

# Deer Isle 2024 Comprehensive Plan



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**DRAFT**  
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# Executive Summary

The Deer Isle 2024 Comprehensive Plan proposes a vision of the Town's future and suggests ways to realize it. It is intended to reflect the combined views of hundreds of public opinion survey respondents, public forum participants, chapter committee volunteers, steering committee members, Town staff and elected representatives.

The Plan is designed to satisfy the requirements of Maine's Growth Management Act, which dictates much of its structure and format. Compliance with the Act will qualify the Town for preferred status in many State competitive grant programs.

The Plan does not have the force of law. It formulates goals for the Town and recommends strategies to achieve them, but the Plan's effectiveness is dependent on the steps to be taken in the future by the Town and community members to implement it.

The **Vision Statement** articulates many of the Town's aspirations for the future. It speaks of a balance between maintaining Deer Isle's small town rural character and growing by attracting young families and employment opportunities.

The **Historical and Archaeological Resources** chapter recounts the long history of the Town and recommends measures to strengthen its preservation. Deer Isle has 167 pre-historic sites and six buildings listed on the National Register of Historic Places.

**Water Resources** analyzes the Town's limited access to fresh water bodies and drinking water and the principal threats to their quality. It recommends, among other things, a thorough townwide hydrography study and consideration of measures to protect surface and groundwater.

The **Natural Resources** chapter provides a description and inventory of Deer Isle's geology, wetlands, important wildlife habitat, important plant habitat and natural communities, as well as the available measures to protect them. It recommends consideration of a broad range of steps to conserve natural resources and prevent pollution.

**Agricultural and Forest Resources** gauges the extent of farming and forestry in Deer Isle. Deer Isle has 768 acres of prime agricultural soils and 1,567 acres of farmland soils of statewide importance. The chapter suggests steps to preserve suitable land for farming and forestry and to promote local food security.

The **Marine Resources** chapter provides a thorough analysis of the Town's fishing and clamming industries and of threats to their survival. It analyzes existing marine facilities and water access. It considers aquaculture and other marine-related employment opportunities. It notes that the Town has the longest coastline of any town in Hancock County and that its residents hold more lobster fishing licenses than Stonington, yet it has very limited deep-water access. Because of the importance of this sector to the Town's residents and economy, the chapter recommends a wide range of measures to strengthen it.

**Population and Demographics** analyzes the historical and projected future population of Deer Isle, along with related demographic indicators such as median age, incomes, education levels

and household size. Deer Isle's population grew by 11% from 2010 to 2020 and, according to the State Economist, it is projected to increase by almost 7% over the next 20 years.

The **Economy** chapter identifies the three largest sectors of the Town's economy: marine-related businesses, tourism and recreation and the creative economy. It notes that Deer Isle's labor force shrank by over 100 during the 2010-2020 period and that as many residents commute to jobs out of Town as there are jobs in Town. Almost half of Deer Isle's workers are self-employed. Among other things, the chapter recommends the creation of an Economic Development Committee to study and recommend changes that would increase the Town's prosperity.

The **Housing** chapter comes to grips with one of the public opinion survey's most commonly identified issues: housing affordability. It notes that, of the homes sold in Deer Isle in 2022, 78% were unobtainable to households at or below the Deer Isle median household income. Similarly, 54% of Deer Isle households in 2022 would have been unable to afford units offered at the 2-bedroom median rent. Almost half the dwelling units in Deer Isle are seasonal. The chapter recommends the formation of a Deer Isle Housing Committee to spearhead the improvement of housing affordability in Town.

**Health and Recreation** notes the general abundance of recreational opportunities in Deer Isle, in contrast with the limited availability of healthcare services. It suggests ongoing support for youth and adult recreational access.

