swan's Island presents a challenge for maintenance and energy-efficiency which impacts affordability. The goals, objectives, and strategies presented in the Housing chapter focus on encouraging, promoting, and increasing affordable housing for island residents, including the variety of housing types at different levels of affordability.

Natural Resources

The natural resources on Swan's Island are integral to what makes this community unique and a desirable place to work and call home. The island's mix of forested areas, wetlands, tidal flats, various bird habitats, and shellfish growing areas supports a range of important plants and animals. This chapter of the plan identifies a number of important scenic view locations throughout the island. Development is generally concentrated along the main roads that travel the perimeter of the island and there are several large undeveloped blocks of habitat on Swan's Island. There are currently no local ordinances that protect natural resources outside the shoreland zone. Similar to many islands in Maine, ticks and Browntail moth infestations are a major concern on the island. The plan seeks to identify and protect important natural resources, preserve scenic resources, unfragmented and undeveloped open spaces.

Water Resources

Water is a limited resource on Swan's Island. There are issues with water contamination from faulty septic systems, saltwater intrusion, low-yielding bedrock wells that run dry in the summer and fall seasons, and heavy metals from granite bedrock. The plan seeks to protect and manage water quality on the island to ensure that there is adequate and clean drinking water, and to ensure that there is a sufficient supply of water for fire protection.

Agricultural and Forest Resources

This chapter of the plan discusses agricultural and forest resources on Swan's Island. While there are no significant commercial agricultural farms on Swan's Island, there are several backyard farms and two small areas where the State identified soils that can be classified as "farmland of statewide importance". The island is predominantly forested and this forest has changed over time due to abandoned development, forest fires, and timber harvesting. Goals and objectives for this topic area include safeguarding the State's agricultural and forest resources from any development that could threaten these resources. In addition, the plan recommends that Swan's Island maintain healthy forest stands to provide habitat, buffering and a local wood supply; to manage and minimize fire danger; and to enact local regulations that allow residents the ability to grow food and protect environmental quality.

Maine Resources

The State of Maine classifies Swan's Island as class 2B waters, which is the second highest classification. The Town of Swan's Island encompasses roughly 14 square miles of land and 66 square miles of water, with numerous nearby sea bird nesting islands. Marine resources are vital to the Town, and there are six specific ordinances that may help conserve these resources: a SI lobster conservation zone, a shoreland zoning ordinance, a subdivision ordinance, a floodplain insurance ordinance, a shellfish conservation ordinance, and a

hazardous waste ordinance. The State of Maine has numerous goals for Marine Resources that seek to protect the marine-related industry, infrastructure, and ecology. The objectives in this plan include investing in working waterfront infrastructure, protecting and increasing access to the waterfront, and preserving and improving the harbor's natural resources.

Historic and Archeological Resources

Though a small island community, Swan's Island boasts a number of prehistoric and historic sites identified by the Maine Historic Preservation Commission. The majority of prehistoric sites are shell middens located along the shoreline and six are located on Black and Opechee Islands. The goals, objectives and strategies outlined in the plan focus on protecting these resources and educating island residents and visitors about the existence and value of these resources.

Recreation and Open Space

The Town of Swan's Island offers limited recreational programming, mostly focused around school-age children on the island. The town-owned recreational building is in need of repair, there are no organized sports leagues, and recreational facilities on the island are limited. The island has six public parks / preserves but only a limited number offer public waterfront access points. Some outdoor recreational access is dependent on private property access. The comprehensive plan seeks to improve access to parks, trails, facilities, open spaces, and recreational activities that support physical activities and community well-being and to support and increase school / recreational program offerings, particularly year-round opportunities.

Transportation

Transportation for the Town of Swan's Island consists of single-vehicle driving on the local road network, and the Maine State Ferry Service connection to Mount Desert Island. Cycling is popular during the summer months with individual and organized bike touring groups. The plan recommends a number of strategies that focus on ensuring an efficient system of transportation facilities and services; a reliable year-round ferry service that is affordable and accommodates both day-visits and work hours; and a road network that is regularly maintained and improved to safely serve motorists and cyclists alike.

Public Facilities and Services

Access to broadband, medical care, and quality K-8 public education are just some of the many services that are critical for both year-round and seasonal life on Swan's Island. In addition, there are a number of buildings and public facilities that contribute to community life, including the Odd Fellows Hall, the Swan's Island Library, the Swan's Island Historical Society, located at the former Methodist Church, the Marine Museum, the Burt Coat Harbor Lighthouse, Bairds Quarry, the Mill Pond Health Center, and the Quarry Wharf. Recommendations in the plan seek to ensure safe drinking water, to improve broadband infrastructure, to improve access to medical and Emergency Medical Services, and provide these services in an efficient and effective manner.

COMMUNITY ENGAGEMENT

Public engagement for the plan began in 2017 when the Board of Selectmen requested the Municipal Advisory Committee for a new Comprehensive Plan Committee (CPC). Since then, the CPC has met at least once a month to discuss.

While the recent COVID-19 pandemic paused many public events over the past few years, CPC meetings have always been open to the public and included the opportunity for participants to join via zoom (an option that existed prior to the pandemic). In addition, the plan is rooted in a solid foundation of public participation which includes:

- "Dream Big" Initiative. In the early stages of the planning process (March -May 2018), members of the CPC reached out to the various standing committees in Swans Island to learn about their work and to discuss goals and priorities. Members of the CPC attended committee meetings and helps some follow up discussions with committees once the plan was in final draft form.

- "Swan's Island 2030, A Vision for the Future". In March of 2018 the CPC prepared an information handout to distributed to the island community. The handout was aimed at providing education on the update process and to prompt thinking about the future. Committee members distributed the handout at the 2018 annual town meeting and other locations.

- Community Visioning Sessions. The Town held a series of Community Visioning Sessions to discuss the plan. The first was in July of 2018. This meeting was attended by around 100 participants representing both year-round and seasonal residents. It was a facilitated workshop aimed at discing the future goals and objectives of the comprehensive plan. The second session held in November of 2018 as a follow up workshop. This meeting, which was attended by approximately 40 participants, focused on a range of important topic areas including housing, community health, and reliable internet service.

- Community Survey. The Comprehensive Planning Committee designed an informal survey to gather input from year-round and summer residents on what they would like for the future of the island. The online and paper survey was released in January and closed to responses in March 2019. In total, 258 surveys were completed, split almost evenly between year-round and seasonal respondents.

- Annual Town Reports. The CPC provided community updates in the annual Town Report in 2018, 2019, 2020, and 2021. These updates focused on providing community members a summary of what was being worked on and a summary of the planning process. In additions, CPC members addressed residents as the annual March town meeting for the corresponding years. CPC members also provided updates each year at annual summer information meetings.

- Website. The CPC made good use of the Town's website during the course of the planning process. The website has been a repository for informational drafts, meeting notifications, and minutes.

REGIONAL COORDINATION

Being a small island community off the coast of Mount Desert Island fosters close connections to the mainland, the greater region and other island communities. A few residents travel off-island for jobs and others for health care, groceries, construction professionals and materials, electric and plumbing support, marine supplies and goods (bait, lobsters, fuel) or other services. Solid waste is removed from the island and most goods and services, including the mail, UPS, and FedEx come from the mainland. Overall, it is essential that the town maintain existing regional relationships and investigate new ones.

There are several areas that could benefit from regional coordination outlined below. This list is not exhaustive and, as these issues evolve over time and organizations grow and change, new areas will likely emerge.

NATURAL/MARINE RESOURCES

Swan's Island shares important natural and marine areas with its neighboring communities and it is crucial that these communities (in coordination with other partners) work together to develop a partnership that helps address natural and marine resource related issues such as invasive species, climate change, pollution, and resource conservation.

- *Marine Resources.* Work with neighboring communities, the Maine Department of Marine Resources, the Maine Department of Environmental Protection, and others to help maintain a healthy environment for marine life and wildlife habitat and management of invasive species. Work with organizations like the Maine Coastal Program, Island Institute, and the fishing industry groups to establish management controls and restoration efforts, as well as to prepare and adopt management plans.
- *Climate Resiliency.* Climate change will have implications for Swan's Island. Active engagement with the four towns on MDI, Cranberry Island, Frenchboro, and others will need to continue in order to plan for how to respond to climate change impacts.
- *Conservation Land.* Continue engaging to work toward maintaining access to conservation lands and plans for future protection of natural resources.
- *Tick-borne diseases.* Tick-borne diseases are of major concern on Swan's Island. Continue working with regional partners on preventative measures.
- *Browntail Moth.* Browntail moths are an invasive species found on the coast of Maine and create problems for both forest and human health. Educate residents to identify winter webs and how to clip to limit the spread of these moths on the island.

MUNICIPAL SERVICES

Hancock County provides a number of services to Swan's Island including law enforcement and emergency management services. Other entities that the town interacts with include the Maine Island Coalition and the MDI League of Towns which is an organization comprised of representatives from the City of Ellsworth, the Towns of Trenton, Cranberry, Lamoine, Southwest Harbor, Bar Harbor, Mount Desert, Tremont, Swan's Island, and Acadia National Park.

The town frequently engages with the Island Institute on a number for technical assistance and guidance on number of topics. These include planning and the working waterfront as well as contributing island fellows to support community efforts.

HOUSING AFFORDABILITY

Investigate ways to work with mainland towns and other island communities though the Island Institute, Island Housing Trust, MaineHousing, and other regional and private interests to encourage and support the development of affordable housing in the community.

TRANSPORTATION

The Maine State Ferry Service to and from Bass Harbor is Swan's Island's major public transit connection to the mainland. Continue to participate with the Ferry Advisory Board and the Maine State Ferry Service on improvements to facilities and services offered to Swan's Island. Additional coordination with Tremont or other mainland communities for parking and transportation services.

There is one state road on the island and each year the town gets funds for maintenance. Continue to work with MaineDOT to improve and manage local roads.

ECONOMIC DEVELOPMENT

Although Swan's Island residents may feel separated from the county because of its physical location, there may be opportunities to work with neighboring mainland communities and other island communities and interested organizations to support and strengthen the local and regional economy, meet residents' needs, efficiently provide public facilities and services, preserve natural resource-based industries, and protect the area's exemplary environment.

- Commercial fishing is a major part of the economy on Swan's Island. Active participation in regional management of commercial fishing resources is critical for future sustainability. This includes working with the Maine Department of Marine Resources, the Maine State Lobsterman's Association, local lobster management zone councils, and others.

- Investigating joint economic development projects and coordinating projects of mutual benefit among municipalities.
- Investigate ways to work with Hancock County economic development efforts to highlight the unique needs and opportunities for island employment and businesses.

PUBLIC HEALTH AND SAFETY

As an island community, there are several opportunities to explore and improve coordination on community health and public safety matters. The Maine Seacoast Mission provided telehealth funding for equipment/coordination and other health services. Caring Hands of Maine Dentistry (through a state program) provides dental services. Emergency 911 dispatch and emergency management services (including training, civil defense, disaster relief, etc.) are provided through Hancock County. Island residents have access to funds from the Campfire Coalition for fuel assistance.

Other Community Health and Safety Partners

Acadia Family Center
MDI Hospital
LifeFlight of Maine
Atlantic Partners EMS
Northern Light Hospice
Southwest Harbor/ Tremont Ambulance
Maine EMS
Hancock County Fire Association
Maine State Federation of Firefighters

EDUCATION

Swan's Island is a member of the Mount Desert Island Regional School System and a majority of island students' who are in high school commute daily to Bar Harbor for their education. Continue to work with AOS91 to provide island children with quality education opportunities. Collaboration with other educational service providers is also important. These include organizations such as the Swan's Island Educational Society, which provides films, talks, yoga and painting classes, and space for AA meetings, and Acadia Senior College, which offers a range of learning opportunities for older residents.

SOLID WASTE MANAGEMENT

Swan's Island participates in the regional entity Municipal Review Committee, Inc (MRC) for solid waste removal. The Town should continue to work with MRC or other regional entities for solid waste management and recycling programs.

IMPLEMENTATION AND EVALUATION

The Comprehensive Plan establishes a set of goals and objectives for topics ranging from housing to natural resource protection. To help achieve these, the plan also identifies an ambitious list of recommended strategies and actions, ranging from the broad to the specific. These are organized in a matrix which has a complete list of strategies that can be drawn from as opportunity and time permits. Each matrix also identifies the potential responsibilities for the strategy and suggests an implementation timeline.

Overall, successful implementation of the entire plan will require continued review of roles and responsibilities, prioritization of timelines, sufficient budgets, consideration of staff time and capacity, synergies with other projects and opportunities, and regular review of progress.

This chapter provides guidance on the highest priority action items that will support the initial implementation of the plan and establishes an evaluation process.

IMPLEMENTATION PRIORITIES

- Establish a committee which is charged with finding opportunities for improving housing affordability, year-round community, and economic development. This includes:
  - Exploring strategies for attracting families
  - Pursuing appropriate development opportunities and/or partnerships for town consideration
  - Disseminating accurate information on development proposals
  - Continuing to implement/support broadband rollout

- Maximize the participation of year-round residents, seasonal residents, and younger population to help generate new ideas and improve follow through. This should include:
  - Review/revise committee mission statements to ensure that committees are working toward projects that are aligned with the town's vision and that members have a clear understanding of their objectives
  - Improve the participation of both year-round and seasonal residents by seeking volunteers to be on committees in which they are most interested
  - Continue to use technology to help improve participation (e.g., Zoom, Google, etc.)

- Establish a comprehensive plan for Quarry Wharf and the surrounding town-owned properties that includes infrastructure improvements and management strategies to maximize benefits of this resource to the community. This could include:
    - Support of ongoing infrastructure work and grant-funding requests
    - A master plan for site improvements and site layout
    - Identification the highest and best uses of the area for the community and local fishing industry through a facilitated process
    - Management policies based on long-term goals and objectives established through a facilitated process

- Other Implementation priorities include.
    - Adopt pesticide and herbicide ordinance
    - A new Sand/Salt Shed closer to the ferry terminal to improve efficiency and reduce costs associated with road maintenance.

EVALUATION

The Comprehensive Plan is intended to serve as a road map for town policy making and a resource for the Board of Selectmen and committees as they plan and prioritize their respective work. Ultimately, the success of the plan will be measured by its implementation over time.

Monitoring the plan's implementation should be an open and ongoing process. As the plan is implemented, the Comprehensive Planning Committee will evaluate progress and annually identify areas in need of clarification or modification. The Committee also is responsible for reviewing proposed land use related ordinance changes for compatibility with the comprehensive plan.

Overall, progress on the plan will be evaluated by the Board of Selectmen at least every five years to determine the following:

- The degree to which the Future Land Use Plan strategies have been implemented;
- Percent of municipal growth-related capital investments that have been directed to growth and development strategies;
- The location and amount of new development throughout the island and identification of any new patterns of growth;
- The amount of critical natural resource, critical rural, and critical waterfront areas protected through acquisition, easements, or other measures.

EXISTING AND FUTURE LAND USE

i. KEY FINDINGS

ii. GROWTH & DEVELOPMENT STRATEGY

    a. Planning for Future Growth

iii. DATA ANALYSIS

    a. EXISTING LAND CONDITIONS

    b. ZONING AND REGULATIONS

    c. CURRENT LAND USE TRENDS

iv. MAPS

i. LAND USE KEY FINDINGS

- *Growth trends indicate that future development will continue in the same way as current land use patterns, which has been consistent with the community's vision over time.*
- *Land uses are dispersed on the island and there are no concentrated residential villages or commercial areas.*
- *Swan's Island does not have public sewer or water infrastructure in place.*
- *Most commercial activity on Swan's Island is related to the waterfront and harbor areas.*
- *Several parcels on the Island are under conservation easement.*
- *The Town of Swan's Island has adopted Shoreland Zoning and Subdivision regulations.*

ii. STATE GOALS

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

iii. OBJECTIVES

1. Support the locations, types, scales, and intensities of land uses the community desires as stated in its vision.
2. Establish efficient permitting procedures.

iv. RECOMMENDED STRATEGIES & ACTIONS

Future Land Use	Responsibility	Timeline
Assign responsibility for implementing the Future Land Use Plan to the appropriate committee, board, or municipal official.	Board of Selectmen	Short-term (1-2 years)
Using the descriptions provided in the Future Land Use Plan narrative, maintain, enact, or amend local ordinances as appropriate to: • Clearly define the desired scale, intensity, and location of future development; • Clearly define protective measures for critical natural resources and, where applicable, important natural resources.	Board of Selectmen	Short-term (1-2 years)
Include in the Capital Investment Plan anticipated municipal capital investments needed to support proposed land uses.	Board of Selectmen	Short-term (1-2 years)
Provide the Code Enforcement Officer (CEO) with the tools, training, and support necessary to enforce land use regulations, and to ensure that the CEO is certified in accordance with 30-A M.R.S.A section 4451.	Board of Selectmen	Ongoing
Track new development in the community by type and location.	Assessor and Town Staff	Ongoing

ii. GROWTH & DEVELOPMENT STRATEGY

Swan's Island residents and non-residents value the rural island character that makes Swan's Island a distinct place. The Community Survey confirms overwhelming support for preserving this trait. Due to a combination of factors, including physical limitations on development (natural resource constraints, regulatory constraints, and/or conservation easement ownership restrictions) and population growth, land use patterns on Swan's Island have remained consistent. It is anticipated that this trend will continue and that very few new residential units are needed in the next 10-year period, particularly as population numbers are projected to decline in the future. There is minimal if any commercial, institutional, or industrial development predicted to occur in the next ten years.

PLANNING FOR FUTURE GROWTH

Due to the nature of the Island, Future Growth Areas and Rural Areas should be considered exempt by the State under this Comprehensive Plan. There are no distinct downtown areas or village districts in which growth has been or will be focused in the future. Additionally, the Island does not have public sewer or water infrastructure in place and the community does not have a distinct downtown or village district with a significant population center. Therefore, designating Future Growth Areas and/or Rural Areas does not seem to be a feasible strategy for orderly growth and development in the future.

State Goal

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

However, being considerate and thoughtful when responding to future growth is essential to ensuring that the character and historical value of the community are respected and protected. The following principals are key aspects of planning for future growth:

1. The need and desire to protect ground water quality and quantity.
2. The desire to encourage a diversity of economic development including traditional commercial fishing and marine related activities, tourism, and remote working opportunities.
3. The desire to maintain open space and wildlife habitats.
4. That local roads remain safe to travel.
5. The desire to provide a variety of housing development.
6. Being thoughtful of where development could occur – view properties, inland growth, protecting needed access to the water…which would complement existing demand for shorefront property.

Overall, it is recognized that the type and density of any future development should be matched as closely as possible with the constraints of the land to absorb development. The following regulatory areas are in place and will continue to be improved:

- *Shoreland Zoning*. To ensure the community's important waterfront resources, constraints to development, including conserved land, threatened or endangered wildlife habitat, wetlands, and important associated resources are identified, Town had adopted shoreland zoning.

- *Subdivision and Development Standards.* The existing land use ordinances and subdivision review standards are intended to meet the community's current vision. The primary goal of a comprehensive plan is to make land use ordinances and subdivision standards enforceable to achieve the community's vision.

- *Critical Habitat areas*. Although protection exists for some of these critical natural resources, additional measures will be needed. These may be particularly true for identified critical natural resource areas, particularly the class 'A' wildlife areas, most of which are located on the smaller offshore islands and ledges within the municipality of Swan's Island. In general, the smaller the island the less amount of development that can be allowed. Although there are many factors, size is the limiting factor from both the wildlife protection and physical resource protection points of view.

- *Water Resource Protection*. Maintaining a good quality water supply is vital to long term sustainability. Much of the Island is underlain by a granite formation which has poor water storage because it has fewer fractures to store and transport fresh water and to serve as recharge areas. Swan's Island will continue to take appropriate measures to protect water quality and quantity, including reviewing lot size requirements, requiring information from developers on water supply and water protection, and consideration of technology to help minimize water usage and maintaining quality. In addition, the Town will consider exploring the feasibility of desalinization technology as part of a long-term approach to ensuring a sufficient water supply.

- *Scenic Resources.* In implementing portions of this plan for scenic areas, the Town will prepare measures that help the planning board and developers work together to negotiate protection of affected scenic resources affected by contemplated development. The intent will be to create win-win situations where development is allowed to proceed, while at the same time, the public's interest in the scenic views/resources is not eliminated.

iii. DATA ANALYSIS

a. EXISTING LAND CONDITIONS

Swan's Island consists of one main island, and more than forty smaller, outer islands within its municipality border. Most of the outer islands have names, but some remain unnamed. The town's total area is approximately 80 square miles, with approximately 14 square miles of land and approximately 66 square miles of water. Swan's Island is within the legislative boundaries of Acadia National Park.

There are both year-round and seasonal homes on Swan's Island. Of the outer islands, Opechee, Orono, Garden, Round, Eastern Sister, and Harbor Island have buildings or houses on them as well.

The island's landscape is relatively flat, with some hills or high points that experience low relief. The highest point of elevation is Goose Pond Mountain, measured at 241 feet.

Development on Swan's Island is minimal but spread out across the island. Constraints to developing land include poor soils in some areas, depth to ledge, and wetland habitats. The USDA Soil Survey uses its data to rate soil types for various uses like farming, low-density development, and high-density development. According to the USDA Soil Survey for Swan's Island, over 90% of the soil types on the island are "very limiting" for low-density development. Ratings are based upon the potential for homes (with or without basements) on individual lots to support well and septic systems.

b. ZONING AND REGULATIONS

LOCAL REGULATIONS

Currently, there is no town-wide zoning on Swan's Island. Among the ordinances relating to land use, the shoreland zoning ordinance and the subdivision ordinance govern the types of activities and development allowed on the island.

Shoreland Zoning Ordinance

The Swan's Island Shoreland Zoning Ordinance was first enacted in 1975 and last amended in 2003. The ordinance applies to all land areas of Swan's Island which lie between the low tide line and within 250 feet, measured horizontally from the normal high tide line of any great pond, coastal of freshwater wetland, saltwater body, or within 75 feet of any stream. The ordinance applies to any structure built on, over, or abutting a dock, wharf, pier, or other structure that extends beyond the shoreline boundary of a water body or wetland.

There are four zoning districts outlined in the ordinance: fishery district, resource protection district, residential district (includes a forested wetland district), and stream protection district.

Each zoning district is subject to standards that either allow, prohibit, or require special permitting for certain land-use activities. Permits may need obtainment from the planning board, code enforcement officer, local plumbing inspector, or Maine's Department of Environmental Protection. Both the reconstruction of existing buildings and new construction (either additions to the principal structure or accessory structures) may have limitations.

Subdivision Ordinance

The Swan's Island Subdivision Ordinance was first enacted in 1971 and last amended in 2006. All proposed subdivisions must conform to the ordinance's standards to assure the comfort, convenience, safety, health, and welfare of the people, to protect the environment, and to promote the development of an economically sound and stable community. There is an application procedure, preliminary plan procedure, and final plan procedure that must be approved by the Municipal Planning Board. Requirements account for land not suitable for development, lot sizes and dimensions, utilities. Design standards consider existing monuments, parking, roads, soil information, water supply, sewage disposal, and surface drainage properties.

Floodplain Insurance Ordinance

Certain areas of Swan's Island are subject to periodic flooding. The town chooses to participate in the National Flood Insurance Program under the Federal Emergency Management Agency (FEMA) and agrees to comply with the requirements of the National Flood Insurance Act of 1968.

The Swan's Island Floodplain Insurance Ordinance was adopted in 2003 to establish a review procedure and permit system for any construction or development within a designated flood hazard area. The Code Enforcement Officer reviews all proposed development that must meet specific standards to withstand flooding in an effort to minimize potential damage or loss.

Campground Ordinance

In 2019, the Municipal Planning Board and the town's code enforcement officer drafted the Swan's Island Campground Ordinance, which outlines requirements specifically for the development of commercial campgrounds. The Swan's Island Campground Ordinance was created with the purpose and intention to protect the overall character of Swan's Island, its community and property owners, the landscape, and the island's limited natural resources from the impact of large-scale campgrounds. The ordinance observes all of the State's pre-existing rules and regulations relating to campgrounds while incorporating more exact requirements for provisions that regard the number of campsites allowed per campground, the minimum lot size of a campsite, and the distance between campsites. Voters approved the ordinance at the annual town meeting on March 2, 2020.

FEDERAL REGULATIONS

Swan's Island has several parcels of land that are located within the boundaries or have ownership by Acadia National Park. According to the Acadia National Park Revised Land Protection Plan from June 2004, parcels within the fee boundaries of Acadia National Park, including parcels with conservation easements with the Park, must follow certain guidelines for development.

The development of undeveloped tracts within the boundary of Acadia National Park after November 1, 1985, is considered by the Park to be detrimental, and the Park reserves the right under P.L. 99-420 to seek to acquire lands without the consent of the owner. In addition, the clearing of vegetation or alteration to the surface of the property will be considered compatible only for the maintenance and operation of roads and foot trails existing as of November 1, 1985 and the gathering of dead wood. Any cutting of live, standing trees must be approved by the Park Superintendent.

In addition, there are certain requirements for the screening of properties and the use of natural, or natural-looking, non-reflective materials for the exterior of buildings. All proposed development must also be reviewed by the Park Superintendent.

c. CURRENT LAND USE TRENDS

RESIDENTIAL LAND USE

Residential development trends on Swan's Island have been low-impact, slow, and relatively spread out. Over the last forty years, new residential development has been in the form of single-family homes throughout the island or in approved subdivisions such as Island Retreat, Jericho Bay, East Point, and Red Point.

According to the U.S. Census housing data for Swan's Island, there is a transition occurring from year-round homes to seasonal homes, but this is not to say that year-round residents haven't moved to the island over recent years. Due to the small population, new housing projections are difficult. Given the trend, residential construction will most likely be primarily seasonal. This also correlates with population trends/projections which indicate that the year-round population on the Island has and will slowly decline. See Population chapter for additional information.

COMMERCIAL LAND USE

Only a small amount of land is used commercially on Swan's Island. Apart from a number of commercial fishing wharves, there is a retail grocery store, an inn, a bed-and-breakfast, and several house vacation rentals. This statement does not intend to omit other island businesses, which do not involve significant land use.

SUBDIVISION ACTIVITY

According to Town records, there are seventeen subdivisions on Swan's Island. No new subdivision activity has occurred in the last fifteen years. Although there are revisions to existing subdivisions that date up to 2006, there have been no recent changes since then.

PROPERTY TAX PROGRAMS

Roughly 817 acres of Swan's Island are enrolled in the state's Tree Growth Property Tax Program, and about 598 acres enrolled in the Open Space Tax Program. There are no properties on Swan's Island that participate in the Farmland or Working Waterfront tax programs.

CONSERVATION EASEMENTS

A conservation easement is a legally enforceable restriction on the future uses of a property, which can be sold or granted as a gift by the land's current owners. There are currently twenty-three parcels or 1,242 acres of Swan's Island that are held by a conservation easement. This number includes outer islands within the municipal border; it does not account for land protected by the town or conserved differently by other means.

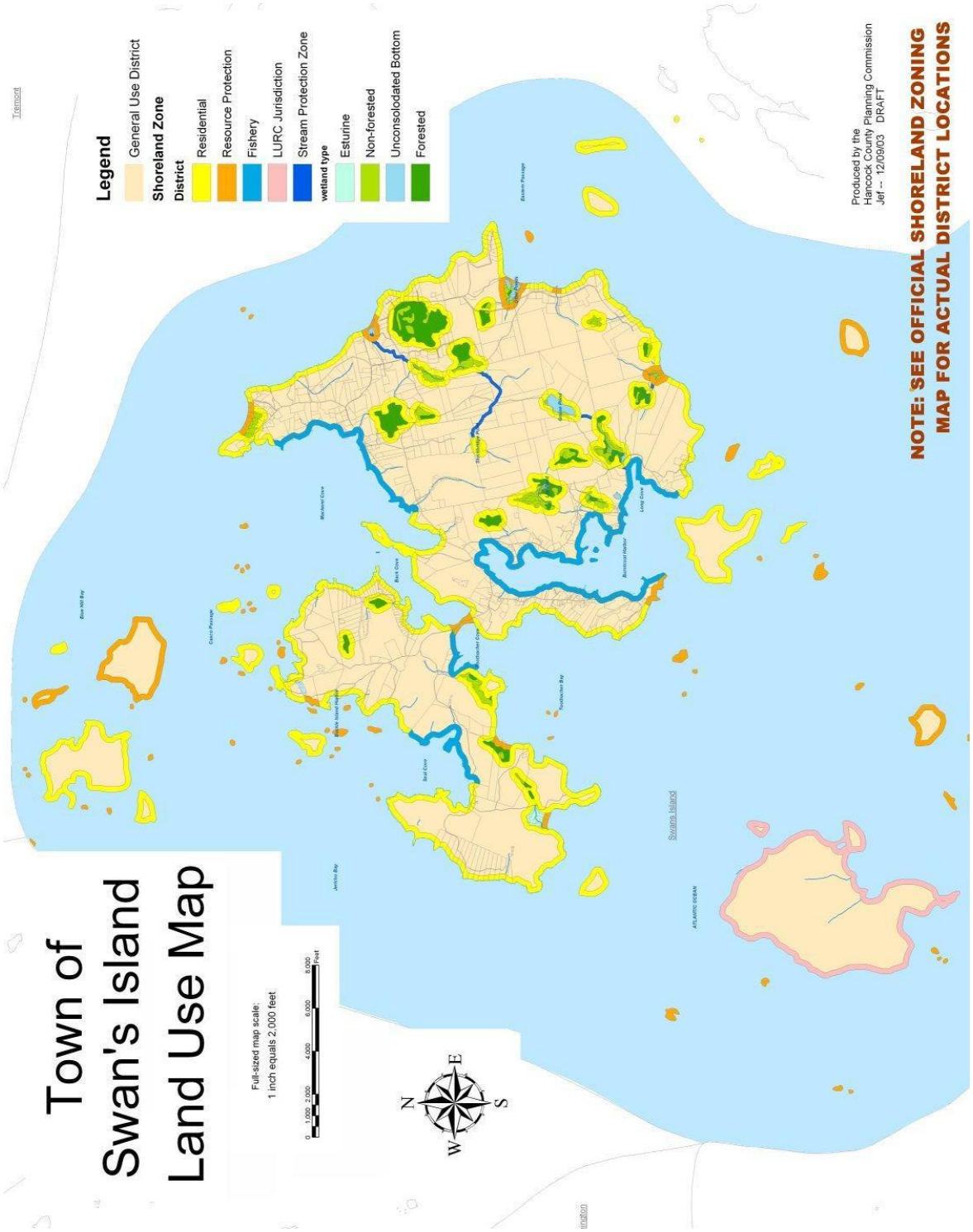
PUBLICLY OWNED LAND

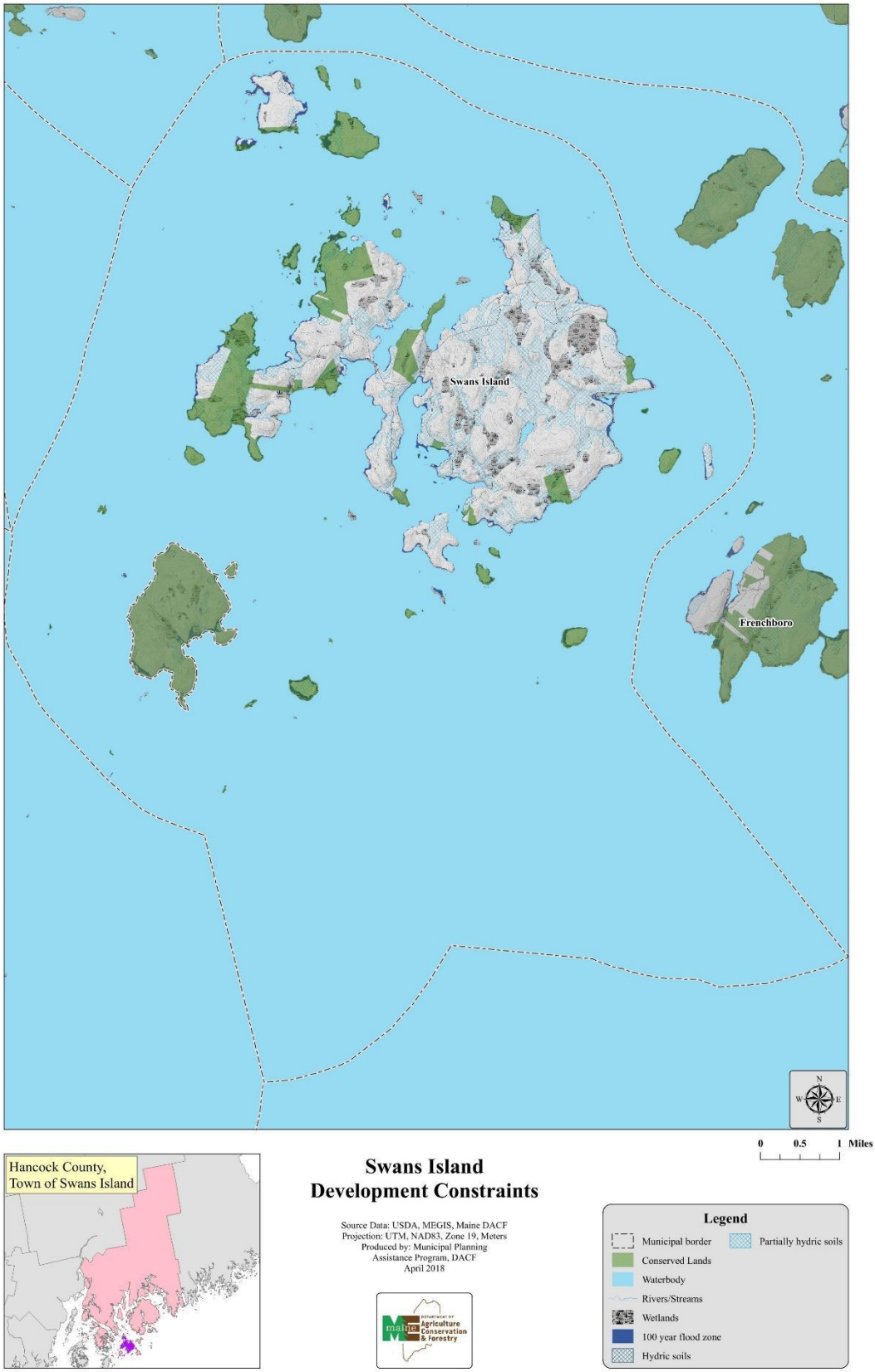
Fine Sand Beach, Carrying Place Beach, High Head Beach (gifted to the Town of Swan's Island from Maine Coast Heritage Trust), the Quarry Wharf, Quarry Pond, Mill Pond Park, Burnt Coat Harbor Lighthouse at Hockamock Head, and the Fire Ponds are all publicly owned land.

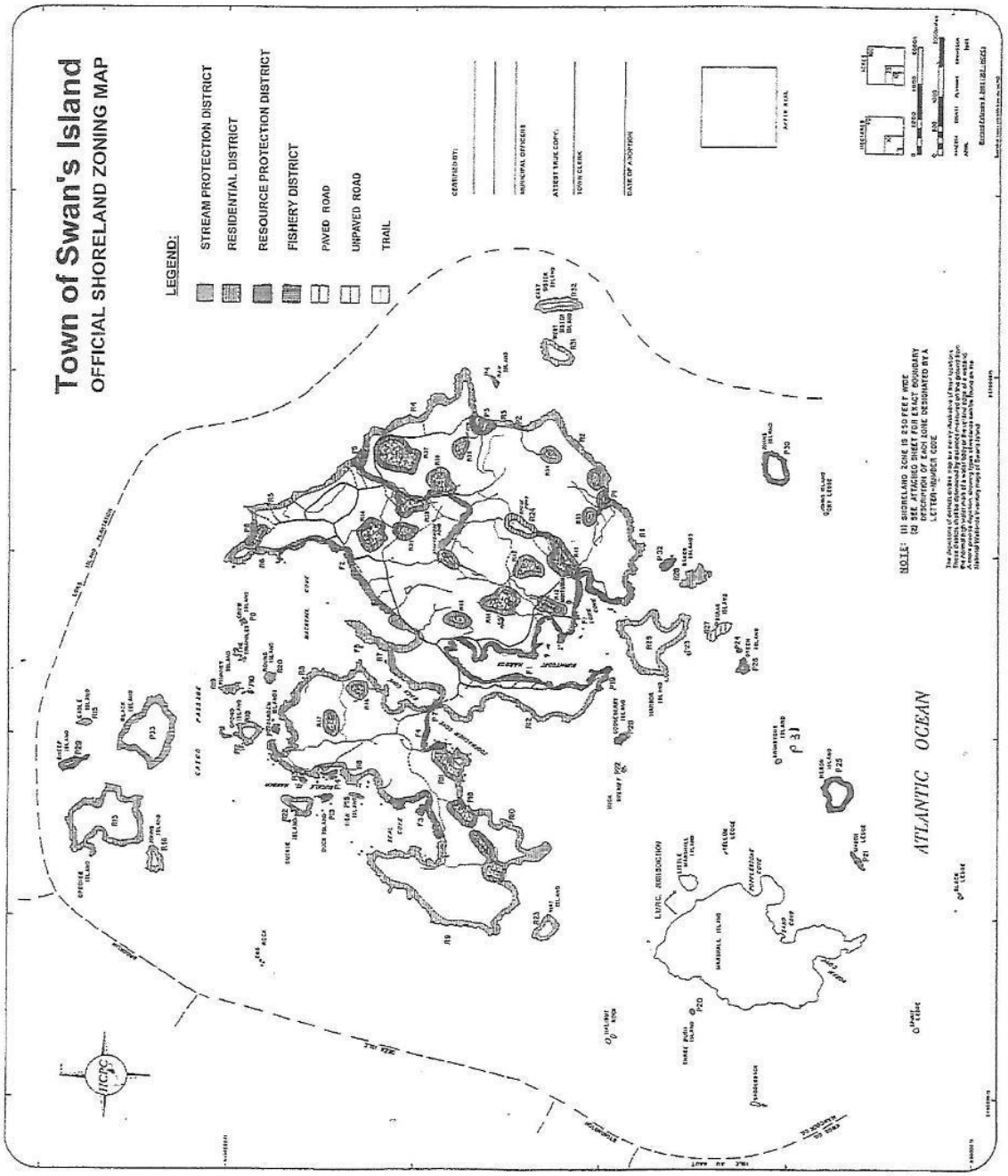
UNDEVELOPED LAND

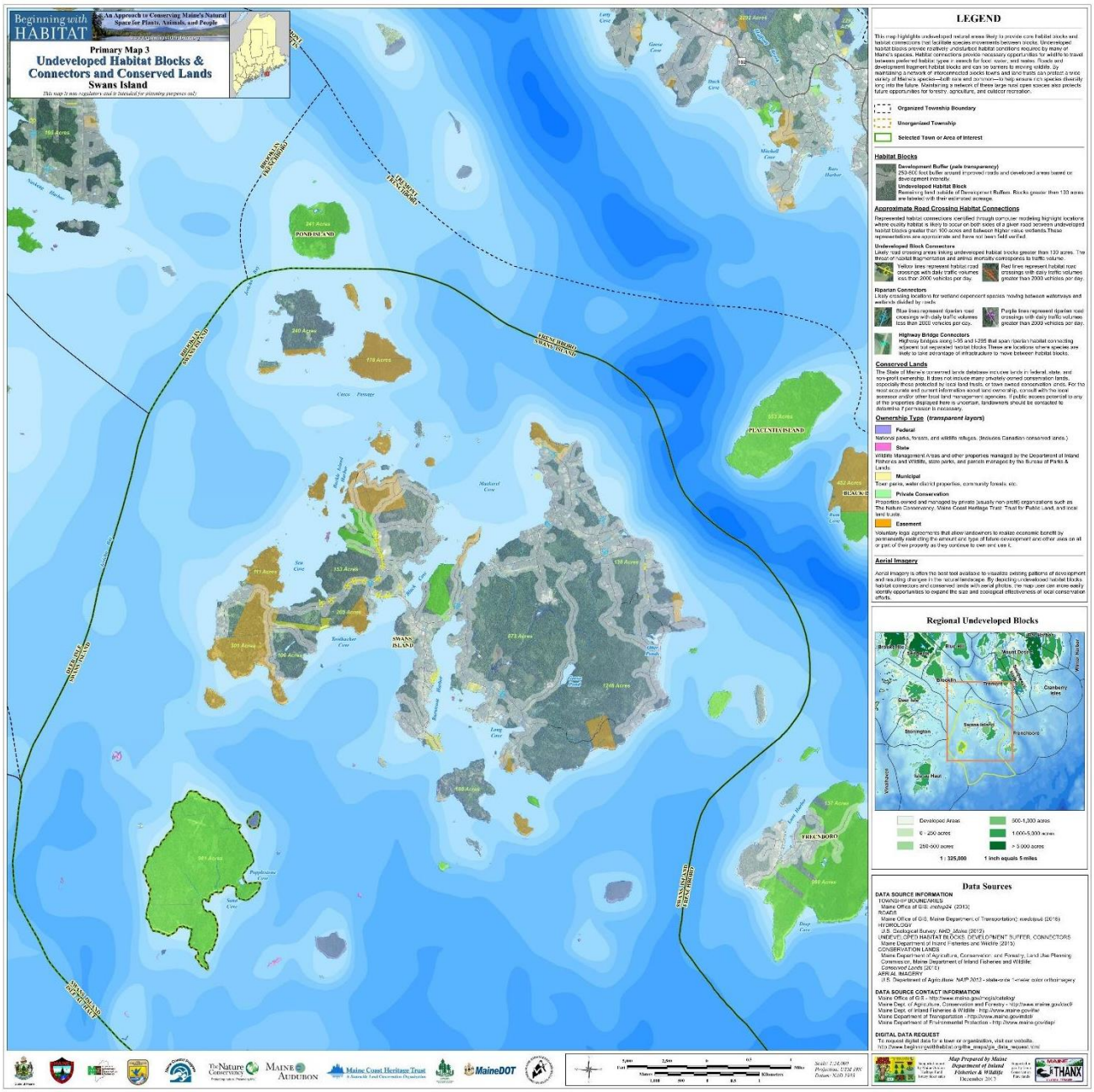
Large portions of land remain undeveloped on Swan's Island, as highlighted in the Natural Resources chapter. There are six blocks of undeveloped land on Swan's Island greater than 100 acres, broken down as 1,246 acres, 873 acres, 205 acres, 153 acres, 138 acres, and 106 acres. There is also a 180 acre-block of undeveloped land on Harbor Island. Apart from these sizeable areas, there are smaller pockets of land still undeveloped throughout the island, which are less than 100 acres.

iv. MAPS


Town of
Swan's Island
Land Use Map
Legend
General Use District
Shoreland Zone
District
Residential
Resource Protection
Fishery
LURC Jurisdiction
Stream Protection Zone
wetland type
Esturine
Non-forested
Unconsolodated Bottom
Forested
NOTE: SEE OFFICIAL SHORELAND ZONING
MAP FOR ACTUAL DISTRICT LOCATIONS
Produced by the
Hancock County Planning Commission
Jef -- 12/09/03 DRAFT
Full-sized map scale:
1 inch equals 2,000 feet
Swans Island
Tremont


Swans Island
Frenchboro
N
W
E
S
0 0.5 1 Miles
Hancock County,
Town of Swans Island
Swans Island
Development Constraints
Source Data: USDA, MEGIS, Maine DACF
Projection: UTM, NAD83, Zone 19, Meters
Produced by: Municipal Planning
Assistance Program, DACF
April 2018
maine
Department of
Agriculture
Conservation
& Forestry
Legend
Municipal border
Conserved Lands
Waterbody
Rivers/Streams
Wetlands
100 year flood zone
Hydric soils
Partially hydric soils


Town of Swan's Island
OFFICIAL SHORELAND ZONING MAP
LEGEND:
STREAM PROTECTION DISTRICT
RESIDENTIAL DISTRICT
RESOURCE PROTECTION DISTRICT
FISHERY DISTRICT
PAVED ROAD
UNPAVED ROAD
TRAIL
ATLANTIC OCEAN


Beginning with HABITAT
An Approach to Conserving Maine's Natural Space for Plants, Animals, and People
Primary Map 3
Undeveloped Habitat Blocks & Connectors and Conserved Lands
Swans Island
This map is non-regulatory and is intended for planning purposes only.
LEGEND
Organized Township Boundary
Unorganized Township
Selected Town or Area of Interest
Habitat Blocks
Development Buffer (pale transparency)
Undeveloped Habitat Block
Approximate Road Crossing Habitat Connections
Undeveloped Block Connectors
Riparian Connectors
Highway Bridge Connectors
Conserved Lands
Ownership Type (transparent layers)
Federal
State
Municipal
Private Conservation
Easement
Aerial Imagery
Regional Undeveloped Blocks
Developed Areas
0 - 250 acres
250-500 acres
500-1,000 acres
1,000-5,000 acres
> 5,000 acres
1 : 325,000
1 inch equals 5 miles
Data Sources
DATA SOURCE INFORMATION
DATA SOURCE CONTACT INFORMATION
DIGITAL DATA REQUEST
Map Prepared by Maine Department of Inland Fisheries & Wildlife
December 2013
The Nature Conservancy
Maine Audubon
Maine Coast Heritage Trust
MaineDOT
ETHANX

POPULATION & DEMOGRAPHICS

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i. KEY FINDINGS

ii. STATE GOALS

iii. OBJECTIVES

iv. RECOMMENDED STRATEGIES & ACTIONS

v. DATA ANALYSIS

   a. POPULATION TRENDS

   b. POPULATION PROJECTIONS

   c. AGE CHARACTERISTICS

   d. SEASONAL POPULATION

   e. GENDER, RACE, AND ETHNICITY

   f. HOUSEHOLD CHARACTERISTICS

   g. INCOME CHARACTERISTICS

   h. EDUCATION

i. KEY FINDINGS

- ***The year-round population of Swan's Island has remained relatively constant since the 1950s; however, the overall age of residents is increasing and the total population is expected to decline in the next 15 to 20 years.*** Both of these trends will influence year-round sustainability and have implications on such things as housing needs, volunteerism, health care services, and recreation.
  - The 2020 Decennial Census estimated the population of Swan's Island to be 355.
  - According to state estimates, the year-round population is projected to decrease 10.5% by 2036.
  - The Island's population nearly triples in the summer months to an estimated 1,085 individuals.
  - The median age in 2019 was 52.6.
  - From 2000 to 2019, there was an 93.4% increase of people between the ages of 45 to 59, and 95% increase of people between the ages of 60 to 64. This is consistent with national trends revealed in the 2020 U.S. Census, which showed that the nation's adult population increased faster than the under-18 population and the U.S. population as a whole in the last decade.
  - From 2000 to 2018, there was a 38.2% decrease in the number of people between the ages of 35 to 44.
- ***Swan's Island residents had a higher median income than those in Maine and Hancock County.*** The median household income on Swan's Island was $69,531 in 2019. Swan's Island earned a median household income in 2019 that was 22% higher than Hancock County's, and 20% higher than Maine's median household income.
  - Half of the island's households (48%) in 2019 earned 'middle to upper' incomes of $75,000 or more; 34% of households earned more than the median household income in Hancock County ($57,178).

ii. STATE GOALS

The Growth Management Act does not include a state goal for population.

iii. OBJECTIVES

1. The Island population includes a diverse range of ages and supports a sustainable year-round community.

iv. RECOMMENDED STRATEGIES & ACTIONS

Recommended Strategies & Actions for Population & Demographics have been integrated into Housing.

v. DATA ANALYSIS

a. UNDERSTANDING THE DATA

Analysis of demographics and population dynamics is a fundamental component of the planning process. These data points help provide a better understanding of the characteristics of a community and attempt to shed light on information that is not always readily apparent. This chapter looks at population and demographic data in order to identify possible trends and noteworthy key findings. It is important to note the challenges and inherent limitations of collecting and analyzing demographic data for small towns, particularly when that data is used for longer-term population projections. All data presented here attempts to create a demographic snapshot and should be viewed as official reference points used in conjunction with local knowledge of recent trends and developments. This chapter primarily relies on four different datasets:

- **The Decennial Census.** The decennial census is program of the United States Census Bureau. The decennial census is conducted once every ten years and attempts count every person living in the 50 states, District of Columbia, and five U.S. territories. This census asks a short set of questions and provides an official count of the population, which determines congressional representation. The most recent decennial census was in 2020.
- **The American Community Survey (ACS).** The American Community Survey or ACS is conducted every month, every year. This survey is sent to a sample of addresses throughout the country, DC, and Puerto Rico, and collects more detailed information than the decennial census. The ACS asks more in-depth questions about a number of topics such as education, housing, employment, commuting and transportation, and internet access just to name a few. The ACS data is available in one-year, three-year, or five-year datasets. Given that the ACS is a sample survey by design, the data collected includes information about the margins of error for each reported data point. The shorter the time frame, the smaller the sample size and larger the margin of error; likewise, the smaller the community, the higher the margin of error.
- **Maine Office of Data, Research, and Vital Statistics.** The Maine Office of Data, Research and Vital Statistics (DRVS) administers Maine's vital statistics system and provides quantitative information for surveillance, planning, policy development, program management and evaluation. It produces detailed population estimates for use within and outside the Department of Health and Human Services and compiles data on health status and health resources.
- **The Office of the Maine State Economist.** The Office of the Maine State Economist conducts ongoing analysis of Maine's economic and demographic conditions to help inform policy decisions. The State Economist creates population projections for the State of Maine and its counties and towns for 5-year intervals to 2038, based on 2018 U.S. Census Bureau population estimates.

As stated above, the data presented in this chapter comes from different sources and different years based on how the various agencies collect, analyze and report their data, and are noted accordingly.

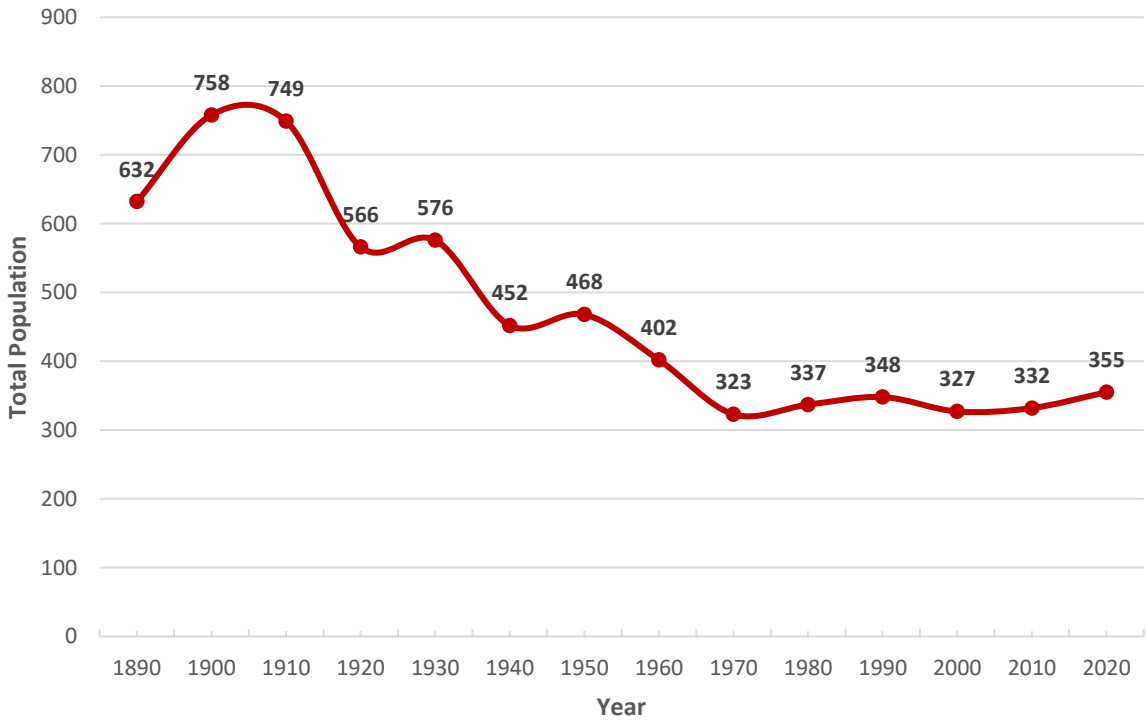
b. POPULATION TRENDS

HISTORIC POPULATION CHANGE

According to the 2020 Decennial Census, Swan's Island had a total population of 335 year-round residents. Local estimates of year-round population suggest approximately 375 year-round residents. The chart below illustrates that the Town of Swan's Island has experienced a decline in population since the turn of the century. Between 1900 – 2020 the population decreased by 44% from approximately 758 to 355. Since the mid-1900s, however, that decline leveled off and the population has remained relatively constant, fluctuating only in small amounts each ten years.

Figure 1: Town of Swan's Island Total Population (1890 - 2020)

Source: US Decennial Census Data



MIGRATION ANALYSIS

Changes in a population depend on the number of births, deaths, and individuals moving in and out of an area. Analyses of these statistics indicate if a population is fluctuating due to migration or natural change (births and deaths). The Maine Office of Data, Research, and Vital Statistics collects and maintains records of births and deaths dating back to the 1890s and produces decadal net migration reports for all towns in the state. According to these reports, between 2000 and 2010 the Town of Swan's Island experienced a small increase in population from 327 to 332 due to both a small positive natural change of three people and a small estimated net migration of two people. Between 2010 and 2020, these reports indicated a continued small increase in population from 332 to 335, with a reported natural change of -5 and estimated net migration of 13. It appears that the change in population on Swan's Island between 2000 – 2010 is somewhat evenly split between natural change and net migration; between 2010 – 2020, while the town experienced a negative natural change, the number of new people moving in outnumbered the negative natural change, thus the population still increased slightly. Table 1 below shows the data provided in these reports.

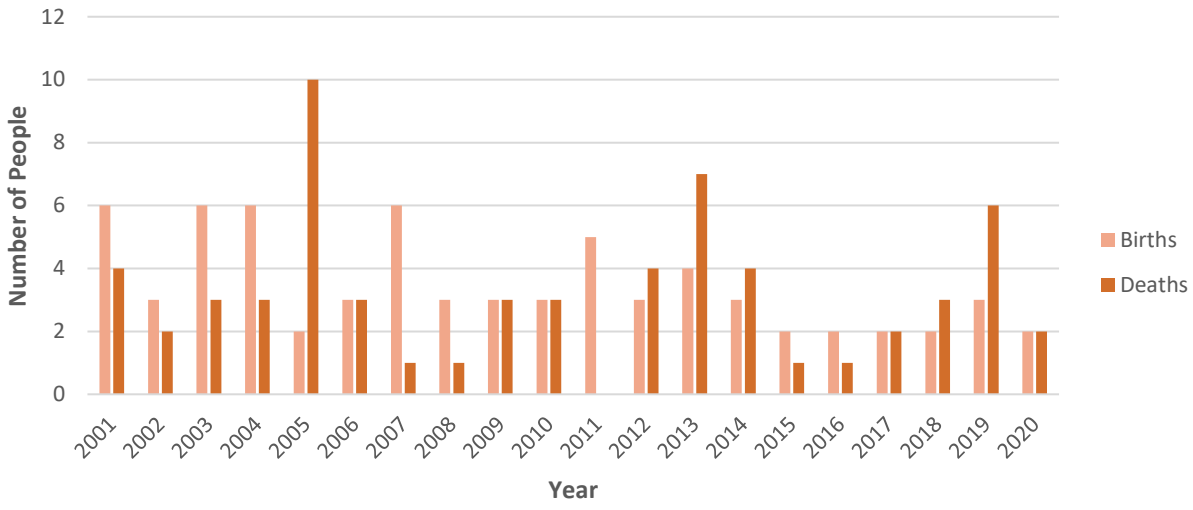
Table 1: Net Migration for the Town of Swan's Island (2000 – 2020)

Data Point	Population
2000 to 2010 Net Migration	
2000 Decennial Census	327
Natural Change	3
Estimated Net Migration	2
2010 Census	332
2010 to 2020 Net Migration	
2010 Decennial Census	332
Natural Change	-5
Estimated Net Migration	13
Estimated 2020 Decennial Census	340
Reported 2020 Decennial Census*	355

Source: Maine Office of Data, Research, and Vital Statistics population estimates tables, 2000 and 2020.
**The official 2020 Decennial Census total population count was reported after the release of the Maine Office of Data, Research, and Vital Statistics population estimates 2020 report.*

Figure 2: Town of Swan's Island Births and Deaths by Year (2001 - 2020)

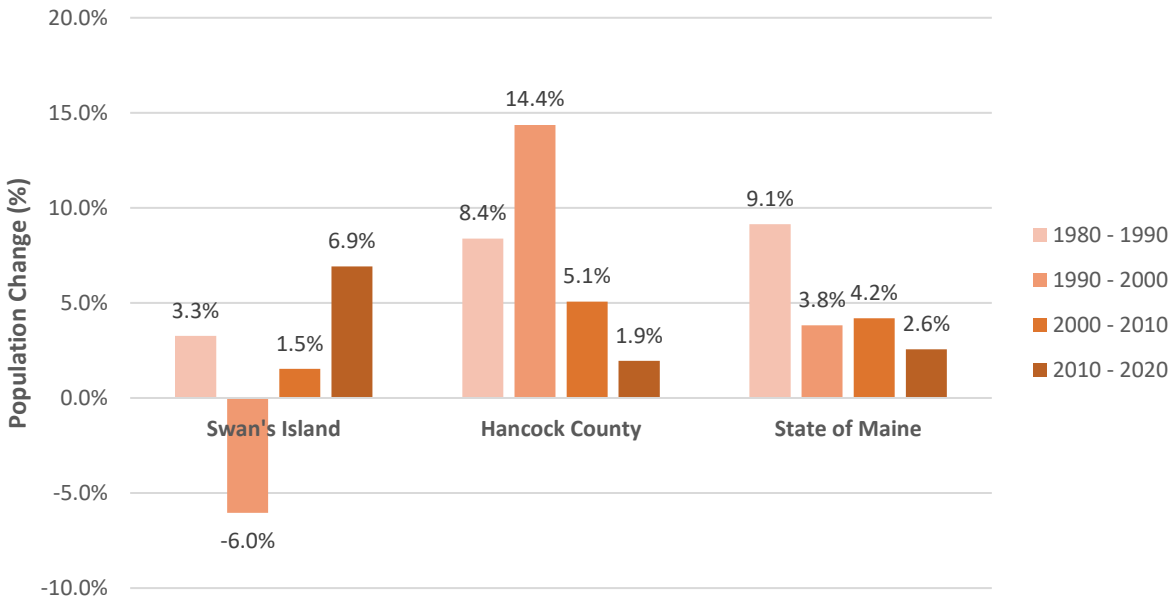
Source: Maine Office of Data, Research, and Vital Statistics



COMPARATIVE POPULATION CHANGE

Figure 3 depicts the percent of change in the total population of Swan's Island, Hancock County, and the State of Maine during four timeframes that span from 1980 to 2020. Since the 1980s, the populations of Hancock County and Maine have grown. Although from 2010 to 2018, these populations did not experience much growth. In 2010, the population of Hancock County was 54,418 people; and in 2020, the population was reported at 55,478 people. Maine's total population in 2010 was reported to be 1,328,361 people; and in 2020, the population was 1,362,359 people. The Swan's Island population an increase (6.9%) in population from 2010 to 2020. It is important to emphasize that when working with data for a town as small as the Town of Swan's Island, small changes in population appear greater when expressed as percentages.

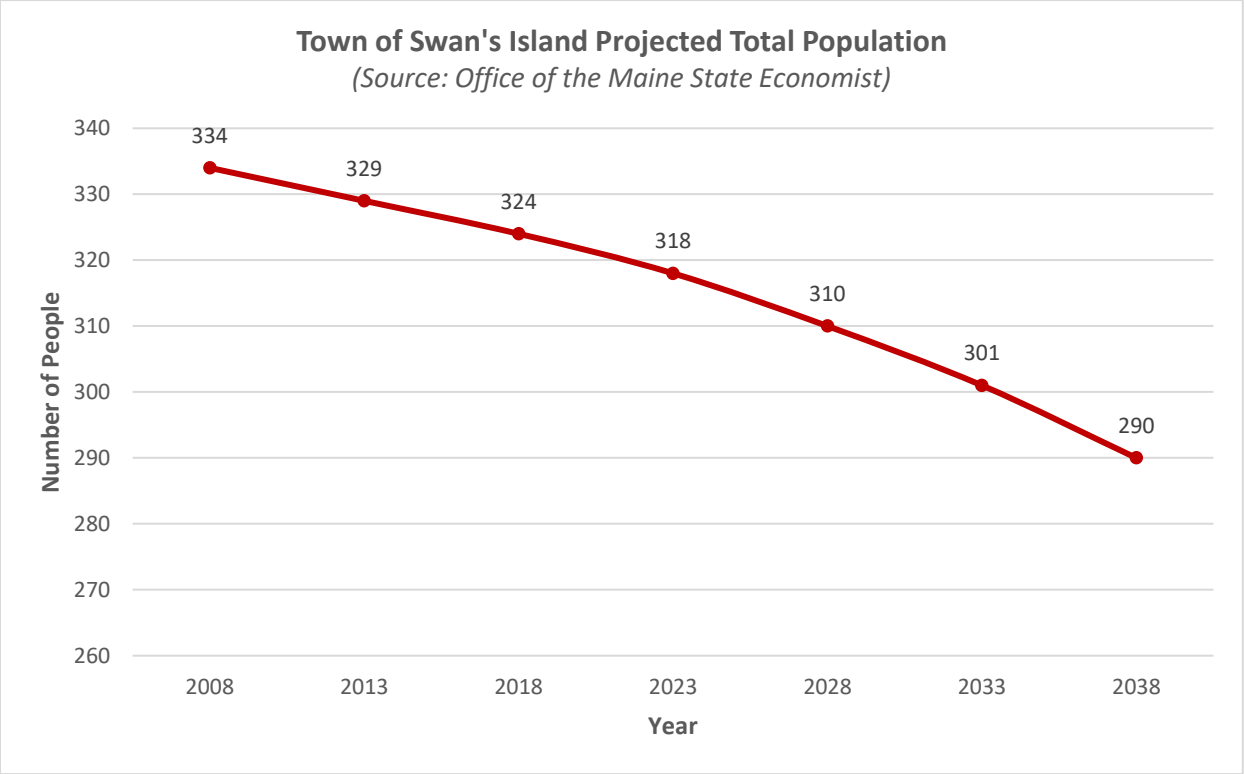
Figure 3: Comparative Population Change
Swan's Island, Hancock County, State of Maine
Source: US Decennial Census Data



c. POPULATION PROJECTIONS

POPULATION PROJECTION

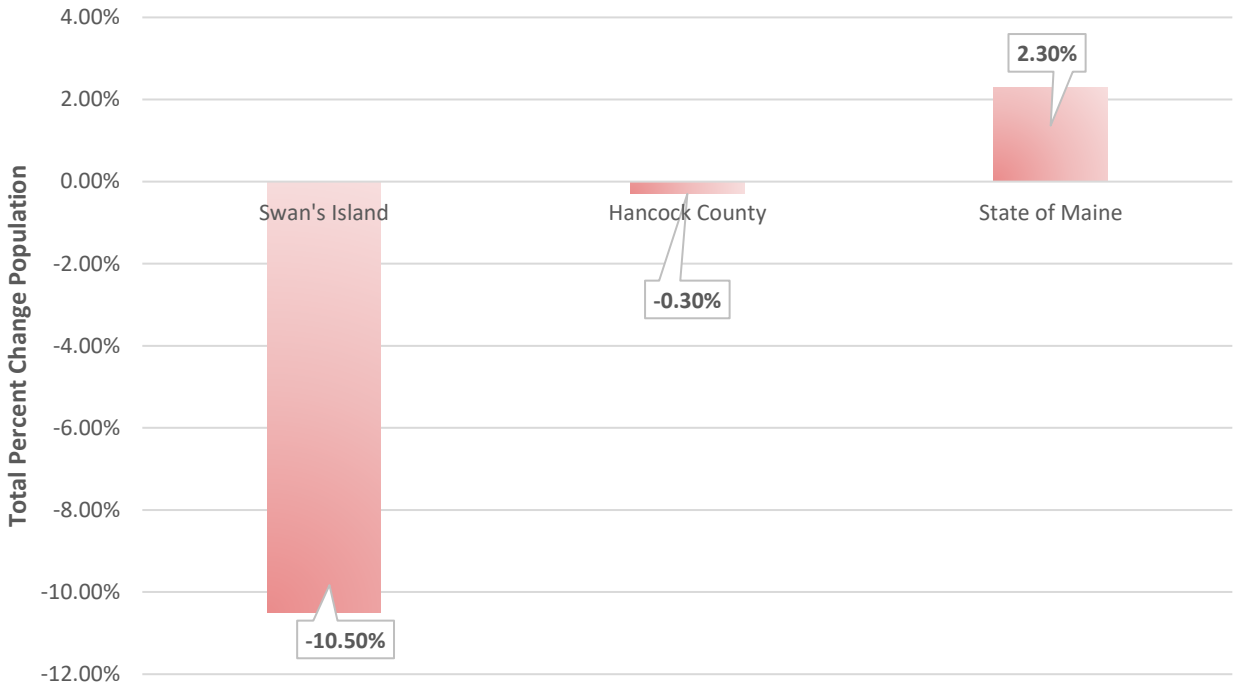
The latest population projections from the Maine State Economist uses 2018 U.S. Census population estimates to project town, county, and state populations over the next two decades. The total population of Swan's Island is expected to slowly decline from 2018 to 2038. As noted above, these population projections for small towns should be viewed as rough guide estimates used in conjunction with local knowledge of recent trends and developments. Additionally, the data used in this analysis precede the COVID-19 pandemic and therefore the impacts of the pandemic are not included or considered in these projections, and these projections precede the release of 2020 decennial census data.



COMPARATIVE POPULATION PROJECTIONS

Swan's Island's population is forecasted to decrease 10.5% from 2018 to 2038, while Hancock County is estimated to decrease 0.3% in population. In contrast, Maine is projected to experience a 2.3% increase in population to 2038. Again, the data used in this analysis precede the COVID-19 pandemic and therefore the impacts of the pandemic are not included or considered in these projections, and these projections precede the release of 2020 decennial census data.

Figure 5: Comparative Population Projections: Percentage Change from 2018 - 2038
Source: Office of the Maine State Economist

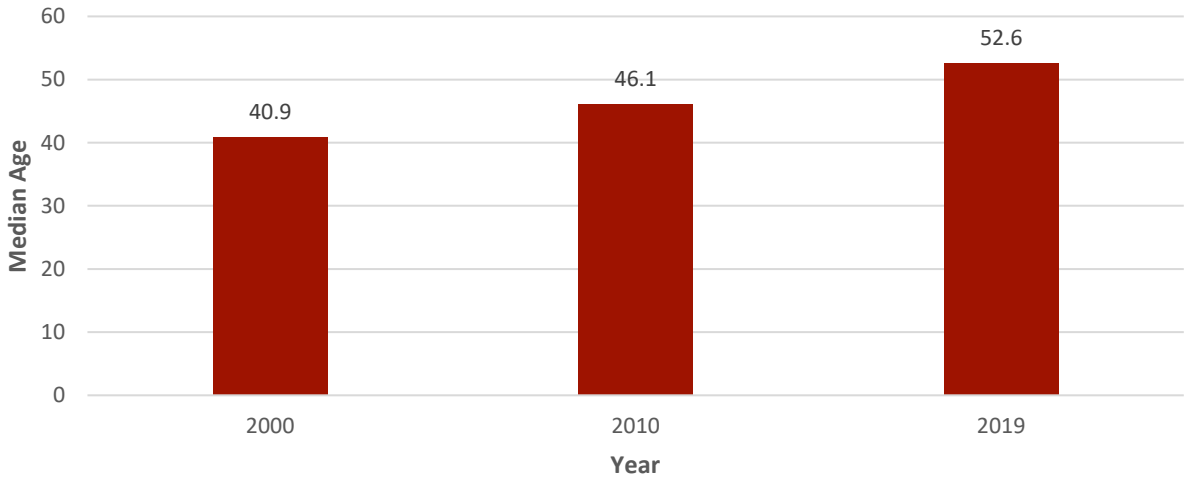


d. AGE CHARACTERISTICS

MEDIAN AGE

Swan's Island's population was observed at its oldest in 2019 with an estimated median age of 52.6 years old. Since 2000, the median age for the Town of Swan's Island has increased by almost 12 years. The U.S. Census Bureau's American Community Survey (ACS) data for a town this small should be used as estimates only as the ACS is by design a sample survey.

Figure 6: Town of Swan's Island Median Age (2000 - 2019*)
Source: U.S. Decennial Census for 2000, 2010;
**American Community Survey 5-year estimates for 2019*



AGE DISTRIBUTION

Table 2 shows the age distribution according to general age group categories. Note that these age groups vary in the number of years included in an age group. The U.S. Census Bureau's American Community Survey (ACS) data for a town this small should be used as estimates only as the ACS is by design a sample survey.

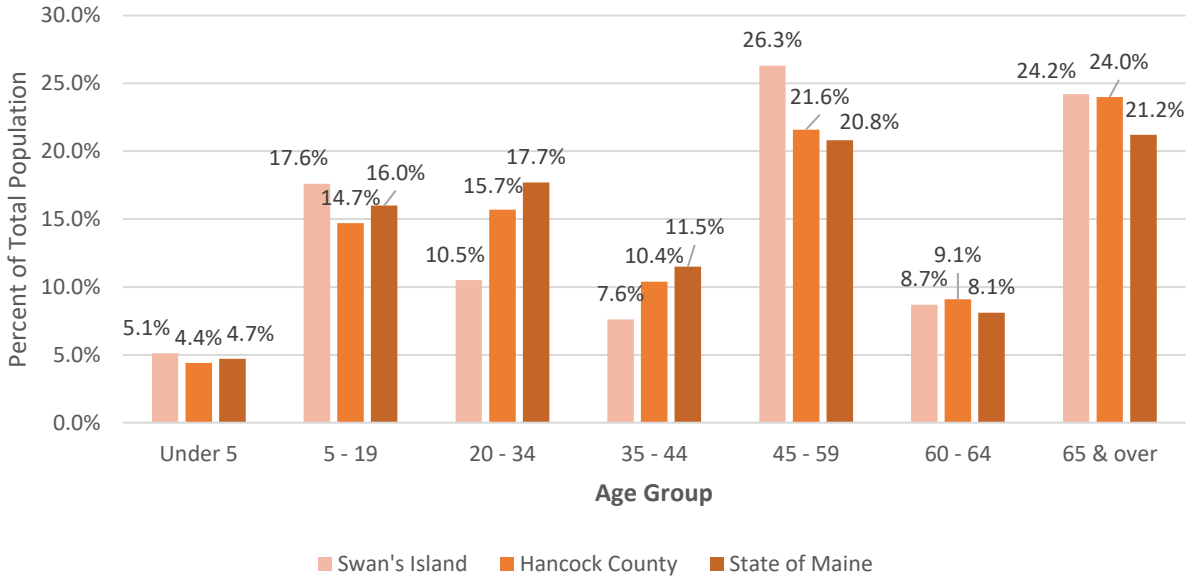
Table 2. Change in Age Distribution of Swan's Island (2000, 2019*)

Age Group		2000		2019*		Change from 2000-2019*	
		#	%	#	%	#	%
Pre-school	Under 5	16	5	23	5.1	7	43.8
School Age	5 to 19	69	21	79	17.6	10	14.5
Post High School/Early Employment	20 to 34	45	14	47	10.5	2	4.4
Middle Employment	35 to 44	55	17	34	7.6	-21	-38.2
Peak Earning	45 to 59	61	19	118	26.3	57	93.4
Pre-retirement	60 to 64	20	6	39	8.7	19	95.0
Retirement	65 & over	61	19	109	24.2	48	78.7
	Total	**327**	**100**	**449***	**100**	**122**	**37.3**

*Source: U.S. Decennial Census 2000; *American Community Survey 5-Year Estimate 2019*

Figure 7. below compares the age distribution of Swan's Island to Hancock County and Maine.

Figure 7: Comparison of Age Distribution as Percent of Total Population (2019)
Town of Swan's Island, Hancock County, State of Maine
Source: US Census American Community Survey 5-year estimate 2019



e. SEASONAL POPULATION

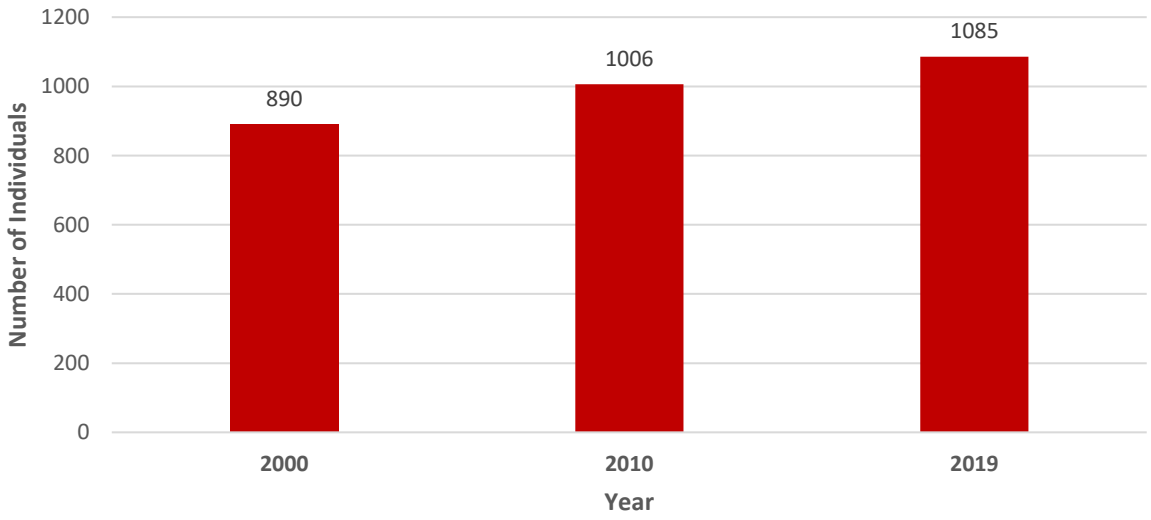
While there are no state or federal records available on the seasonal population of a community, it is possible to estimate this number by multiplying the number of seasonal, recreational, and occasional-use housing units with the average seasonal household size. The average seasonal household size is determined from the average year-round household size (provided by the U.S. Census) plus an additional 50%. This represents a 2:1 ratio, acknowledging that the seasonal household size is typically larger. Using this methodology, the seasonal population of Swan's Island was estimated to be 1,085 individuals in 2019. This estimate may fluctuate during various parts of a season depending on available accommodations and major events. This estimated seasonal population is more than double the year-round population. The seasonal tourism economy is a large part of Swan's Island's economic vitality.

Table 3. Swan's Island Estimated Seasonal Population (2000, 2010, 2019)

	2000:	2010:	2019:
Seasonal, Recreational, or Occasional Use Housing Units	258	295	304
Average Estimated Seasonal Household Size	3.45	3.41	3.57
Estimated Seasonal Population	890	1,006	1,085
Source: U.S. Census 2000, 2010; American Community Survey 5-Year Estimate 2019			

Figure 8: Town of Swan's Island Esimtated Seasonal Population (2000, 2010, 2019)

Source: U.S. Census 2000, 2010; American Community Survey 5-year Estimate 2019)



e. GENDER, RACE, ETHNICITY

In 2019, 55% of the Swan's Island population were male and 45% were female and predominantly white of one race. A small percentage of the population is more than one race. In addition, 0.8% of the population identifies as Hispanic of Latino.

Figure 9. Town of Swan's Island Gender Breakdown (2019)
Source: American Community Survey 5-year Estimate 2019

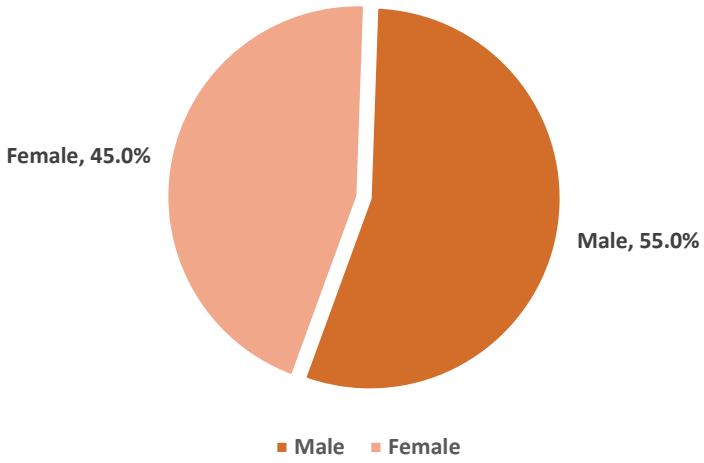
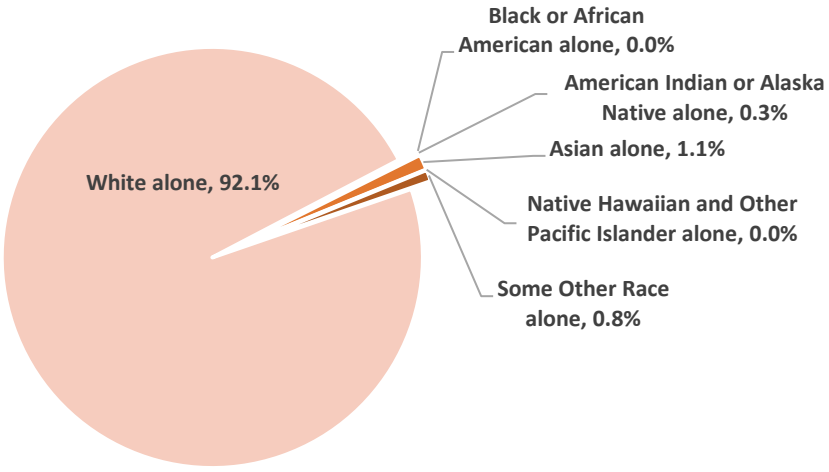


Figure 10: Town of Swan's Island Population of One Race (2019)
Source: American Community Survey 5-Year Estimate 2019



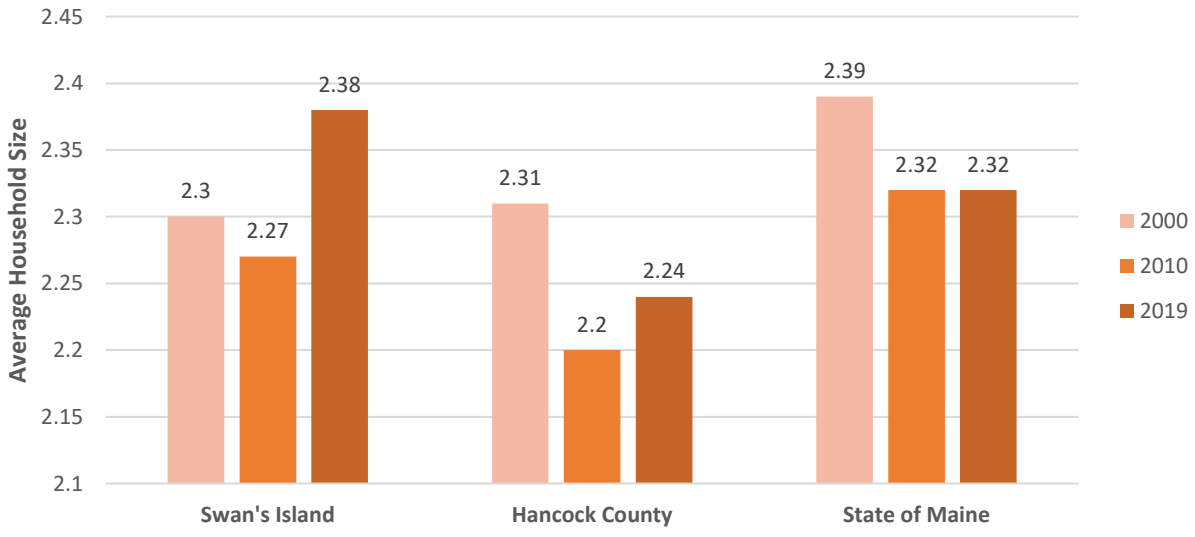
f. HOUSEHOLD CHARACTERISTICS

HOUSEHOLD SIZE

The average household size of Swan's Island was 2.38 persons per household in 2019, which is slightly greater than the household size observed in 2010 (2.27 persons per household) and 2000 (2.3 persons per household).

The average household size of Swan's Island in 2019 is greater than Hancock County (2.24 persons per household) and Maine's (2.32 persons per household) average household size. Swan's Island's average household size increased between 2000 – 2019 whereas the county and state's average household size decreased over the same period of time.

Figure 11: Comparison of Average Household Size
Swan's Island, Hancock County, State of Maine (2000, 2010, 2019)
Source: U.S. Census Decennial Census 2000, 2010;
American Community Survey 5-Year Estimate 2019

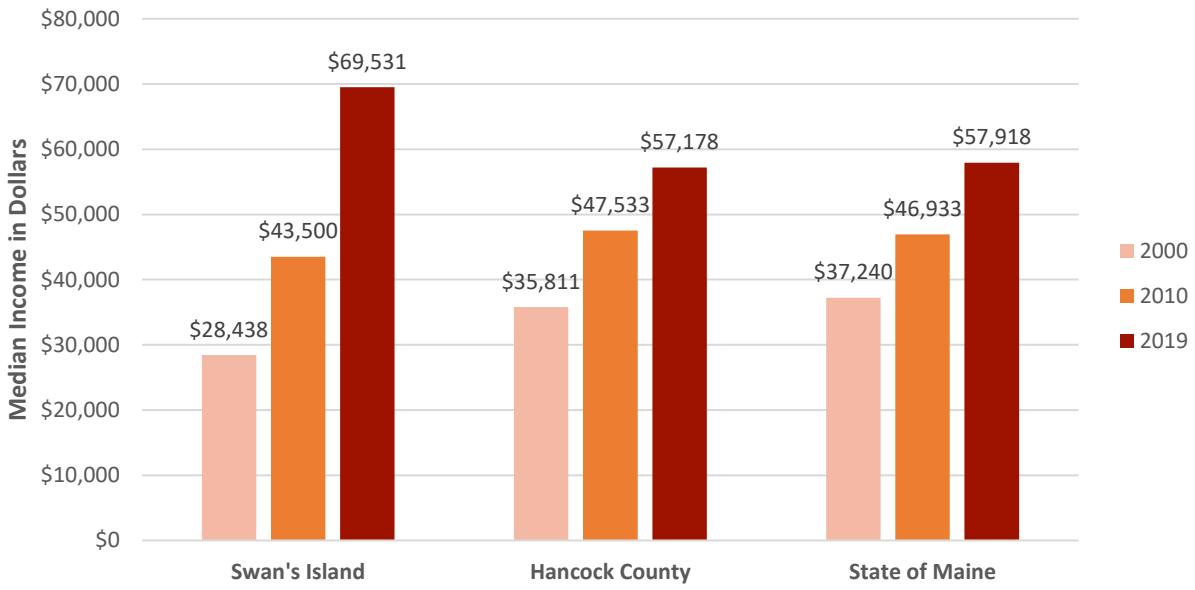


g. INCOME CHARACTERISTICS

MEDIAN HOUSEHOLD INCOME

The median household income on Swan's Island was $69,531 in 2019. Since 2000, the median household income for the Town of Swan's Island has increased, and in 2019 was substantially higher than the median household income in Hancock County and the State of Maine.

Figure 12: Comparison of Median Household Income in Real Dollars
Swan's Island, Hancock County, State of Maine (2000, 2010, 2019)
Source: American Community Survey 5-Year Estimate 2019



INCOME DISTRIBUTION

The income category in Table 4 is based off the area median income (AMI) of Hancock County in 2019 ($57,178). In 2019, approximately 20% of the households (39 households) on Swan's Island earned a 'very low income' meaning they earned between less than $10,000 up to $24,999. These households earn less than 50% of the Hancock County median income. 8.5% (16 households) of Swan's Island earned 'low income' meaning they earned between $25,000 to $49,999, and 22.7% of Swan's Island (43 households) earn 'moderate income' which is considered between $50,000 to $74,999. 48.1% of Swan's Island (91 households) earned 'middle to upper income' meaning they earned more than $75,000.

Table 4. Swan's Island Household Income Distribution (2019)

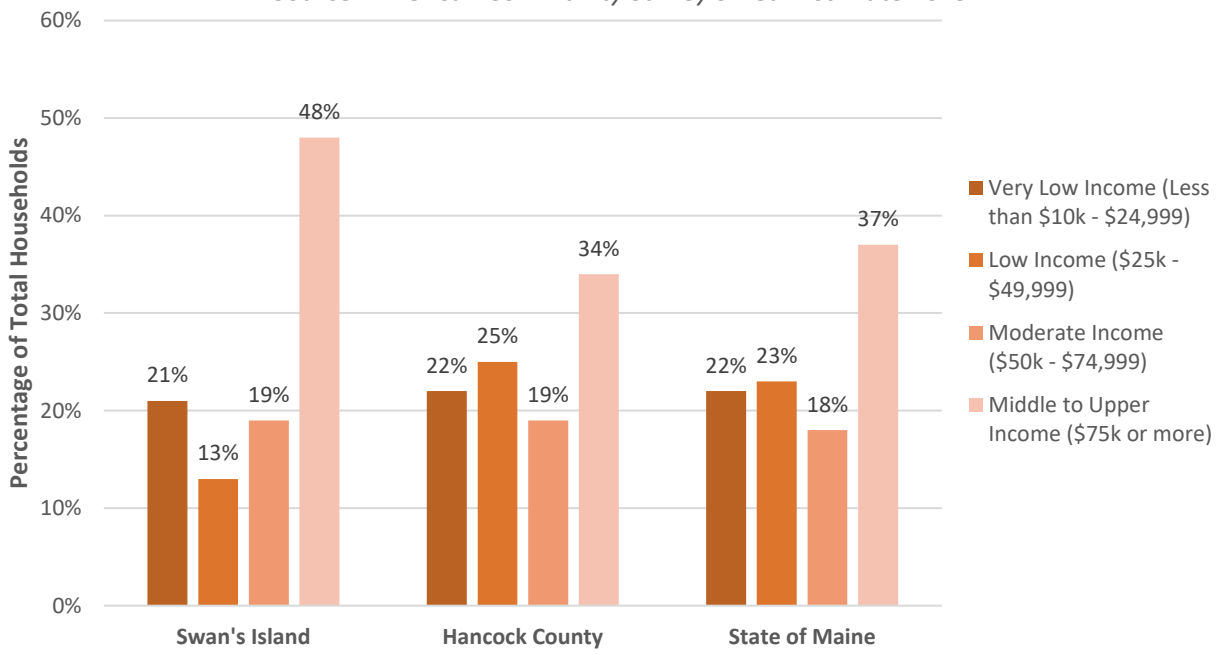
Income Range:	Number of Households:	% of Households:	Approximate Income Category:
Less than $10,000	2	1.1	Very Low Income (<50% AMI)
$10,000 to $14,999	14	7.4	
$15,000 to $24,999	23	12.2	
$25,000 to $34,999	16	8.5	Low Income (50% to 80% AMI)
$35,000 to $49,999	8	4.2	
$50,000 to $74,999	35	18.5	Moderate Income (80% to 150% AMI)
$75,000 to $99,999	22	11.6	
$100,000 to $149,999	34	18	
$150,000 to $199,999	15	7.9	Middle to Upper Income (>150% AMI)
$200,000 or more	20	10.6	
Total Households	189	100	

Source: American Community Survey 5-Year Estimate 2019

COMPARATIVE INCOME DISTRIBUTION

Half of the households on Swan's Island (48%) earned 'middle to upper incomes' ($75,000 or more). This is a significant portion compared to Hancock County (34% of households) and Maine (37% of households) that earned $75,000 or more. However, there is a slightly more even distribution of the incomes earned in Hancock County and Maine compared to Swan's Island.

Figure 13: Comparative Household Income by Category
Town of Swan's Island, Hancock County, State of Maine (2019)
Source: American Community Survey 5-Year Estimate 2019



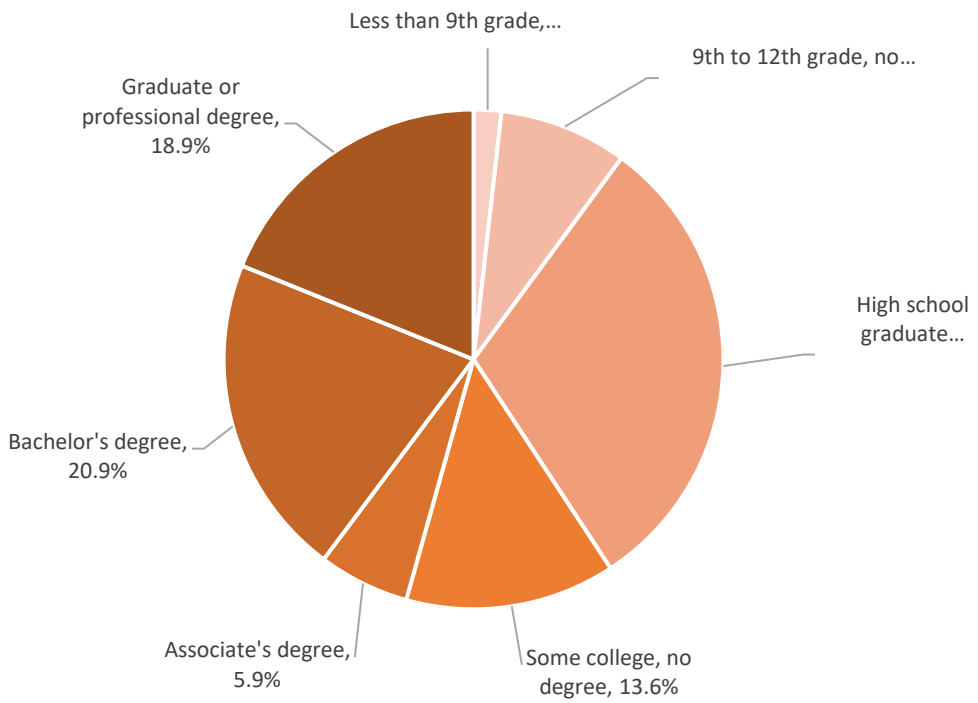
h. EDUCATION

EDUCATIONAL ATTAINMENT

Figure 15 shows educational attainment of Swan's Island residents 25 years and older. Approximately 90% of the island's residents (25 years and older) have graduated high school and approximately 40% have attained a bachelor's degree or higher.

Figure 14: Town of Swan's Island Educational Attainment (2019)

Source: American Community Survey 5-Year Estimate 2019

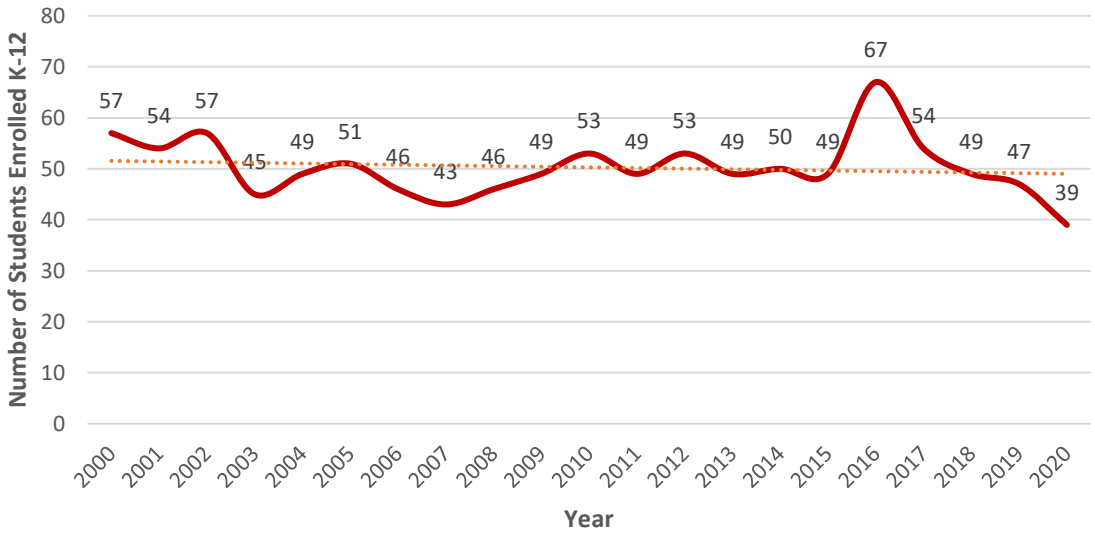


SCHOOL ENROLLMENT

School enrollment since 2000 has fluctuated from a low of 43 (2007) to a high of 67 (2016). Figure 15 below shows that enrollment is trending downward very slightly since 2000.

Figure 15: Town of Swan's Island K-12 School Enrollment (2000-2020)

Source: Town of Swan's Island Annual Town Reports (2000-2020)



ECONOMY

i. KEY FINDINGS

ii. STATE GOALS

iii. OBJECTIVES

iv. RECOMMENDED STRATEGIES & ACTIONS

v. DATA ANALYSIS

   a. LABOR FORCE

   b. OCCUPATIONS

   c. EMPLOYERS

   d. PLACES OF WORK

   e. TAXABLE SALES

i. KEY FINDINGS

- *Fishing and marine-related occupations are a significant component of Swan's Island's community and are the driving forces of the local economy*. 'Farming, fishing, forestry, construction, and maintenance' jobs were the top occupations on the Island in 2000, 2011, and 2018, employing over 40% of workers.
- *Those employed in management, business, science, education and arts occupations increased by 157% between 2000 and 2018*. Fishing and marine-related occupations are still the primary industry on the Island; however, due to the increase in remote working and telecommuting, more diverse opportunities are available for Swan's Island residents.
- *In 2017, Swan's Island recorded its largest workforce with 220 individuals employed*. This is a 33% increase in employed individuals on the Island between 2000 and 2017.
- *Historically, Swan's Island workers rely on self-employed occupations*. Significantly more workers on Swan's Island, as compared to Hancock County and the state, are self-employed. Between 2000 and 2017 (depending on the year) between 42% and 60% of the total working population on Swan's Island were self-employed.
- *Majority of Swan's Island's workforce is employed on the Island*. In 2015, 91% of the total workforce worked on Swan's Island.

ii. STATE GOALS

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

iii. OBJECTIVES

1. Diverse job opportunities for residents and potential residents
2. The marine economy remains an important center of employment, cultural and commercial activity
3. Municipal investments in public infrastructure support desired economic development
4. Swans Island cooperates and coordinates with regional entities and surrounding municipalities as necessary to support desired economic development.
5. High speed internet, reliable and competitive mobile phone service, and other technical infrastructure to meet the needs of entrepreneurs and remote working opportunities

iv. RECOMMENDED STRATEGIES & ACTIONS

Strategy	Responsibility	Timeline
Establish a Community Development Committee to focus on economic development/housing related tasks including ways to diversify the local economy	Board of Selectmen; Municipal Advisory Council	Short-Term
Explore opportunities to offer incentives for new businesses (e.g. tax breaks)	Community Development Committee	Ongoing
Support island businesses and entrepreneurs through marketing assistance, partnerships, or other opportunities	Community Development Committee	Ongoing
Develop an information packet that demonstrates reasons for businesses to locate on Swan's Island	Community Development Committee	Ongoing
Organize and host annual forums on topics such as innovation, mentoring, community development, and sustainability	Community Development Committee	Ongoing
Actively support needed municipal improvements to help capitalize on changes to the marine economy	Board of Selectmen	Ongoing
Support technology such as broadband for remote working and education	Board of Selectmen; Broadband Committee	Ongoing
Continue to discuss opportunities for tourism-based economy	Community Development Committee	Ongoing

Identify local, state and federal funding mechanisms to help support economic priorities	Board of Selectmen; Community Development Committee	Ongoing
Investment in quarry wharf and other town-owned facilities to improve waterfront access	Board of Selectmen; Quarry Committee; CDC	Short-Term

v. DATA ANALYSIS

a. LABOR FORCE

LABOR FORCE STATUS

The population of those able to work (ages 16 years & over) on Swan's Island in 2018 was estimated to be 378 individuals. This is a 39% increase from 2000, when the population of those able to work (ages 16 years & over) was estimated at 271 individuals.

The number of employed civilians on Swan's Island increased 33% from 2000 to 2018. During the same time, the number of civilians 'not in the labor force' increased by 46%. Individuals who are 'not in the labor force' may be enrolled in school or are retired, however, they are not considered unemployed.

In 2018, there were 7 unemployed individuals on Swan's Island, accounting for 1.9% of the population (ages 16 years & over). The unemployment rate in both Hancock County and Maine was 2.9% in 2018.

Table 1. Swan's Island: Labor Force Status of the Population 16 years & Over (2000, 2011, 2018)

	2000:		2011:		2018:		Change from 2000-2018:	
Labor Force Status:	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**
Employed Civilian	165	60.9	180	51.3	219	57.9	54	33
Unemployed Civilian	2	0.7	15	4.3	7	1.9	5	250
Armed Forces	0	0	0	0	0	0	0	0
Not in Labor Force	104	38.4	156	44.4	152	40.2	48	46
Total Population (16 years & Over)	271	100	351	100	378	100	107	39

Source: U.S. Census 2000; American Community Survey 5-Year Estimates 2011, 2018

WORK CLASS

'Self-employed' represents the majority of workers on Swan's Island from 2000 to 2018. This is significant compared to Hancock County and Maine. In 2018, 48% of the working population on Swan's Island were self-employed, while only 15% of Hancock County and 9% of Maine's working population were self-employed.

Figure 1. Class of Worker on Swan's Island (2000, 2011, 2018)

Source: U.S. Census 2000; American Community Survey 5-Year Estimates 2011, 2018

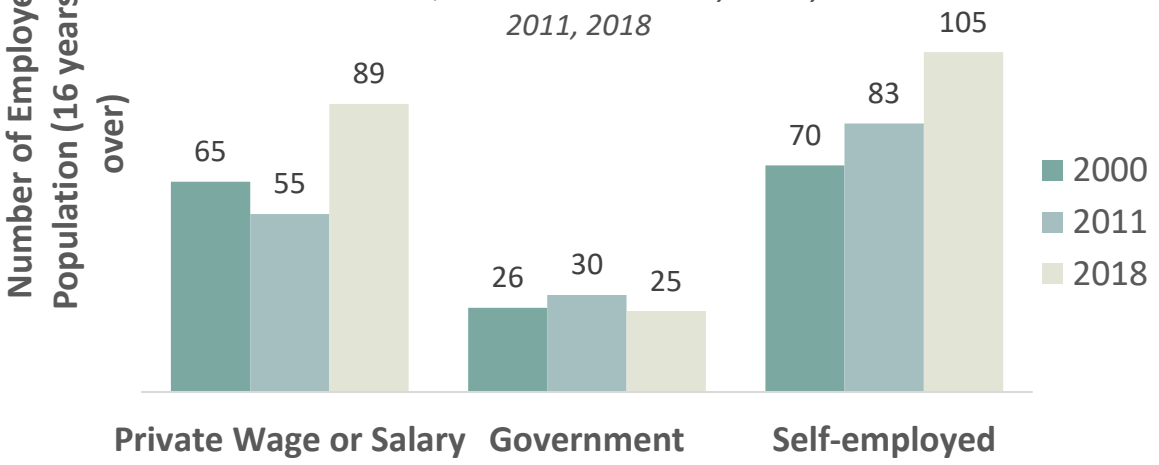
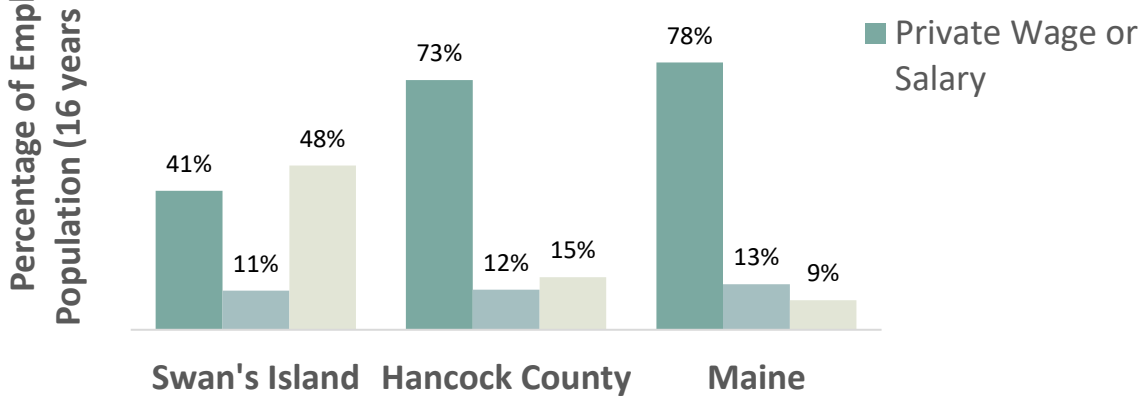


Figure 2. Comparison of Worker Class as Percentage of Employed Population
Swan's Island, Hancock County, Maine (2018)

Source: American Community Survey 5-Year Estimate 2018



b. OCCUPATIONS

EMPLOYMENT BY OCCUPATION

The number of employed civilians on Swan's Island increased 32% from 2000 to 2018 (165 individuals to 218 individuals, respectively).

The largest occupation type on Swan's Island in 2000, 2011, and 2018 fall into the U.S. Census occupation type category 'Farming, fishing, forestry, construction, and maintenance' jobs. Within this occupation type category, fishing is the prominent occupation type, along with construction and maintenance. There is virtually no farming or forestry on the island.

In 2018, 'Management, business, science, education, and arts' occupations employed 59 individuals or 27% of the working population on Swan's Island. This is a 157% increase from 2000, when these occupation types employed only 23 individuals or 14% of the working population.

Table 2. Swan's Island Employment by Occupation Type (2000, 2011, 2018)

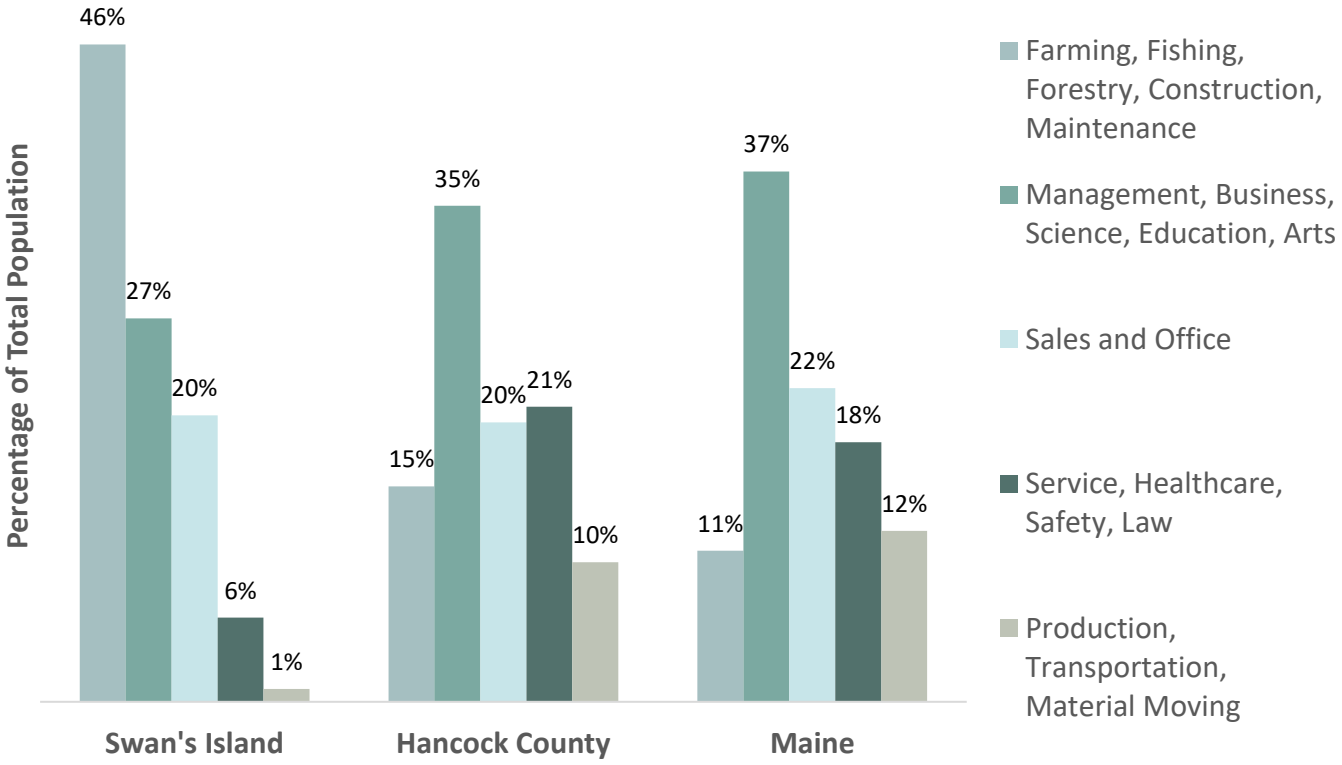
	2000:		2011:		2018:		Change from 2000-2018:	
Occupation Type:	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**
Management, Business, Science, Education, Arts	23	14	31	17	59	27	36	157
Service, Healthcare, Safety, Law	19	12	11	6	13	6	-6	-32
Sales and Office	37	22	28	16	44	20	7	19
Farming, Fishing, Forestry, Construction, Maintenance	65	39	102	57	101	46	36	55
Production, Transportation, Material Moving	21	13	8	4	2	1	-19	-90
Total Civilians Employed (16 years & Over)	165	100	180	100	218	100	53	32

Source: U.S. Census 2000; American Community Survey 5-Year Estimates 2011, 2018

COMPARATIVE EMPLOYMENT BY OCCUPATION

'Farming, fishing, forestry, construction, and maintenance' type occupations employed 46% of the working population on Swan's Island in 2018, comparatively to 15% of Hancock County's, and 11% of Maine's working population.

Figure 3. Comparative Employment by Occupation
Swan's Island, Hancock County, Maine (2018)
Source: American Community Survey 5-Year Estimate 2018



INCOME ANALYSIS

The median household income on Swan's Island was $62,188 in 2017. This was a significant increase from 2000 when the median household income on Swan's Island was $28,438. See figure 4-a. for a comparison of median household income on Swan's Island, Hancock County, and Maine.

Of the total households on Swan's Island, 21% or 42 households earned between $50,000 and $75,000 in 2017. 24% or 47 households earned between $100,000 and $150,000 during the same time. See figure 4-b. for a comparison over time.

Figure 4-a. Comparison of Median Household Income (2000, 2011, 2017)

Source: U.S. Census 2000, American Community Survey 5-year estimate 2011, 2018

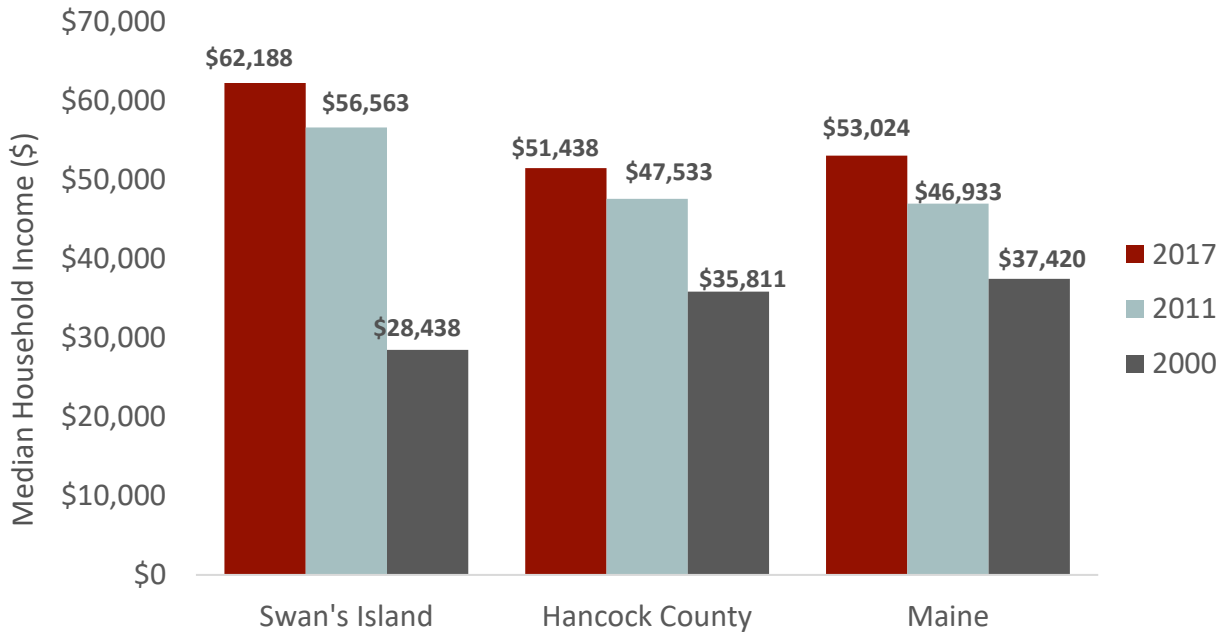
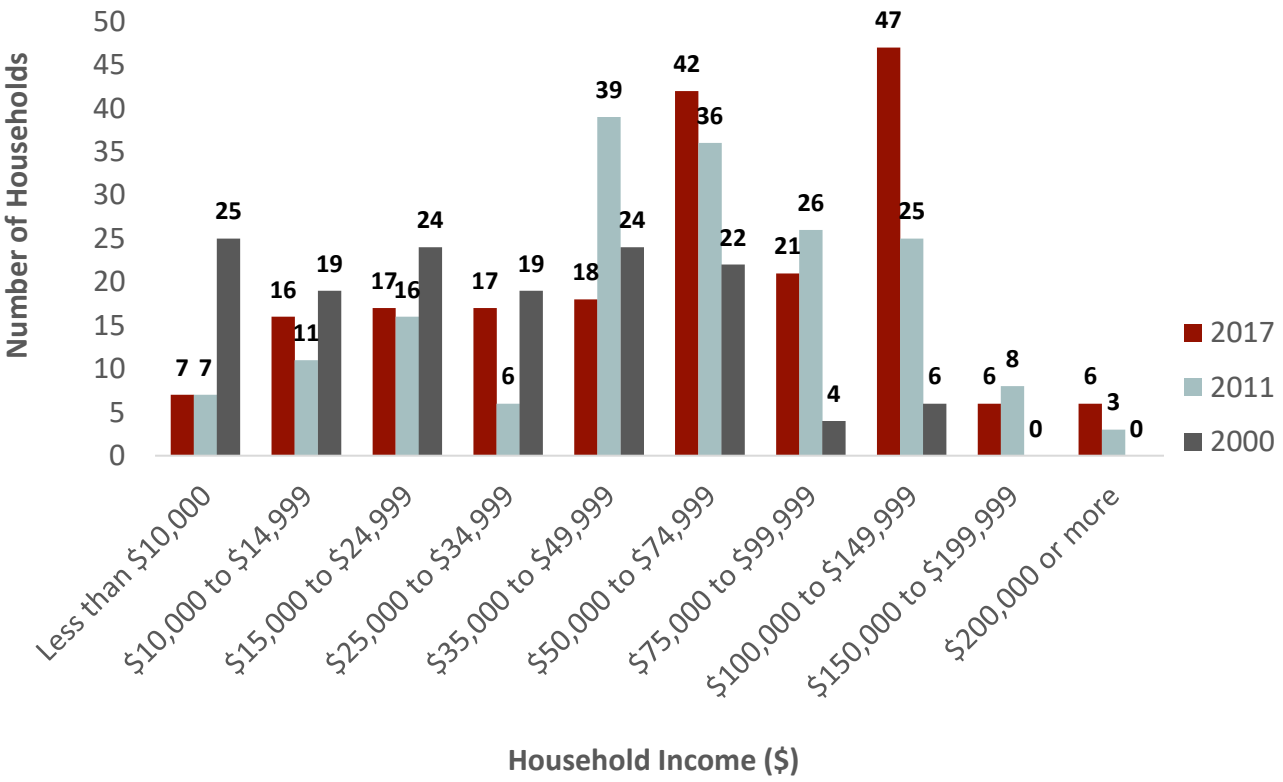


Figure 4-b. Household Income Distribution on Swan's Island (2000, 2011, 2017)

Source: American Community Survey, 5 year estimate 2018



c. EMPLOYERS

The nature of living on an island means that Swan's Island residents may have more than one occupation, and that self-employment is high. Work is often seasonal and can vary throughout the year.

For this reason, the employer data provided by the Maine Center for Workforce Research & Information does not illustrate a true perspective of the kind of employment within the island's community.

Fishing and marine-related occupations are a significant component of the Swan's Island community and are the driving force for the local economy. For example, in 2019, there were 94 total harvesters of the American lobster, landing 1.94 million pounds of product, valued at $8.71 million. See the 'Marine Resources' inventory chapter for more information.

The Swan's Island Fisherman's Co-op, Kent's Wharf, and the Underwater Taxi are the island's wholesale seafood dealers that support the community's harvesters, as well as harvesters from nearby communities like Frenchboro.

Small business on Swan's Island includes handcrafted wooden bathtubs by Bath in Wood of Maine, overnight accommodations at the Harbor Watch Inn, floral designs by Island Dreamweaver Flowers, the Saturn Press publishing and printing company, fishing gear built out of the Mill Pond Trap Shop, and The Island Market & Supply – the island's retail and grocery store. There are two general contractors on the island, and several residents have construction businesses. Swan's Island Fuel Co. provides oil and fuel for the community. Additional businesses and employers include an auto repair business, a boat shop, a boat charter and delivery business, several heating fuel dealers, a home health aid / CPR and First Aid instructor, eldercare outreach, the Mill Pond Health Center, a caterer, realtors and real estate rental services, restaurants, a storage facility, tree services, gift and novelty shops, land clearing services, computer repair, property management, notaries and dedimus justices.

Government and public service workers are employed at the ferry terminal, transfer station, town office, public safety department, the nursery and K-8 school, public library, Mill Pond Health Center, and the U.S. Post Office.

d. PLACES OF WORK

In 2018, 97% of the employed population on Swan's Island worked within the state, while the remaining 3% of the population worked out-of-state.

5% of the employed population on Swan's Island worked outside of Hancock County in 2018.

In 2011, 6% of the employed population on Swan's Island were working from home. By 2018, those working from home represented 13% of the employed population on Swan's Island.

Table 4. Workplaces of Swan's Island Residents (2015)

Location:	# of Workers:	Percent (%):
Swan's Island	134	90.5%
Bar Harbor	5	3.4%
Arundel	3	2%
Southwest Harbor	2	1.4%
Belmont	2	1.4%
Tremont	1	0.7%
Penobscot	1	0.7%
Total	148	100%

Table 5. Resident Locations of Individuals Working on Swan's Island (2015)

Location:	# of Workers:	Percent (%):
Swan's Island	134	82.2%
Gouldsboro	5	3.1%
Hancock	5	3.1%
Sullivan	5	3.1%
Trenton	5	3.1%
Mount Desert Island	4	2.5%
Waltham	3	1.8%
Vienna	2	1.2%
Total	163	100%

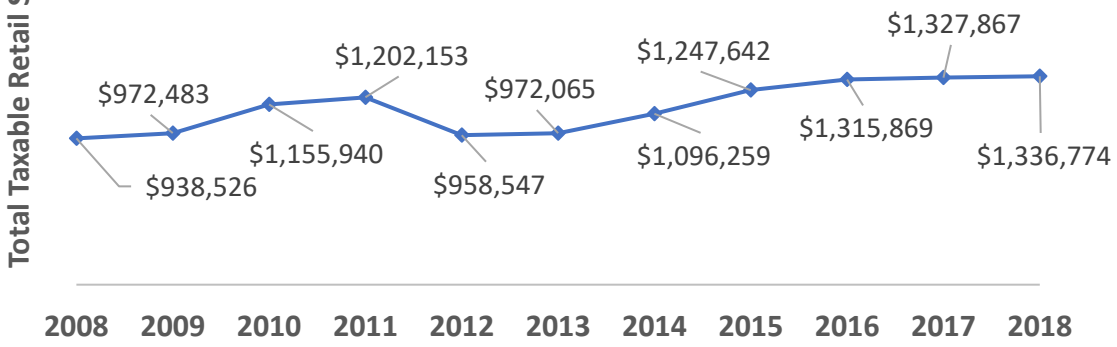
e. TAXABLE SALES

TOTAL RETAIL SALES

Taxable total retail sales on Swan's Island increased 42% from 2008 to 2018 ($972,526 to $1,336,774, respectively).

Figure 5. Swan's Island Taxable Total Retail Sales (2008-2018)

Source: Maine Revenue Sources (2008-2018)



COMPARATIVE TOTAL RETAIL SALES

Table 6. Comparison of Taxable Total Retail Sales (2008, 2018)

Location:	2008:	2018:	% Change from 2008-2018:
Swan's Island	$938,526	$1,336,774	42
Cranberry Isles	$1,097,609	$2,024,810	84
Frenchboro	n/a	n/a	n/a
Isle au Haut	$281,739	$672,590	139
Islesboro	$3,743,435	$4,273,908	14
North Haven	$2,572,745	$4,252,056	65
Vinalhaven	$7,878,645	$10,527,840	34
Matinicus	$97,576	$133,234	37
Monhegan	$3,554,637	$4,927,788	39
Tremont	$8,424,295	$10,238,059	22
Southwest Harbor	$43,923,106	$47,978,768	9

HOUSING

i. KEY FINDINGS

ii. STATE GOALS

iii. OBJECTIVES

iv. RECOMMENDED STRATEGIES & ACTIONS

v. DATA ANALYSIS

   a. HOUSING CHARACTERISTICS

   b. OCCUPANCY & TENURE

   c. HOUSING VALUES

   d. COSTS & AFFORDABILITY

i. KEY FINDINGS

- ***The affordability of homeownership is decreasing.*** In 2017 the median home price on Swan's Island was estimated to be $313,250. In order to afford that price, the median income needed was approximately $85,996. The median income on Swan's Island in 2017 was $45,125 which is a gap of $40,871. According to MaineHousing, only 1 house out of 10 sold that year would have been affordable to the median income buyer. Approximately 79% of current households on Swan's Island would not be able to afford the median home price.
- ***Rental affordability and scarcity of year-round rentals is a challenge for median income renters***. According to MaineHousing, 71% of the renters on Swan's Island were unable to afford rent and utilities for the average 2-bedroom apartment. The average rent for a 2-bedroom unit was approximately $984/month, which would require an annual income of $39,360 in order to afford. Data suggests that the median renter income in 2017 was only $22,499, leaving an income gap of $16,861. Rents would need to be approximately $562/month for the median income renter to afford a 2-bedroom apartment with utilities.
- ***Swan's Island's older housing stock presents challenges for maintenance, affordability, and efficiency***. Approximately half (47%, 296 units) of the Island's housing stock was built before 1970. Of those homes, approximately 34% (158 units) were built prior to 1940. Older houses are generally less energy-efficient and can require more repair or maintenance. Structures build before 1978 may also require improvements to make them lead safe.

ii. STATE GOALS

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

iii. OBJECTIVES

1. An adequate supply of safe, accessible, and affordable housing available to all residents.
2. A range of housing options, including different levels of affordability and housing types, throughout the Island.

iv. RECOMMENDED STRATEGIES & ACTIONS

Housing	Responsibility	Timeline
Establish a Housing Committee to focus on housing related tasks including: • Develop strategies to attract more young adults and families with children to live on-Island year-round • Explore opportunities to make vacant housing units available for year-round rentals • Share accurate information about ongoing projects, investments, or development proposals with residents in a timely and easily understandable way • Disseminate information on rental opportunities or needs • Identify properties that may be suitable for housing development or rental unit development • Explore options for partnering with private developers • Explore possible uses for unoccupied buildings that could be better used	Municipal Advisory Committee; Board of Selectmen	Short Term (1-2 years)
Continue to seek opportunities to help develop and manage housing units that are affordable to island families and seniors, including partnerships with existing entities	Housing Committee	Ongoing
Continue to explore opportunities for state and federal funding for workforce and affordable housing development, including seeking private grants for affordable housing projects.	Board of Selectmen; Housing Committee	Ongoing
Seek to achieve a level of at least 10% new residential development built or placed during the next decade to be affordable.	Board of Selectmen; Housing Committee	Ongoing

v. DATA ANALYSIS

a. HOUSING CHARACTERISTICS

COMPARISON OF TOTAL HOUSING UNITS

In 2018 Swan's Island had a total of 462 housing units. This was a 24% increase (or 123 units) since 1980. During the same period of time, Hancock County and Maine both saw larger increases of housing units built in proportion to their respective housing stocks.

In more recent years, between 2000 and 2018, Hancock County saw an increase of 21% of their total housing stock versus a 10% increase on Swan's Island and a 13% increase statewide.

Table 1. Comparison of Total Housing Units (1980-2018)

						Change from 1980-2000		Change from 2000-2018	
Location:	**1980**	**1990**	**2000**	**2010**	**2018**	**#**	**%**	**#**	**%**
Swan's Island	339	385	419	483	462	80	24	43	10
Hancock County	25,062	30,396	33,945	41,048	41,048	8,883	35	7,103	21
Maine	501,333	587,045	651,901	739,077	739,077	150,568	30	87,176	13

Source: U.S. Census 1980, 1990, 2000, 2010; American Community Survey 5-Year Estimate 2018

COMPARISON OF HOUSING TYPES

The majority (92%) of housing units on Swan's Island in 2018 were detached 1-unit structures. The largest percentage of homes in Hancock County and Maine are also detached 1-unit structures, though the proportion compared to the rest of the housing stock is lower.

There are very few multi-unit housing options in Swan's Island, only 3% of all units. See table 2 for details on housing types.

Table 2. Comparison of Housing Type by Structure: Swan's Island, Hancock County, Maine (2018)

	Swan's Island:		Hancock County:		Maine:	
Structure Type:	**#**	**%**	**#**	**%**	**#**	**%**
1-unit, detached	424	92	33,622	82	518,686	70.2
1-unit, attached	0	0	343	1	16,902	2.3
2 to 4 units	0	0	2,714	7	78,361	10.7
5 to 9 units	12	3	540	1	27,496	3.7
10+ units	0	0	832	2	36,020	4.8
Mobile home	26	6	2,994	7	61,323	8.3
Boat, RV, van, etc.	0	0	3	0	289	0
Total Housing Units	**462**	**100%**	**41,048**	**100%**	**739,077**	**100%**

Source: American Community Survey 5-Year Estimate 2018

COMPARISON OF HOUSING AGE

In Maine, Hancock County, and Swan's Island, the greatest number of houses were built '1939 or earlier' – indicating how old the housing stock is within the state. (33% of Swan's Island housing units were built '1939 or earlier'; 22% of Hancock County; 24% of Maine).

A housing boom occurred on Swan's Island between 1970 and 1979. During this time, 78 new housing units (17% of all housing units) were constructed.

The 1980s to the late 2000s on Swan's Island show a steady, consistent period of residential construction. 154 housing units (33% of all housing stock) were built during this timeframe, which is the same amount of housing units that were built prior to 1939.

Table 3. Comparison of Housing Age by Year of Structure Built: Swan's Island, Hancock County, Maine (2018)

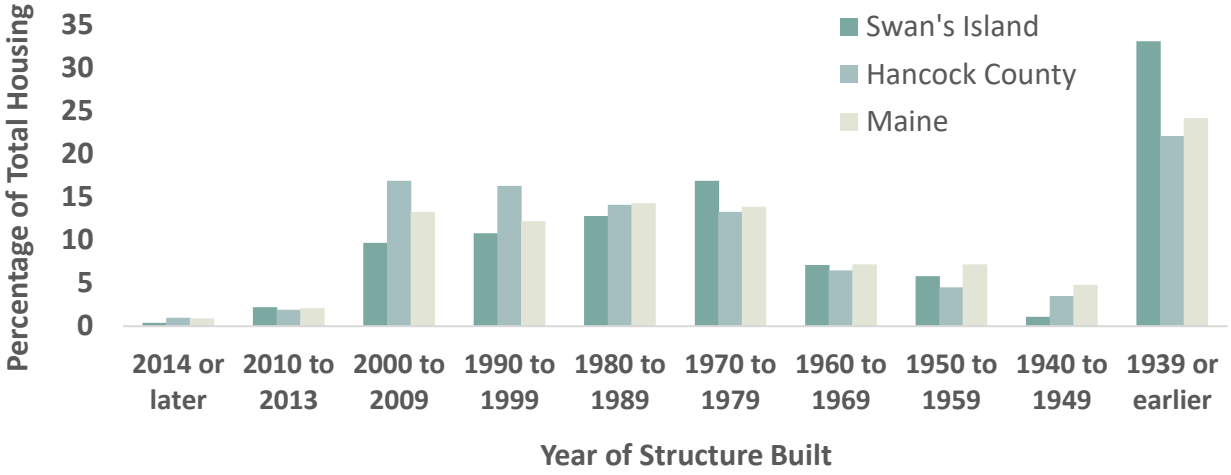
Year Structure Built:	Swan's Island:		Hancock County:		Maine:	
	#	%	#	%	#	%
2014 or later	2	0%	391	1%	7,014	1%
2010 to 2013	10	2%	793	2%	15,312	2%
2000 to 2009	45	10%	6,937	17%	97,931	13%
1990 to 1999	50	11%	6,689	16%	90,350	12%
1980 to 1989	59	13%	5,768	14%	105,485	14%
1970 to 1979	78	17%	5,453	13%	102,982	14%
1960 to 1969	33	7%	2,674	7%	52,990	7%
1950 to 1959	27	6%	1,850	5%	53,031	7%
1940 to 1949	5	1%	1,430	4%	35,491	5%
1939 or earlier	153	33%	9,063	22%	178,491	24%
Total Housing Units	**462**	**100%**	**41,048**	**100%**	**739,077**	**100%**

Source: American Community Survey 5-Year Estimate 2018

COMPARISON OF HOUSING AGE

Figure 1. depicts the historical trend of residential development in Maine, Hancock County, and Swan's Island. While a significant amount of the residential housing stock was built in the state prior to 1939 there was significant housing development between 1970 and 2009.

Figure 1. Comparison of Housing Age by Year of Structure Built
Swan's Island, Hancock County, Maine (2018)
Source: American Community Survey 5-Year Estimate 2018



b. OCCUPANCY & TENURE

HOUSING UNITS BY OCCUPANCY

Figure 2. shows that more housing units were vacant rather than occupied on Swan's Island in 2000, 2010, and 2018. However, housing occupancy increased by 21% from 2000 to 2018, while the number of vacant houses remained about the same.

Figure 2. Housing Units by Occupancy
Swan's Island (2000, 2010, 2018)
Source: U.S. Census 2000, 2010; American Community Survey 5-Year Estimate 2018

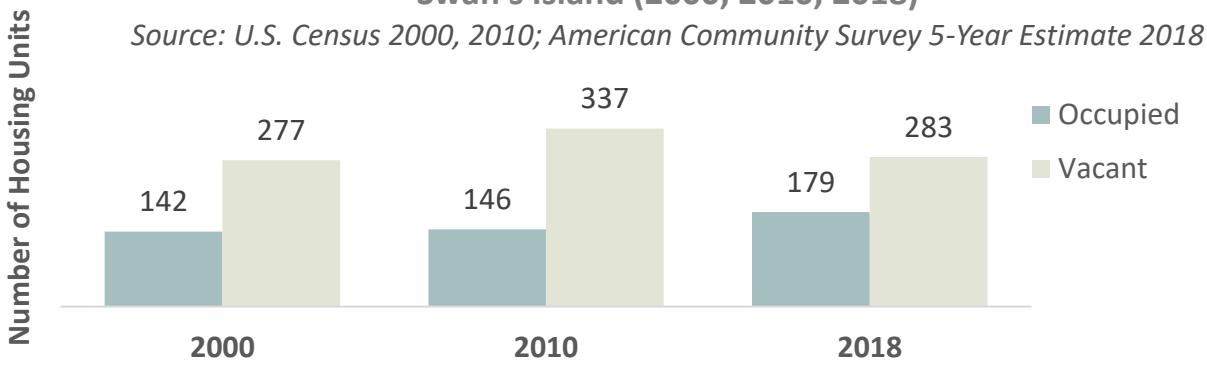


Table 4. Comparison of Housing Units by Occupancy (2019)

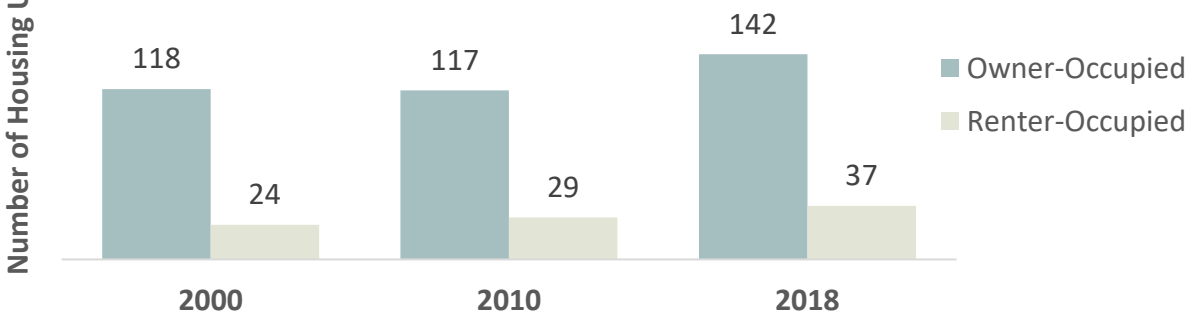
	Swan's Island:		Hancock County:		Maine:	
	#	%	#	%	#	%
Occupied	189	38.8%	23,661	57.3%	559,921	75.4%
Vacant	304	61.7%	17,599	42.7%	182,867	24.6%

Source: American Community Survey 5-Year Estimate 2019

HOUSING UNITS BY TENURE

Figure 3. shows 24 additional 'owner-occupied' housing units (a 24% increase) and 13 additional renter-occupied housing units (a 54% increase) on Swan's Island in 2018, as compared to 2000.

Figure 3-c. Housing Units by Tenure
Swan's Island (2000, 2010, 2018)
Source: U.S. Census 2000, 2010; American Community Survey 5-Year Estimate 2018



c. HOUSING VALUES

COMPARISON OF OWNER-OCCUPIED HOUSING VALUES

The median house value on Swan's Island in 2018 was $236,100, which is 10% higher than the median house value in Hancock County ($211,700) and 16% higher than Maine's median house value ($197,500).

50% of all owner-occupied housing units on Swan's Island were valued between $200,000 and $499,999 in 2018.

Table 5. Comparison of Housing Values for Owner-Occupied Units: Swan's Island, Hancock County, Maine (2018)

	Swan's Island:		Hancock County:		Maine:	
Value:	**#**	**%**	**#**	**%**	**#**	**%**
Less than $50,000	14	10	799	5	27,301	7
$50,000 to $99,999	17	12	1,595	9	46,793	12
$100,000 to $149,999	4	3	2,487	14	62,706	15
$150,000 to $199,999	23	16	3,454	19	69,072	17
$200,000 to $299,999	38	27	4,212	24	100,651	25
$300,000 to $499,999	33	23	3,182	18	71,354	18
$500,000 to $999,999	12	9	1,623	9	22,661	6
$1,000,000 or more	1	1	421	2	5,688	1
Total Owner-Occupied Units	142	100	17,773	100	406,226	100
Median Housing Value	$236,100		$211,700		$197,500	

Source: American Community Survey 5-Year Estimate 2018

COMPARISON OF RENTER-OCCUPIED HOUSING VALUES

In 2018, the median monthly rent for Swan's Island was $642, as compared to $810 in Hancock County, and $849 in Maine. There were 22 occupied rentals on Swan's Island that were paying rent in 2018. 73% of the rental units paid between $500 and $999 per month. The remaining rental units paid a monthly rate of less than $500.

Table 6. Comparison of Monthly Rent for Renter-Occupied Housing Units: Swan's Island, Hancock County, Maine (2018)

	Swan's Island:		Hancock County:		Maine:	
Monthly Rent Due:	**#**	**%**	**#**	**%**	**#**	**%**
Less than $500	6	27	1,168	22	26,047	17
$500 to $999	16	73	2,809	53	76,245	50
$1,000 to $1,499	0	0	1,093	21	37,159	24
$1,500 to $1,999	0	0	143	3	9,328	6
$2,000 to $2,499	0	0	9	0	2,993	2
$2,500 to $2,999	0	0	20	0	556	0
$3,000 or more	0	0	66	1	634	0
No rent paid	15	n/a	498	n/a	11,119	n/a
Total Occupied Units Paying Rent	22	100	5,308	100	152,962	100
Median Rent	$642		$810		$839	

Source: American Community Survey 5-Year Estimate 2018

d. COSTS & AFFORDABILITY

MONTHLY COSTS FOR HOMEOWNERS

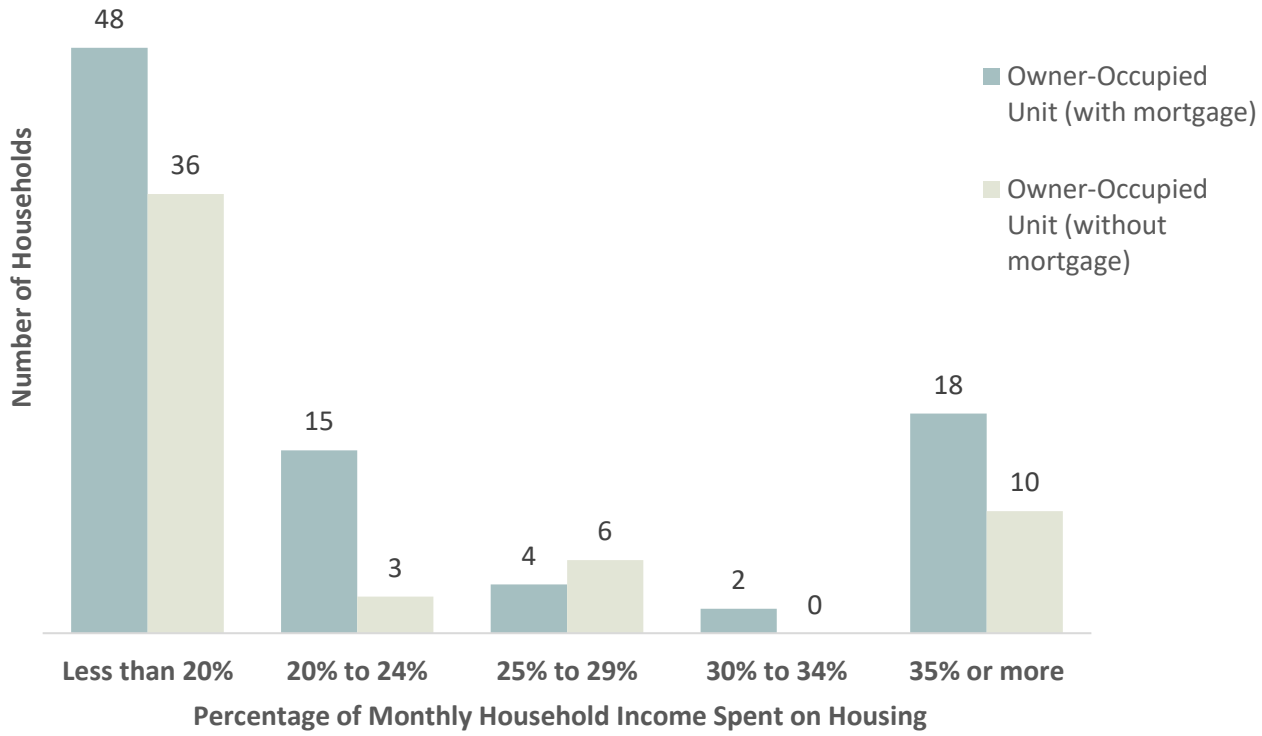
There were 142 total owner-occupied units on Swan's Island in 2018.

Of the 142 owner-occupied units, 87 homeowners were paying a mortgage, while the other 55 homeowners were mortgage-free.

Spending more than 30% of a monthly household income on housing is generally considered unaffordable. In 2018, 21% of Swan's Island homeowners (20 owner-occupied units with a mortgage; 10 owner-occupied units without a mortgage) spent more than 30% of their monthly household income on housing.

Figure 4. Monthly Homeowner Costs as a Percentage of Household Income Swan's Island (2018)

Source: American Community Survey 5-Year Estimate (2018)

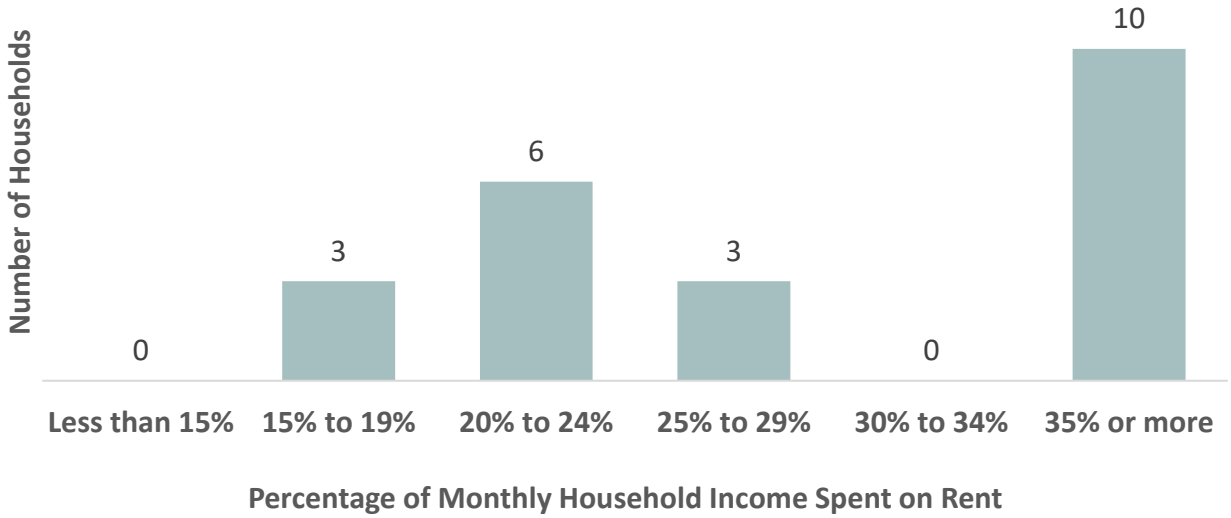


MONTHLY COSTS FOR RENTERS

46% of renters (10 renter-occupied housing units) on Swan's Island spent more than 30% of their monthly household income on rent in 2018.

Figure 5. Monthly Renter Costs as a Percentage of Household Income Swan's Island (2018)

Source: American Community Survey 5-Year Estimate (2018)



AFFORDABILITY INDEX FOR HOMEOWNERS

Maine State Housing Authority estimated that 79% (123) of the households on Swan's Island were unable to afford the median home sale price of $313,250 in 2017.

Maine State Housing Authority also indicated an annual income of $85,996 would be needed in order to afford the median home sale price. The median earned income on Swan's Island was only $45,125 in 2017.

The affordability index (which is a tool used by MaineHousing to gage hour housing affordability) for homeownership on Swan's Island was 0.52 in 2017. An index of less than 1 is considered unaffordable. In comparison, the affordability index in Hancock County as a whole was 0.85 and 0.93 in Maine. This means that homeownership on Swans Island is less affordable that the county and Maine.

Table 7. Homeownership Affordability Index: Swan's Island, Hancock County, Maine (2017)

Location:	*Affordability Index:	*Median Income:	Median Home Price (MHP):	Income Needed to Afford MHP:	Home Price Affordable to Median Income:	Households Unable to Afford MHP:
Swan's Island	0.52	$45,125	$313,250	$85,996	$164,373	123 (79.3%)
Hancock County	0.85	$48,707	$175,000	$52,228	$163,203	14,280 (57.4%)
Maine	0.93	$53,190	$197,000	$57,089	$183,546	305,534 (54.1%)

Source: Maine State Housing Authority 2017 Homeownership Affordability Index
**Affordability Index: > 1 = affordable; < 1 = unaffordable*
**Median Income: estimated by Maine State Housing Authority of those who earn an income, not the median household income.*

AFFORDABILITY INDEX FOR RENTERS

Maine State Housing Authority identified a renter affordability index of 0.57 for Swan's Island in 2017. Almost 50% of households in Swan's Island cannot afford a rental in Swan's Island.

It was estimated that 71% of the renter households on Swan's Island in 2017 were unable to afford rent for the average 2-bedroom apartment with utilities.

The renter-household median income for Swan's Island in 2017 was $22,499. Maine State Housing Authority indicates that a monthly rent of $562 (for a 2-bedroom apartment with utilities) is affordable to an income of $22,499.

Table 8. Renter Affordability Index: Swan's Island, Hancock County, Maine (2017)

Location:	*Affordability Index:	Renter Household Median Income:	Avg. 2-BR Rent (with utilities):	Income Needed to Afford Avg. 2-BR Rent:	2-BR Rent Affordable to Median Income:	Renter Households Unable to Afford Avg. 2-BR Rent:
Swan's Island	0.57	$22,499	$984	$39,360	$562	25 (71.4%)
Hancock County	0.72	$28,341	$984	$39,357	$709	4,038 (63.7%)
Maine	0.79	$30,804	$977	$39,093	$770	96,448 (59.6%)

Source: Maine State Housing Authority 2017 Rental Affordability Index
**Affordability Index: > 1 = affordable; < 1 = unaffordable*

NATURAL RESOURCES

i. KEY FINDINGS

ii. STATE GOALS

iii. OBJECTIVES

iv. RECOMMENDED STRATEGIES & ACTIONS

v. DATA ANAYLSIS

   a. HIGH VALUE SPECIES

   b. OTHER SIGNIFICANT HABITATS

   c. UNDEVELOPED HABITAT BLOCKS

   d. SCENIC AREAS

   e. EXISTING PROTECTION MEASURES

   f. THREATS TO NATURAL RESOURCES

vi. MAPS

i. KEY FINDINGS

- *Swan's Island and the surrounding smaller islands have a matrix of forested and emergent wetland, tidal flats, inland and tidal waterfowl and wading bird habitats, and shellfish growing areas that supports a range of important plants and animals.* These include:
  - Multiple Bald Eagle nesting areas (including 4 on Swan's Island alone)
  - Purple Sandpiper, a species of conservation need
  - Harlequin Duck, a threatened species
  - Arctic Tern, a threatened species
  - Blinks, a plant species of special concern that grows in small pools and seepy areas on coastal ledge or peaty shores and islands
  - Great Cormorant, a threatened species

- *There are still several large undeveloped habitat blocks on Swan's Island.* The two largest (an 873-acres area and a 1246-acre area) make up approximately 2,000 acres of mostly unfragmented habitat. They are split only by the Goose Pond Road.

- *Currently, there are no local ordinances that protect natural resources outside the shoreland zone.* While many of the Island's important habitat areas are located within the shoreland zone, there are several inland areas with significant natural resources or a co-occurrence of resources that would not be protected.

- *With as many as half the ticks on Swan's Island infected with Lyme disease, a major concern for Island residents is controlling the tick population.* You are statistically two-and-a-half times as likely to contract Lyme disease on some Maine islands than you are on the mainland of the Midcoast (the mainland region with the highest rates of Lyme). The Island has been actively working on managing the issue, including working with the State to control the deer population.

- *Important scenic views/locations throughout the Island include, but are not limited to:*
  - Noah's Ballast
  - Field on Harbor Island
  - Viewshed, buildings, property, and trails around Burnt Coat Harbor Lighthouse
  - Irish Point Beach
  - Viewshed toward Marshall Island
  - Clyde Torrey Field
  - Fire pond
  - Fine Sand Beach
  - Carrying Place
  - Quarry Pond, Mackerel Cove surroundings, Cottles Cove, Ghost Hollow

ii. STATE GOALS

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

iii. OBJECTIVES

1. Important natural resources including, but not limited to, state designated critical areas, natural areas, and natural heritage areas, are identified and protected
2. Large blocks of unfragmented habitat, open spaces, and scenic areas are preserved
3. Local tick population is under control with risks for Lyme disease minimized

iv. RECOMMENDED STRATEGIES & ACTIONS

Natural Resources	Responsibility	Timeline
Continue to work with local, regional and state resources to combat the growing tick population and help reduce the threat of Lyme disease. This could include: - New or continued partnerships with the University of Maine, state agencies, and others to gather up-to-date research - Working with state agencies to increase the number of annual DOE permits on the Island	Board of Selectmen	Ongoing
Ensure that the Town's subdivision and shoreland zoning ordinances continue to be consistent with applicable state laws regarding critical natural resources.	Planning Board	Ongoing
Pursue public/private partnerships to ensure that natural resources are protected for the benefit of the overall environmental and economic well-being of the community.	Board of Selectmen	Ongoing
Prepare an open space/scenic resource inventory to identify the most important areas, build awareness of the importance of these areas and stress the need for community action to protect them	Recreation Committee	Medium-Term (3-5 years)
Work with regional and community interest groups to identify and preserve important open spaces and scenic views from, and within, the community.	Board of Selectmen	Ongoing

v. DATA ANALYSIS

a. HIGH VALUE SPECIES

SPECIES OF SPECIAL CONCERN

Maine's Department of Inland Fisheries and Wildlife (MDIFW) defines a species of special concern as "*any species of fish or wildlife that does not meet the criteria of an endangered or threatened species but is particularly vulnerable, and could easily become an endangered, threatened, or extirpated species due to restricted distribution, low or declining numbers, specialized habitat needs or limits, or other factors. Special concern species are established by policy, not by regulation, and are used for planning and informational purposes*."

MDIFW considers bald eagles as a species of special concern and has identified four bald eagle habitats on Swan's Island, as well as ten bald eagle habitats within proximity to Swan's Island on Ringtown Island, Marshall Island, Placentia Island, Opechee Island, Sister Islands, Crow Island, and Frenchboro. Bald Eagles were taken off the endangered species list but remain protected under multiple federal laws and regulations.

Additionally, the Maine Natural Areas Program (MNAP) has located a rare blinks plant habitat on Heron Island, also identified as a species of special concern.

SPECIES OF CONSERVATION NEED

MDIFW has prepared a Maine Wildlife Action Plan that targets species in greatest need of conservation. The purple sandpiper is identified as a species in need of conservation. Currently, there are 18 essential Purple Sandpiper habitats in proximity to Swan's Island; including Hat Island.

THREATENED & ENDANGERED SPECIES

Threatened and endangered species in Maine are listed either under Maine's Endangered Species Act (MESA), the U.S. Endangered Species Act (ESA), or both.

Threatened species in proximity to Swan's Island include harlequin duck habitats, great cormorant habitats, and an arctic tern habitat on Mason's Ledge.

Endangered species in proximity to Swan's Island include a swarthy sedge habitat on Marshall Island.

There are no habitats for threatened or endangered species found on Swan's Island.

RARE NATURAL COMMUNITIES

The Maine Natural Areas Program (MNAP) identifies a patterned fen ecosystem as a rare natural community located at the Lily Pond on Swan's Island.

Fens are a unique wetland type that relies on groundwater flows, requires thousands of years to develop, and cannot easily be restored once destroyed. They are hotspots of biodiversity and are home to rare plants, insects, and small mammals. Larger animals graze in this type of wetland. Fens are also valuable to humans as they are important sites of groundwater discharge and are good indicators of shallow aquifers. Fens prevent and reduce the risk of floodwaters. They support many trees and plants that help filter the air and have an impact on improving water quality.

b. OTHER SIGNIFICANT HABITATS

WATERFOWL HABITATS

The entire perimeter of Swan's Island, with its shoreline extending into the ocean, is identified as tidal waterfowl and wading bird habitat.

There are eight locations on Swan's Island identified as inland waterfowl and wading bird habitat - near Little House Cove, Goose Pond, Lily Pond, Stanley Point Road meeting Long Cove, between Lemoine Road and Staples Ridge Road, and the very end of Rose Hill Road.

SEABIRD NESTING ISLANDS

There are at least 26 seabird nesting islands that surround Swan's Island. John's Island and Heron Island are among the largest nesting islands. Others include Green Island, Crow Island, Scrag Island, Gooseberry Island, Dry Money Edge, Halibut Rocks, Three Bush Island, Brimstone Island, and Mason Ledge.

WETLANDS

Wetlands are a critical natural resource as they provide an array of ecological services that are associated with economic benefits. Some ecological services include surface runoff and flood control, groundwater replenishment and water purification, shoreline stabilization and storm protection, erosion control and sediment retention, as well as providing special habitat conditions for finfish, shellfish, and other plants and animals. The National Wetlands Inventory, in part with the U.S. Fish and Wildlife Service, has characterized Swan's Island into five wetland types: Marine, Estuarine, Freshwater Emergent, Freshwater Shrub, and Freshwater Forested.

Marine wetlands are saltwater wetlands exposed to waves, currents, and tides in an oceanic setting. These wetlands include reefs and aquatic subtidal beds with seagrass and kelp. They are important nursery and feeding areas for fish and important habitat for migratory waterfowl. Threats to marine wetlands (including increasing water temperatures, storm surges, overfishing, runoff pollution, unsustainable recreation and tourism, and destructive fishing practices) can poison aquatic species and create uninhabitable conditions that damage habitats and reduce biodiversity.

Estuarine wetlands are a mix of saltwater and freshwater output from a river or stream. These wetlands include tidal marshes, salt marshes, swamps, river deltas, and mudflats. They provide important nursery grounds and breeding habitats, and are a productive environment in supplying sources of food. Threats to estuarine wetlands are dredging, runoff pollution, overfishing, increasing water temperatures, storm surges, and unsustainable recreation and tourism use.

Freshwater Emergent wetlands are characterized by rooted herbaceous and grassy plants that stand straight above the water or ground surface. Emergent wetlands include marshes, meadows, and fens.

Freshwater Shrub wetlands are dominated by woody vegetation of shrubs and young trees less than 20 feet tall. These wetlands include swamps and bogs.

Freshwater Forested wetlands are dominated by woody vegetation of 20 feet or taller. These are forested swamps that include an overstory of large, older trees and understory of young trees and shrubs.

c. UNDEVELOPED HABITAT BLOCKS

There are large areas on Swan's Island that remain undeveloped. These undeveloped habitat blocks provide conditions essential to sustaining the island's plant and animal species. Some of this undeveloped land is conserved through easement and private or municipal ownership, while other lands are otherwise untouched.

Maine's Department of Inland Fisheries and Wildlife identified six undeveloped habitat blocks greater than 100 acres on Swan's Island. These parcels amount to roughly 2,721 acres (1,246 acre-block, 873 acre-block, 205 acre-block, 153 acre-block, 138 acre-block, 106 acre-block).

d. SCENIC AREAS

There are numerous scenic areas on Swan's Island that look out on various points of interest. Mount Desert Island and the mountains of Acadia National Park are visible from the northeast of the island. The shorelines of Frenchboro are close and recognized from the southeast. Isle au Haut is visible from the southwest, and Stonington, and Deer Isle are directly west.

Important scenic views/locations throughout the Island include:

- Noah's Ballast
- Field on Harbor Island
- Viewshed, buildings, property, and trails around Burnt Coat Harbor Lighthouse
- Irish Point Beach
- Viewshed toward Marshall Island
- Clyde Torrey Field
- Fire pond
- Fine Sand Beach
- Carrying Place
- Quarry Pond, Mackerel Cove surroundings, Cottles Cove, Ghost Hollow

e. EXISTING PROTECTION MEASURES

LOCAL PROTECTIVE MEASURES

Shoreland Zoning Ordinance

The Swan's Island Shoreland Zoning Ordinance was first enacted in 1975 to serve many purposes. Some of which include maintaining the character of the island's landscape and shoreline, assure the continuance of a viable fishery, prevent and control water pollution, protect spawning grounds, aquatic life, birds, other wildlife and their habitats, conserve limited natural resources and significant natural areas, and protect freshwater and coastal wetlands. The ordinance applies to all land areas of Swan's Island, which lie between the low tide line and within 250 feet, measured horizontally from the normal high tide line of any great pond, coastal of freshwater wetland, saltwater body, or within 75 feet of any stream. The ordinance applies to any structure built on, over, or abutting a dock, wharf, pier, or other structure that extends beyond the shoreline boundary of a water body or wetland.

Subdivision Ordinance

The Swan's Island Subdivision Ordinance was enacted in 1971. All proposed subdivisions must conform to the ordinance's standards to assure the comfort, convenience, safety, health, and welfare of the people, to protect the environment, and to promote the development of an economically sound and stable community. There is an application procedure, preliminary plan procedure, and final plan procedure that must be approved by the Municipal Planning Board. Requirements account for land not suitable for development, lot sizes and dimensions, utilities. Design standards consider existing monuments, parking, roads, soil information, water supply, sewage disposal, and surface drainage properties.

Dog Ordinance

The Swan's Island Dog Ordinance was primarily created to help keep the town's public beaches clean for visitor use. Dogs are not allowed on Fine Sand Beach and Carrying Place Beach from 9:00 AM to 5:00 PM, June 15 to September 15. The ordinance also aids in protecting natural resources from bacterial pollution.

Hunting

Archery and hunting seasons are observed on Swan's Island.

New Campground Ordinance

In 2019, the Municipal Planning Board and the town's code enforcement officer drafted the Swan's Island Campground Ordinance, which outlines requirements specifically for the development of commercial campgrounds. The Swan's Island Campground Ordinance was created with the purpose and intention to protect the overall character of Swan's Island, its community and property owners, the landscape, and the island's limited natural resources from the impact of large-scale campgrounds. The ordinance observes all of the State's pre-existing rules and regulations relating to campgrounds, while incorporating more exact requirements for provisions that regard the number of campsites allowed per campground, the minimum lot size of a campsite, and the distance between campsites. The ordinance was approved by voters at the annual town meeting on March 2, 2020.

STATE PROTECTIVE MEASURES

Maine Endangered Species Act (MESA)

The Maine Endangered Species Act was enacted in 1975 as a response to protect various species of fish and wildlife in danger of disappearing from the State. This act protects all inland fish and wildlife, including invertebrates, and is implemented by the Department of Inland Fisheries and Wildlife. In 2003, Maine's legislature gave authority to the Department of Marine Resources to list and conserve marine species that are endangered and threatened.

Maine Natural Areas Program (MNAP)

The Maine Natural Areas Program helps conserve natural areas in part with the Department of Agriculture, Conservation, and Forestry. MNAP works to inventory lands that support rare and endangered species and ecosystems in Maine while providing data information and suggestions for the management of such areas. For example, MNAP recommends that bald eagle habitat should be protected within one-quarter mile of the nesting site. It is an additional role and responsibility of the MNAP to identify plant species that are endangered and threatened.

Natural Resources Protection Act (NRPA)

The Natural Resources Protection Act (1987) protects coastal dune systems, coastal wetlands, significant wildlife habitat, fragile mountain areas, freshwater wetlands, great ponds and rivers, streams, or brooks from certain activities that can cause degradation or destruction of these critical resources.

The act requires a permit whenever activities such as dredging, bulldozing, removing or displacing soil, sand, vegetation, or other materials; draining or otherwise dewatering; filling, including adding sand or other material to a dune; or any construction, repair, or alteration of any permanent structure that takes place in, on, or over any protected natural resource; or located adjacent to a coastal wetland, great pond, river, stream, brook, or significant wildlife habitat contained within a freshwater wetland; or certain freshwater wetlands.

Maine's Wildlife Action Plan

In 2001, the U.S. Congress asked each state to develop a Wildlife Action Plan to be eligible for federal grants that help state and tribal agencies meet their conservation needs. Maine's Department of Inland Fisheries and Wildlife, along with other conservation groups, prepared Maine's first Wildlife Action Plan in 2005. The action plan is updated every ten years and shares the vision for voluntary and non-regulatory conservation measures. Maine's 2015-2025 Wildlife Action Plan identified 378 species of amphibians, birds, fish, invertebrates, mammals, and reptiles that need the greatest conservation.

FEDERAL PROTECTIVE MEASURES

U.S. Endangered Species Act (ESA)

The U.S. Endangered Species Act was enacted in 1973 to provide conservation and protection for threatened and endangered plants and animals and their habitats. Federal and state legislation upholds this act to protect listed species. There are no species on Swan's Island listed in the U.S. Endangered Species Act. The bald eagle was once identified as an endangered species but has since been removed from the list. The bald eagle does, however, remain a species of special concern for conservation by several federal and state groups.

f. THREATS TO NATURAL RESOURCES

Threats to the natural resources of Swan's Island include increasing development, particularly development taking place in areas outside the shoreland zone, which are considered significant natural resources or assets to the island. Currently, no directive outside the shoreland zone separately acts to protect the island's high value and critical natural resources.

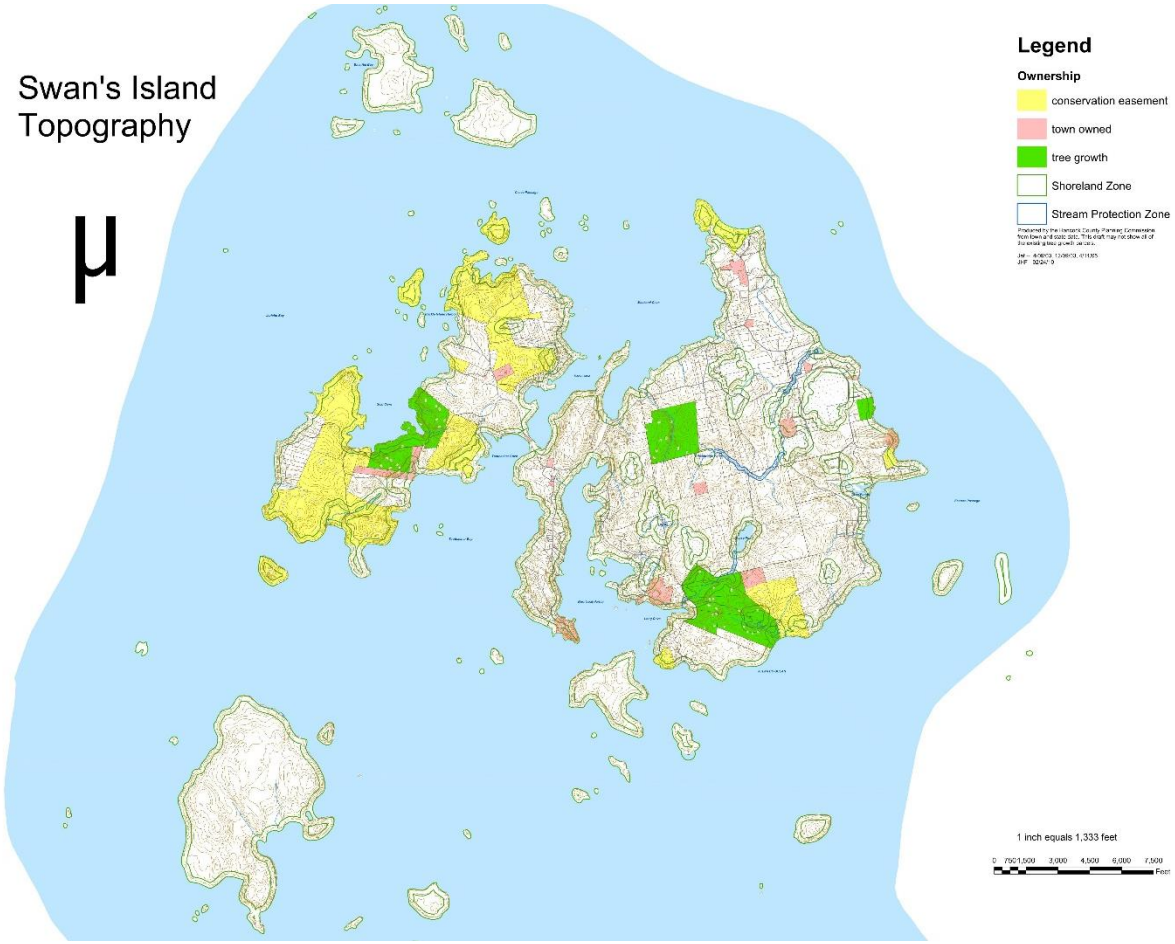
Inconsistent interpretation or enforcement of the Shoreland Zoning Ordinance is possible, and therefore, must be monitored to ensure the protection of the shoreline and coastal waters, which is one of the most appreciable natural features and resources for the Swan's Island community.

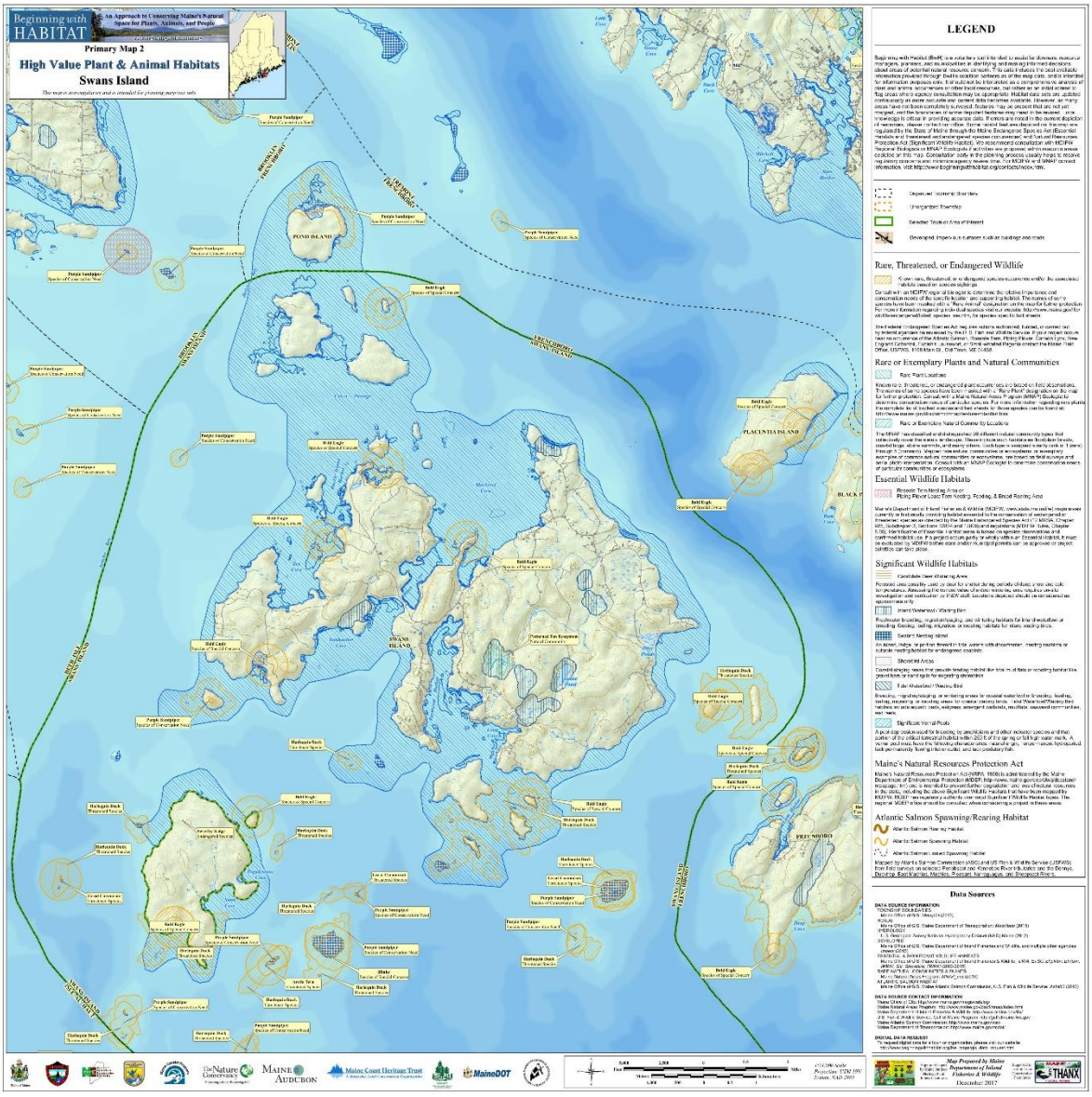
Developmental and other human-related activities significantly increase the rate (up to ten times) of erosion versus naturally occurring processes like weathering and the transportation of sediments by water and wind. Any designers, engineers, construction workers, and public works crew need to follow best management practices, which can be the simplest and most effective measures taken to retain sediments and control the erosion of the Swan's Island landscape.

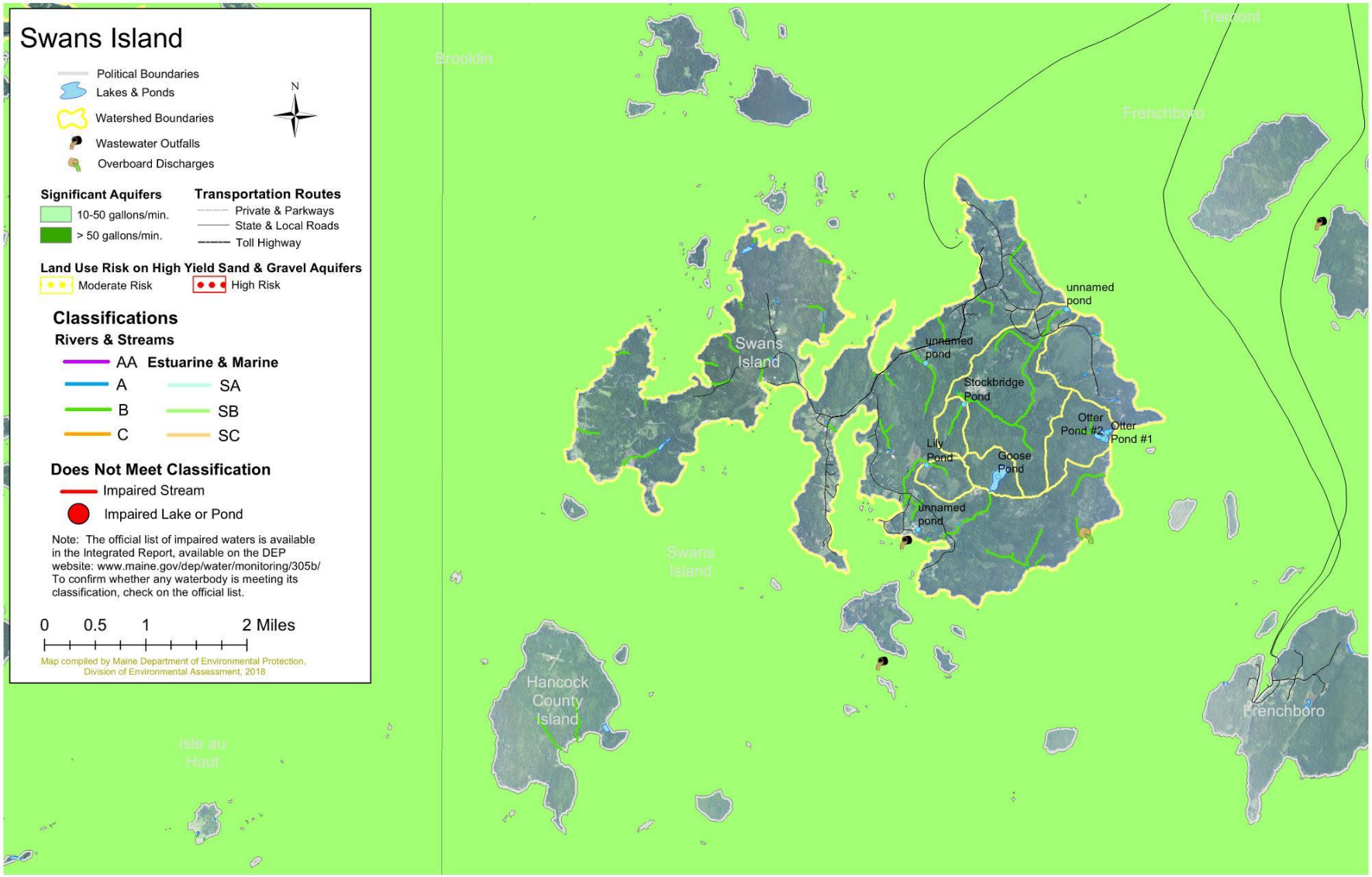
The earth's physical processes continuously change the coastline. Change of the coastline itself is not a hazard until something of value like residential communities, properties, or natural resources becomes threatened. Major causes of coastal hazards are storm surges, sea-level rise, erosion, and inlet migration; which is the process of streams and rivers passing through dunes and entering the ocean that can lead to changes in the landscape and position of the shoreline.

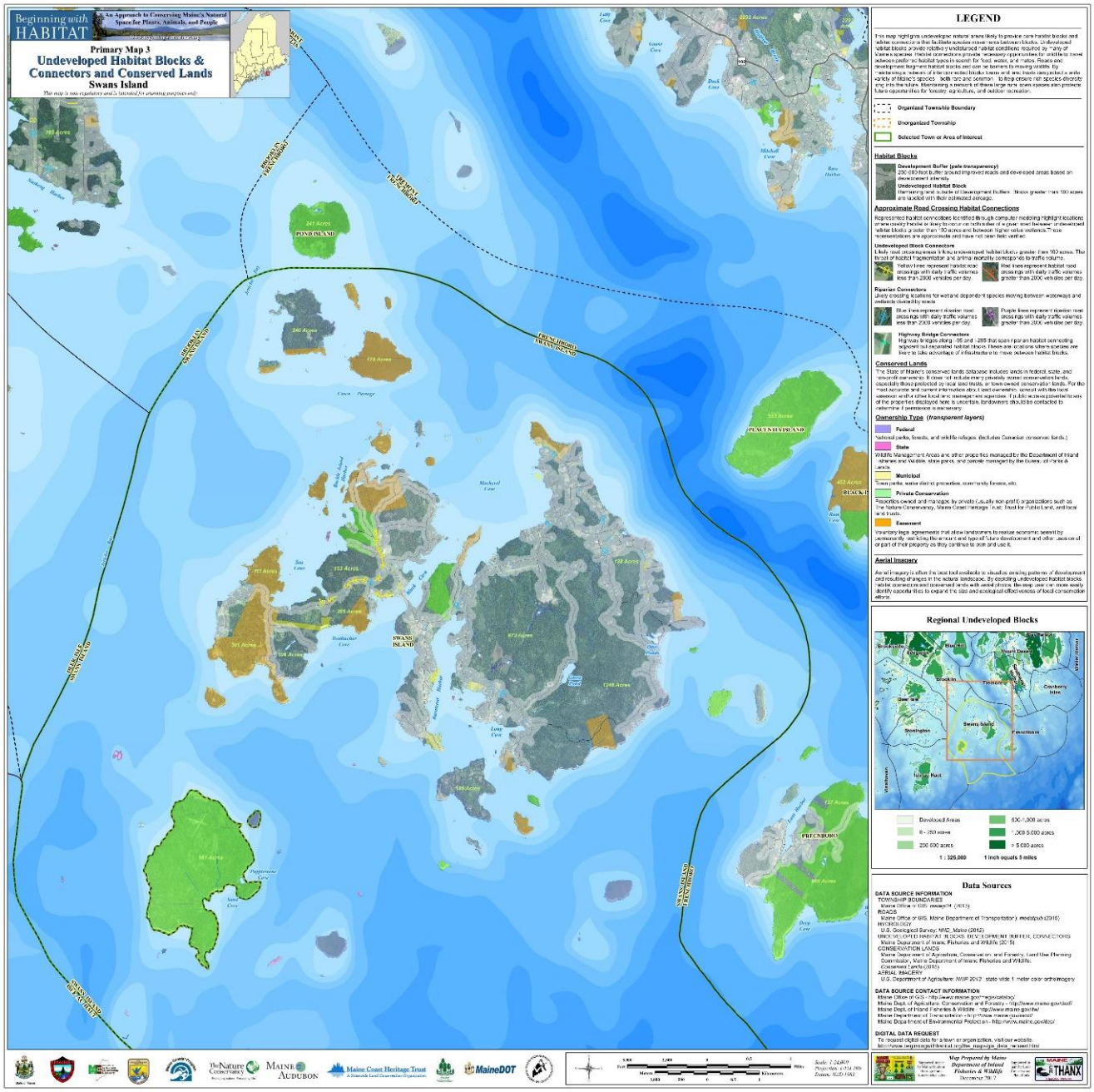
Invasive species (also known as non-native species), which are introduced to the ecosystems of Swan's Island and have no real competition, can drive out native plants and animals and potentially cause harm to the environment, economy, or human health. Additionally, pollution to the air, waters, and soils can cause degradation of the island's natural resources.

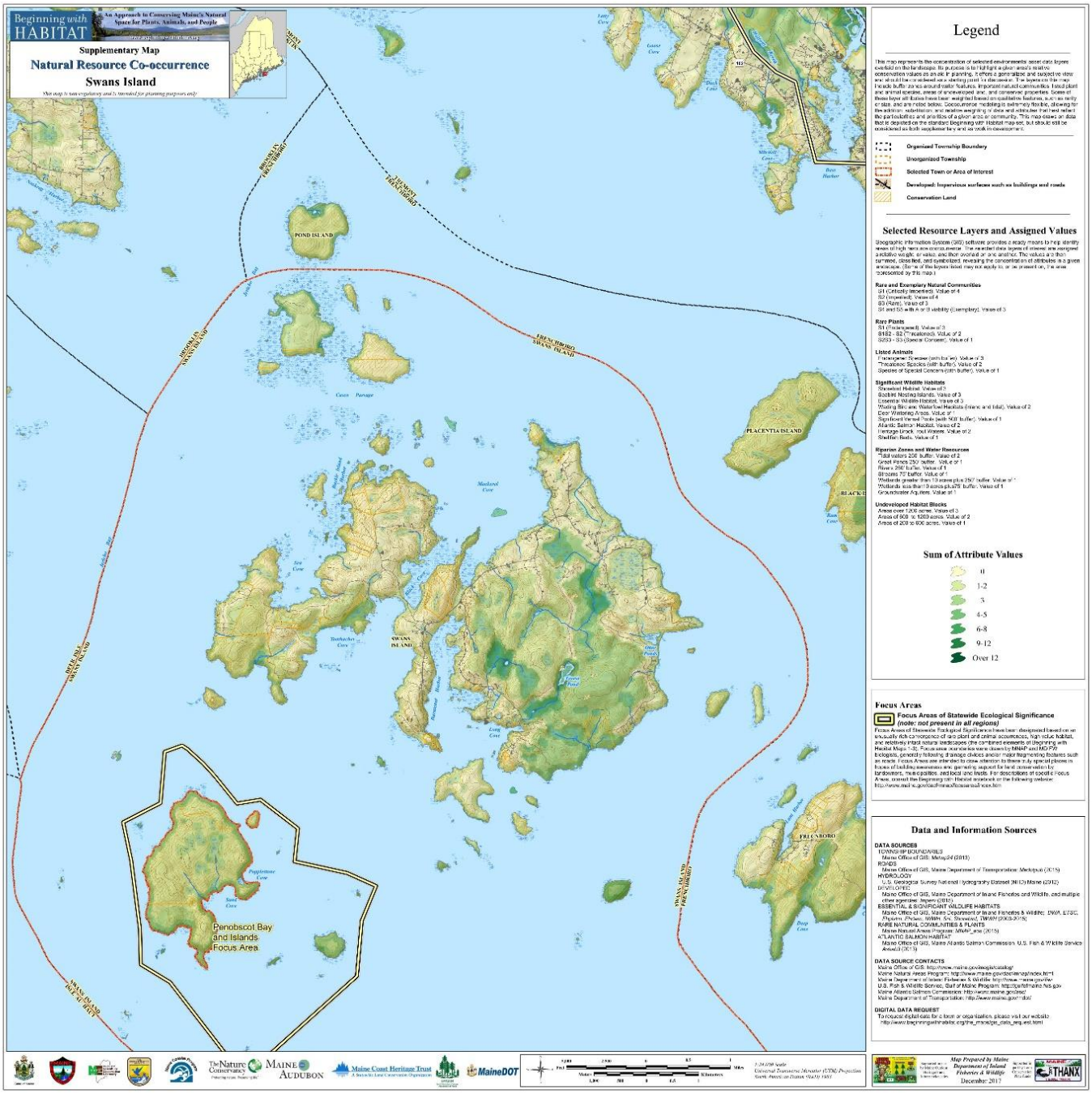
vi. MAPS

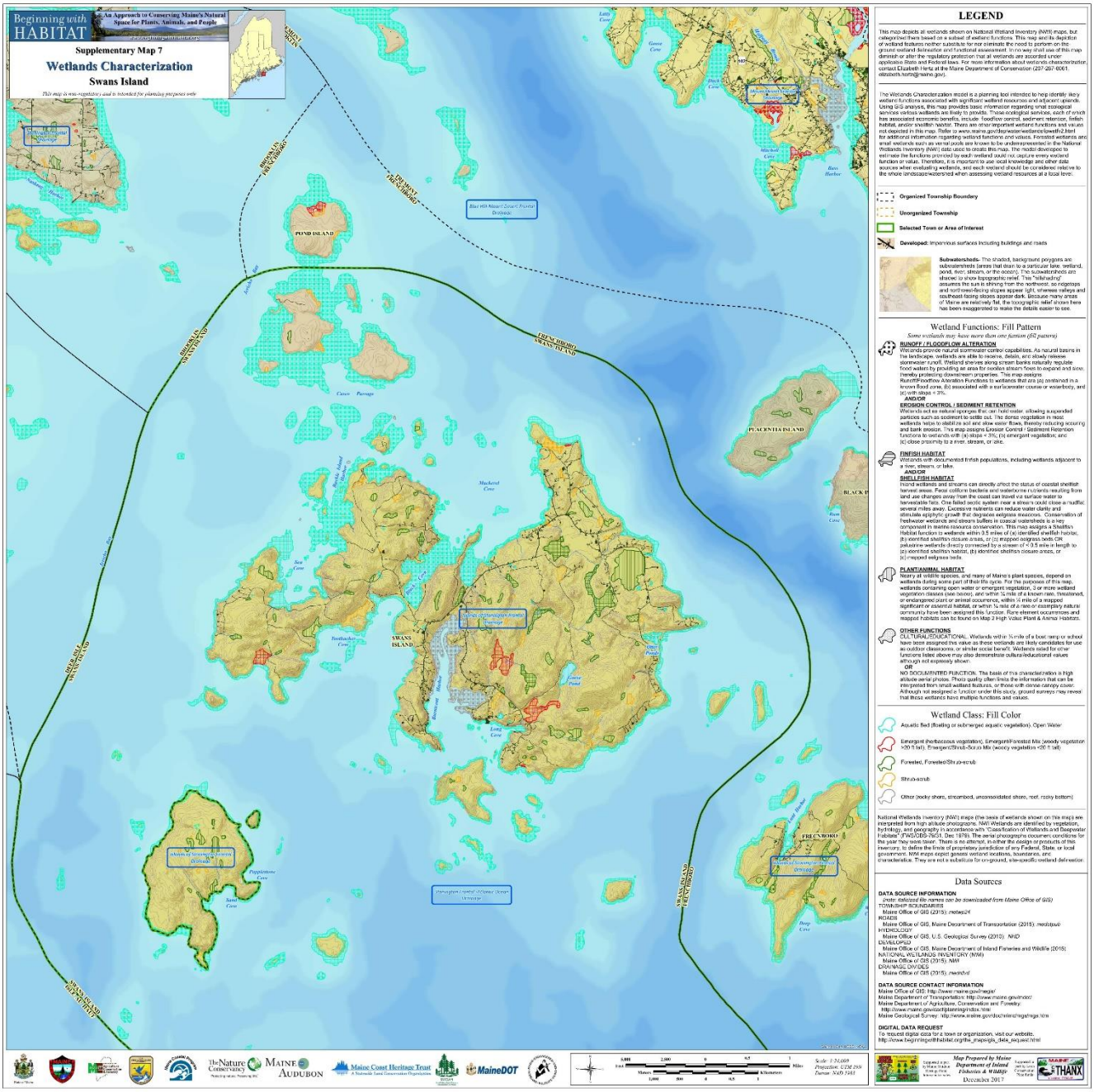

Swan's Island
Topography
μ
Legend
Ownership
conservation easement
town owned
tree growth
Shoreland Zone
Stream Protection Zone
1 inch equals 1,333 feet


Beginning with HABITAT
An Approach to Conserving Maine's Natural Space for Plants, Animals, and People
Primary Map 2
High Value Plant & Animal Habitats
Swans Island
LEGEND
Rare, Threatened, or Endangered Wildlife
Rare or Exemplary Plants and Natural Communities
Essential Wildlife Habitats
Significant Wildlife Habitats
Maine's Natural Resources Protection Act
Atlantic Salmon Spawning/Rearing Habitat
Data Sources
POND ISLAND
PLACENTIA ISLAND
SWANS ISLAND
FRENCHBORO
MAINE AUDUBON
Maine Coast Heritage Trust
MaineDOT
Map Prepared by Maine Department of Inland Fisheries & Wildlife
December 2017


Swans Island
Political Boundaries
Lakes & Ponds
Watershed Boundaries
Wastewater Outfalls
Overboard Discharges
N
Significant Aquifers
10-50 gallons/min.
> 50 gallons/min.
Transportation Routes
Private & Parkways
State & Local Roads
Toll Highway
Land Use Risk on High Yield Sand & Gravel Aquifers
Moderate Risk
High Risk
Classifications
Rivers & Streams
AA
A
B
C
Estuarine & Marine
SA
SB
SC
Does Not Meet Classification
Impaired Stream
Impaired Lake or Pond
Note: The official list of impaired waters is available in the Integrated Report, available on the DEP website: www.maine.gov/dep/water/monitoring/305b/ To confirm whether any waterbody is meeting its classification, check on the official list.
0 0.5 1 2 Miles
Map compiled by Maine Department of Environmental Protection, Division of Environmental Assessment, 2018
Brooklin
Trenton
Frenchboro
Swans Island
unnamed pond
unnamed pond
Stockbridge Pond
Otter Pond #2
Otter Pond #1
Lily Pond
Goose Pond
unnamed pond
Swans Island
Hancock County Island
Isle au Haut
Frenchboro


Beginning with HABITAT
An Approach to Conserving Maine's Natural Space for Plants, Animals, and People
Primary Map 3
Undeveloped Habitat Blocks & Connectors and Conserved Lands
Swans Island
LEGEND
Organized Township Boundary
Unorganized Township
Selected Town or Area of Interest
Habitat Blocks
Approximate Road Crossing Habitat Connections
Conserved Lands
Ownership Type (transparent layers)
Federal
State
Municipal
Private Conservation
Easement
Aerial Imagery
Regional Undeveloped Blocks
Data Sources
SWANS ISLAND
PONDELAND
PLACENTIA ISLAND
PRECNBORO
Maine Coast Heritage Trust
MaineDOT


Beginning with HABITAT
An Approach to Conserving Maine's Natural Space for Plants, Animals, and People
Supplementary Map
Natural Resource Co-occurrence
Swans Island
Legend
Organized Township Boundary
Unorganized Township
Selected Town or Area of Interest
Developed: Impervious surfaces such as buildings and roads
Conservation Land
Selected Resource Layers and Assigned Values
Sum of Attribute Values
0
1-2
3
4-5
6-8
9-12
Over 12
Focus Areas
Focus Areas of Statewide Ecological Significance
(note: not present in all regions)
Data and Information Sources
POND ISLAND
PLACENTIA ISLAND
SWANS ISLAND
FRENCHBORO
Penobscot Bay and Islands Focus Area
The Nature Conservancy
Maine Audubon
Maine Coast Heritage Trust
MaineDOT
Map Prepared by Maine Department of Inland Fisheries & Wildlife
December 2017


Beginning with HABITAT
An Approach to Conserving Maine's Natural Space for Plants, Animals, and People
Supplementary Map 7
Wetlands Characterization
Swans Island
This map is non-regulatory and is intended for planning purposes only.
LEGEND
This map depicts all wetlands shown on National Wetland Inventory (NWI) maps, but categorized them based on a subset of wetland functions. This map and its depiction of wetland features neither substitute for nor eliminate the need to perform on-the-ground wetland delineation and functional assessment. In no way shall use of this map diminish or alter the regulatory protection that all wetlands are accorded under applicable State and Federal laws. For more information about wetlands characterization, contact Elizabeth Hertz at the Maine Department of Conservation (207-287-8061, elizabeth.hertz@maine.gov).
The Wetlands Characterization model is a planning tool intended to help identify likely wetland functions associated with significant wetland resources and adjacent uplands. Using GIS analysis, this map provides basic information regarding what ecological services various wetlands are likely to provide. These ecological services, each of which has associated economic benefits, include: flood/low control, sediment retention, finfish habitat, and/or shellfish habitat. There are other important wetland functions and values not depicted in this map. Refer to www.maine.gov/dep/water/wetlands/swetfs2.html for additional information regarding wetland functions and values. Forested wetlands and small wetlands such as vernal pools are known to be underrepresented in the National Wetlands Inventory (NWI) data used to create this map. The model developed to estimate the functions provided by each wetland could not capture every wetland function or value. Therefore, it is important to use local knowledge and other data sources when evaluating a wetland, and each wetland should be considered relative to the whole landscape/watershed when assessing wetland resources at a local level.
Organized Township Boundary
Unorganized Township
Selected Town or Area of Interest
Developed: Impervious surfaces including buildings and roads
Subwatersheds- The shaded, background polygons are subwatersheds (areas that drain to a particular lake, wetland, pond, river, stream, or the ocean). The subwatersheds are shaded to show topographic relief. The "hillshading" assumes the sun is shining from the northwest, so ridgetops and northwest-facing slopes appear light, whereas valleys and southeast-facing slopes appear dark. Because many areas of Maine are relatively flat, the topographic relief shown here has been exaggerated to make the details easier to see.
Wetland Functions: Fill Pattern
Some wetlands may have more than one function (fill pattern)
RUNOFF / FLOODFLOW ALTERATION
Wetlands provide natural stormwater control capabilities. As natural basins in the landscape, wetlands are able to receive, detain, and slowly release stormwater runoff. Wetland shorelines along stream banks naturally regulate flood waters by providing an area for swollen stream flows to expand and slow, thereby protecting downstream properties. This map assigns Runoff/Floodflow Alteration Functions to wetlands that are (a) contained in a known flood zone, (b) associated with a surface water course or waterbody, and (c) with slope < 3%.
AND/OR
EROSION CONTROL / SEDIMENT RETENTION
Wetlands act as natural sponges that can hold water, allowing suspended particles such as sediment to settle out. The dense vegetation in most wetlands helps to stabilize soil and slow water flows, thereby reducing scouring and bank erosion. This map assigns Erosion Control / Sediment Retention functions to wetlands with (a) slope < 3%, (b) emergent vegetation, and (c) close proximity to a river, stream, or lake.
FINFISH HABITAT
Wetlands with documented finfish populations, including wetlands adjacent to a river, stream, or lake.
AND/OR
SHELLFISH HABITAT
Inland wetlands and streams can directly affect the status of coastal shellfish harvest areas. Fecal coliform bacteria and waterborne nutrients resulting from land use changes away from the coast can travel via surface water to harvestable flats. One failed septic system near a stream could close a mudflat several miles away. Excessive nutrients can reduce water clarity and stimulate epiphytic growth that degrades eelgrass meadows. Conservation of freshwater wetlands and stream buffers in coastal watersheds is a key component in marine resource conservation. This map assigns a Shellfish Habitat function to wetlands within 0.5 miles of (a) identified shellfish habitat, (b) identified shellfish closure areas, or (c) mapped eelgrass beds OR estuarine wetlands directly connected by a stream of < 0.5 mile in length to (a) identified shellfish habitat, (b) identified shellfish closure areas, or (c) mapped eelgrass beds.
PLANT/ANIMAL HABITAT
Many all wildlife species, and many of Maine's plant species, depend on wetlands during some part of their life cycle. For the purposes of this map, wetlands containing open water or emergent vegetation, 3 or more wetland vegetation classes (see below), and within ¼ mile of a known rare, threatened, or endangered plant or animal occurrence, within ¼ mile of a mapped significant or essential habitat, or within ¼ mile of a rare or exemplary natural community have been assigned this function. Rare element occurrences and mapped habitats can be found on Map 2 High Value Plant & Animal Habitats.
OTHER FUNCTIONS
CULTURAL/EDUCATIONAL: Wetlands within ¼ mile of a boat ramp or school have been assigned this value as these wetlands are likely candidates for use as outdoor classrooms, or similar social benefit. Wetlands rated for other functions listed above may also demonstrate cultural/educational values although not expressly shown.
OR
NO DOCUMENTED FUNCTION: The basis of this characterization is high altitude aerial photos. Photo quality often limits the information that can be interpreted from small wetland features, or those with dense canopy cover. Although not assigned a function under this study, ground surveys may reveal that these wetlands have multiple functions and values.
Wetland Class: Fill Color
Aquatic Bed (floating or submerged aquatic vegetation), Open Water
Emergent (herbaceous vegetation), Emergent/Forested Mix (woody vegetation <20 ft tall), Emergent/Shrub-scrub Mix (woody vegetation <20 ft tall)
Forested, Forested/Shrub-scrub
Shrub-scrub
Other (rocky shore, streambed, unconsolidated shore, reef, rocky bottom)
National Wetlands Inventory (NWI) maps (the basis of wetlands shown on this map) are interpreted from high altitude photographs. NWI Wetlands are identified by vegetation, hydrology, and geography in accordance with "Classification of Wetlands and Deepwater Habitats" (FWS/OBS-79/31, Dec 1979). The aerial photographs document conditions for the year they were taken. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, State, or local government. NWI maps depict general wetland locations, boundaries, and characteristics. They are not a substitute for on-ground, site-specific wetland delineation.
Data Sources
DATA SOURCE INFORMATION
(note: italicized file names can be downloaded from Maine Office of GIS)
TOWNSHIP BOUNDARIES
Maine Office of GIS (2013); mebas24
ROADS
Maine Office of GIS, Maine Department of Transportation (2015); medotpub
HYDROLOGY
Maine Office of GIS, U.S. Geological Survey (2010); NHD
DEVELOPED
Maine Office of GIS, Maine Department of Inland Fisheries and Wildlife (2015)
NATIONAL WETLANDS INVENTORY (NWI)
Maine Office of GIS (2015); NWI
DRAINAGE DIVIDES
Maine Office of GIS (2015); meandvd
DATA SOURCE CONTACT INFORMATION
Maine Office of GIS: http://www.maine.gov/megis/
Maine Department of Transportation: http://www.maine.gov/mdot/
Maine Department of Agriculture, Conservation and Forestry:
http://www.maine.gov/acf/planning/index.html
Maine Geological Survey: http://www.maine.gov/doc/nrimc/mgs/mgs.htm
DIGITAL DATA REQUEST
To request digital data for a town or organization, visit our website.
http://www.beginningwithhabitat.org/the_maps/gis_data_request.html
Map Prepared by Maine Department of Inland Fisheries & Wildlife
December 2017
THANX
The Nature Conservancy
Maine Audubon
Maine Coast Heritage Trust
MaineDOT



Swan's Island Scenic Resources.

WATER RESOURCES

i. KEY FINDINGS

ii. STATE GOALS

iii. OBJECTIVES

iv. RECOMMENDED STRATEGIES & ACTIONS

v. DATA ANALYSIS

   a. WATERSHED CHARACTERISTICS

   b. SURFACE WATER BODIES

   c. GROUNDWATER

   d. EXISTING PROTECTION MEASURES

   e. THREATS TO WATER RESOURCES

vi. MAPS

i. KEY FINDINGS

- *Local water supply is a limited resource.* The most common water quality issues to date are: contamination from faulty septic systems, saltwater intrusion, low-yielding bedrock wells that run dry during summer and fall seasons, and heavy metals characteristic of granite bedrock. While there are currently no known incidents or subsequent studies identifying major threats to local water supply, Island residents remain attentive to the long-term need for quality drinking water.
- *Due to the very permeable and excessively drained soils conditions, the Island water quality is at a higher risk of contamination from point source and non-point source pollution*.

ii. STATE GOALS

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

iii. OBJECTIVES

1. Safe and plentiful drinking water for island residents and visitors
2. Sufficient water supply for fire protection

iv. RECOMMENDED STRATEGIES & ACTIONS

Water Quality	Responsibility	Timeline
Update subdivision ordinance as needed to reference the latest Maine State Stormwater Management Law regulations and integrate standards that promote low impact development design	Planning Board	Long-Term (5+ years)
Proactively map groundwater recharge areas and sources of fire protection	Board of Selectmen	Medium-Term (3-5 years)
Consider appropriate protection measures to ensure sufficient quantity and quality of drinking water supply; seek help from the Federal government as appropriate	Board of Selectmen	Medium-Term (3-5 years)
Consider appropriate protection measures to ensure sufficient quantity of water supply for fire protection	Board of Selectmen	Long-Term (5+ years)
Periodically consider appropriate local ordinances to protect groundwater and sources of fire protection	Board of Selectmen	Ongoing
Consider measures to manage pesticide and fertilizer use throughout the island (See also Marine Resources section)	Board of Selectmen	Immediate

v. DATA ANALYSIS

a. WATERSHED CHARACTERISTICS

DRAINAGE DIVIDES

Watershed characteristics like size, topography and slope, drainage density, land cover, geology, and soils are all factors that affect surface runoff processes and groundwater infiltration. The boundary of Swan's Island is a single watershed due to being surrounded by the ocean. However, Swan's Island divides into seven different catchment areas that function as smaller watersheds.

TOPOGRAPHY & LAND COVER

Swan's Island landscape is relatively flat with some hills or high points that experience low relief. The highest point of elevation from sea level is 241 feet at Goose Pond Mountain.

Roughly 80% or more of Swan's Island is undeveloped. The areas of undeveloped land are either forested, wetlands, or shoreline. There are approximately 17 miles of public roadways on Swan's Island, and several roads are gravel.

Roadways, parking lots, walkways, and roofs are examples of impervious surfaces that inhibit water infiltration processes by increasing the rate and volume of surface runoff flowing into nearby water bodies.

The amount of natural land cover and the number of impervious surfaces affect a watershed's drainage network. Swan's Island has not experienced any extensive urbanization, and therefore surface runoff patterns have not become significantly influenced by development.

GEOLOGY

Surficial geology of Swan's Island includes:

- Till (t): Mixture of sand, silt, clay, and stones deposited directly by glacial ice. May include boulders. Many places may contain beds of variably washed and stratified sediments.
- Emerged Beach Deposits (eb): Sand and gravel deposits formed by wave erosion of till or other materials during the late-glacial marine submergence of Maine.
- Bedrock geology of Swan's Island includes:
    - D1: Intrusive, igneous granite from the Silurian period of the Paleozoic era.
    - DSca: Stratified, marine sandstone and slate from the Silurian-Devonian period of the Paleozoic era.

SOIL TYPES

Table 1. Soil Types of Swan's Island (2020)				
Soil Type:	**% of Total Area:**	**Profile Composition:**	**Slope (%):**	**Drainage:**
(SfC) Schoodic-Rock outcrop complex	37.5	Decomposed plant material, very gravelly fine sandy loam, bedrock	0-15	Excessively drained
(NaB) Naskeag-Schoodic complex	31.8	Very stony (decomposed plant material, gravelly loamy sand, bedrock)	0-8	Moderately well drained
(SfE) Schoodic-Rock outcrop complex	14.5	Decomposed plant material, very gravelly fine sandy loam, bedrock	15-65	Excessively drained
(Ws) Wonsqueak and Bucksport mucks	7.1	Muck, silt loam	0-2	Very poorly drained
(HcC) Hermon-Colton-Rock outcrop complex	5.6	Very stony (gravelly sandy loam, extremely gravelly sand)	3-15	Excessively drained
(LuC) Lyman-Tunbridge complex	1.8	Very stony (decomposed plant material, fine sandy loam, bedrock)	0-15	Well drained
(SdB) Scantic-Lamoine complex	0.5	Very stony (silt loam, silty clay loam, silty clay	0.8	Poorly drained
(SrB) Sheepscot-Rock outcrop complex	0.5	Sandy loam, very gravelly loamy sand, coarse sand, bedrock	0-8	Well drained
(Go) Fort Knox, Todds Point, Gouldsboro soils	0.4	Peat, mucky peat, mucky silt loam	0-2	Very poorly drained
(HmB) Hermon and Monadnock soils	0.3	Fine sandy loam, very gravelly sandy loam, very gravelly coarse sand	3-8	Well drained
Source: USDA National Cooperative Soil Survey				

b. SURFACE WATER BODIES

STREAMS

There are 38 freshwater streams identified on Swan's Island. The channel widths of these streams are fairly narrow, and some sections of a stream may run dry during the year. Only five to six streams on Swan's Island do not have an outlet that extends to the ocean.

Maine's Department of Environmental Protection classifies Swan's Island streams as Class B. Class B streams are defined as "general-purpose water and are managed to attain good water quality. Any discharges shall not cause adverse impact to aquatic life in that the receiving waters shall be of sufficient quality to support all indigenous aquatic species, without detrimental changes to the biological community."

LAKES & PONDS

No lakes are present. However, there are roughly 11 ponds on Swan's Island. Some of these include the Otter Ponds, Quarry Pond, Goose Pond, Lily Pond, Mallie's Pond, and Stockbridge Pond.

FLOODPLAINS

A floodplain is an area of low-lying land adjacent to a body of water that experiences periodic flooding. Floodplains provide essential habitats for wildlife while also improving water quality and protecting human communities.

The marsh at Irish Point and the lowlands surrounding the Otter Ponds are specific examples of floodplains on Swan's Island. Coastal floodplains include marshes, beaches, bays, tidal flats, and estuaries–all of which are present on the island.

FLOOD HAZARD AREAS

Swan's Island participates in the National Flood Insurance Program under the Federal Emergency Management Agency (FEMA).

The national program has identified and mapped flood hazard areas on Swan's Island. The town requires any developmental activities in the designated flood hazard areas to undergo the "Flood Hazard Development Permit" system and review procedure. All development in these areas must meet specific standards to withstand flooding to minimize potential damage or loss. Minimizing potential damage or loss from flooding events can help protect natural resources like water supply and water quality from contamination.

See the 'Swan's Island Floodplain Insurance Ordinance' for more information.

c. GROUNDWATER

AQUIFERS

An aquifer is a water-bearing geologic formation capable of yielding a usable amount of groundwater to a well. Aquifers in Maine are either sand and gravel or bedrock. Sand and gravel aquifers are significant resources of groundwater due to their porosity and permeability properties.

The Maine Geological Survey has identified and mapped the significant sand and gravel aquifers in the state, and there are none located on Swan's Island.

Swan's Island is underlain primarily with bedrock composed of granite. This bedrock type exhibits poor groundwater storage qualities, as there are few fractures to store and transport freshwater, and to serve as recharge areas. The island's existing water recharge areas are, therefore, vital to maintaining water supply on the island.

RECHARGE & DISCHARGE AREAS

Groundwater recharge is the process when surface water moves downward to replenish groundwater supplies. Groundwater discharge is the process when underground water storage moves upward into surface water to balance the water table or maintain water chemistry.

In Maine, groundwater supplies are recharged in the spring by increased runoff from melting snow and rain. Groundwater supplies decline in the summer and fall due to a lack of precipitation, warmer temperatures, and increased evaporation and transpiration.

The 1994 Swan's Island Comprehensive Plan identified groundwater recharge areas within the interior parts of the island that include most of the forested wetlands, Stockbridge Pond, Lily Pond, Goose Pond, the Otter Ponds, and the streams that extend from those ponds.

DRINKING WATER SUPPLY

Swan's Island water supply comes from wells drilled into the bedrock. Bedrock wells supply from fractures in the rock that fill with water. A well's safe yield is the rate that water pumps out at the same time it replenishes. Keeping water use at or below the safe yield will ensure the well will not run dry.

Maine's Department of Health and Human Services recommends at least a 100-foot separation between a private well and a private septic system, and as far away from property lines as possible so that nearby septic systems or fuel tanks cannot contaminate. Wells should be as far as possible from oil and fuel storage, parking areas, and sheds with equipment and chemicals. A minimum of 10 feet of well-casing driven into bedrock is recommended in Maine to protect shallow groundwater from contamination.

GROUNDWATER ISSUES

Groundwater resources on Swan's Island are limited. Soils and bedrock types are influential in determining conditions for water supply. With the island's thin soil cover and the often dense and impermeable granite bedrock, groundwater is less available; and available water supplies are to become more susceptible to contamination. The 1994 Swan's Island Comprehensive Plan identified water shortage areas in the Minturn Loop area, the eastern side of Hockamock Head, and in the North of the island. Several homes on Swan's Island have wells that go dry during the summer months. The typical flow rates of existing wells in the 'water shortage areas' are between 3/4 and 1-1/4 gallons per minute.

Saltwater intrusion is another concern for Swan's Island and in many coastal communities where private wells and, or, development cluster along the shoreline. Freshwater supplies reduce from water usage allowing the saltwater interface to rise and thereby contaminate the deeper drilled wells. Saltwater intrusion can affect one well or multiple wells in an aquifer.

Contamination of nitrate leaching from septic systems can rapidly become a more serious problem of pollution. Additionally, pesticides, hydrocarbons (i.e. gasoline, oil, natural gas, kerosene, fuel oil), or other toxic chemicals carried by surface runoff will infiltrate the ground and pollute water supplies.

The quality of groundwater can naturally vary depending on the location's environmental characteristics. Heavy metals like arsenic, cadmium, lead, radium, copper, and uranium can pose serious health issues. Radon (an odorless gas) is formed by the natural decay of uranium, which is prevalently found in granite bedrock and can contaminate groundwater supplies. The concentration of radon varies depending on the level of radioactive materials in the bedrock, soil moisture content, groundwater circulation, and atmospheric pressure.

d. EXISTING PROTECTION MEASURES

SHORELAND ZONING ORDINANCE

The Swan's Island Shoreland Zoning Ordinance was first enacted in 1975 to serve many purposes. This ordinance works to maintain the character of the island's landscape and shoreline, assure the continuance of a viable fishery, prevent and control water pollution, protect spawning grounds, aquatic life, birds, other wildlife and their habitats, conserve limited natural resources and significant natural areas, and protect freshwater and coastal wetlands.

The ordinance applies to all land areas of Swan's Island within 250 feet of the normal high-water line of any great pond, coastal of freshwater wetland, saltwater body, or within 75 feet of any stream. The ordinance applies to any structure built on, over, or abutting a dock, wharf, pier, or other structure that extends beyond the shoreline boundary of a water body or wetland.

FLOODPLAIN INSURANCE ORDINANCE

Certain areas of Swan's Island are subject to periodic flooding, so therefore the town has chosen to participate in the National Flood Insurance Program under the Federal Emergency Management Agency (FEMA) and agrees to comply with the requirements of the National Flood Insurance Act of 1968. The Swan's Island Floodplain Insurance Ordinance was adopted in 2003 to establish a review procedure and permit system for any construction or development within a designated flood hazard area. All proposed development is reviewed by the Code Enforcement Officer and must meet specific standards to withstand flooding in an effort to minimize potential damage or loss. This ordinance helps to protect water resources from contamination. FEMA's National Flood Hazard Layer (NFHL) Viewer map is an interactive mapping tool to view the National Flood Hazard Layer on a local level (https://msc.fema.gov/portal/home).

SUBDIVISION ORDINANCE

The Swan's Island Subdivision Ordinance was enacted in 1971. All proposed subdivisions must conform to the ordinance's standards with the purpose of assuring the comfort, convenience, safety, health, and welfare of the people, to protect the environment, and to promote the development of an economically sound and stable community.

There is an application procedure, preliminary plan procedure, and final plan procedure that must be approved by the Municipal Planning Board. Requirements account for land not suitable for development, lot sizes and dimensions, utilities. Design standards consider existing monuments, parking, roads, soil information, water supply, sewage disposal, and surface drainage properties.

HAZARDOUS WASTE ORDINANCE

Storage or disposal of hazardous wastes designated under the U.S. Clean Water Act, Section 311, Public Law 92-500 and, or, the disposal of radioactive waste materials defined by 38 MRSA, Section 361-D.I.B. is prohibited on Swan's Island. Any request for an exception must be submitted in writing to the Selectmen and brought to the town of Swan's Island, acting as the body public, to be voted on by all voters present in a Town Meeting.

The purpose of this ordinance is to protect the health, safety, and general community well-being, and to protect the natural resources of the town.

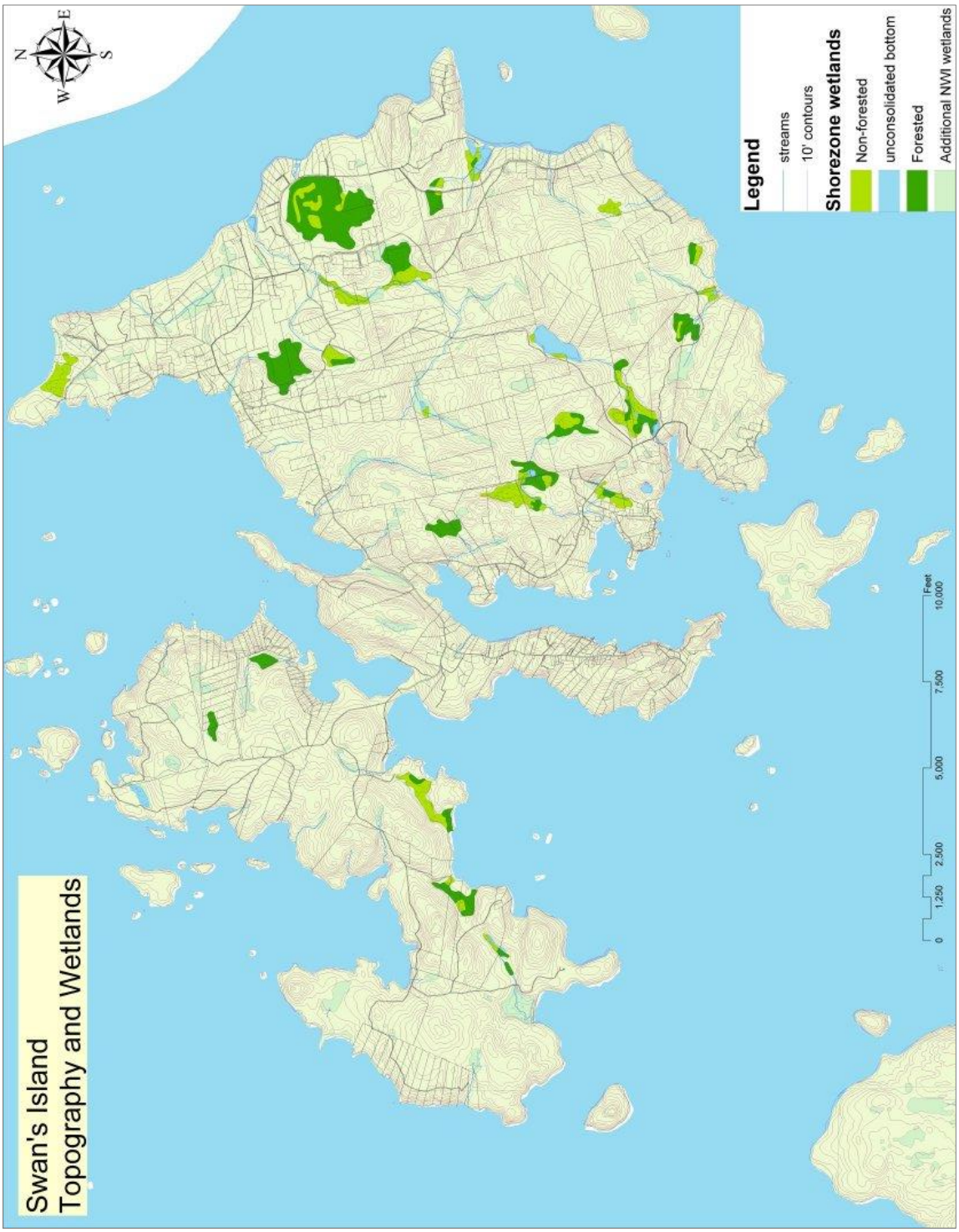
e. THREATS TO WATER RESOURCES

In general, the smaller the island, the less development the island can physically support. Although many factors enter in, size is the limiting factor from both wildlife protection as well as the physical resource protection point of view. Increasing development on islands risk depleting the water table and thus groundwater supplies; issues of saltwater intrusion become more probable as well.

Failed septic systems that leach discharge into the soil risk contaminating surface waters and groundwater, just like pollution resulting from certain industrial activities, landfills, junkyards, and overboard discharge sites.

Pollution from many diffuse sources like pesticide and fertilizer applications, hazardous spills, and the breakdown of toxic chemicals from plastics (e.g. dioxin, POPs, PBDEs, PCBs, PAHs) also contaminate water resources by directly entering waterways or seeping into groundwater resources.

vi. MAPS


Swan's Island
Topography and Wetlands
Legend
streams
10' contours
Shorezone wetlands
Non-forested
unconsolidated bottom
Forested
Additional NWI wetlands
0
1,250
2,500
5,000
7,500
10,000
Feet
N
E
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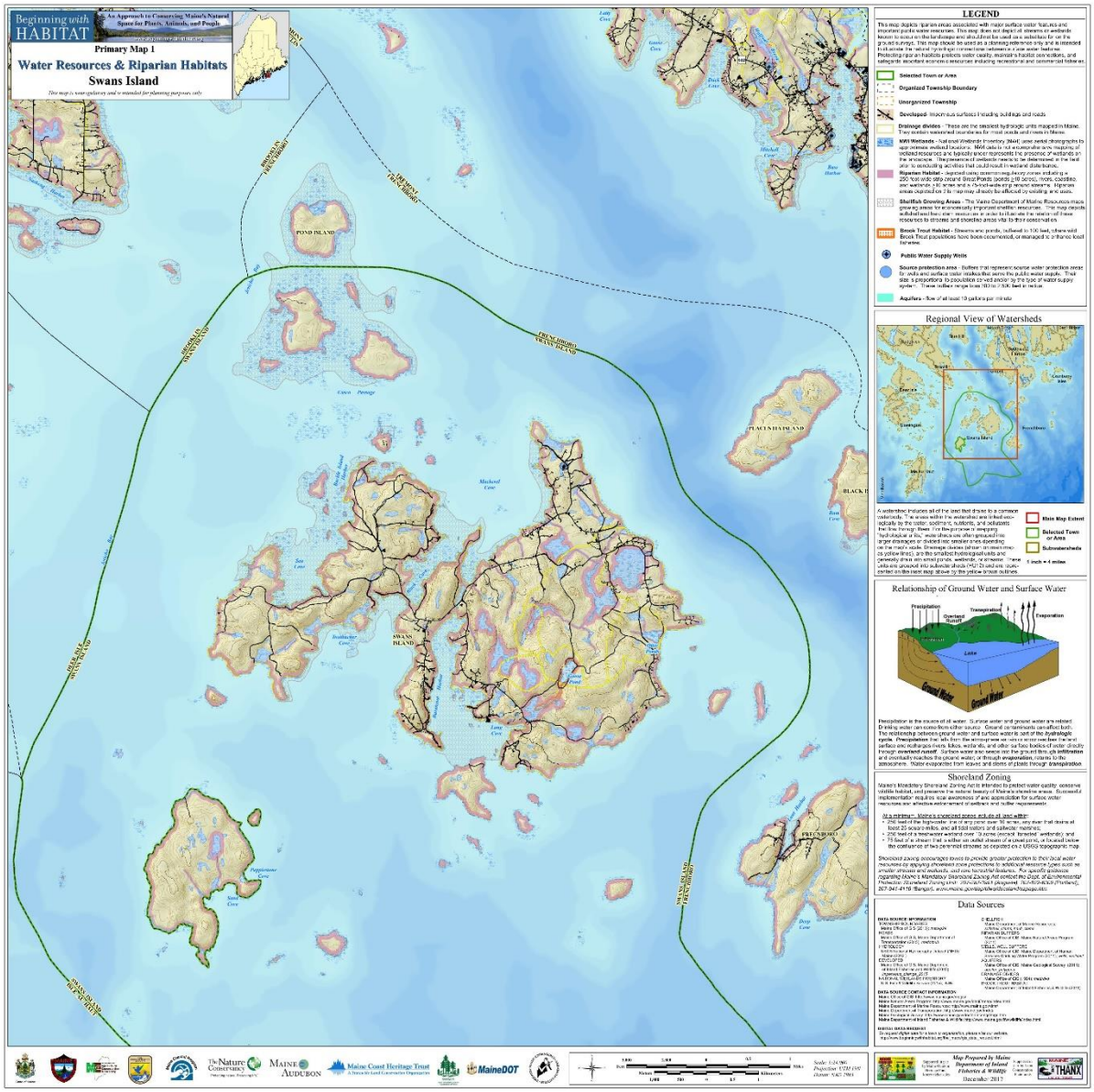
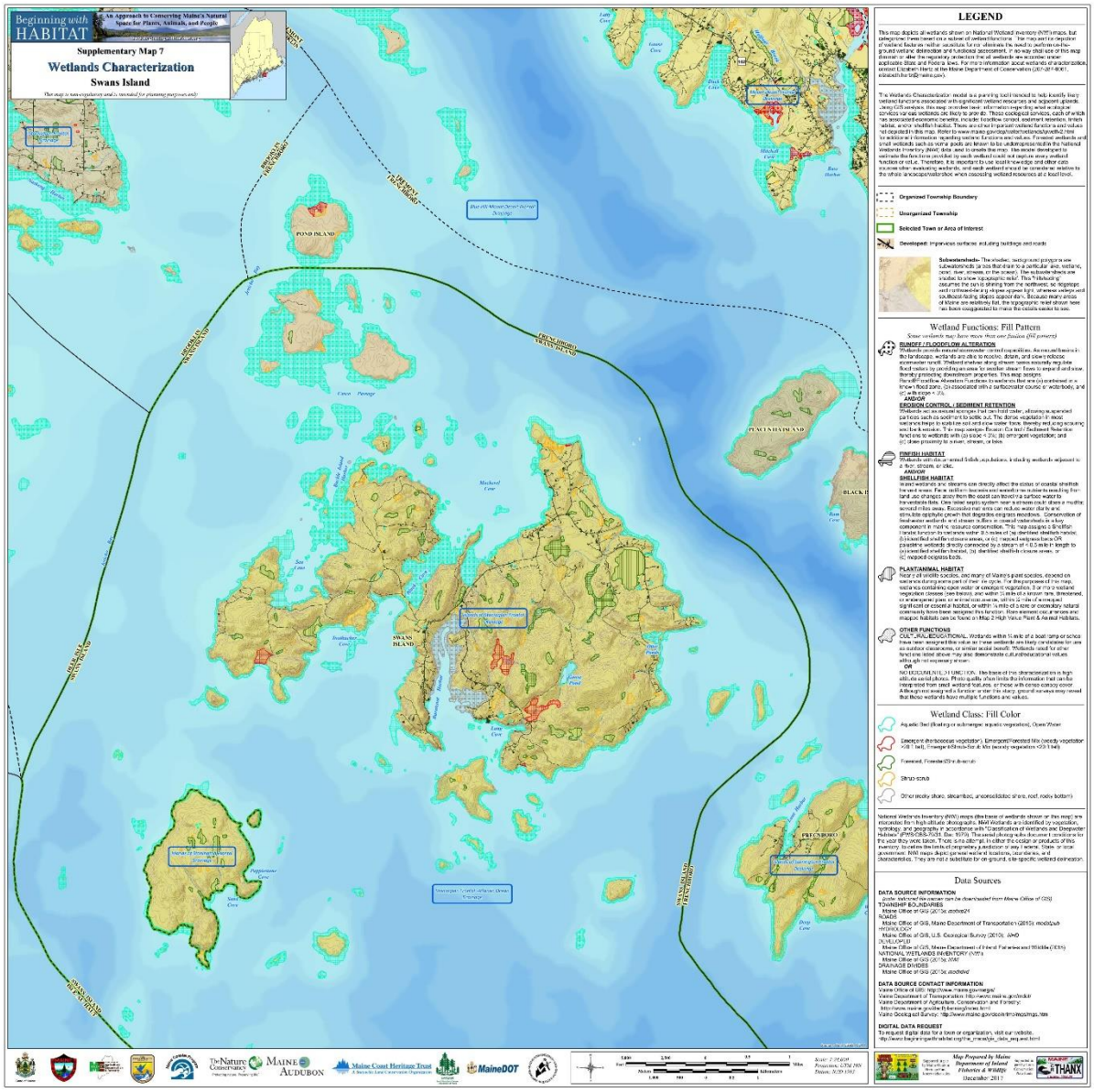

Beginning with HABITAT
An Approach to Conserving Maine's Natural Space for Plants, Animals, and People
Primary Map 1
Water Resources & Riparian Habitats
Swans Island
LEGEND
Selected Town or Area
Organized Township Boundary
Unorganized Township
Regional View of Watersheds
Relationship of Ground Water and Surface Water
Shoreland Zoning
Data Sources
POND ISLAND
SWANS ISLAND
PLACENTIA ISLAND
FRENCHBORO
Maine Coast Heritage Trust
MaineDOT
Map Prepared by Maine Department of Inland Fisheries & Wildlife
December 2017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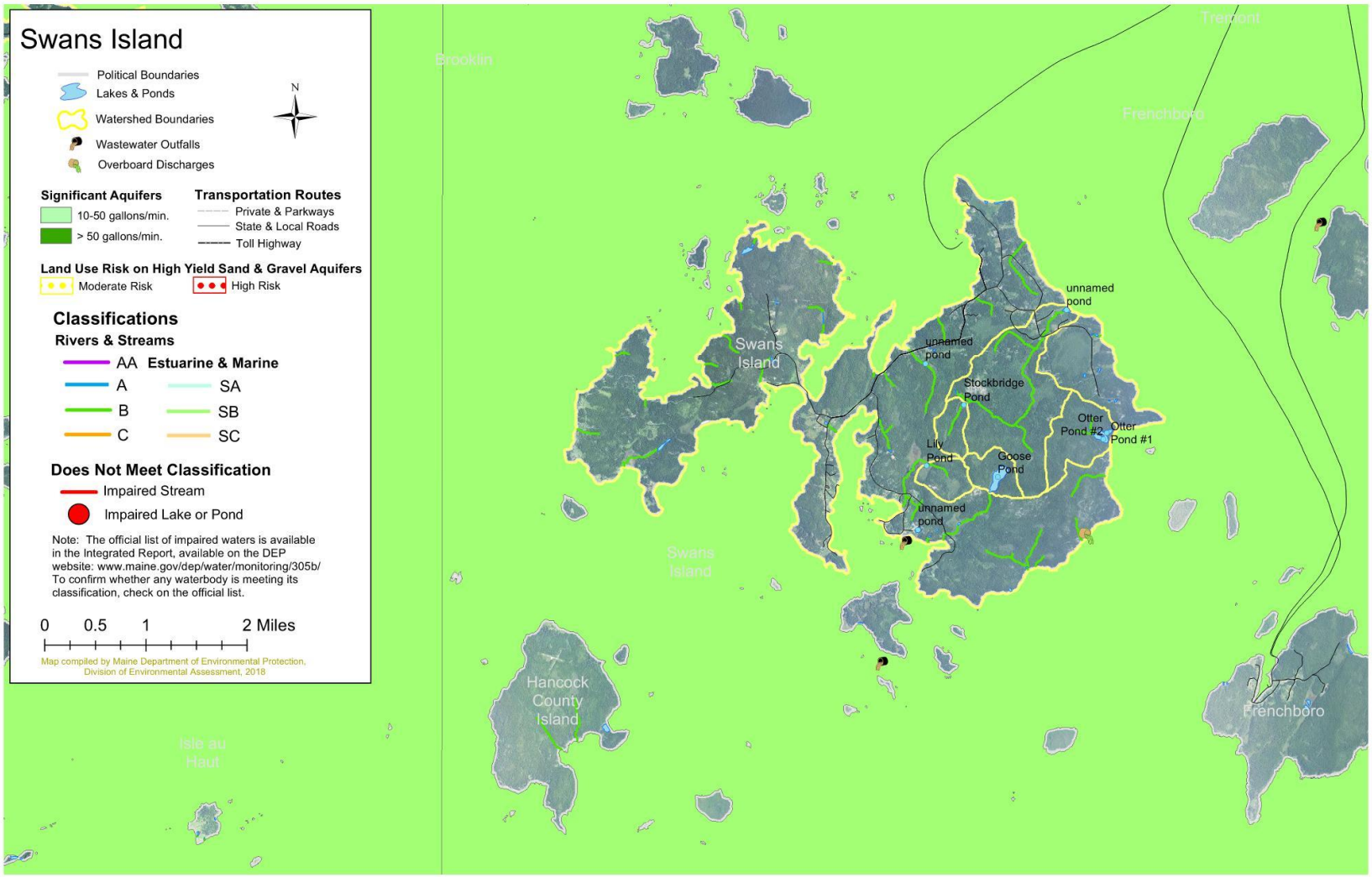
Supplementary Map 7
Wetlands Characterization
Swans Island
LEGEND
Wetland Functions: Fill Pattern
Wetland Class: Fill Color
Data Sources
POND ISLAND
PLACER HAYSLAND
SWANS ISLAND
PRESCOTT
Maine Audubon
Maine Coast Heritage Trust
MaineDOT


Swans Island
Political Boundaries
Lakes & Ponds
Watershed Boundaries
Wastewater Outfalls
Overboard Discharges
N
Significant Aquifers
10-50 gallons/min.
> 50 gallons/min.
Transportation Routes
Private & Parkways
State & Local Roads
Toll Highway
Land Use Risk on High Yield Sand & Gravel Aquifers
Moderate Risk
High Risk
Classifications
Rivers & Streams
AA
A
B
C
Estuarine & Marine
SA
SB
SC
Does Not Meet Classification
Impaired Stream
Impaired Lake or Pond
Note: The official list of impaired waters is available in the Integrated Report, available on the DEP website: www.maine.gov/dep/water/monitoring/305b/ To confirm whether any waterbody is meeting its classification, check on the official list.
0 0.5 1 2 Miles
Map compiled by Maine Department of Environmental Protection, Division of Environmental Assessment, 2018
Brooklin
Trenton
Frenchboro
Swans Island
unnamed pond
unnamed pond
Stockbridge Pond
Otter Pond #2
Otter Pond #1
Lily Pond
Goose Pond
unnamed pond
Swans Island
Hancock County Island
Isle au Haut
Frenchboro

AGRICULTURAL & FOREST RESOURCES

i. KEY FINDINGS

ii. STATE GOALS

iii. OBJECTIVES

iv. RECOMMENDED STRATEGIES & ACTIONS

v. DATA ANALYSIS

   a. AGRICULTURAL RESOURCES

   b. FOREST RESOURCES

   c. EXISTING REGULATIONS

   d. THREATS TO AGRICULTURAL & FOREST RESOURCES

vi. MAPS

i. KEY FINDINGS

- *There are no significant commercial agricultural farms on Swans Island.* However, there are several backyard farms. The State has identified two small areas of the island where soils characteristics would be classified as "farmland of statewide importance".
- *Roughly 70% of Swan's Island is forested.* Over time, abandoned development, forest fires, and timber harvesting have combined with forest succession to produce diverse forests of mixed age. Most tree cutting is done to harvest firewood, mitigate the threat of blowdowns or fire, and to maintain views or clear walking trails. There are 23 individual parcels of land (817 total acres) between six property owners that participate in the tree growth tax law on Swan's Island.

ii. STATE GOALS

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

iii. OBJECTIVES

1. Healthy forests provide habitat, buffering, and local wood supply
2. Forest resources are managed and minimize fire danger
3. Local regulations maintain ability to grow food and protect environmental quality

iv. RECOMMENDED STRATEGIES & ACTIONS

Agriculture and Forestry	Responsibility	Timeline
Encourage residents to use appropriate forestry and agricultural best management practices regarding pesticide and fertilizer use, erosion control, and phosphorus loading	Board of Selectmen	Ongoing
Keep an open dialog with large lot property owners regarding appropriate forest management to mitigate forest fire potential and assist in monitoring areas of concern	Board of Selectmen/Fire Department	Ongoing
Support conservation of remaining large, unfragmented forests blocks	Board of Selectmen	Ongoing

v. DATA ANALYSIS

a. AGRICULTURAL RESOURCES

SOIL TYPES

About 90% of the soils on Swan's Island excessively drain of water while the other 10% of soils drain poorly. Soils on Swan's Island are generally very stony, sandy, and/or gravelly. The U.S. Department of Agriculture categorizes these soil types as not being prime farmland soil. This aspect has been a limiting factor for agricultural activity on the island. Agricultural activities remain minimal with no operational farms on the Island.

FARMLANDS

The U.S. Department of Agriculture defines 'prime farmland' as *"land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is also available for these uses. It has the soil quality, growing season, and moisture supply needed to produce economically sustained high yields of crops when treated and managed according to acceptable farming methods, including water management."*

While there are no areas on Swan's Island defined as prime farmland, there are two sites identified as 'farmland of statewide importance' shown on the map at the end of this section.

There are currently no commercial farms on Swan's Island, although there are numerous privately-owned gardens maintained by residents, as well as a small community garden at the public school cared for by the afterschool garden club.

b. FOREST RESOURCES

FORESTLANDS

Roughly 70% of Swan's Island is forested. Broadleaf deciduous trees like maple, oak, elm, and beech, along with northern coniferous trees like spruce, firs, pines, and larch, are on the island.

Abandoned farmland, forest fires, and timber harvesting, combined with the process of forest succession, produce diverse forests of mixed age. Most forest stands are thick and blowdowns are frequent. Majority of tree cutting is caused by firewood harvest, mitigating the threat of blowdowns or fire, protecting views, and clearing walking trails.

The large percentage of undeveloped forested land on Swan's Island contributes to the overall water quality, as well as the availability of undisturbed wildlife habitat.

TIMBER HARVESTING

Roughly 225 acres of timber were harvested on Swans Island from 1994 to 2013. The majority of the timber harvesting on Swans Island has been as part of a "selective harvest". Selective harvests are often prescribed as part of a comprehensive forest management plan.

Data is reported to the Maine State Forest Service when three or more landowners disclose reports of timber harvesting. After 2013 there is a lack of information for timber harvests on Swan's Island. Table 1 lists the most up-to-date timber harvesting information available for Swan's Island.

Table 1. Timber Harvest Information for Swan's Island (1994-2013)

Year:	Selection Harvest (acres):	Shelterwood Harvest (acres):	Clear-cut Harvest (acres):	Total Harvest (acres):	Change of Land Use (acres):	# of Active Notifications:
1994-2000	199	0	0	199	0	20
2001-2005	24	0	0	24	0	9
2006-2013	2	0	0	2	0	5
Total	225	0	0	225	0	34
Average	75	0	0	75	0	11

Source: Maine State Forest Service Confidential Year End Landowner Reports.
To protect confidential landowner information, data is reported only when three or more landowner reports have reported harvesting in the town.

c. EXISTING REGULATIONS

CAMPING AND FIRES ORDINANCE

The Swan's Island Camping and Fires Ordinance, enacted in 2006, states that no camping is allowed on town-owned or private property without the written permission of the landowner. Additionally, no open fires without a permit are allowed on Swan's Island. Outdoor gas grills and charcoal fires are allowed in approved fire rings. The Fire Chief may place a temporary ban on all outdoor fires if weather conditions warrant.

FARMLAND PROPERTY TAX LAW

The State of Maine offers a lower property tax rate on farmlands to encourage farmland owners to maintain and improve land used for farming, agricultural, or horticultural activities. Enrollment in this program is voluntary and done by application with the local tax assessor. Each parcel of land has to be at least five contiguous acres, and the landowner must meet specific qualifications to participate in the program. The town sets the property value based upon the value of the land as farmland only. Properties are enrolled in the program permanently; however, landowners may withdraw from the program but with a penalty. In 2020 there were 60 acres (1 parcel) enrolled in the Farmland Property Tax Program.

OPEN SPACE PROPERTY TAX LAW

The State of Maine offers a lower property tax rate on open, undeveloped land to prevent or restrict its use from development by conserving scenic resources, enhancing public recreation, promoting game management or preserving wildlife or wildlife habitat. Enrollment in this program is voluntary and done by application with the local tax assessor. In 2020 there were a total of 598.13 acres (6 parcels) owned by the Maine Coast Heritage Trust enrolled in the Open Space Tax Property.

TREE GROWTH PROPERTY TAX LAW

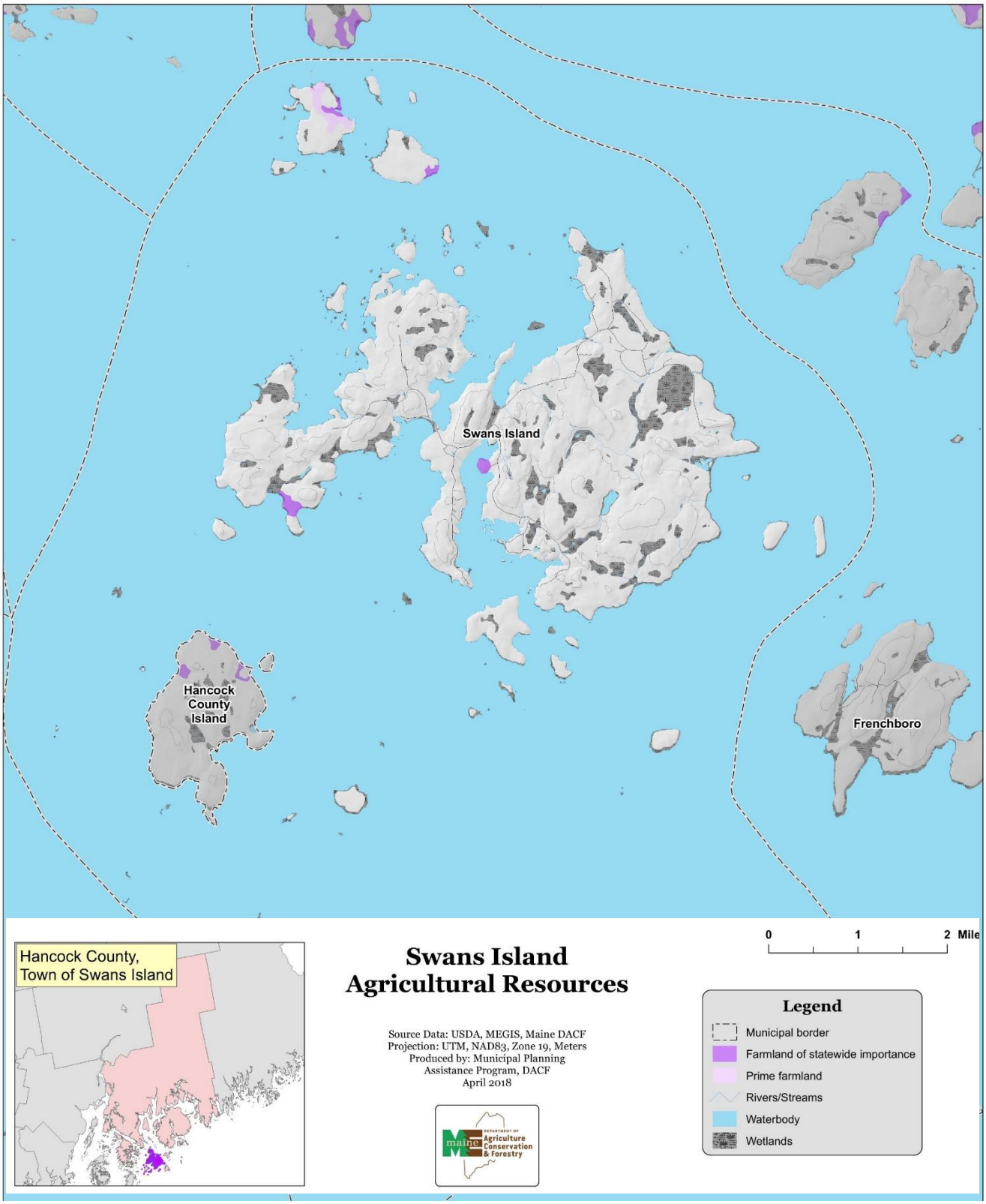
Similar to the Farmland Property Tax Law, the Tree Growth Property Tax Law program offers lower property tax rates to encourage forest landowners to retain and improve their forestlands, promote better forest management, and to support the forest products industry in Maine. Enrollment is voluntary, and the landowner must meet specific requirements to participate in the program. A minimum of ten forested acres devoted primarily to growth and harvest of commercial forest products is required. The

State tax assessor determines the 100% valuation per acre for softwood, hardwood, and mixed wood cover types by region each year. Properties are permanently enrolled in this program unless landowners would like to withdraw for a penalty. In 2019, there were 23 parcels of land on Swan's Island enrolled in the Tree Growth tax program, totaling roughly 817 acres between six landowners.

d. THREATS TO AGRICULTURAL & FOREST RESOURCES

Wildfires and blowdowns are the primary threats to agricultural and forest resources on Swan's Island. The Island experiences strong winds and ice storms that can damage forests. Shallow root systems make forested areas even more susceptible to blowdowns. In the event of a wildfire, there is potential for the fire to spread quickly across the landscape due to considerably dense forests, deadwood, and blowdowns. Wildfires are a threat to undeveloped forestland, existing wildlife habitats, and the island's community, considering its small landmass and limited resources. Harmful insects, invasive species, tree diseases, and deforestation due to clear-cutting or other development also pose a threat to the Island's forests.

vi. MAPS


Swans Island
Hancock County Island
Frenchboro
Hancock County, Town of Swans Island
Swans Island Agricultural Resources
Source Data: USDA, MEGIS, Maine DACF
Projection: UTM, NAD83, Zone 19, Meters
Produced by: Municipal Planning Assistance Program, DACF
April 2018
maine Department of Agriculture Conservation & Forestry
0 1 2 Mile
Legend
Municipal border
Farmland of statewide importance
Prime farmland
Rivers/Streams
Waterbody
Wetlands

MARINE RESOURCES

i. KEY FINDINGS

ii. STATE GOALS

iii. OBJECTIVES

iv. RECOMMENDED STRATEGIES & ACTIONS

v. DATA ANALYSIS

   a. EXISTING RESOURCES

   b. MARINE WATER QUALITY

   c. WORMS, SHELLFISH, & COMMERCIAL FISHING

   d. RELATED MARINE EMPLOYMENT

   e. WATER DEPENDENT USES

   f. MARINE ACCESS POINTS

   g. EXISTING PROTECTION MEASURES

vi. MAPS

i. KEY FINDINGS

- Swan's Island is approximately 13 square miles of land and 67 square miles of water. It is surrounded by numerous seabird nesting islands, about 85 acres of eelgrass beds and provides habitat for many shellfish. Most of the Island's shoreline and tidal landscape is characterized by estuarine/marine wetlands.
- The State of Maine classifies Swan's Island as class SB waters (2nd highest classification).
- There is one registered and licensed Overboard Discharge (OBD) site on Swan's Island.
- There are 20 water quality stations on Swan's Island that are monitored by Maine DMR primarily for fecal coliforms.
- Currently, there are three strictly prohibited areas for shellfish harvesting on Swan's Island and four restricted areas for shellfish harvesting that require a special DMR permit.
- Almost 250 acres on Swan's Island are used to harvest blood or sand worms.
- There are 33 Limited Purpose Aquaculture (LPA) licenses on Swan's Island. 21 of those licenses are for oyster farming and 12 for kelp farming.
- One Experimental Aquaculture Lease Application Under Review as of 02/01/2019.
- One Active Aquaculture Lease for Atlantic Salmon, offshore near Scrag Island.
- Lobster landings for Swan's Island (comparing pounds vs. $ value vs. number of licenses) peaked in 2015 and has since been declining even though the number of registered fishing licenses has increased:
    - 2015: 2.7 million pounds lobster for $10.9 million value; and 116 total harvesters licenses issued with at least 75 of those specifically for commercial lobstering.
    - 2018: 2.2 million pounds lobster for $8.4 million value; and 209 total harvesters licenses issued with at least 141 of those specifically for commercial lobstering.
- Dependent use areas on Swan's Island include the two public boat launches located at the ferry terminal and at the Quarry Wharf, as well as the Fisherman's Co-op, Kent's Wharf, and Trafton Wharf.
- There are two harbors (Burnt Coat Harbor and Mackerel Cove). No public docking facilities, no public moorings.
- Swan's Island Conservation Zone is one of only three lobster conservation areas designated in the State.
- There are six specific ordinances/protective measures that may help to conserve marine-related resources: SI lobster conservation zone, shoreland zoning ordinance, subdivision ordinance, floodplain insurance ordinance, shellfish conservation ordinance, hazardous waste ordinance.
- Burnt Coat fishing harbor is already at max capacity and used primarily for traditional lobster fishing.

ii. STATE GOALS

- To protect the State's marine resources industry, ports and harbors from incompatible development and to promote access to the shore for commercial fishermen and the public.
- To promote the maintenance, development, and revitalization of the State's ports and harbors for fishing, transportation and recreation.
- To manage the marine environment and its related resources to preserve and improve the ecological integrity and diversity of marine communities and habitats, to expand our understanding of the productivity of the Gulf of Maine and coastal waters and to enhance the economic value of the State's renewable marine resources.
- To support shoreline management that gives preference to water-dependent uses over other uses, that promotes public access to the shoreline and that considers the cumulative effects of development on coastal resources.
- To discourage growth and new development in coastal areas where, because of coastal storms, flooding, landslides or sea-level rise, it is hazardous to human health and safety.
- To encourage and support cooperative state and municipal management of coastal resources.
- To protect and manage critical habitat and natural areas of state and national significance and maintain the scenic beauty and character of the coast even in areas where development occurs.
- To expand the opportunities for outdoor recreation and to encourage appropriate coastal tourist activities and development.
- To restore and maintain the quality of our fresh, marine and estuarine waters to allow for the broadest possible diversity of public and private uses.
- To restore and maintain coastal air quality to protect the health of citizens and visitors and to protect enjoyment of the natural beauty and maritime characteristics of the Maine coast.

iii. OBJECTIVES

1. Infrastructure to support the working waterfront.
2. A resilient waterfront in the face of sea level rise, including increased storm frequency and intensity trends.
3. A healthy working waterfront supported by adequate commercial access points and related infrastructure.
4. Harbor infrastructure that meets current and future needs.
5. Sufficient mooring space and shoreside facilities for working waterfront uses.
6. Increased physical access opportunities.
7. Important scenic views are identified and protected where feasible.
8. Preserve, protect, maintain and, wherever feasible, improve the quality of the harbor's natural resources.

iv. RECOMMENDED STRATEGIES & ACTIONS

Marine Resources	Responsibility	Timeline
Monitor commercial fishing trends to ensure the Island's facilities continue to support the changing needs of the industry	Board of Selectmen	Ongoing
Evaluate opportunities to improve public access to the waters for recreational boating and enhance the Island's portfolio of waterfront properties or rights of way	Board of Selectmen, Municipal Advisory Committee	Medium Term (3-5 years)
Explore opportunities to provide a boat pump-out in Burnt Coat Harbor	Board of Selectmen	Medium Term (3-5 years)
Explore opportunities to provide fresh water hook up at waterfront facilities as appropriate	Board of Selectmen	Medium Term (3-5 years)
Consider anticipated sea-level rise and storm surges during the useful life of all capital investment projects	Board of Selectmen	Ongoing
Support investments in Quarry Wharf infrastructure to address age related repairs and improve functionality of float system, parking, and access	Board of Selectmen	Short Term (1-2 years)
Maximize benefits of the Quarry Wharf property and surrounding Town owned properties (including Quarry Pond) to the entire town through: - Development of a site level master plan focused on efficient layout, circulation, and use of spaces - Investments in maintenance to existing structures and new development to support growth opportunities as appropriate - A management plan to identify potential uses, management objectives, and processes for site use.	Board of Selectmen	Immediate / Ongoing
Improve docking space in front of Salmon House	Board of Selectmen	Long Term (5+ years)

Explore opportunities to better accommodate overnight parking and long-term parking for harbor boaters; investigate fees and revise parking policies as necessary	Board of Selectmen, Municipal Advisory Committee	Short Term (1-2 years)
Continually monitor water quality of the Burnt Coat Harbor to ensure adequate support of marine activities includes commercial fishing and aquaculture sites	Board of Selectmen	Ongoing
Protect marine water quality through enhanced rules and education on the effects of point sources of pollution and overboard discharge of sewage waste from residential or commercial locations, or vessels in the harbor without holding tanks	Board of Selectmen	Ongoing
Identify opportunities for a public landing facility in Mackerel Cove area	Board of Selectmen	Medium Term (3-5 years)
Explore public-private partnerships to provide needed infrastructure and services to support the Island's aquaculture industry	Board of Selectmen, Municipal Advisory Committee	Ongoing
Explore tools to help monitor and protect, as needed, the environmental capacity of the Island's waters and flats	Board of Selectmen	Ongoing

v. DATA ANALYSIS
a. EXISTING RESOURCES

Swan's Island is an offshore island in the Atlantic Ocean with a total area of approximately 80 square miles. Roughly 13 square miles is landmass, and the rest is water.

Swan's Island encompasses at least 26 seabird nesting islands. Nesting sites in closest proximity to Swan's Island include Green Island, Crow Island, Scrag Island, Gooseberry Island, Dry Monkey Edge, Halibut Rocks, Three Bush Island, Johns Island, Brimstone Island, Heron Island, and Mason Ledge.

Shellfish habitats include but are not limited to lobster, crab, shrimp, blue mussel, clams, scallops, and oysters. Eelgrass beds inhabit many portions of shoreline surrounding the island. In 2010, about 86 acres of eelgrass beds were identified and mapped by the Maine Department of Marine Resources within Swan's Island.

U.S. Fish and Wildlife identify four types of wetlands on Swan's Island: estuarine and marine, freshwater emergent, freshwater forested, and freshwater pond.

The 'estuarine and marine' wetland type is the most prevalent wetland type found on Swan's Island, located near or along the shoreline.

Estuarine wetlands are a mix of freshwater with saltwater environments and characterize habitats for salt marshes, mudflats, or tidal channels. Marine wetlands represent the coastline extending to the open ocean. Both of these wetland types provide specific habitat that is important to an enormous number of plant and animal species.

Maine established a classification system to maintain water quality and direct management for the state's estuarine and marine waters. There are three classes defined in the legislature as SA, SB, and SC. Swan's Island is class SB waters. Class SB waters are the second highest classification according to the state, meaning they are suitable for the designated uses of recreation in and on the water, fishing, aquaculture, propagation and harvesting of shellfish, industrial process and cooling water supply, hydroelectric power generation, navigation and as habitat for fish and other estuarine and marine life.

b. MARINE WATER QUALITY

SHELLFISH HARVEST AREAS

Maine's Department of Marine Resources (DMR) collects water quality samples at approximately 1,400 stations along the coast. At least 30 samples are collected from each water quality station. Samples are analyzed for fecal coliforms to determine if the water quality is acceptable for harvesting shellfish.

There are currently 20 water quality stations on Swan's Island monitored by the DMR. Samples from four stations on Swan's Island have reported high levels of fecal coliform resulting in areas closed to shellfish harvesting.

As of April 12, 2019, there are four restricted shellfish harvest areas due to pollution, and it is unlawful to harvest without a special DMR permit. These restricted areas are near Toothacher Cove, Mill Pond, Cottles Cove, and Kevin's Cove. Additionally, there are three prohibited shellfish harvest areas due to pollution, and it is unlawful to harvest at any time. These prohibited areas are near Burnt Coat Harbor, Red Point, and Trafton Wharf.

BIO-TOXIC ALGAL BLOOMS

Closures of shellfish harvest areas due to biotoxins differ from closures of bacterial pollution caused by fecal coliforms. Certain types of marine algae produce biotoxins. The overgrowth of these harmful algal blooms can occur between April and October in Maine. The state regularly monitors marine waters for biotoxins, and with high levels, may periodically close shellfish harvest areas. Red tide, diarrhetic, or amnesic shellfish poisoning are illnesses related to bio-toxic algal blooms.

POINT SOURCE POLLUTION

Point source pollution represents any single source of pollution that is identifiable. In other words, pollution can be traced back to where it occurred. Overboard discharge of sewage waste from residential or commercial locations, or vessels in the harbor without holding tanks, is an example of point source pollution.

Maine's Overboard Discharge (OBD) Program is responsible for regulating waste generated at residential or commercial properties that discharge to any stream, river, or the ocean. Currently, an overboard discharge site on the Red Point Road is licensed.

NON-POINT SOURCE POLLUTION

Non-point source pollution results from many diffuse sources that cannot be easily traced. Contamination from septic systems, hazardous spills, lawn fertilizers, and pesticides transported by surface runoff (i.e. rain or melting snow) all contribute to the level of pollution, which reflects the quality of marine waters and habitats and the ability to rely on those resources in the future.

c. WORMS, SHELLFISH, & COMMERCIAL FISHING

WORMS

Approximately 75 acres of shoreline surrounding Swan's Island are habitat grounds for bloodworms, while 174 acres are habitat for sandworms.

AQUACULTURE

Currently, there are 33 Limited Purpose Aquaculture (LPA) sites licensed on Swan's Island for oyster and kelp farming.

An active aquaculture lease for about three acres in Burnt Coat Harbor is licensed primarily for growing oysters, and another 16 acres in Toothacher Bay is licensed for salmon aquaculture.

SOFTSHELL CLAMS

Swan's Island saw a high number of softshell clam harvesters in 2010 with 83 harvesters. Since then the number of harvesters has been declining with a low in 2018 of 12 harvesters.

Figure 1. Total Clam Harvesters by Year
Swan's Island (2008-2019)
Source: Maine Dept. of Marine Resources

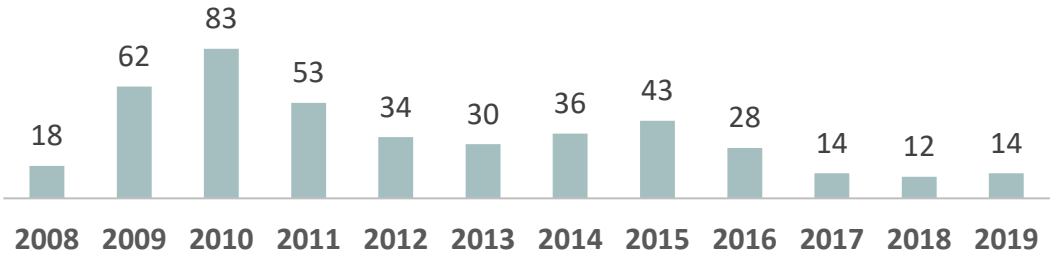
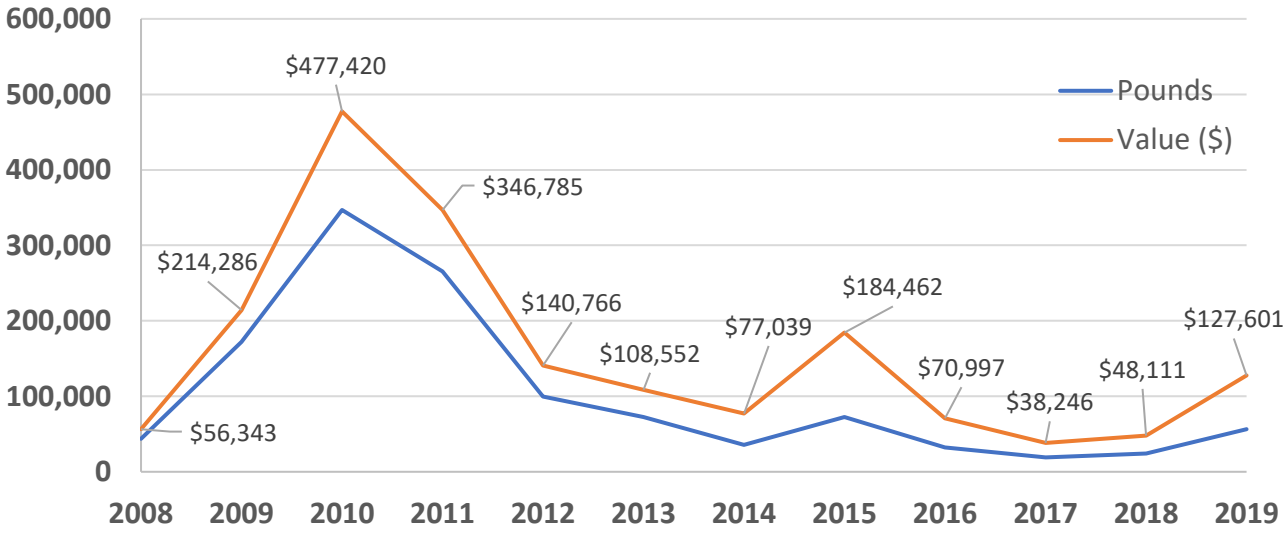


Figure 2. illustrates a correlating trend on Swan's Island from 2008 to 2019 between the numbers of softshell clams harvested in pounds to the total value.

Figure 2. Total Weight and Value of Clams Harvested
Swan's Island (2008-2019)
Source: Maine Dept. of Marine Resources



COMMERICIAL FISHING

While various marine species are harvested from Swan's Island and nearby waters, catching lobsters is the most popular form of commercial fishing. Similar to coastal and island communities across the state of Maine, the lobstering industry has become the backbone of the island's economy, and it remains the most viable part of the working waterfront today.

The number of Swan's Island lobster harvesters has remained consistent from 2008 to 2019.

The most profitable years for the lobstering industry on Swan's Island were in 2015 ($10.94 million) and 2016 ($10.82 million).

Table 1. Lobster Landings and Total Harvesters: Swan's Island (2008-2019)

Year:	Pounds (million):	Value ($ million):	Total Harvesters:
2008	1.46	5.47	93
2009	2.11	6.28	128
2010	2.30	7.78	96
2011	2.18	7.18	92
2012	3.03	8.12	97
2013	2.75	7.93	99
2014	2.68	9.68	95
2015	2.70	10.94	99
2016	2.72	10.82	95
2017	2.45	9.09	108
2018	2.20	8.40	106
2019	1.94	8.71	94

Source: Maine Dept. of Marine Resources

Figure 3. shows pounds of lobster (in millions) caught on Swan's Island by year from 2008 to 2019. The catch peaked in 2012 and has slowly been declining since.

Figure 3. Lobster Landings by Weight
Swan's Island (2008-2019)
Source: Maine Dept. of Marine Resources

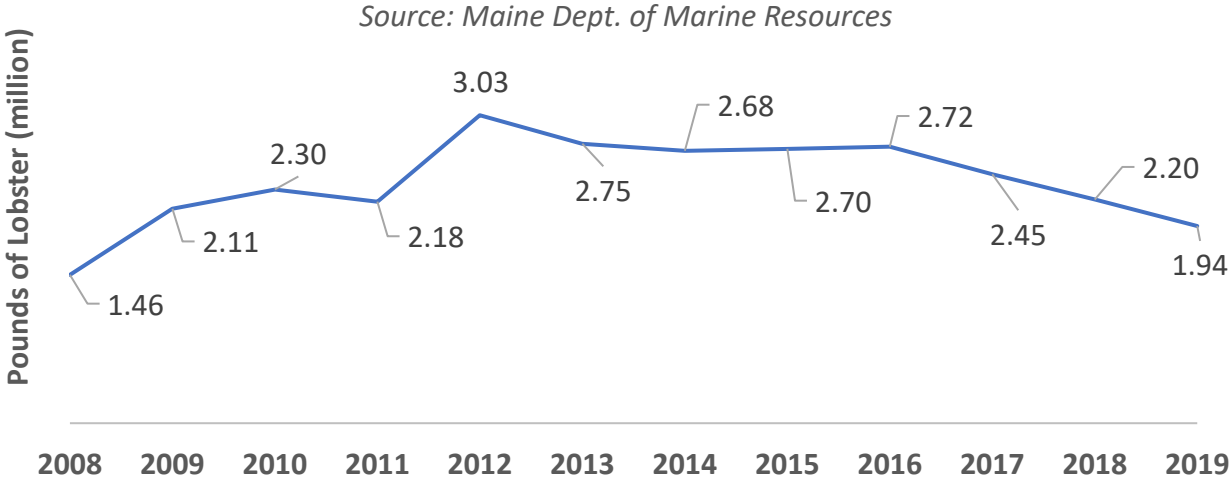
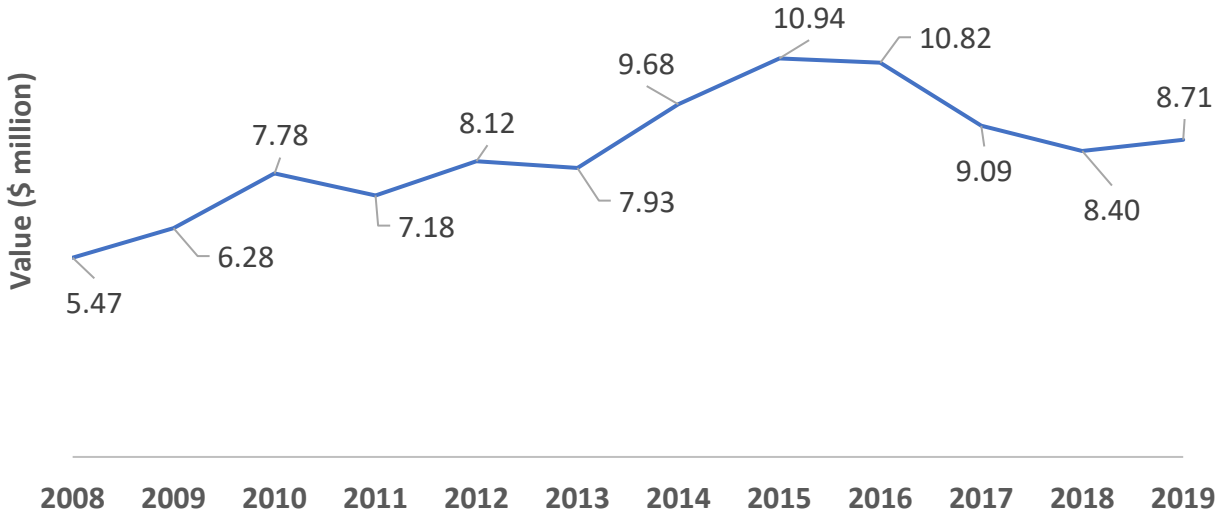


Figure 4. shows the dollar value (in millions) of lobster landed from Swan's Island since 2008 to 2019.

Figure 4. Lobster Landings by Dollar Value
Swan's Island (2008-2019)
Source: Maine Dept. of Marine Resources



d. RELATED EMPLOYMENT

Swan's Island does not currently have facilities that offer any large-scale shipbuilding or maintenance work. However, other related marine employment on the island includes the Mill Pond Trap Shop, the Swan's Island Fisherman's Co-op, Kent's Wharf, and Underwater Taxi. Swan's Island Charters is a privately-owned charter business which offers custom tours and water taxi services.

e. WATER-DEPENDENT USES

The state defines 'water-dependent uses' as those that "require direct access to or location in coastal waters and which therefore cannot be located away from these waters." Those uses include, but are not limited to, commercial and recreational fishing, recreational boating facilities, shellfish processing storage, and retail and wholesale marketing facilities, marinas, navigation aids, basins and channels, and certain industrial uses.

Water dependent uses on Swan's Island include the ferry terminal and the Quarry Wharf, as well as the Fisherman's Co-op, Kent's Wharf, Trafton's Wharf, Underwater Taxi, and Swan's Island Charters. There is a need for additional public access and space along the shoreline. The fishing harbor, Burnt Coat Harbor, is used primarily for traditional lobster fishing and is nearing its capacity.

f. MARINE ACCESS POINTS

BURNT COAT HARBOR

Burnt Coat Harbor is located on the southern shore of the island. The southwestern entrance to this harbor is by Toothacher Bay, and the southeastern entrance is accessible between Harbor Island and Stanley Point. The harbor is used primarily as a landing by the majority of the island's fishermen and women. Burnt Coat Harbor measures 552 acres at high tide and 363 acres at low tide; shoreline length is approximately 36,667 feet. There are several sub-areas within this harbor, including Swan's Island Village, the Minturn area, Harbor Island, and the Head of the Harbor. There are no public docking facilities or public moorings, however there are potential private access points.

MACKEREL COVE

Mackerel Cove is located on the northeast shore of the island. Entrance to Mackerel Cove is by Blue Hill Bay, with its southern entrance located between North Point and Orono Island. Mackerel Cove is used primarily as a port for the Maine State Ferry. Mackerel Cove measures 519 acres at high tide and 400 acres at low tide; shoreline length is approximately 23,333 feet. There are no public docking facilities or public moorings.

PUBLIC DOCKING FACILITIES

There is limited space given the island's geographic position, landscape, and existing infrastructure. The most accessible option for public docking on Swan's Island is in the fishing harbor, Burnt Coat Harbor. As mentioned previously, this harbor is heavily relied upon by local fishermen and women; and can often be congested with regular traffic from fishing boats.

PUBLIC BOAT LAUNCHES

Next to the ferry terminal in Mackerel Cove is an all-tide boat ramp and float for public access. Additionally, a part-tide boat ramp with a small float is located at the Quarry Wharf in Burnt Coat Harbor.

PUBLIC MOORINGS

A few public moorings in Burnt Coat Harbor were once available for rent, but this service is not currently offered.

g. EXISTING PROTECTION MEASURES

SWAN'S ISLAND CONSERVATION ZONE

The Swan's Island Conservation Zone is one of three lobster conservation zones in the state of Maine. In observance of this area, any person registered to obtain a trap tag in the conservation zone may not place or maintain more than 600 traps in the conservation zone. Each trap must have the appropriate tagging designated for use in the conservation zone. Trap tags issued for the Swan's Island Conservation Zone expire after one year, and the registrant must have been registered in Zone B-waters the previous season.

Maine's Department of Marine Resources determines the number of lobster traps to fish per trawl, depending on location. It is unlawful to have more than three traps per trawl in Hancock County. Additionally, to have more than five traps per trawl in waters that surround beyond Mount Desert Rock is unlawful.

SHORELAND ZONING ORDINANCE

The Swan's Island Shoreland Zoning Ordinance was first enacted in 1974 to serve many purposes, some of which include maintaining the character of the island's landscape and shoreline; assure the continuance of a viable fishery; prevent and control water pollution; protect spawning grounds, aquatic life, birds, other wildlife and their habitats; conserve limited natural resources and significant natural areas; and protect freshwater and coastal wetlands.

The ordinance applies to all land areas of Swan's Island, which lie between the low tide line and within 250 feet, measured horizontally from the normal high tide line of any great pond, coastal of freshwater wetland, saltwater body, or within 75 feet of any stream. The ordinance applies to any structure built on, over, or abutting a dock, wharf, pier, or other structure extending beyond the shoreline boundary of a water body or wetland.

SHELLFISH CONSERVATION ORDINANCE

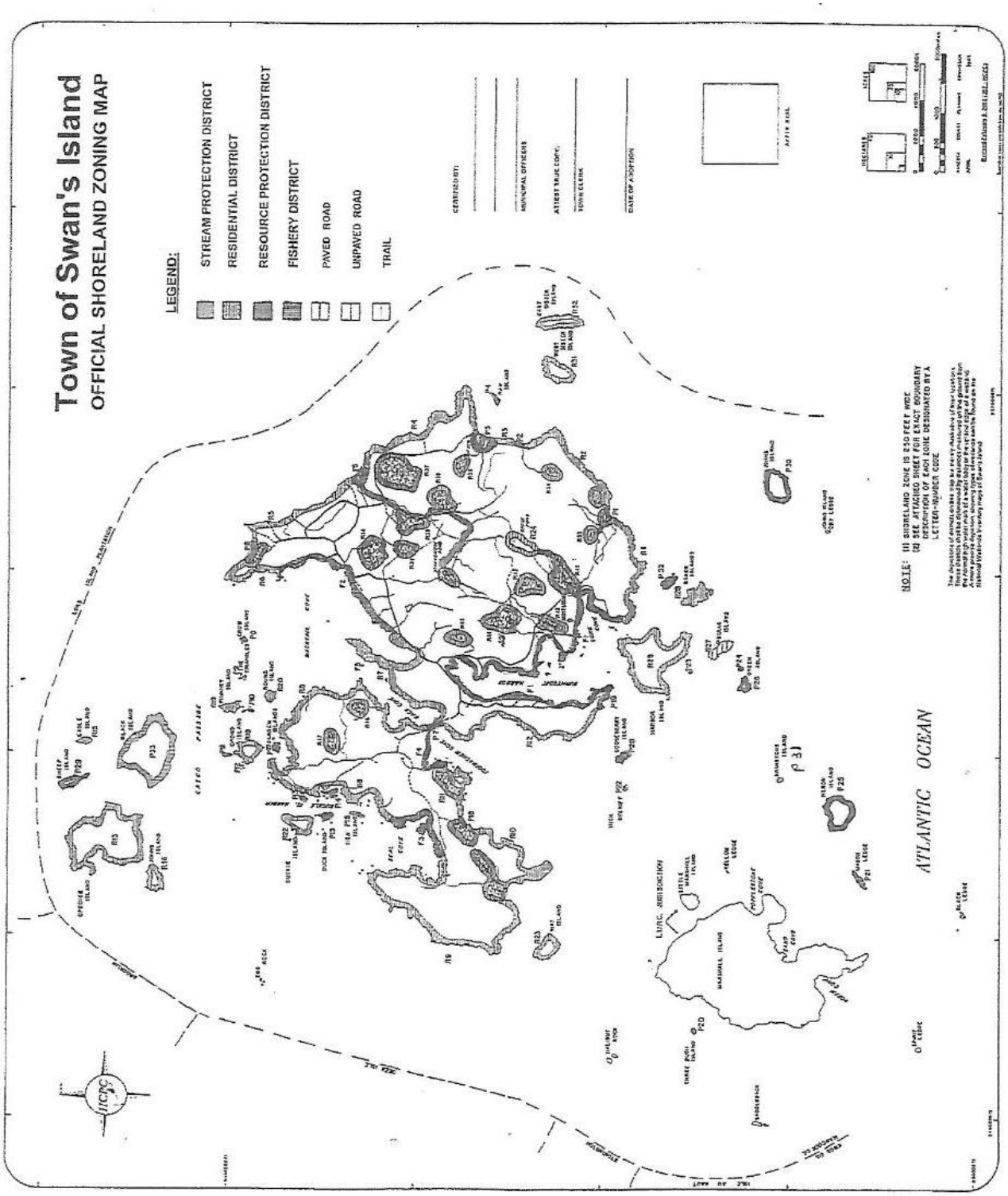
The Shellfish Conservation Ordinance was adopted in 2003 to establish a shellfish conservation program for the town of Swan's Island to ensure the protection and optimum utilization of shellfish resources within its limits.

Licensing, limiting the number of shellfish harvesters, restricting the time and areas where digging is permitted, limiting the minimum size of clams taken, and limiting the number of clams taken daily by a harvester are protective measures that are considered and administered by the Town's Shellfish Conversation Committee.

OTHER PROTECTION MEASURES

Other local ordinances that help to serve as protection measures include the Subdivision Ordinance, Floodplain Insurance Ordinance, and the Hazardous Waste Ordinance. In more ways than one, these ordinances act to protect against degradation of marine resources, critical natural resources, and water supplies resulting from contamination and pollution.

vi. MAPS


Town of Swan's Island
OFFICIAL SHORELAND ZONING MAP
LEGEND:
STREAM PROTECTION DISTRICT
RESIDENTIAL DISTRICT
RESOURCE PROTECTION DISTRICT
FISHERY DISTRICT
PAVED ROAD
UNPAVED ROAD
TRAIL
ATLANTIC OCEAN

HISTORIC & ARCHEOLOGICAL RESOURCES

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i. KEY FINDINGS

ii. STATE GOALS

iii. OBJECTIVES

iv. RECOMMENDED STRATEGIES & ACTIONS

v. DATA ANALYSIS

   a. HISTORIC BACKGROUND

   b. ARCHEOLOGICAL SITES

   c. BUILDINGS & STRUCTURES

   d. LOCAL HISTORIC RESOURCES

   e. EXISTING PROTECTION MEASURES

   f. THREATS TO HISTORIC & ARCHEOLOGICAL RESOURCES

vi. MAPS

i. KEY FINDINGS

- *MHPC has identified thirty (30) prehistoric sites and sixteen (16) historic sites in Swan's Island.* All prehistoric sites are located along the shoreline, most are shell middens. Six (6) of the prehistoric sites are located on Black and Opechee Islands.
- *Swan's Island Historical Society and the Lobster and Marine Museum are community assets.* Though the town does not have any ordinances or policies in place to specifically preserve historical resources, since the 1970s the Town has had a very active local historical group.

ii. STATE GOALS

To preserve the State's historic and archeological resources.

iii. OBJECTIVES

1. To make the Town of Swan's Island residents aware of the Town's historic and cultural resources and their value to the present and future

iv. RECOMMENDED STRATEGIES & ACTIONS

Historic and Archeological Resources	Responsibility	Timeline
Support the Swan's Island Historical Society's efforts to preserve, record, and promote historic and cultural resources throughout the island	Board of Selectmen	Ongoing
Support efforts of the Swan's Island Lobster and Marine Museum to preserve and promote the Island's marine heritage	Board of Selectmen	Ongoing
Coordinate with Maine Historic Preservation Commission to perform State recommended surveys that identify all potentially significant cultural and historic resources and their condition. Incorporate the results of these surveys into the development review process as appropriate.	Board of Selectmen/ Historical Society/ Lighthouse Committee	Short Term (1-2 years)/ Ongoing
Promote educational and cultural activities that enhance the understanding and appreciation of the Town's heritage and archaeological resources.	Board of Selectmen	Ongoing
Engage with the school to ensure that the Town's history, culture and heritage are integrated into the school's curriculum and to promote communication and interface between the school and these resources.	Board of Selectmen/ Historical Society	Ongoing

v. DATA ANALYSIS

a. HISTORIC BACKGROUND

FIRST INHABITANTS OF SWAN'S ISLAND

The Wabanaki nation were the first people known to live within New England and Canada. This nation consisted of five tribes: Abenaki, Penobscot, Maliseet, Passamaquoddy, and Micmac. However, shortly after European settlers arrived, the Abenaki fled to Canada or joined neighboring tribes. This is one of the main reasons why the Abenaki tribe does not have a reservation today and is not federally recognized.

Historians claim that the Wabanaki people inhabited the northeast region of North America for more than 12,000 years. In early French documents, Wabanaki communities identify as the Etchemin, Souriquois, and Armouchiquois.

Mount Desert Island and the surrounding area were an original part of the western Etchemin homeland, but due to epidemics and wars with early settlers in the late 1500s, the Mount Desert Island region experienced significant cultural shifts. As a result, the area was home to and traveled by many different groups of Wabanaki people. Migratory groups of Etchemin hunters, fishers, and gatherers inhabited coastal lands east of the Kennebec River. Herman Wesley Small wrote in his 1898 book, *A History of Swan's Island*, that the Etchemin group (or as he spelled, Etechmins) received their name for the long distances they went by canoe. By the late 1700s, many Abenaki people, who were known for growing corn, were made homeless by New England colonists and migrated into the St. Lawrence valley or eastward into traditional Etchemin territories like Mount Desert Island.

It is difficult to reconstruct which Wabanaki groups were traditionally associated with the Mount Desert Island region due to very little documentation of the area before the 1850s. The Wabanaki people kept almost no written records of their lives. No permanent white settlements on Mount Desert Island before the 1760s also meant that there were no outside observers who, if literate, might have wanted to record the activities of Wabanaki people in the area. Furthermore, ongoing epidemics, intermarriage, adoption, and fleeing migration gave way to newly blended tribal communities over the course of generations. For all of these reasons and likely more, Mount Desert Island and its coastal surroundings hold and represent a full legacy of all Wabanaki groups and its people.

There are several excerpts from Herman Wesley Small's book (*A History of Swan's Island*, 1898*)* that note the presence of Wabanaki people on Swan's Island –

> *"At that part of the island called the North when the first settlers came, there were five different places plainly seen where the Indians had their set-downs or villages. There was another at the Middle Head, one in the Reed field near the eastern shore, and several around Old Harbor."*

"In these, ancient shell heaps have been found, by men of our present day, flint arrow heads and hatchets which must have taken much skill and patience in making."

"Near to Hockamock Head, a name given by the Indians long before the white men came, is a point of land extending into the harbor, called Burying Point. A large number of Indian skeletons were unearthed by the plow. They were found most plenty near the Middle Head and near the Carrying-place, which places were their burying-grounds."

"This tribe (referring to the Etchemin) made irregular visits to the island for many years after the white settlers came, but of late, since their number has so decreased, they have ceased altogether"

EARLY EUROPEAN EXPLORATION

The first European to visit Swan's Island is unknown. It is estimated that in 1603, Captain George Weymouth visited Swan's Island and found a large number of Wabanaki people on the shores, with whom he made trades. The island was first charted by Europeans in 1606 by Samuel de Champlain during his voyage along the coast. Champlain named Swan's Island "Brule-cote" meaning Burnt-coast in French. Later, the island was generally known as Burnt Coat or Burnt Coal Island.

The next recorded visit was by Captain John Smith of Virginia in 1614. He built several boats during the summer. He returned to England after having captured thirty Wabanaki people, which he sold into slavery. It is unknown if any permanent settlements existed during the early voyages of European discoverers, but certainly, fishers of neighboring settlements frequented the island's harbors.

EARLY EUROPEAN SETTLEMENT

Swan's Island or "Burnt Coat Island" was among twenty-five islands that were purchased in 1786 by Colonel James Swans of Massachusetts. At the time, Swan's Island was part of Lincoln County, until Hancock County formed on June 25, 1789.

Colonel Swan built a store and large mansion, as well as created a saw and grist mill. The sawmill manufactured large logs that were cut near the shore and rafted to the mill. The grist mill produced barley and corn. Boats constructed to carry lumber to the market returned with supplies for the settlers. New houses were being built on the island, and individuals were rapidly accepting "lucrative" employment opportunities. The future appeared bright, and everything promised that the island was going to be one of the most thriving towns.

The state of Massachusetts agreed to exempt Colonel Swan from twenty years of property taxation only with the stipulation that he settle twenty-two families on the island within seven years. Additionally, the agreement stated a house be built for each family, along with the establishment of a church, schoolhouse, and grammar school. Colonel Swan went to the towns surrounding Swan's Island and

offered to give a hundred acres of land to any settler who would bring his family, build a house, and cultivate the land. He promised that at the end of seven years, he would give the settler a deed, free of expense, for the land they had made. Families came from Deer Isle, Sedgewick, Mount Desert, among other places. All of a sudden, there was a great demand for laborers. Meanwhile, the fishery business began to develop.

The church and schoolhouse were never constructed. Colonel Swan's business failed soon after he purchased the island and he was deeply involved with debt. In 1787, he left the island and went to Paris where he was imprisoned and eventually released on July 28, 1930 at the age of 76.

Absent of Colonel Swan's presence, the island took its course. His properties became neglected, and the mill closed. Swan did not spend much time living in the mansion he built but those building their own homes, including David Smith, lived there while building, until the mansion was abandoned and burned. Once all the island's timber was harvested, the land held very little value. Settlers came in afterward and made their selection of lots without consulting or asking permission.

In 1791, the first permanent settlement was made on Swan's Island by David Smith. Benjamin Smith, son of David Smith, was born in 1795 and is known to be the first child born from the settlers on the island.

The first houses on the island were made of logs, and crevices were plastered with mortar made from burnt clamshells. The houses were small, with the lower part of the house used as an all-in-one room for cooking, dining, sitting, storing, and as a general workshop. This was the family-style home very often housing large families. The largest family recorded on Swan's Island belonged to David Smith, who had sixteen children with his first wife and eight children with his second wife.

Most of the houses were built near the shore to be convenient for fishing. For Swan's Island settlers, the next priority after providing for the family was building a boat for fishing. In the beginning, boats were small, as an abundance of fish could be caught near the shore. Later, larger boats were built to sell. Farming was never practiced to any great extent, though the crop yields were good. Some farmers harvested a thousand bushels of potatoes per year. Settlers raised cattle and sheep. Large amounts of kiln wood were sold during the winter. Fish were plentiful and provided a stable source of food, but could only be sold for a small price or exchanged for corn, barley, and clothing.

There were no roads on Swan's Island during this time, only paths through the woods. If anyone wished to use a road, they had to build it on their own. When visiting another part of the island, it was preferred to go in boats rather than the heavy work involved with constructing a road. Later on, these paths converted into wood roads, and then much later, made into "highways."

Wild game was once abundant on the island, including a fair amount of bear, although, persistently hunted until there were no more left. So many hunters traveled from other places that it became necessary for residents to pass a vote prohibiting non-residents from trapping, hounding, or poisoning any fur-bearing animal. Additionally, no person was allowed to hound game except on their land. Large flocks of seabirds served as food, and their feathers used to make beds.

Mail was occasionally delivered to the island when a boat traveled to and from the mainland. Nonetheless, there was no post office or any other regular place to receive mail.

The community certainly felt the War of 1812, from the depression caused by the warfare, and when the British took many of the island's fishing vessels.

Maine was admitted as an independent state into the Union during 1820. No municipal organization formed until 1834 when the Swan's Island Plantation was organized. During the same year, the first schoolhouse was built near the Carrying Place. Prior to 1834, no public schools existed and school was held privately.

1800s: FISHING AND MARITIME INDUSTRY

The fisheries are what led to the ultimate settlement of Swan's Island, and quickly became the sole means to support residents. Many of the early settlers were boat builders or ship carpenters. Years elapsed before anything larger than open boats were used for fishing on the island. The original structure and style of a boat and the ways of fishing were of the most primitive character. The largest boats, called chebacco boats, were two-masted and weighed about fifteen tons.

Cod and haddock were first sought in markets as the fish of highest demand. Halibut, caught in plentiful amounts, were not nearly as marketable. The majority of fishing was done in small rowboats called wherries. When catches were brought to shore, the fish were split, dressed, washed, and then carried in a wheelbarrow to the fish-house to be salted. Women spread the fish out to dry during the day, turning the fish on both sides and shading them from being scorched by the sun. Once cured, fish were stored in the loft of the fish-house until the fall season when they were carried to market.

Mackerel was first caught in 1800. Little attention was paid to this fish at first, but year by year, mackerel fishing grew in importance. The innovation of bait mills to grind up fish chum came into use in 1820 and proved a great labor-saving device. Vessels that fished for mackerel would prepare in March or April to go south and return about the first of July; the remainder of the season was spent in the Bay of Fundy and along the entire coast of Maine.

In 1832, the codfish industry reached its peak and gradually declined. As other fisheries declined, the mackerel catch increased. Fishermen from Swan's Island took a leading place in this industry. Their knowledge of net fishing, previously gained in herring and other fisheries, made them well qualified. From 1874 to 1889, Swan's Island fishing vessels placed first or second place every year among the entire fleet of the Atlantic coast. Many large and expensive vessels were built for and owned by Swan's Island captains, and seamen came from surrounding towns to secure positions with these captains. The mackerel industry eventually declined from 1885 to 1891. Finally, the fishing vessels outfitted for mackerel were sold until none existed, and the fishermen found new occupations.

After the mackerel industry became unprofitable, fishermen branched out to explore other fisheries. The most profitable industry discovered was the lobster fishery. Before 1857, few lobsters had been caught. However, they became noticed in abundant numbers, especially near the shore. The difficulty of transporting live lobsters in sailing vessels for long distances led to the establishment of canning factories. At first, only small boats were used for lobstering, as the catch was close to shore. Over time, lobster populations grew scarcer along the shoreline and larger boats were required to travel further distances.

In 1895, a sardine factory was built in the harbor. Other industries such as granite quarrying and ice-cutting were practiced too, but the fishing business remained the main industry for the town of Swan's Island.

Many individuals lost their lives at sea, most commonly while fishing.

Works Cited:

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Small, Herman Wesley M.D. *A History of Swan's Island, Maine*. 1898.

b. ARCHEOLOGICAL SITES

PREHISTORIC ARCHEOLOGICAL SITES

As of April 2018, the Maine Historic Preservation Commission (MHPC) identified thirty prehistoric archeological sites in the township of Swan's Island.

Six of the prehistoric sites are on the Black and Opechee Islands. The remaining twenty-four sites are on Swan's Island. All of the prehistoric sites are along the shoreline, and most are remnants of shell middens.

According to MHPC, most of the Swan's Island shoreline has been surveyed by professional archaeologists, except for the east-facing shore of the large island, from Burnt Point south.

HISTORIC ARCHEOLOGICAL SITES

As of March 2018, MHPC identified sixteen historic archeological sites on Swan's Island. The historic sites are shipwrecks at sea and Colonel Swan's buildings. See Table 1 for the full list of Historic Archeological Sites on Swan's Island.

No professional town-wide surveys for historic archaeological sites have been conducted on Swan's Island and is recommended above. MHPC suggests that future archaeological surveys 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 17th and 18th centuries.

Table 1. Historic Archeological Sites on Swan's Island (2018)			
Historic Site Name:	**Site Number:**	**Site Type:**	**Period of Significance:**
St. Bernadette	ME 426-001	Wreck, screw	May 8, 1953
Governor Bodwell	ME 426-002	Wreck, steam screw	March 23, 1931
Governor Bodwell	ME 426-003	Wreck, steam screw	January 26, 1924
Almeda Willey	ME 426-004	Wreck, schooner	1874 - July 28, 1911
Howard Russel	ME 426-005	Wreck, schooner	December 15, 1921
Col. James Swan's Big House	ME 426-006	Domestic and mill	1786 - 1790s: saw-mill, grist mill, and large mansion built.
Mabel	ME 426-007	Wreck, gas screw	1893 - 1916
Beulah	ME 426-008	Wreck, schooner	September 24, 1913: wrecked on John's Island.
Castalia	ME 426-009	Wreck, schooner	December 18, 1876: lost.
Malanta	ME 426-010	Wreck, schooner	July 5, 1880: total wreck on John's Island ledge.
Enterprize	ME 426-011	Wreck, ship	circa 1835
Marie Delphinie	ME 426-012	Wreck, schooner	September 1899: sank at York's narrows.
Peerless	ME 426-013	Wreck, schooner	December 24, 1859: lost on John's Island ledge.
Prohibition	ME 426-014	Wreck, schooner	January 1, 1902: stranded on Scag Island, then total loss.
J.W. Sawyer	ME 426-015	Wreck, schooner	March 7, 1883
Cosmos	ME 426-016	Wreck, unidentified	May 23, 1908
Source: Maine Historic Preservation Commission			

c. BUILDINGS & STRUCTURES

Maine's Historic Preservation Commission (MHPC) identifies the Burnt Coat Harbor Light Station at Hockamock Head as a historic structure.

The Burnt Coat Harbor Light Station was listed in the National Register of Historic Places on January 21, 1988, and is the only historic place on Swan's Island in the registry.

MHPC suggests conducting a comprehensive survey of Swan's Island's historic above-ground resources to identify other properties that may be eligible for nomination to the National Register of Historic Places.

d. LOCAL HISTORIC RESOURCES

BUILDINGS & LOCATIONS

The Burnt Coat Harbor Lighthouse was built in 1872 and has been listed on the National Register of Historic Places since 1988. The light tower underwent an extensive restoration for the first time in almost forty years thanks to the island's non-profit group, Friends of the Swan's Island Lighthouse (FOSIL). With renovations complete, the tower opened in September of 2019.

The Seaside Hall, established in 1905, was once a community center with a lending library. Social events, movie showings, and wedding receptions took place there. During the 1970s, the Seaside Hall became a place for teens to hang out and play pool, air hockey, ping-pong, and listen to music. Referred to as the Coffee Shop, it was essentially the island's first recreation center. In 1986, the Swan's Island Historical Society converted the building into a museum, until the town voted the building be put up for sale in the early 2000s. The property was sold in 2007.

The old Atlantic School House (1890) was renovated to become the island's library. The Historical Society moved their collections there after the closing of the Seaside Hall. Unfortunately, the building caught fire in 2008 and burned down to the ground with everything in it. The island's new and current library was built in its place.

Other historic buildings on Swan's Island include the Odd Fellows Hall (1909), the Advent Church (1893), the Baptist Church (1883), and the Methodist Church (1888).

HISTORICAL TOWN COLLECTIONS

The Swan's Island Historical Society was part of the Swan's Island Educational Society from 1972 until 2019, when it became a separate entity. The Historical Society is kept by passionate members who play a large role in recording and preserving the island's history. Most recently, the group acquired the inactive Methodist Church. The building will become the Society's new home to store their collections, display exhibitions, and host public events.

The Lobster and Marine Museum opened in 1999, founded by brothers and lifelong Swan's Island residents, Galen and Ted Turner. The museum includes antique fishing equipment and old-time fishing techniques, boat models and photographs, boatbuilding artifacts, antique tools, historic navigation equipment, a century's collection of lobster gear, and photo albums of how people lived and fished long ago.

e. EXISTING PROTECTION MEASURES

While there are no local policies or ordinances designed specifically to preserve the island's historic and archeological resources, the Swan's Island Shoreland Zoning Ordinance does identify the protection of archaeological and historic resources as a purpose. The Shoreland Zoning Ordinance includes a land use standard requiring any proposed land use activity involving structural development or soil disturbance on or adjacent to sites listed on, or eligible to be listed on the National Register of Historic Places, shall be submitted by the applicant to the Maine Historic Preservation Commission for review and comment. The ordinance also prohibits any development to land areas of Swan's Island that lie between the low tide line and within 250 feet, measured horizontally from the normal high tide line of any great pond, coastal of freshwater wetland, saltwater body, or within 75 feet of any stream. The ordinance also applies to any structure built on, over, or abutting a dock, wharf, pier, or other structure extending beyond the shoreline boundary of a water body or wetland.

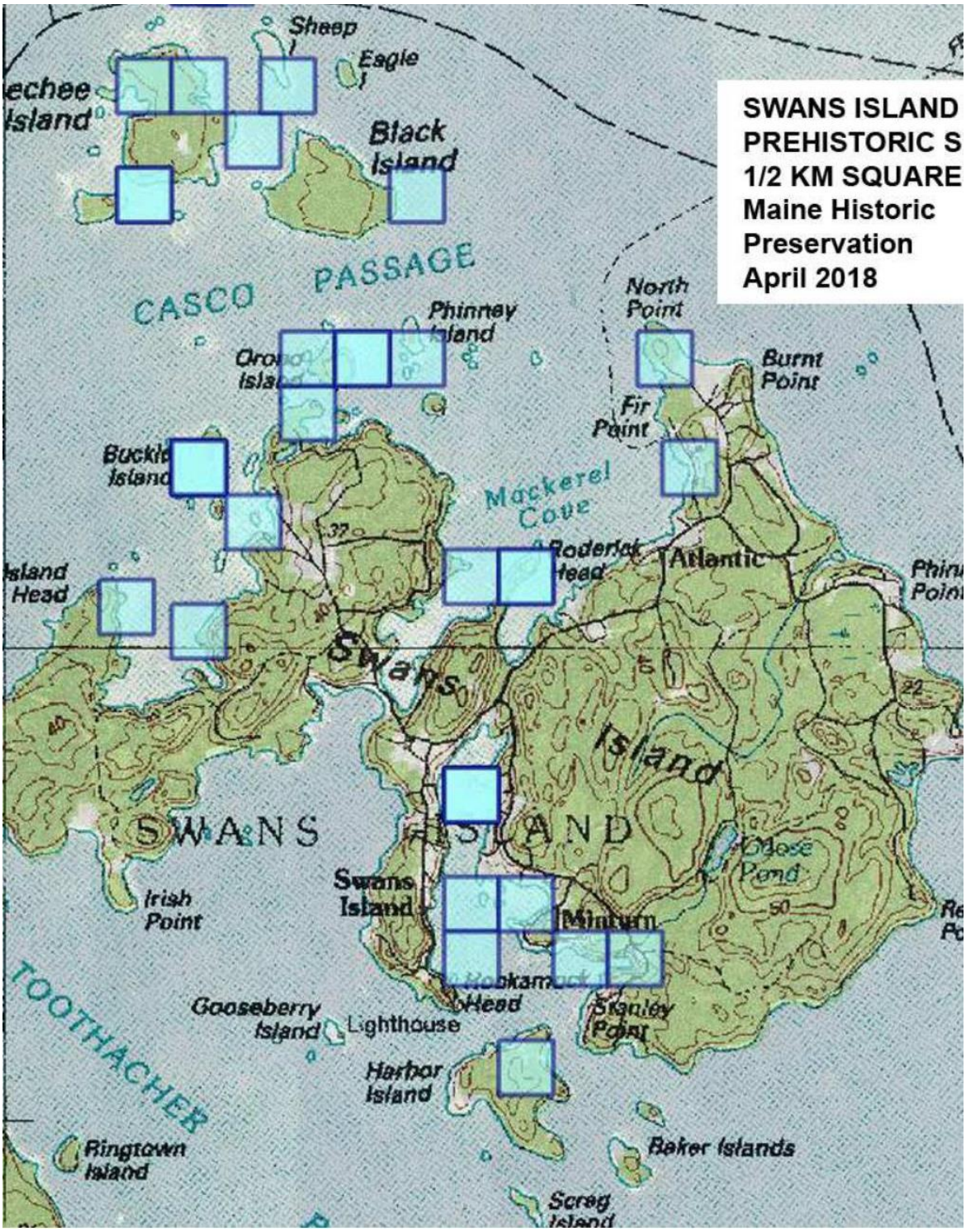
f. THREATS TO HISTORIC & ARCHEOLOGICAL RESOURCES

Erosion and natural landscape change will always threaten the island's historic and archeologic sites. For example, all of the prehistoric shell middens located along the shoreline have been altered from their original state due to storms and weathering tides over hundreds of years. Additionally, many of the shell middens have been raked through by hand countless times; digging and pilfering artifacts from these sites is continuously a problem. The ability to fully recuperate and protect these sites is a missed opportunity.

Future land development may inadvertently damage historical and archeological sites as there may be no previous knowledge of their existence. Since a professional town-wide survey of historic archeological sites has not been conducted, there is no certainty in what areas, if any, should be considered for protection.

A more pertinent issue that threatens historical resources is the general lack of money to preserve, as well as maintain, historical assets. More specifically, ensuring the island's historic preservation groups, like the Friends of the Swan's Island Lighthouse and the Historical Society, have the funds to continue maintaining and preserving.

vi. MAPS


SWANS ISLAND
PREHISTORIC S
1/2 KM SQUARE
Maine Historic
Preservation
April 2018
Sheep
Eagle
Black Island
CASCO PASSAGE
Phinney Island
North Point
Burnt Point
Fir Point
Mackerel Cove
Atlantic
Island Head
Swans Island
SWANS ISLAND
Irish Point
Swans Island
Minturn
Moose Pond
Gooseberry Island
Lighthouse
Harbor Island
Stanley Point
TOOTHACHER
Ringtown Island
Baker Islands

RECREATION & OPEN SPACE

i. KEY FINDINGS

ii. STATE GOALS

iii. OBJECTIVES

iv. RECOMMENDED STRATEGIES & ACTIONS

v. DATA ANALYSIS

   a. RECREATIONAL FACILITIES

   b. RECREATIONAL PROGRAMS & ACTIVITIES

   c. PUBLIC ACCESS TO SALTWATER

   d. CONSERVED LAND

i. KEY FINDINGS

- ***Recreational programming is important to the community but limited in scope and by season.*** On average, at least 70% of school-aged (K-12) youth attended recreation programs in 2018. However, apart from the school's offerings, there are extremely limited year-round recreational options for youth. There are no adult recreational offerings except for adult basketball and volleyball during the winter and no recreational facilities available to adults and senior citizens.
- ***The Town-owned rec building is in need of repairs.*** In 2020 the Town did an evaluation of the small building located at the ball field to identify needed improvements and repairs. Mold was identified as one of the major issues. The Recreation Department has been actively planning for implementing needed improvements.
- ***The Island has six public parks/preserves but only a limited number offer public waterfront access points.*** Public recreational access includes Fine Sand Beach, Carrying Place Beach, Hockamock Head Lighthouse in Burnt Coat Harbor, Mill Pond Park, Quarry Pond, and High Head Ridge. There is one right-of-way to Joyce's Beach and one to Buckle Island Harbor. There are two boat launches (Ferry Terminal and Quarry Wharf). Other parcels of private land are conserved by Maine Coast Heritage Trust and Acadia National Park. Most of these are easements.
- ***The Island relies on private property access for some of its outdoor recreational access.*** There are several trails throughout the Island that offer hiking, biking, birding and other outdoor access opportunities, however many are on selected private properties where the owners have allowed it.

ii. STATE GOALS

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

iii. OBJECTIVES

1. Residents and visitors will have access to parks, trails, facilities, open spaces, and recreational activities that support physical activity and individual/community well-being.
2. School and recreation programs are supported through the community.
3. Recreational programs are available year-round and available to residents of all ages.
4. Public recreation and open spaces are further identified, protected, and well maintained.

iv. RECOMMENDED STRATEGIES & ACTIONS

Recreation and Open Space	Responsibility	Timeline
Support the construction of new recreational waterfront access points through: - Identifying scope of need for public recreational access (i.e. visual access, physical access) - Find appropriate locations to meet identified needs and acquire right, title or interest if necessary - Support construction and maintenance projects - Actively seek grant funding to supplement planning and construction for waterfront access.	Recreation Committee	Ongoing
Plan for and make needed improvements to the baseball field, improve multi-use court (e.g. fencing, tennis court, pickle ball, basketball) and monitor facility as required by previous grant.	Recreation Committee	Short-term (1-2 years)/ Ongoing

Plan for and budget needed resources to make improvements to the Rec Building.	Recreation Committee/ Board of Selectmen	Short-term (1-2 years)
Actively support the development/improvement of walking, hiking, and biking trails through the island, including: - Developing an inventory of existing trails and their rights to access, maintenance needs, and threats - Funding for maintenance to town owned trails (and private trails as appropriate) - Engaging with private property owners who allow trail access to identify tools which will balance owners' rights and allow for long-term public access.	Recreation Committee/ Board of Selectmen/ Trails subcommittee	Ongoing
Explore options for increasing recreational programming for Island youth and support improvements to recreational programing and facilities for adults and seniors.	Recreation Committee, SIES, Elder Care Committee, Mill Pond Park Committee	Ongoing
Continue to work with local land trusts and non-profit organizations who own and maintain conservation lands to ensure continued public access and improved recreational opportunities.	Board of Selectmen, Recreation Committee	Ongoing
Encourage entrepreneurial efforts that develop appropriate (for the Island) recreation infrastructure and that add local jobs to the economy.	Board of Selectmen, Municipal Advisory Committee	Ongoing
Support hiring and training for life guard services at Quarry Pond.	Board of Selectmen	Ongoing
Create an authoritative inventory and GIS of all public recreation area and public open spaces on Swan's Island to assist with ongoing and future protection, maintenance, and operations.	Recreation Committee	Short-term (1-2 years)

v. DATA ANALYSIS
a. RECREATIONAL FACILITIES

The Swan's Island Recreation Department oversees the island's public recreation building, ballfield, and basketball court located on the Atlantic Road. The Quarry Pond, a public swimming hole on the island, is also managed by the Recreation Department. Floats and buoys are set-up for safety in the summer. Mill Pond Park is a waterfront area with picnic tables and plenty of open space for gatherings.

There are a number of other popular informal areas to recreate on the island including Fine Sand Beach, Carrying Place, Cottle's Cove, Red Point, East Point, and along the Harbor frontages.

b. RECREATIONAL PROGRAMS & ACTIVITIES

YOUTH & FAMILY

The Recreation Department offers seasonal day programs for K-8 and night programs for ages 13-18 at the recreation building that include indoor and outdoor games, tabletop sports, outdoor sports, arts and crafts, and music. In 2018, an average of 35 children and teenagers attended the summer programs, which is at least 70% of the island's school-aged youth. The Recreation Committee also organizes a variety show with a cook-off and silent auction every summer.

People Interested in Kids (PIK) is an island group that organizes events for children throughout the year like the Halloween carnival, Christmas party, various winter break activities, and an Easter egg hunt.

Swan's Island K-8 public school offers afterschool activities such as garden club, soccer, cross-country running, cooking class, competitive games, and basketball.

ADULT & SENIOR

From about November to May, the public school offers open volleyball and basketball practices weekly for adults (18 years and over).

Exercise classes and group walks offered in affiliation with the women's group at the Mill Pond Health Center are available with sufficient interest.

During the winter on Tuesday, Wednesday, and Thursday mornings, the school's gymnasium is open for walking.

Senior luncheons are organized once a month throughout the academic year and take place in the school's cafeteria. Senior bingo is offered at the Mill Pond Health Center.

ADDITIONAL ACTIVITIES

Other community-based activities on the island include the annual Swan's Island 5K road race, the Fire and EMS Department's lobster bake, and summertime breakfasts hosted at the Odd Fellows Hall.

Complimentary sailing lessons are offered on Swan's Island through the Swan's Island Yacht Club during the summer months. In 2019, a total of 70 students participated in the program.

c. PUBLIC ACCESS TO SALTWATER

PUBLIC BOAT LAUNCHES

Next to the ferry terminal in Mackerel Cove is an all-tide boat ramp and float for public access. Additionally, a part-tide boat launch and a small float is located at the Quarry Wharf in Burnt Coat Harbor.

PUBLIC RIGHTS OF WAY

The public has access to Fine Sand Beach, the Carrying Place Beach, High Head Ridge and Freem's Beach, Joyce's Beach, Fire Ponds, the Burnt Coat Harbor lighthouse and its surrounding trails, Mill Pond Park, Quarry Wharf, and the Quarry Pond.

d. CONSERVED LAND

There are several parcels of land in Swan's Island designated as open space. Some properties are owned by the town, state, or federal government, and may have deeds restricting use. Others are privately owned or bound by a special easement. The town allows public access to Fine Sand Beach, Mill Pond Park, the lighthouse, and the fire ponds. High Head beach is another area open to the public, gifted to the town from the Maine Coast Heritage Trust.

Table 1. lists the parcels of land under conservation on Swan's Island. Listings in this table do not necessarily mean a property is open for access to the general public, and some of these locations may have restrictions that limit accessibility.

Table 1. Conserved Land in the Town of Swan's Island (2020)

Parcel Name:	Interest Name:
Swan's Island Head	Acadia National Park
Toothacher Cove	Acadia National Park
Garden Cove	Acadia National Park
Garden Point	Acadia National Park
Stanley Point	Acadia National Park
North Point	Acadia National Park
Buckle Harbor	Acadia National Park
Buckle Island Harbor	Maine Coast Heritage Trust
Seal Cove	Maine Coast Heritage Trust
West Point	Maine Coast Heritage Trust
Roderick Head	Maine Coast Heritage Trust
Back Cove	Maine Coast Heritage Trust
Coler Family Trust	Maine Coast Heritage Trust
Black Point Cove	Maine Coast Heritage Trust
High Head	Maine Coast Heritage Trust
Fine Sand Beach	Town of Swan's Island
Mill Pond Park	Town of Swan's Island
Hockamock Head Lighthouse	Town of Swan's Island
Fire Ponds	Town of Swan's Island

Source: Maine Dept. of Agriculture, Conservation and Forestry; Town of Swan's Island

Table 2. lists conserved land parcels that are offshore from Swan's Island but within the municipality's border. Most of these locations require access by boat.

Table 2. Conserved Land (Offshore) in the Town of Swan's Island (2020)	
Parcel Name:	**Interest Name:**
Hat Island	Acadia National Park
Round Island	Acadia National Park
Orono Island	Acadia National Park
Black Island	Acadia National Park
Opechee Island	Acadia National Park
Johns Island	Acadia National Park
Unnamed Island (in Buckle Harbor)	Acadia National Park
Duck Island	Acadia National Park
Buckle Island	Acadia National Park
Heron Island	Acadia National Park
Hen Island	Maine Bureau of Parks & Land
Parks Island	Maine Bureau of Parks & Land
Outer Baker Island	Maine Coast Heritage Trust
Inner Baker Island	Maine Coast Heritage Trust
Eagle Island	Maine Coast Heritage Trust
Sheep Island	Maine Coast Heritage Trust
Green Island	Maine Coast Heritage Trust
Western Sister Island	Maine Coast Heritage Trust
Ram Island	Maine Coast Heritage Trust
Saddleback Island	Maine Dept. of Inland Fisheries & Wildlife
Spirit Ledge	Maine Dept. of Inland Fisheries & Wildlife
Black Ledge	Maine Dept. of Inland Fisheries & Wildlife
Mason Ledge	Maine Dept. of Inland Fisheries & Wildlife
Brimstone Island	Maine Dept. of Inland Fisheries & Wildlife
Halibut Rocks	Maine Dept. of Inland Fisheries & Wildlife
High Sheriff Island	Maine Dept. of Inland Fisheries & Wildlife
Long Ledge	Maine Dept. of Inland Fisheries & Wildlife
John's Island Dry Ledge	Maine Dept. of Inland Fisheries & Wildlife
Gooseberry Island	U.S. Fish & Wildlife Service
Three Bush Island	U.S. Fish & Wildlife Service
John's Island	U.S. Fish & Wildlife Service
Source: Maine Dept. of Agriculture, Conservation and Forestry; Maine Office of GIS; Town of Swan's Island	

TRANSPORTATION

i. KEY FINDINGS

ii. STATE GOALS

iii. OBJECTIVES

iv. RECOMMENDED STRATEGIES & ACTIONS

v. DATA ANALYSIS

   a. ROADWAY SYSTEM

   b. VEHICLES

   c. BICYCLES & PEDESTRIANS

   d. FERRY & WATER TAXI SERVICES

   e. AIR TRANSPORTATION

vi. MAPS

i. KEY FINDINGS

- *The local road network is important to the community since vehicle transportation is the primary mode of transportation on Swan's Island.* Over 90% of residents work on the island and most families have more than one vehicle. Road maintenance comes in third place with the number of individuals who marked the service as "needing improvement" in the public survey results.
  - There are approximately 17 miles of roads on Swan's Island; 14 miles are Town owned roads and about 3 miles are State roads. The Town receives a maintenance stipend from the state for State roads and is usually responsible for the work.
  - The Town has a road maintenance strategy in place and budgets annually for maintenance and improvement projects. The existing road maintenance plan includes crack seal of Town roads and a plan for a full repave within the next 5 years.
- *The Maine State Ferry Service is a critical connection to the mainland, but schedules can be challenging and the costs can be expensive.* Although there are some charter and water taxi services available, the Maine State Ferry Service is the primary means of transportation to the mainland for Swan's Island. This service provides mainland important connections for school, supplies, mail, and off island services and employment. Recent challenges:
  - Ridership in the summer increases but overall ridership volumes have remained consistent from 2010 to 2018, which has implications for increased cost and ridership rates.
  - The ferry schedule is inconsistent which can cause hardships for all who depend on the ferry.
  - Parking at the ferry terminal can be congested, especially for long-term parking and during winter conditions.
  - The ferry terminal building is aging and does not have ADA compliant access.
- *Biking is a popular summer activity on the Island but safety can be a concern, especially for larger groups of bikers.* While many visitors bike the island and there are bike tours that visit, there are no bike lanes on the island's roads which would increase the safety of bikers and pedestrians.

ii. STATE GOALS

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

iii. OBJECTIVES

1. A reliable year-round ferry service that is affordable and accommodates both day-visits and work hours.
2. Roads are maintained on a regular schedule and improvements are made to increase bike and pedestrian safety as needed.

iv. RECOMMENDED STRATEGIES & ACTIONS

Transportation	Responsibility	Timeline
Continue annual road maintenance planning to ensure quality of existing road system and increase safety of multi-modal transit options such as biking and walking.	Board of Selectmen	Ongoing
Undertake a comprehensive survey of town roads and formalize a long-range road safety, maintenance, and improvement plan, including: - Signage to improve safety for bikers, pedestrians, and vehicles; - Shoulder improvements, as appropriate, to accommodate bicyclists, pedestrians, and vehicles; - Long range debt plan for responsible fiscal management of improvements; - Continued work with State for road maintenance, improvements and repair.	Board of Selectmen	Short-term (1-2 years)
Identify and map issue areas for pedestrian and bike safety; make meaningful progress in implementing solutions to address them.	Board of Selectmen	Short-term (1-2 years)
Work with the Maine State Ferry Service to monitor the ferry fee structure to ensure it does not add undue financial burdens on island residents and to ensure the schedule is accommodating for all island residents and businesses.	Board of Selectmen, Ferry Service Advisor	Ongoing
Actively engage with Maine State Ferry Service to construct a new ferry terminal building or improve the building's accessibility for users of all abilities, to improve parking management, and expand parking options.	Board of Selectmen, Ferry Service Advisor	Short-term (1-2 years)
Support life flight services recognizing the critical need for such services on an island community.	Board of Selectmen, Ambulance Service, Fire Department	Ongoing
Explore alternative modes of access to the Island including options for supporting an air strip or other means of water access.	Board of Selectmen	Ongoing

v. DATA ANALYSIS
a. ROADWAY SYSTEM

STATE & MUNICIPAL ROADS

Swan's Island is responsible for the maintenance of approximately 17 miles of roadways. Of those, 14 miles are town-owned roads that are either paved or filled with gravel. The other 3 miles are state-owned, paved roads. This does not account for additional private roads throughout the island.

While some roads are too narrow, making conditions unsafe for bicycles and pedestrians, others need to be sealed and repaved. Depending on the season, the gravel-filled roads are highly susceptible to the formation of potholes from snow and rainwater.

According to the Maine DOT, there are 27 state-maintained cross culverts on the island, six located along Ferry Road and 21 located on Atlantic / Harbor Road. Three are considered in "Poor" condition, six are in "Fair" condition, and 17 are in "Good" condition.

There is one state-maintained bridge on the island at the Swan's Island Ferry Slip at Mackerel Cove. This bridge is approximately 55 feet wide and 84 feet long and made of steel. The deck and superstructure condition are rated satisfactory and the substructure is rated fair, with minor section loss.

There are no sidewalks or bike lanes on Swans Island.

ROAD MAINTENANCE

The condition of the island's roadways varies from below fair to very good.

Swan's Island receives a small yearly stipend (approximately $8,500 in 2020) from Maine's Department of Transportation to maintain the island's 3 miles of state-owned roads. The town's road commissioner is responsible for doing the work while using judgment to prioritize maintenance needs.

Town-owned roads are maintained throughout the year. Maintenance is generally prioritized based on what is obvious or needed at the time. The Board of Selectmen and Road Commissioner meet quarterly to review road maintenance needs and budget availability.

The Town allocates funds annually to a road paving/maintenance budget and maintains a reserve balance of $90,000. Recently budgeted projects include pave North Road, Stanley Point Road, and Atlantic Road. In preparation for this, the town is working to seal surface cracks and clear debris from the roadside's ditches.

PARKING

On-Island Parking. There are various places to park on-island, but space is limited. Table 1. lists places to park on-island.

Table 1. Parking Lots on Swan's Island		
Lot	# of Spaces	Location
Swan's Island Ferry Terminal	25	Ferry Road
Swan's Island Public Library	10	451 Atlantic Road
Swan's Island Elementary School	15	116 Rose Hill Road
Swan's Island Town Office	35	125 Harbor Road
Burnt Coat Harbor Lighthouse	6	433 Harbor Road
Quarry Pond	8	Quarry Pond Road
Quarry Wharf	6	Quarry Warf Road

The Swan's Island Ferry Terminal offers parking for about 25 vehicles. The number of vehicles actually parked at the ferry terminal varies seasonally, but usually exceeds this number. Vehicles are often parked at the terminal for extended periods, sometimes in prime parking spaces. Vehicles parked for extended periods can cause challenges, especially during the winter seasons when parked vehicles interfere with snowplowing. Similarly, vehicles abutting the road can become plowed in after a storm, making the roadway narrow to drive. There is currently no monitoring system to enforce parking limits. Enforcement may prove inconsistent and difficult, but these issues remain an identified concern.

Parking on Swan's Island is adequate for now, but should be considered with future development. There are five spaces proposed for the Historical Society parking area.

Off-Island Parking. The Bass Harbor Ferry Terminal provides short-term and long-term parking rates between May 15 to October 15. Parking is free during the off-season. There is usually no issue with finding space to park.

Table 2. Bass Harbor Terminal Parking Rates (May 15 – October 15) *Source: Maine State Ferry Service*			
Daily	Weekly	Monthly	Seasonal

$12	$60	$115	$300

b. VEHICLES

COMMUTING PATTERNS

In 2018, the majority of Swan's Island workers commuted to work by car, truck, or van. Of those commuting by vehicle, 47% (102 individuals) drove alone, while 17% (37 individuals) carpooled with at least one other individual. The second largest group of workers (12.8% or 28 individuals) worked from home and 10.6% (23 individuals) walked to work. Lastly, 2.3% of workers (5 individuals) commuted to work on the island via the ferry.

As compared to the county and the state, Swan's Island has a higher percentage of workers commuting by walking and working from home.

Figure 1. Means of Commuting to Work on Swan's Island (2018)

Source: American Community Survey 5-Year Estimate (2018)

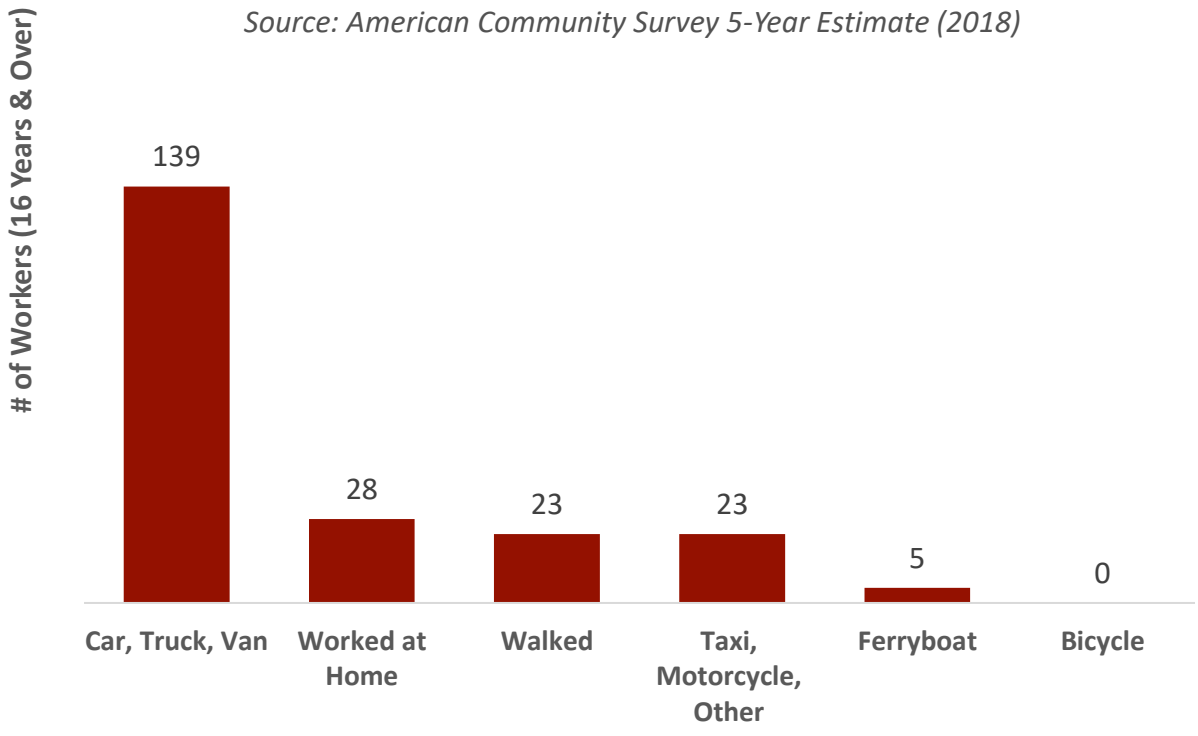


Table 3. Comparison Commuting Patterns (2018)

Source: American Community Survey 5-Year Estimate (2018)

Swan's Island		Hancock County		Maine	
Car, Truck, or Van	63.8%	Car, Truck, or Van	86%	Car, Truck, or Van	88.1%
Public Transportation (Ferry)	2.3%	Public Transportation	0.8%	Public Transportation	0.6%
Bicycle	0%	Bicycle	0.1%	Bicycle	0.4%
Walked	10.6%	Walked	5.1%	Walked	3.9%
Worked from Home	12.8%	Worked from Home	7%	Worked from Home	5.8%

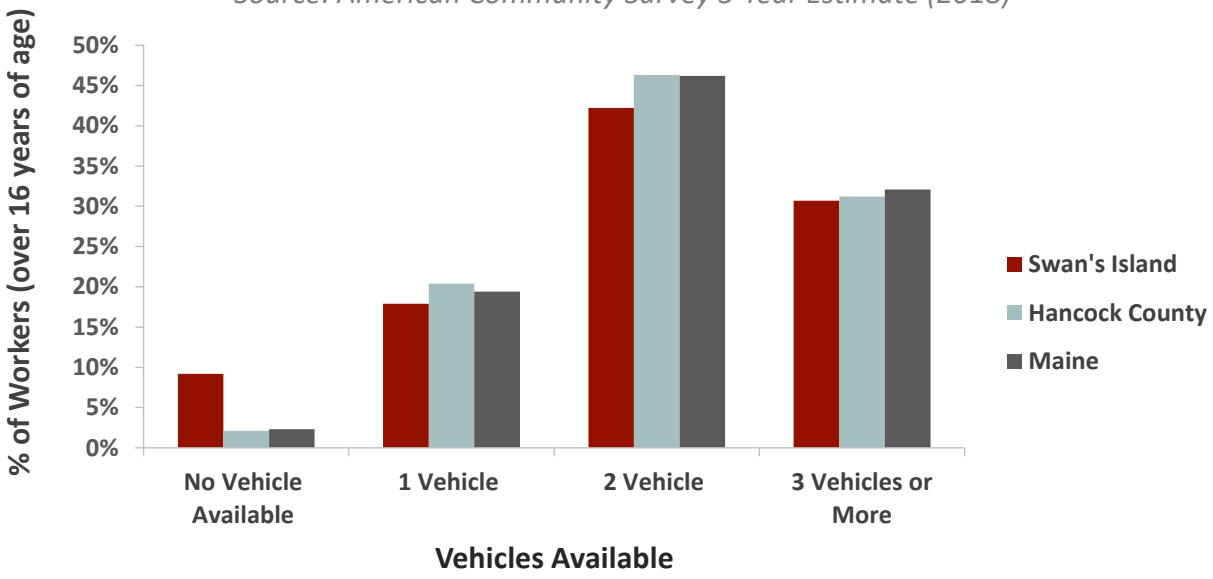
VEHICULAR TRAFFIC

In 2018, 42% of Swan's Island workers (16 years & over) had two vehicles available for use, while 31% of workers had three or more vehicles available.

The number of vehicles available per household does not necessarily mean there are high traffic volumes at any given time. However, this information can help indicate seasonal fluctuations in traffic with the addition of seasonal residents and visitors on the island.

Figure 2. The Number of Vehicles Available
Swan's Island (2018)

Source: American Community Survey 5-Year Estimate (2018)



VEHICULAR ACCIDENTS

Maine's Department of Transportation reported 21 crashes on Swan's Island between 2003 and 2020, involving a total of 26 individuals. 81% of those crashes occurred in clear weather with dry road conditions. 20 of the 26 total individuals involved reported 'no apparent injury' while the remaining 6 individuals reported a 'suspected minor injury'.

Between 2003 and 2020, four crashes occurred around the Stanley Point Road and Minturn Road intersection and three crashes near the Ferry Road and Atlantic Road intersection. See the map below, titled Swan's Island Crash Locations, for all crash locations during the 17-year period.

c. BICYCLES & PEDESTRIANS

While there are no formal bicycle routes, lanes, or pedestrian walkways on Swan's Island, there are several paths that provide shortcuts to connect various places on the island without use of the roads.

Bicycles are a popular activity on the island, specifically during the summer season. That being said, there is a need for adequate and well-maintained road shoulders and bike lanes. Given the lack of cycling and pedestrian infrastructure the current conditions across the island are generally unsafe for both pedestrians and bicyclists. Many of the island's roads are narrow, winding, and include sharp bends with low visibility. For these reasons, it can be dangerous for large tour groups, who are unfamiliar with the island, to travel the roads on foot or bike. This has historically been a challenge on the island and should be considered as part of the recommended comprehensive survey and long-range planning efforts.

d. FERRY & WATER TAXI SERVICES

MAINE STATE FERRY SERVICE

Swan's Island is one of Maine's fifteen unbridged island communities with a year-round population. There are no roads or bridges that connect Swan's Island to the mainland. For this reason, ferry service is a critical and essential component of the town's transportation system. Residents and visitors depend upon the ferry for delivery of mail, food, and other essential supplies. The ferry is the primary means for passenger and vehicle transportation to and from the mainland.

The Maine State Ferry Service provides year-round service from Bass Harbor to Swan's Island, as well as Bass Harbor to Frenchboro. The ferryboat shared between Swan's Island and Frenchboro allows transport for passengers, bicycles, motorcycles, vehicles, and trucks.

The ferry's operating schedule changes throughout the year depending on the season. During the summer, there are six daily trips to and from the mainland, except for an abbreviated schedule on Sundays and Wednesdays. The fall schedule also offers six daily trips (except Sundays and Wednesdays) but with earlier departure times to accommodate daylight savings. The winter schedule offers five trips per day (except Sundays and Wednesdays). The ferry takes about 40 minutes and travels six miles between Swan's Island and Bass Harbor.

SWAN'S ISLAND FERRY

"Captain Henry Lee"

6 miles between Swan's Island and Bass Harbor - 40 minutes

WINTER

Mon., Tue., Wed.☆, Fri, & Sat.
January 3 thru May 2

-DEPARTS-	
Swan's Island	**Bass Harbor**
6:45 a.m.	7:30 a.m.
8:15 a.m.	9:00 a.m.*
9:45 a.m.*	11:00 a.m.
2:15 p.m.	3:00 p.m.
3:45 p.m.	4:30 p.m.

Sundays
January 5 thru May 3

-DEPARTS-	
Swan's Island	**Bass Harbor**
8:15 a.m.	9:00 a.m.
10:45 a.m.	1:30 p.m.
2:15 p.m.	3:00 p.m.
3:45 p.m.	4:30 p.m.

SUMMER

Mon., Tue., Wed.☆, Fri. & Sat.
May 4 thru October 10

-DEPARTS-	
Swan's Island	**Bass Harbor**
6:45 a.m.	7:30 a.m.
8:15 a.m.	9:00 a.m.*
9:45 a.m.*	11:00 a.m.
1:30 p.m.	2:15 p.m.
3:00 p.m.	3:45 p.m.
4:30 p.m.	5:15 p.m.

Sundays
May 10 thru October 11

-DEPARTS-	
Swan's Island	**Bass Harbor**
8:15 a.m.	9:00 a.m.
9:45 a.m.	10:30 a.m.
11:30 a.m.	2:15 p.m.
3:00 p.m.	3:45 p.m.
4:30 p.m.	5:15 p.m.

FALL

Mon., Tues., Wed.☆, Fri. & Sat.
October 12 thru December 30

-DEPARTS-	
Swan's Island	**Bass Harbor**
6:45 a.m.	7:30 a.m.
8:15 a.m.	9:00 a.m.*
9:45 a.m.*	11:00 a.m.
12:45 p.m.	1:30 p.m.
2:15 p.m.	3:00 p.m.
3:45 p.m.	4:30 p.m.

Sundays
October 18 thru December 27

-DEPARTS-	
Swan's Island	**Bass Harbor**
8:15 a.m.	9:00 a.m.
10:45 a.m.	1:30 p.m.
2:15 p.m.	3:00 p.m.
3:45 p.m.	4:30 p.m.

YEARLY

Thursdays

-DEPARTS-	
Swan's Island	**Bass Harbor**
6:45 a.m.	7:30 a.m.
8:15 a.m.	9:00 a.m.**
9:45 a.m.	10:30 a.m.
11:15 a.m.**	2:15 p.m.
3:00 p.m.	3:45 p.m.
4:30 p.m.	5:15 p.m.

1st & 3rd WEDNESDAYS

-DEPARTS-	
Swan's Island	**Bass Harbor**
6:45 a.m.	7:30 a.m.
8:15 a.m.	11:00 a.m.
1:15 p.m.	4:00 p.m.
4:45 p.m.	5:30 p.m.

Service will be limited on Thanksgiving, Christmas & New Year's Days. Please call the local terminal for schedule.

☆2nd, 4th, 5th (if applicable) of each month only. See Wed. schedule for 1st and 3rd Wed. above.
***Does not operate on Wednesdays**
****This trip is primarily used for transport of gasoline every 3rd Thursday(**NO PASSENGERS**). Call for specific scheduling information.

Swan's Island Terminal
Swan's Island, ME 04685
Tel. (207) 526-4273

Maine State Ferry Service
P.O. Box 114
Bass Harbor, ME 04653-0114
Tel. (207) 244-3254

Ferry service is the largest transportation challenge on Swan's Island due to the cost and schedule. A new ferry will be added to the fleet in 2022. This new ship is federally funded and will increase vehicle capacity from 17 cars to 23 cars. The ferry is currently not accessible for all abilities.

MAINE STATE FERRY RATES

Table 4. Maine State Ferry Service Fares:
Bass Harbor to Swan's Island (effective October 1, 2019)
Source: Maine State Ferry Service

	Ticket Type:	Off-Peak (10/1 to 5/31)	Peak (6/1 to 9/30)
Vehicles, Motorcycles, & Trucks	Vehicle	$31.00	$38.50
	Motorcycle	$24.25	$30.50
	Truck (per foot)	$4.25	$4.75
	Reservation	$12.00	$12.00
Passenger & Walk-On	Adult (18+)	$12.50	$17.50
	Minor (6-17)	$6.25	$11.25
	Child (0-5)	No Charge	No Charge
	Commuter	$50.00	$70.00
Bicycles (includes passenger ticket)	Adult Bike	$17.50	$22.50
	Minor Bike	$11.25	$16.25

Table 4. lists the fares for the Bass Harbor–Swan's Island ferry service.

MAINE STATE FERRY RIDERSHIP

While overall ferry ridership, both passenger and vehicle volumes, have remained relatively consistent from 2010 to 2018, figures 3 and 4 below show an increase in vehicle ridership and a slight decline in passenger-only riders. Due to this trend, it can be assumed that there are more vehicles on the island in recent years than in the early 2000s.

Figure 3. Ferry Ridership Volumes for 'All Vehicles' Swan's Island (2010-2018)

Source: Maine State Ferry Service (2010-2018)

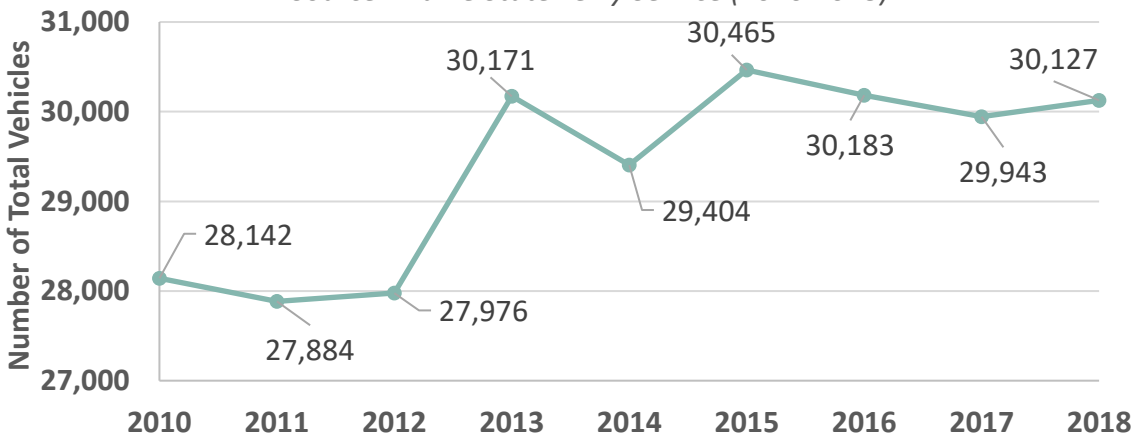
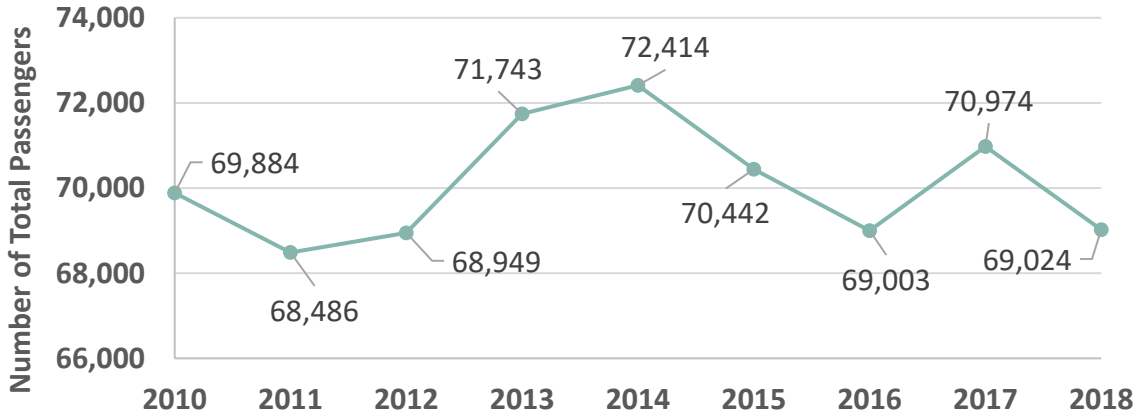


Figure 4. Ferry Ridership Volumes for 'All Passengers' Swan's Island (2010-2018)

Source: Maine State Ferry Service (2010-2018)



WATER TAXI SERVICES

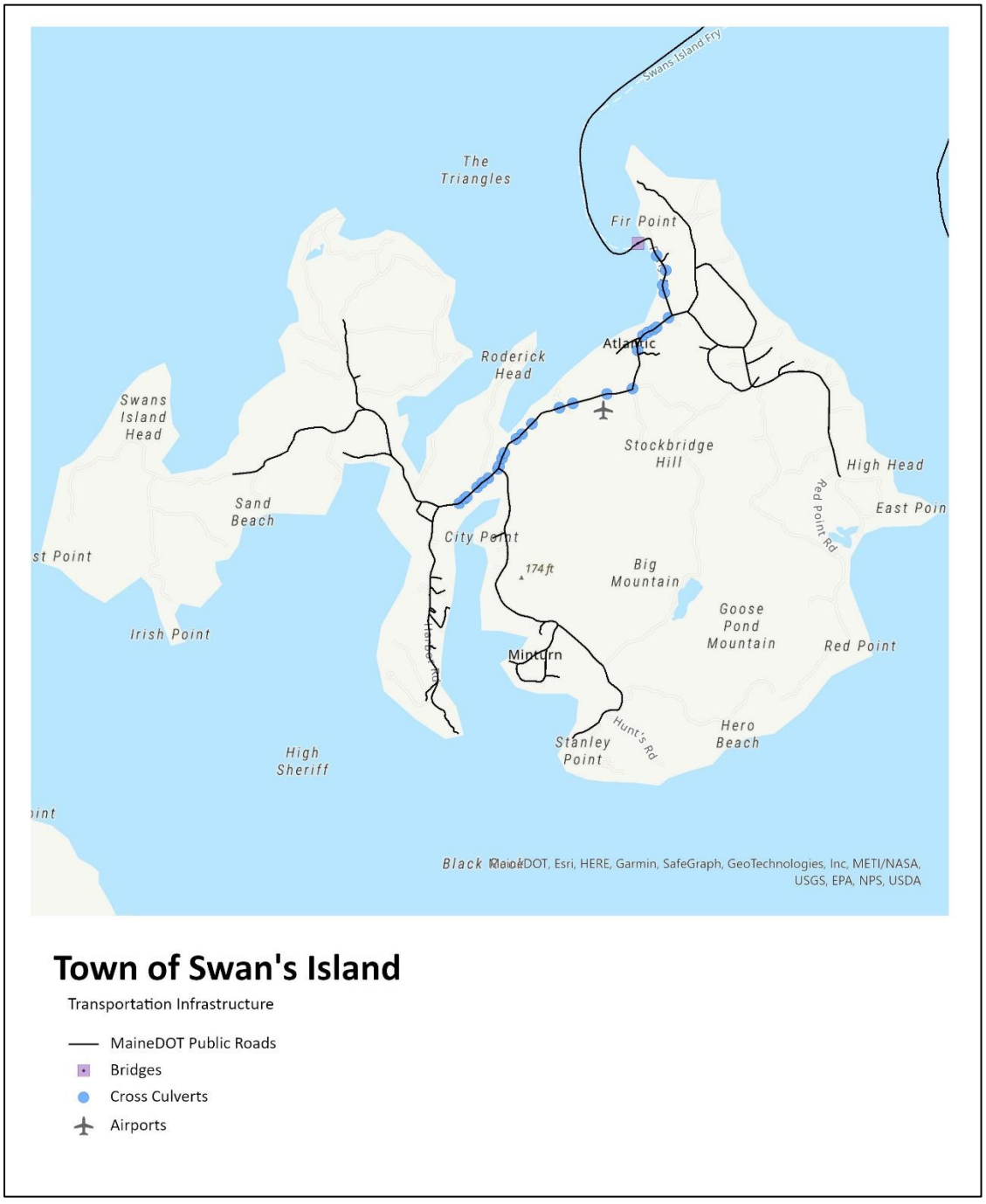
Swan's Island Charters' is a privately-owned charter business based out of Swan's Island that provides custom tours and water taxi services for up to six passengers.

'Bass Harbor Island Cruises' is an additional opportunity for private charter. Located in Bass Harbor, the R.L. Gott boat (a 40-foot vessel) will travel to Swan's Island upon special request.

e. AIR TRANSPORTATION

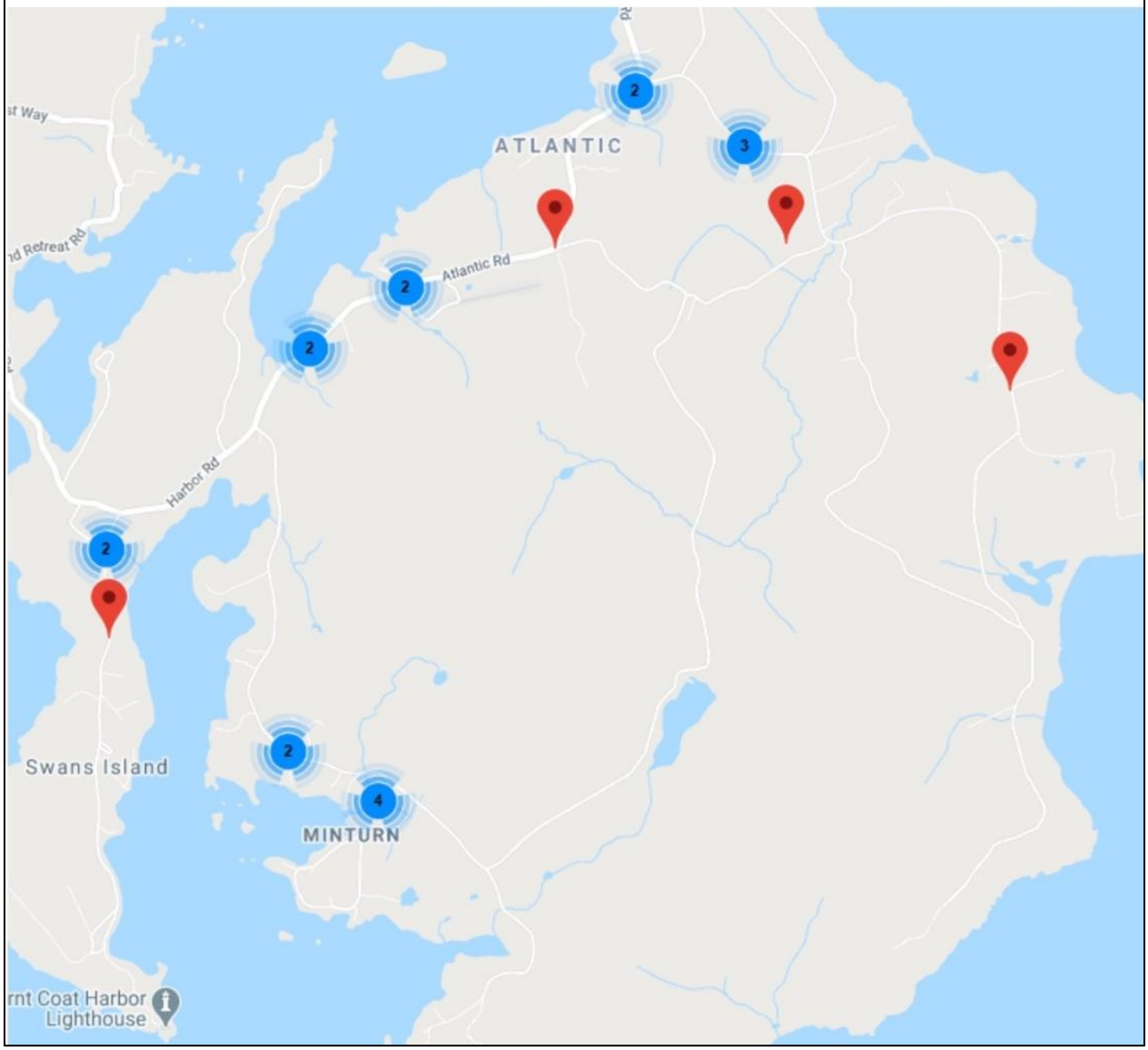
While there are no public airports on Swan's Island, there is a privately-owned airstrip called Banks Airport and landing pad used primarily for 9-1-1 emergencies. 'LifeFlight of Maine' accesses this property via helicopter to ensure that any individual on the island can have medical transport to the mainland when needed.

vi. MAPS

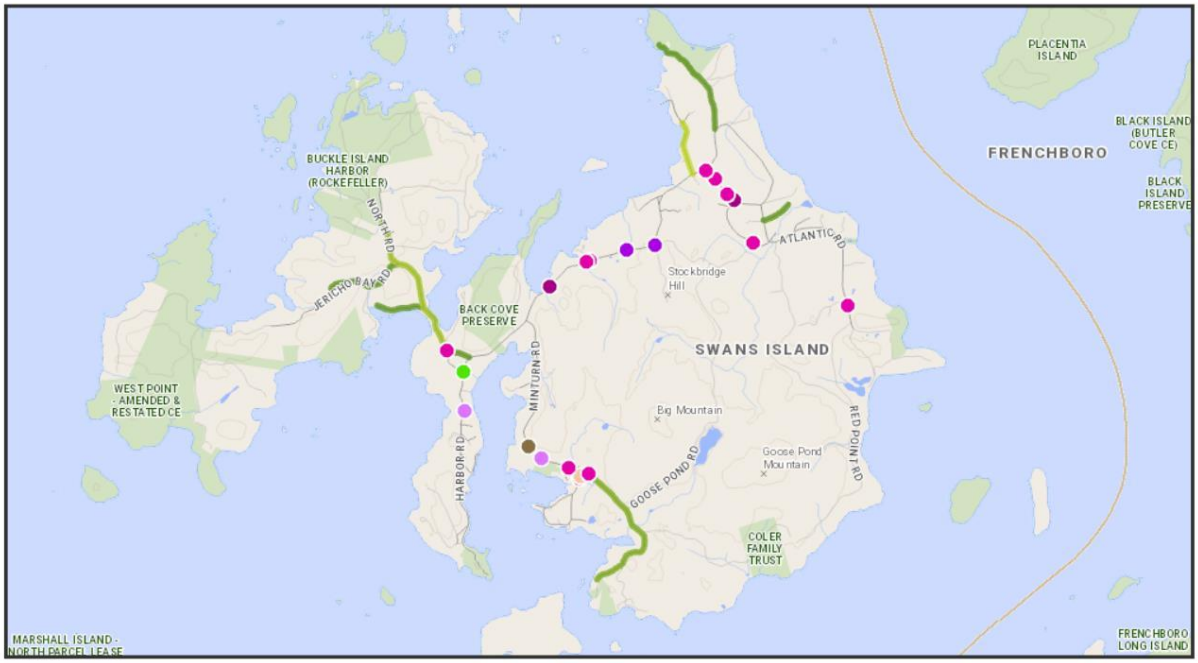

Swans Island Fry
The Triangles
Fir Point
Atlantic
Roderick Head
Swans Island Head
Stockbridge Hill
High Head
East Poin
Red Point Rd
Sand Beach
City Point
174 ft
Big Mountain
Goose Pond Mountain
Red Point
Irish Point
Minturn
Hunter Rd
Hunt's Rd
Hero Beach
Stanley Point
High Sheriff
Black
MaineDOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA
Town of Swan's Island
Transportation Infrastructure
MaineDOT Public Roads
Bridges
Cross Culverts
Airports

Swan's Island Crash Locations (2003-2020)

Source: MaineDOT Public Crash Query Tool 2020



CRASHES 10 YEARS & SPEED LIMITS



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1.5 Miles

1 inch = 1.09 miles

Date: 5/18/2021
Time: 9:01:44 AM

LEGEND

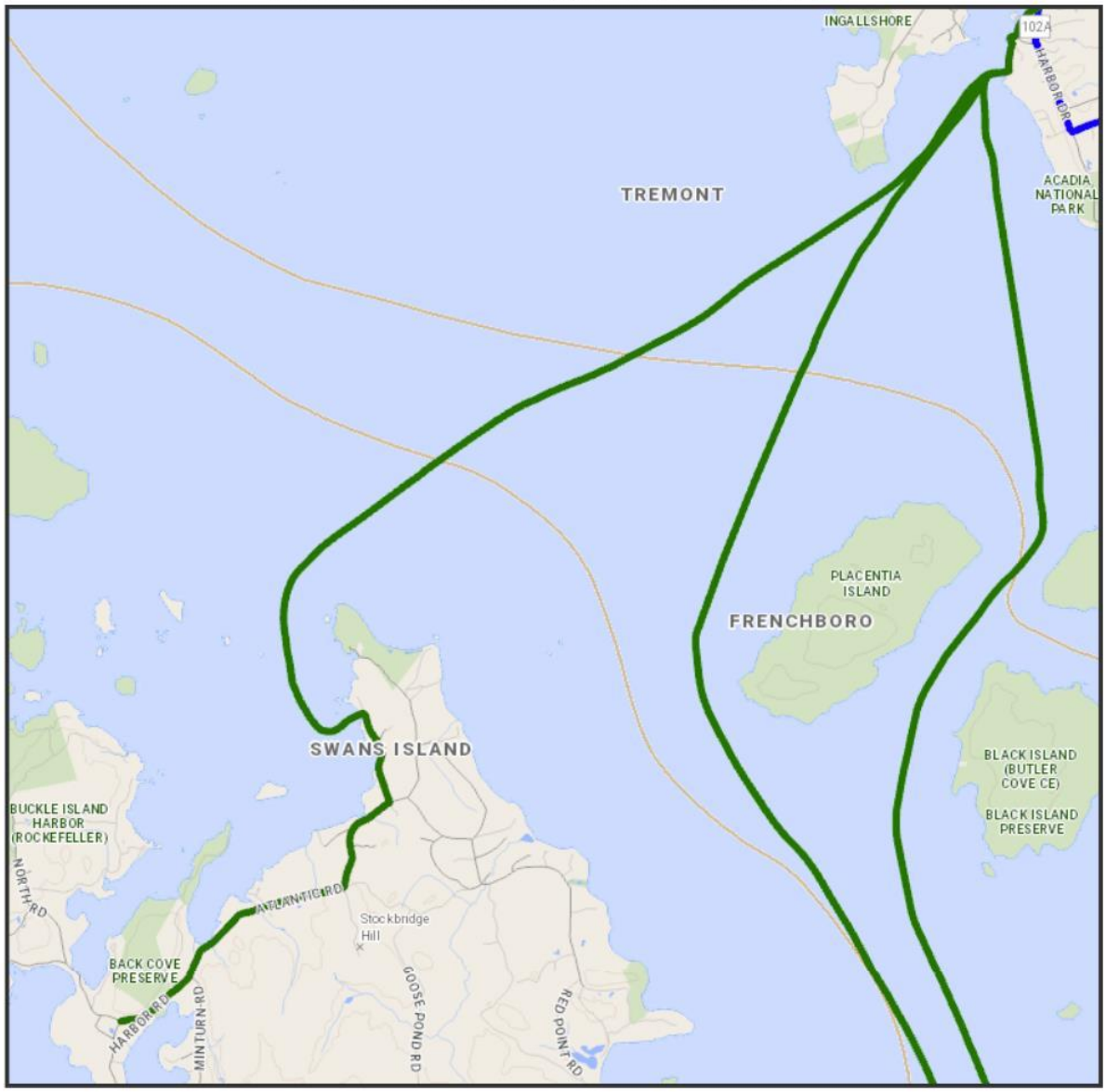
Crashes - 10 Years

- <Null>
- All Other Animal
- Bear
- Bicycle
- Deer
- Fire
- Head-on / Sideswipe
- Intersection Movement
- Jackknife
- Moose
- Object in Road
- Other
- Pedestrians
- Rear End / Sideswipe
- Rollover
- Submersion
- Thrown or Falling Object
- Train
- Turkey
- Went Off Road

Speed Limit

- 10
- 15
- 20
- 25
- 30
- 35
- 40

CUSTOMER SERVICE LEVELS



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1 Miles

1 inch = 1.09 miles

Date: 5/18/2021
Time: 9:18:49 AM

LEGEND

CSL Service Data Simplified

- A
- B
- C
- D
- F

PUBLIC FACILITIES & SERVICES

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i. KEY FINDINGS

ii. STATE GOALS

iii. OBJECTIVES

iv. RECOMMENDED STRATEGIES & ACTIONS

v. DATA ANALYSIS

   a. ADMINISTRATION

   b. EMERGENCY SERVICES

   c. PUBLIC WORKS & WASTE DISPOSAL

   d. POWER & TELECOMMUNICATIONS

   e. HEALTH SERVICES

   f. EDUCATION

   g. LIBRARY

vi. MAPS

i. KEY FINDINGS

- ***Broadband internet access is not consistently available throughout the Island.*** Currently, the school and library are the only places on the island served by broadband internet. The limited high-speed internet service receives the most complaint of needing improvements of any public service on Swan's Island. Recent improvements in technology are helping to increase potential service availability and reliability.
- ***The Island benefits from several important facilities that contribute to community life*.** These facilities include Town Hall, the post office, the fire stations, the food pantry located at Station 1, and the school. Other facilities include:
  - ***Odd Fellows Hall*.** Odd Fellows Hall, which is not owned by the town, has been an important community gathering spot for generations. Activities have included Sunday breakfast, concerts and music festivals, dances, plays, variety shows, family reunions, weddings, and cook-offs. The building is only usable seasonally and there are repairs needed.
  - ***Library***. The island's library also serves as a major community hub for the town hosting events, summer programming, study and meeting spaces, and up-to-date technology.
  - ***The Historical Society is located at the former Methodist Church.*** The mission of the Historic Society is to serve as stewards of Swan's Island history, to nurture an awareness of its relevance and to gather and display its collective stories. Meeting every month, money being raised, work on improvements.
  - ***Marine Museum.*** Partially supported by town, maritime history for Swan's Island, seasonally open, building located at ferry terminal, lots of recent renovation.
  - ***Lighthouse.*** Important part of Swan's Island history. Located on the national register of historic places, apartment and exhibits. Partially supported by Town. The Light is still operational.
  - ***Quarry Wharf/Fish Plant*** – Quarry Wharf and the surrounding town-owned properties include infrastructure that can support a range of important marine and community activities. Improvements to the facilities and consideration of future uses are needed.
- ***Currently there is no full-time primary care physician available on-island.*** Mill Pond Health Center offers a variety of healthcare and preventative services. There are regular visits from primary care, podiatry, and dental care providers. Counseling and telemedicine services are also available. Health services are among the top public services survey respondents marked as needing improvement.
- ***Swan's Island School provides K-8 public education which is considered an important part of the Island's community.*** There are three classroom teachers, a principle-teacher dual role, three special education/support teachers, a visiting guidance counselor, and part-time extracurricular teachers for art, foreign language, physical education, music, technology, etc.

ii. STATE GOALS

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

iii. OBJECTIVES

1. Broadband infrastructure is available throughout the island.
2. Town facilities and services operated and maintained efficiently and effectively.
3. The Island has licensed EMT's and EMR's that provide timely and appropriate response to emergencies.
4. Mill Pond Health Center offers quality health care services and meets the demand
5. Safe drinking water is available.
6. Solid waste disposal is provided and safely removed from the Island.

iv. RECOMMENDED STRATEGIES & ACTIONS

Public Facilities and Services	Responsibility	Timeline
Implement options for increasing access to Broadband internet throughout the Island.	Broadband Committee	Ongoing
Maximize benefits of the Quarry Wharf property and surrounding Town owned properties (including Quarry Pond) to the entire town through: - Development of a site level master plan focused on efficient layout, circulation, and use of spaces - Investments in maintenance to existing structures and new development to support growth opportunities as appropriate - A management plan to identify potential uses, management objectives, and processes for site use. (This strategy is also in the Marine Resources chapter)	Board of Selectmen	Immediate / Ongoing
Continue to support the Health Center and explore options for addressing increased demands for services, including: - Continued partnerships with Maine Seacoast Mission and Mount Desert Island Hospital - Planning for improved physician access - Consider possible incentives or benefits to attract a primary care physician to relocate or retire on the island - Actively promoting serves available at the Health Center - Investments to support telemedicine	Board of Selectmen, Public Health Officer, Health Center Director	Ongoing
Support continued training for Island emergency services and continue to work toward improvements to the Town's ISO rating system.	Board of Selectmen, Ambulance Service, Fire Department	Ongoing
Continue to support the Island's school and SIES library.	Board of Selectmen, SIES, School Board	Ongoing
Explore options for increasing educational opportunities on the Island that encourage and support life-long learning.	School Board, SIES	Ongoing

Continue to make improvements to the efficiency of the Island's transfer station and explore developing policies that manage the disposal of construction demolition debris.	Board of Selectmen	Ongoing / Short Term (1-2 years)
Annually review the community's capital improvement to accommodate anticipated changes in growth and demographics.	Board of Selectmen, all Committees	Annual
Plan for and make needed improvements to the baseball field, improve multi-use court (e.g. fencing, tennis court, pickle ball, basketball) and monitor facility as required by previous grant.	Recreation Committee	Short-term (1-2 years) / Ongoing
Plan for and budget needed resources to make improvements to the Rec Building.	Recreation Committee/ Board of Selectmen	Short-term (1-2 years)
Explore feasibility of constructing a new sand salt shed. When considering locations for the new sand salt shed look for a location that is closer to the ferry and helps reduce impacts to local road network.	Board of Selectmen	Medium-term (3-5 years)

v. DATA ANALYSIS

a. ADMINISTRATION

The town office of Swan's Island is located at 125 Harbor Road. The building is adjacent to the US Post Office and features a new addition that currently provides accommodation for one of Hancock County's Deputy Sheriffs.

Swan's Island operates under a town-meeting form of government that is structured with an elected board of three selectmen who also serve as the town's assessors. The selectmen are assisted in their duties by municipal staff and volunteers that include an administrative assistant, town clerk, voter registrar, treasurer, tax collector, road commissioner, harbormaster, shellfish warden, code enforcement officer, local plumbing inspector, electrical inspector, emergency management director, public health officer, fire chief, assistant fire chief, fire warden, assistant fire warden, EMT director and an assistant EMT director.

The Municipal Planning Board consists of five elected members who serve 3-year terms. The Planning Board works with the Office of Code Enforcement and Local Plumbing to permit building projects on Swan's Island. They also meet to review applications and discuss local shoreland matters. In 2019, the Board and the code enforcement officer drafted the Swan's Island Campground Ordinance, which outlines requirements specifically for the development of commercial campgrounds. This ordinance was approved by voters at the annual town meeting on March 2, 2020.

The Municipal Advisory Council is an advisory board of seven elected members (3-year terms) who work closely with the community to support their voices. The Board strives to provide a platform that allows community members the opportunity to bring their needs, concerns, and other viewpoints to the Selectmen and the public's attention. The Municipal Advisory Council meets monthly and members regularly attend Selectmen meetings.

Additional municipal boards and committees include the MSAD #76 School Board, Board of Appeals, Maine State Ferry Service Advisory Board, Broadband Committee, Comprehensive Planning Committee, Lighthouse Committee, Mill Pond Park Committee, Nursery School Committee, Recreation Committee, Shellfish Conservation Committee, Eldercare Outreach of Swan's Island, Swan's Island Educational Society, Swan's Island Historical Society, and the Lobster and Marine Museum.

b. EMERGENCY SERVICES

FIRE DEPARTMENT

The Swan's Island Fire Department is volunteer-based with twenty active members and two inactive members. The Fire Chief and Assistant Fire Chief are appointed by the department or the Selectmen and receive a small yearly stipend. The fire department is funded by the town, while a donation fund separate from the town is available and shared with the EMS department. The fire department raises additional money by holding a yearly lobster feed at the Atlantic Station.

There are two active firehouses (Station 1 Harbor; Station 2 Atlantic) and eight dry hydrants on the island. The department has six fire trucks with the most recent ones acquired in 2019, 2017, and 2007. The Fire Chief checks the trucks for fuel and mechanics at least once a month and after every call. Emergency calls are received by the Hancock Regional Communications Center and then a tone is forwarded to the department. All members carry a pager, two-way radio, or both. The department also uses the 'IAmResponding" smartphone application that sends a text message whenever a tone is received. The Swan's Island Fire Department rates as an ISO-9 (Insurance Services Office) in part with a 1 to 10 rating system which classifies the availability of homeowner's insurance and the cost of premiums in an area. For the department to reach a better class requires all staff members to complete specific training exercises.

Each member volunteers approximately 100 hours over a year. Yearly training for all Swan's Island Fire Department members is required. Training topics may include hazards communication, confined spaces, lock out-tag out, emergency vehicle operations, vehicular extraction, pumps, respiratory protection, traffic control, bloodborne pathogens awareness, personal protective equipment, hazardous material awareness, CPR, emergency action plan, fire extinguishers, and self-contained breathing apparatus training (SCBA must be accompanied with a medical evaluation). Six members have graduated from the Hancock County Fire Academy, and three members are currently in training. The Swan's Island Fire Department meets twice a month.

EMERGENCY MEDICAL SERVICES

Swan's Island EMS and Ambulance is a volunteer-based department funded by the town and private donation. There are currently five emergency medical technicians (EMTs) and four emergency medical responders (EMRs). An EMS director and assistant director are appointed by the department or the Selectmen and receive a small yearly stipend.

EMTs are required to complete 52 hours of documented training every three years for relicensing. EMRs require 32 hours every three years.

Emergency calls are received by the Hancock Regional Communications Center and a tone forwards to the department. All members carry a pager, two-way radio, or both. The EMS department also uses the 'IAmResponding" smartphone application to receive text messages when there is an emergency.

Medical transportation to the mainland depends on the severity and type of emergency, the weather, and where the ferryboat may be. The ferryboat will accommodate an emergency call on a scheduled trip, and sometimes special trips to the mainland are possible. 'Lifeflight of Maine' transports off-island by helicopter and can provide advanced medical treatment. The U.S. Coast Guard and Marine Patrol are also available for medical transport to the mainland.

LAW ENFORCEMENT

The Hancock County Sheriff's Department provides police protection for the island. There is one full-time officer who lives in the community. The Deputy Sheriff visits the Swan's Island K-8 public school to teach the D.A.R.E. program and also serves as the island's shellfish warden.

c. PUBLIC WORKS & WASTE DISPOSAL

WATER SUPPLY

Water Supply on the island is provided solely through individual private wells. There is no public water system used by the town.

The Swan's Island K-8 public school is identified as a public water supply source on the island. It is a bedrock well with a protection radius of 300 feet around it. The Town office also has a public drinking water well that is available for potable water.

SEWERAGE SYSTEM

There is no public sewer system on Swan's Island. Septic waste is disposed of through private septic systems.

ROAD MAINTENANCE

Swan's Island is responsible for the maintenance of approximately 17 miles of roadways. Of those, 14 miles are town-owned roads that are either paved or filled with gravel. The other 3 miles are state-owned, paved roads. This does not account for additional private roads throughout the island. The town is responsible for maintaining and repairing about 3 miles of state roads and 14 miles of town roads. Snow plowing and sanding of public roads are done year-round as a municipal responsibility. See the 'Transportation' inventory chapter for more information.

SOLID WASTE DISPOSAL & RECYCLING

Solid waste and recyclables are disposed of at the Swan's Island Transfer Station, located at 231 North Road. Waste management currently consists of two solid waste dumpsters and two construction debris dumpsters.

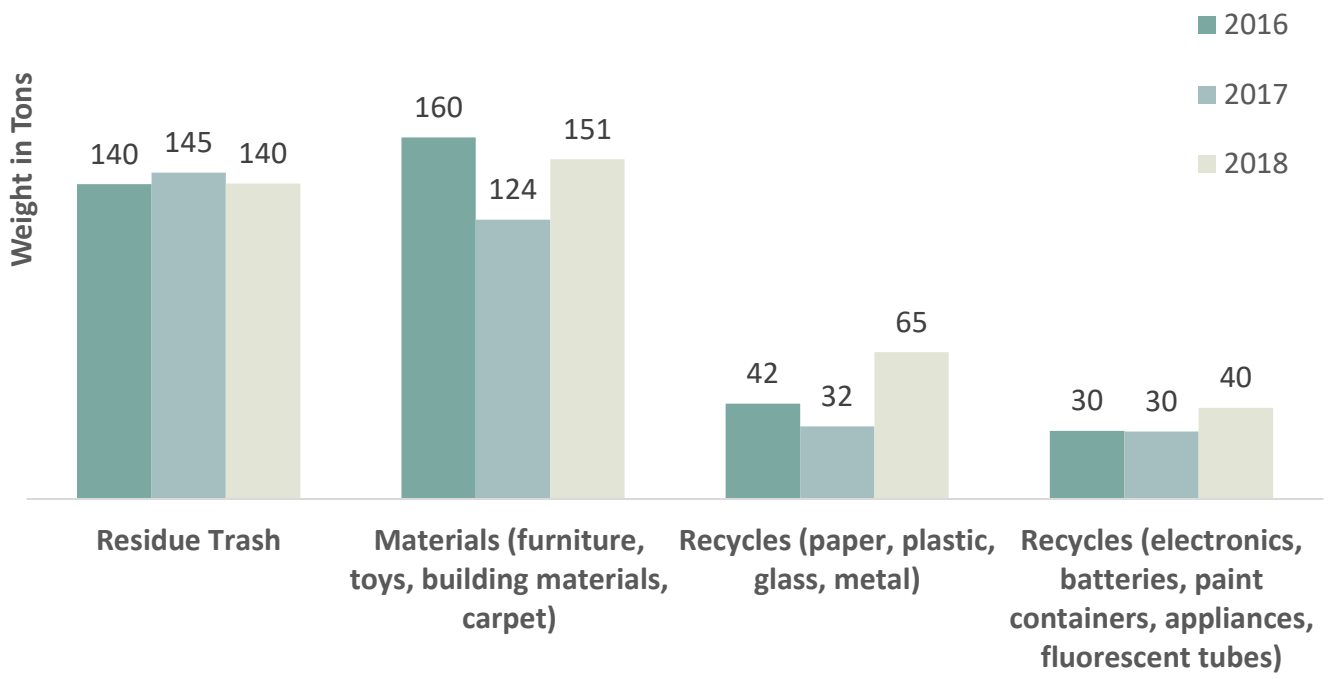
Solid waste dumpsters are for both garbage and 'single-stream' recyclables (paper, plastic, metal, glass). Solid waste dumpsters are compacted on-site. The construction debris dumpster accepts old furniture, toys, carpet, building materials, and commercial materials from wharves (e.g. frozen bait packaging).

Swan's Island is a member of the Municipal Review Committee, Inc. (MRC). MRC negotiates the cost of waste disposal to contractors. The solid waste and construction debris dumpsters are transported off-island to their respective locations.

The transfer station accepts paint containers, fluorescent tubes, batteries, and electronics, which the town transports to the mainland. All clean wood is deposited in the burn pile. The facility also accepts heavy metals, including lobster traps (with ballasts removed) and large appliances. An oily waste tank is available at the Town Office for the disposal of hydraulic and engine oil, kerosene, and transmission fluid. Hazardous debris and liquids are taken to the mainland when enough is collected. The Town of Swan's Island considers solid waste disposal a benefit for taxpayers, and there is no consideration to charge additional service fees.

Figure 1. Type and Amount of Solid Waste and Recyclables Swan's Island (2016, 2017, 2018)

Source: Swan's Island Town Office



d. POWER & TELECOMMUNICATIONS

ELECTRIC SERVICE

In 2017, Emera replaced the Swan's Island Electric Cooperative as the island's electrical utility provider. In 2020, Emera became Versant Power. Versant delivers electricity to customers as well as maintains wires and poles. Since Versant does not generate electricity, customers have the option to choose a competitive electric supplier. Otherwise, customers receive Versant's standard supplier.

Versant sets a renewable energy requirement that states that any electric supplier must provide no less than 30% of their KWH sales to customers in Maine with electricity generated from renewable resources.

Swan's Island residences operate with single-phase-power. However, commercial properties have 3-phase-power. The Swan's Island Fire and EMS Department has a phase system with the ability to shut down the island in case of a fire or accident.

INTERNET ACCESS

TDS Telecom currently provides DSL internet service to Swan's Island over the existing copper wire infrastructure. The school and library provide highspeed internet access for the community.

The Swan's Island Broadband Committee formed to help establish highspeed internet access on the island for all community members. The primary concern of residents is that the current internet service is not consistent or reliable. The Committee meets twice a month, and works with a consultant and infrastructure design company to further reach this goal. With the town's support, the Committee is working diligently to finance this project through grants and fundraising.

e. HEALTH SERVICES

The Mill Pond Health Center opened in 2007 to offer healthcare and preventative services. Currently, there is no full-time primary care physician on the island. However, a primary care physician visits the health center every other month (six times per year) while telemedicine services may be scheduled in between. Podiatry care is offered four times per year, and dental services twice a year.

Telemedicine is provided through Maine Seacoast Mission's Sunbeam program, allowing providers to remotely connect and deliver behavioral and mental health counseling, substance abuse counseling, and primary care medicine from the mainland.

The health center also arranges public meetings on various topics like pre-diabetes, cancer support and awareness, and weight loss. Other services include flu shot clinics, CPR/first aid training, AA meetings, eldercare outreach, and a women's group.

f. EDUCATION

The current Swan's Island public school was built in 1990 to offer education for kindergarten to eighth grade. The school is part of the Mount Desert Island Regional School System AOS 91. There were 25 students enrolled in the 2022-2023 school year, spread out between three classrooms (K-2, 3-5, and 6-8). High school students on Swan's Island have school choice and most attend Mount Desert Island High School. There are three classrooms, an arts and language room, a library, and a gymnasium with a cafeteria and performance stage. The school also serves as a community center for island events and adult education classes. Additionally, the Swan's Island Nursery School is available for pre-school education.

In the 2021 – 2022 school year the enrollment was as follows:

Kinder	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth
2	2	2	1	2	3	2	2	3

g. LIBRARY

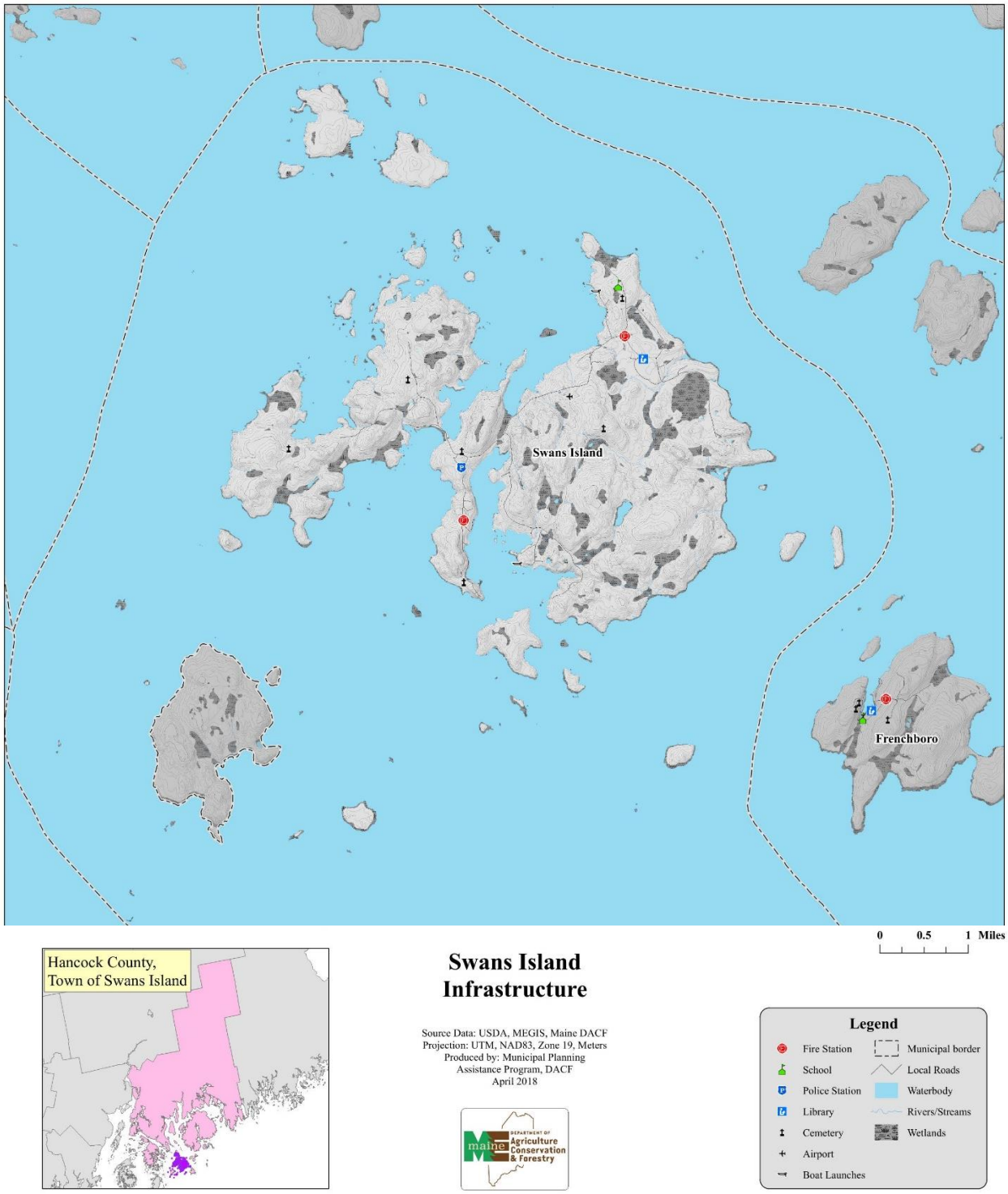
The original Swan's Island Public Library was founded in 1970 and was housed in a Methodist Church Service building at the foot of Lindsey's Hill. It later moved to the building which now houses the Marine Museum, and from there to the Atlantic Schoolhouse which was bequeathed by Minna Geddes. The Atlantic Schoolhouse was historically one of the island's former schoolhouses and burned to the ground in 2008. Despite this extremely unfortunate event, a new public library was built in its place and opened during the summer of 2011.

The Swan's Island library is a 501(C)3 non-profit corporation funded by the town and private donations. In 2018, $12,000 was contributed by taxpayers, while $60,000 was generously donated.

In 2015, the library was awarded a $35,000 grant from the Stephen & Tabitha King Foundation to convert the reading room to a conference-like meeting center, equipped with all new technology: screens, cameras, projector, upgraded wiring, and high-speed internet access.

The library is a major community hub for the town and is utilized as a meeting space by the town's committees. Children's programs, story time, and various community events happen throughout the year. Library programming during the summer includes art shows featuring children's artwork, photographs, paintings, and other media from local artists. Poetry readings, readings from Pulitzer Prize authors, independent film showings, Friday movie nights, craft fairs, historical society exhibits, and visiting guests are also part of the library's schedule.

vi. MAPS


Swans Island
Frenchboro
0 0.5 1 Miles
Hancock County,
Town of Swans Island
Swans Island
Infrastructure
Source Data: USDA, MEGIS, Maine DACF
Projection: UTM, NAD83, Zone 19, Meters
Produced by: Municipal Planning
Assistance Program, DACF
April 2018
maine
Department of
Agriculture
Conservation
& Forestry
Legend
Fire Station
School
Police Station
Library
Cemetery
Airport
Boat Launches
Municipal border
Local Roads
Waterbody
Rivers/Streams
Wetlands

FISCAL CAPACITY

i. KEY FINDINGS

ii. STATE GOALS

iii. OBJECTIVES

iv. RECOMMENDED STRATEGIES & ACTIONS

v. DATA ANALYSIS

   a. PROPERTY VALUATION & TAX RATE

   b. MUNICIPAL REVENUES

   c. MUNICIPAL EXPENDITURES

   d. STATE SUBSIDIES FOR EDUCATION

   e. 2019 FISCAL HIGHLIGHTS

   f. CAPITAL ASSETS

   g. DEBTS

   h. CAPITAL INVESTMENTS

i. KEY FINDINGS

- *Municipal revenue and expenditures on Swan's Island are rising.* Taxes represent a large portion of the revenue collected on Swan's Island. Between 2013 and 2019, Swan's Island tax revenue increased 25% due to school budget.
- *Education and transportation are the largest municipal expenditures for Swan's Island.* Between 2013 – 2019, municipal expenditures rose by 21%, with education and transportation being the largest areas of municipal spending. The Town also receives a subsidy from the state to help support the school's total budget, though this subsidy represents a small fraction of the total budget.
- *The trend of the state's property valuation for Swan's Island was fairly consistent from 2009 to 2018, unlike the local property valuation trend, which experienced a significant increase in 2011 from the previous years.*

ii. STATE GOALS

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

iii. OBJECTIVES

Finance existing and future facilities and services in a cost-effective manner.

iv. RECOMMENDED STRATEGIES & ACTIONS

Fiscal Capacity	Responsibility	Timeline
To explore grants available to assist in the funding of capital investments within the community.	Board of Selectmen	Ongoing
Explore opportunities to work with neighboring communities to plan for and finance shared or adjacent capital investments to increase cost savings and efficiencies.	Board of Selectmen	Ongoing
Continue to monitor and participate in the County budget process so that service levels to the Town will increase as needed.	Board of Selectmen	Ongoing
Continue to seek funding for broadband infrastructure, maintenance, and system upgrades to maximize services to the community.	Broadband Committee	Ongoing
Establish and maintain Capital Reserve Funds for key services, infrastructure, and improvements.	Board of Selectmen	Short term/Ongoing
Continue to strengthen and update capital improvements budgets.	Board of Selectmen	Ongoing
Maintain good relationships with financial institutions.	Board of Selectmen	Ongoing
Continue to provide useful budget information to the community in the annual town report and other opportunities.	Board of Selectmen	Ongoing

v. DATA ANALYSIS

a. PROPERTY VALUATION & TAX RATE

PROPERTY VALUE, TAX RATE, & COMMITMENT

The property tax rate on Swan's Island ranged between 0.85% to 1.25% from 2009 to 2018.

From 2009 to 2010, there was a 28% increase in the local property valuation and a 48% increase from 2010 to 2011. In 2018, the local property valuation on Swan's Island was $172,978,700, an 88% increase (or $81,097,868 higher) than what the local property valuation was in 2009.

Related to the increasing local property valuation on Swan's Island, the property tax commitment also increased by 53% from 2009 to 2018, from $1,378,212 in 2009 to $2,101,691 in 2018.

Table 1. Property Valuation, Commitment and Tax Rate: Swan's Island (2009-2018)

Year:	Local Property Valuation:	% Change in Valuation:	Tax Rate:	Property Tax Commitment:	% Change in Commitment:
2009	$91,880,832		1.5	$1,378,212	
2010	$117,635,138	28.0	1.25	$1,470,439	6.7
2011	$174,039,400	47.9	0.85	$1,479,335	0.6
2012	$172,896,900	-0.7	0.875	$1,512,847	2.3
2013	$171,743,100	-0.7	0.99	$1,700,256	12.4
2014	$172,157,900	0.2	1.035	$1,781,834	4.8
2015	$172,036,000	-0.1	1.07	$1,840,785	3.3
2016	$171,802,000	-0.1	1.095	$1,881,232	2.2
2017	$171,380,200	-0.2	1.185	$2,030,855	8.0
2018	$172,978,700	0.9	1.215	$2,101,691	3.5
Total Change (2009-2018)	$81,097,868	88.3	-0.285	$723,479	52.5

Source: Swan's Island Town Reports 2009-2018; Maine State Revenue Services 2009-2018

STATE PROPERTY VALUATION

From 2009 to 2018, the local property valuation increased 88%, whereas the state property valuation increased only 5% during the same time.

Table 2. Comparison of Local and State Property Valuation: Swan's Island (2009-2018)

Year:	Local Property Valuation:	State Property Valuation:	Difference in Valuation:
2009	$91,880,832	$152,050,000	$60,169,168
2010	$117,635,138	$159,900,000	$42,264,862
2011	$174,039,400	$163,900,000	-$10,139,400
2012	$172,896,900	$166,300,000	-$6,596,900
2013	$171,743,100	$166,800,000	-$4,943,100
2014	$172,157,900	$162,050,000	-$10,107,900
2015	$172,036,000	$154,300,000	-$17,736,000
2016	$171,802,000	$156,150,000	-$15,652,000
2017	$171,380,200	$161,150,000	-$10,230,200
2018	$172,978,700	$159,600,000	-$13,378,700
% Change in Local Valuation from 2009-2018*			88.3
% Change in State Valuation from 2009-2018*			5.0

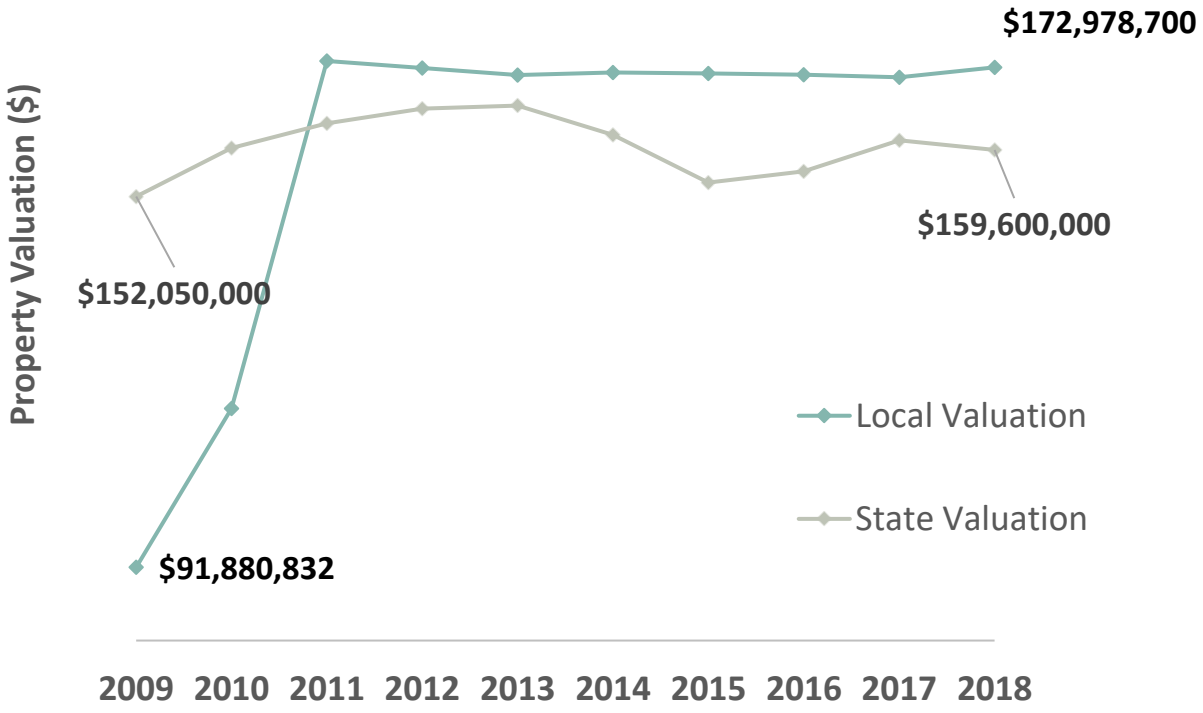
Source: Maine State Revenue Services 2009-2018; Swan's Island Town Reports 2009-2018
**not adjusted for inflation*

Figure 1. depicts the information listed in Table 2.

The trend of the state's property valuation for Swan's Island was fairly consistent from 2009 to 2018, ranging between $152,050,000 to $166,800,000, unlike the local property valuation trend, which experienced a significant increase in 2011 from the previous years.

Figure 1. Trends in Local and State Property Valuation
Swan's Island (2009-2018)

Source: Maine State Revenue Services 2009-2018; Swan's Island Town Reports 2009-2018



COMPARATIVE PROPERTY VALUATION

Table 3. compares the local property valuations and tax rates for all the towns in Hancock County, including Swan's Island, in 2017 and 2018.

The data table is in descending order from the highest property valuation to the lowest.

The local property valuation of Swan's Island represents a small portion (1.4%) of Hancock County's total property valuation in 2017 and 2018.

Table 3. Local Valuations and Tax Rates of Hancock County (2017, 2018)					
Town:	**Local Property Valuation (2017):**	**Tax Rate (2017):**	**Town:**	**Local Property Valuation (2018):**	**Tax Rate (2018):**
Mount Desert	$2,064,744,020	0.742	Mount Desert	$2,069,523,820	0.767
Bar Harbor	$1,497,194,400	1.096	Bar Harbor	$1,506,757,400	1.156
Ellsworth	$1,080,786,440	1.797	Ellsworth	$1,084,576,940	1.824
Blue Hill	$640,943,700	1	Blue Hill	$645,433,800	1
Southwest Harbor	$551,358,630	1.286	Southwest Harbor	$554,947,354	1.362
Tremont	$501,411,900	0.99	Tremont	$503,587,400	1.037
Brooksville	$445,597,600	0.559	Brooksville	$446,810,100	0.559
Bucksport	$427,109,964	1.64	Bucksport	$431,774,260	1.63
Gouldsboro	$417,357,100	0.89	Gouldsboro	$417,750,300	0.92
Hancock	$350,995,100	1.1	Hancock	$354,022,400	1.1
Brooklin	$333,048,500	0.73	Brooklin	$334,115,700	0.74
Surry	$312,211,400	0.865	Surry	$314,327,300	0.885
Trenton	$302,228,300	1.003	Trenton	$302,643,100	1.076
Lamoine	$260,003,000	1.07	Lamoine	$263,604,600	1.12
Dedham	$252,048,700	1.504	Dedham	$254,953,100	1.504
Castine	$251,809,700	1.175	Castine	$251,506,400	1.175
Sedgwick	$226,619,247	1.165	Sedgwick	$227,083,247	1.21
Deer Isle	$214,976,239	2.125	Deer Isle	$217,297,881	2.195
Stonington	$211,972,680	1.611	Stonington	$213,003,520	1.61
Orland	$200,230,933	1.395	Orland	$202,550,705	1.469
Sullivan	$198,249,460	1.285	Sullivan	$199,705,360	1.305
Cranberry Isles	$191,994,056	0.91	Cranberry Isles	$192,239,056	0.925
Penobscot	$186,403,200	1.19	Penobscot	$186,902,100	0.97
Franklin	$180,546,930	1.35	Franklin	$181,132,240	1.37
Winter Harbor	$171,722,850	1	Swan's Island	$172,978,700	1.215
Swan's Island	$171,380,200	1.185	Winter Harbor	$172,511,450	1.04
Otis	$144,988,100	0.995	Otis	$145,852,980	1.01
Sorrento	$106,209,800	0.85	Sorrento	$106,490,500	0.84
Mariaville	$70,121,000	1.58	Mariaville	$70,977,800	1.62
Verona	$53,230,670	1.3	Verona	$53,672,230	1.3
Eastbrook	$50,068,752	2.291	Eastbrook	$50,612,000	2.398
Great Pond	$31,846,900	0.6	Great Pond	$31,660,900	0.9
Waltham	$31,003,870	1.5	Waltham	$31,364,098	1.52
Amherst	$21,750,600	1.43	Amherst	$21,807,000	1.52
Frenchboro	$15,715,300	1.357	Frenchboro	$16,191,500	1.379
Aurora	$15,440,700	2.78	Osborn	$15,530,300	0.68
Osborn	$15,408,300	0.79	Aurora	$15,326,300	1.92
Total Valuation:	$12,198,728,241		**Total Valuation:**	$12,261,223,841	
Source: Maine State Revenue Services 2017, 2018					

b. MUNICIPAL REVENUES

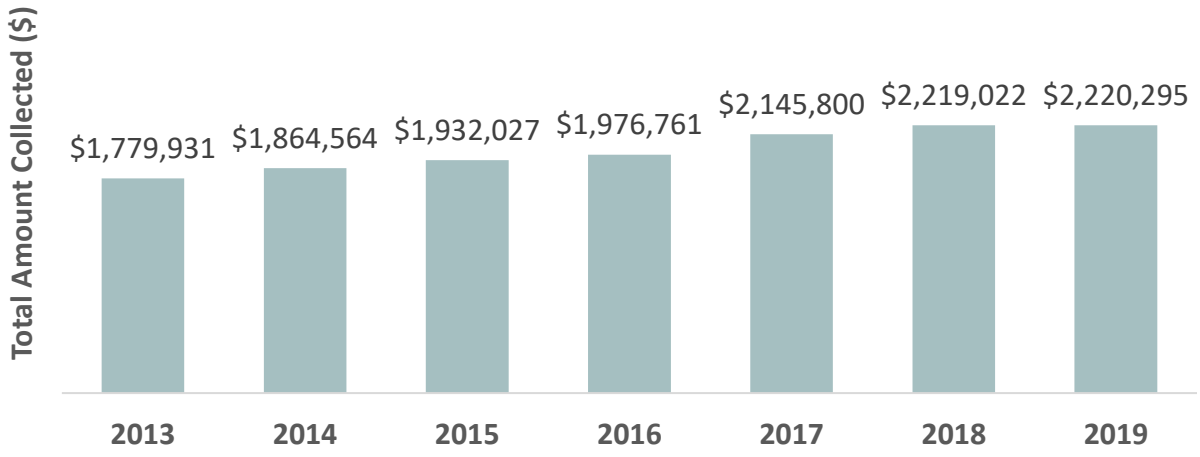
The total revenue collected by Swan's Island increased by 29%, from $1,964,805 in 2013 to $2,542,183 in 2019. Taxes represent a large portion of the total revenue collected on Swan's Island. In 2013, tax revenue accounted for 91% of the total revenue, and 87% of the total revenue in 2019. Swan's Island tax revenue was estimated at $1,779,931 in 2013, and $2,220,295 in 2019, which is an increase of 25%.

Table 4. Revenues for Swan's Island (2013, 2015, 2017, 2019)

Revenues:	2013:	2015:	2017:	2019:	% Change (2013-2019):
Taxes	$1,779,931	$1,932,027	$2,145,800	$2,220,295	24.7
Program Revenues	$158,559	$339,610	$176,700	$279,082	76.0
In Lieu of Tax	$12,913	$13,298	$8,045	$7,090	-45.1
Revenue Sharing	$10,117	$8,711	$9,885	$15,848	56.6
Other	$3,285	$4,065	$4,387	$19,868	504.8
Total	$1,964,805	$2,297,711	$2,344,817	$2,542,183	29.4
Source: Swan's Island Town Reports 2013-2019					

Figure 2. Taxes Collected on Swan's Island (2013-2019)

Source: Swan's Island Town Reports 2013-2019



c. MUNICIPAL EXPENDITURES

Similar to the increase in municipal revenue, expenditures for Swan's Island increased by 21% from 2013 to 2019. In 2013, the total expenditure amount was $2,098,910. In 2019, the sum of all expenditures equaled $2,535,040.

Table 5. Expenditures for Swan's Island (2013, 2015, 2017, 2019)

Expenditures:	2013:	2015:	2017:	2019:	% Change (2013-2019):
General Government	$163,027	$170,289	$166,013	$162,287	-0.5
Protection	$266,750	$277,427	$271,979	$272,445	2.1
Health/Sanitation	$97,749	$102,661	$161,780	$115,609	18.3
Transportation	$342,322	$457,094	$431,224	$445,864	30.2
Education	$999,347	$1,044,498	$1,195,694	$1,277,336	27.8
Unclassified	$160,671	$144,798	$139,852	$171,224	6.6
Other Assessments	$69,044	$64,445	$81,629	$90,275	30.7
Total	$2,098,910	$2,261,212	$2,448,171	$2,535,040	20.8
Source: Swan's Island Town Reports 2013-2019					

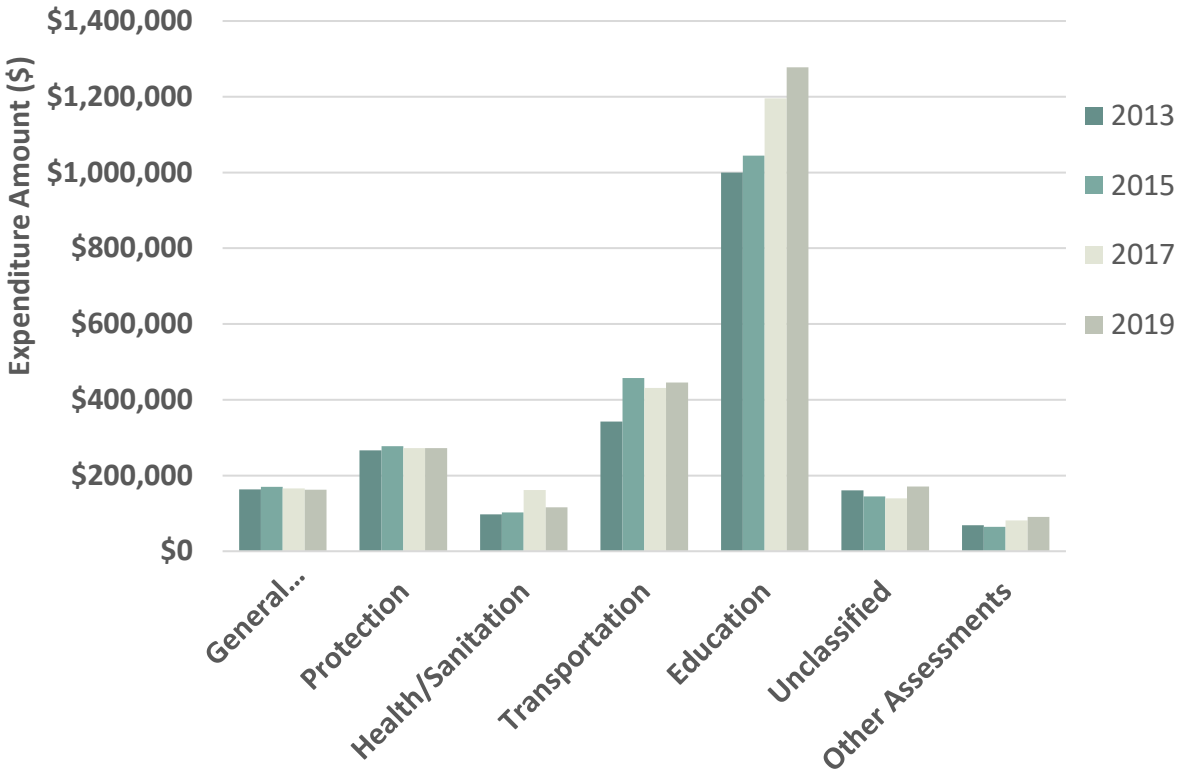
Figure 3. on the following page illustrates the information in Table 5.

Education was the greatest expenditure for Swan's Island in 2013, 2015, 2017, and 2019. During this time frame, spending increased by 28% from $999,447 in 2013 to $1,277,336 in 2019. Furthermore, education-related expenses represent nearly half of the spending budget for Swan's Island. Education accounted for 48% of expenditures in 2013, and 50% of expenditures in 2019.

Transportation was the second greatest municipal expenditure for Swan's Island, with a 30% increase in spending observed from 2013 to 2019. In 2013, expenses amounted to $342,322 and by 2019, expenses were $445,864. Transportation represented about 16% of the spending budget for Swan's Island in 2013 and 18% of the budget in 2019.

Figure 3. Expenditures for Swan's Island (2013, 2015, 2017, 2019)

Source: Swan's Island Town Reports 2013-2019



d. STATE SUBSIDIES FOR EDUCATION

Swan's Island relies heavily on local taxes to support the school budget. Swan's Island also receives subsidies from the state to help support the school budget.

From the school year of 2012-2013 to 2017-2018, the state subsidy accounted for roughly 2% to 3% of the school's total budget. However, for the 2018-2019 school year, the state subsidy of $85,733 represents 5% of the total budget and is 150% higher than the state subsidy of $34,339 that was received the previous academic year.

Table 6. State Subsidies for Education: Swan's Island (2013-2019)

Year:	Town Appropriation:	Misc. Revenue:	State Subsidy Received:	Carryover:	Total Budget:	State Subsidy as % of Total Budget:
2012-2013	$915,115	$757	$28,363	$184,330	$1,128,565	2.5
2013-2014	$1,082,579	$6,795	$29,422	$227,043	$1,345,839	2.2
2014-2015	$1,034,618	$4,968	$44,157	$328,051	$1,411,794	3.1
2015-2016	$1,053,378	$1,771	$48,561	$332,880	$1,436,590	3.4
2016-2017	$1,117,862	$1,702	$30,993	$300,017	$1,450,574	2.1
2017-2018	$1,273,526	$1,680	$34,339	$221,508	$1,531,053	2.2
2018-2019	$1,297,294	$1,284	$85,733	$264,321	$1,648,632	5.2

Source: Swan's Island Town Reports 2013-2019

e. 2019 FISCAL HIGHLIGHTS

According to the 2019 Swan's Island Annual Town Report –

The assets of the Town exceeded its liabilities at the end of the 2019 fiscal year by $6,547,724. The Town's total net position increased by $7,143 or 0.10% for the 2019 fiscal year. The Town's general long-term debt obligations decreased by $89,175 (17%) during the current fiscal year. No new long-term debt obligations were issued during the current fiscal year. Existing debt obligations were retired according to schedule.

f. CAPITAL ASSETS

The Town's investment in capital assets for its governmental and business-type activities in 2019 amounted to $15,771,288, with a net accumulated depreciation of $9,674,378, leaving a net book value of $6,096,908.

Current year additions include $211,367 in building improvements and $46,990 in vehicle and equipment purchases. Current year disposals include a fully depreciated fire rescue truck.

g. DEBTS

LONG-TERM DEBT

In 2014, the Town entered into a general obligation bond for the purpose of paving the North Road. The debt is for 10 years with interest at 3.15%. Annual principal and interest payments of $20,721 are payable each December. The outstanding balance on December 31, 2019 was $94,248.

In 2015, the Town entered into a general obligation bond with The First, N.A. for the purpose of paving the Stanley and Atlantic Roads. The debt is for ten years with interest at 3.15%. Annual principal and interest payments of $55,612 are payable each December. The outstanding balance on December 31, 2019, was $253,534.

In 2015, the Town entered into a general obligation bond with The First, N.A. for the purpose of purchasing an ambulance truck. The debt is for five years with interest at 2.00%. Annual principal and interest payments of $18,033 are payable each August. The outstanding balance on December 31, 2019, was $35,021.

In 2018, the Town entered into a general obligation bond with The First, N.A. for the purpose of a Town office addition. The debt is for ten years with interest at 3.08%. Annual principal and interest payments of $11,646 are payable each December. The outstanding balance on December 31, 2019, was $81,532.

SHORT-TERM DEBT

During the 2019 fiscal year, the Town borrowed $255,000 in short-term debt in anticipation of tax collections. The Town repaid this amount in full before the year-end, along with $4,942 in interest.

h. CAPITAL INVESTMENTS

Capital investments in Swan's Island are made on an as needed basis. Major expenditures anticipated usually precipitate the establishment of a reserve account where funds for the expenditures are build up over a several year period. The town has used this process, although informal and not highly structured, over the past many years. The town currently has one reserve account for paving which is funded by about $90,000 annually.

Other anticipated expenses include:

	Anticipated Timing / Cost	Funding Sources
Maintenance of Town Properties	Timeframe: Annually Anticipated Costs: $TBD	Local Taxes, Grants
Clinic Roof (Town Property)	Timeframe: This year Anticipated Costs: $19,755	2023 Taxes
Snow Removal Equipment (Recently purchased 2 plow trucks)	Timeframe: 22-23 winter season Anticipated Costs: $100K	Transferred 40K from Surplus 40K from Law Enforcement, 20K from Fish Plant
Sand/Salt Shed Building Review	Timeframe: Annually Anticipated Costs: $TBD	Local Taxes
Road Maintenance Equipment Unknown at this time	Timeframe: Annually Anticipated Costs: $TBD	Local Taxes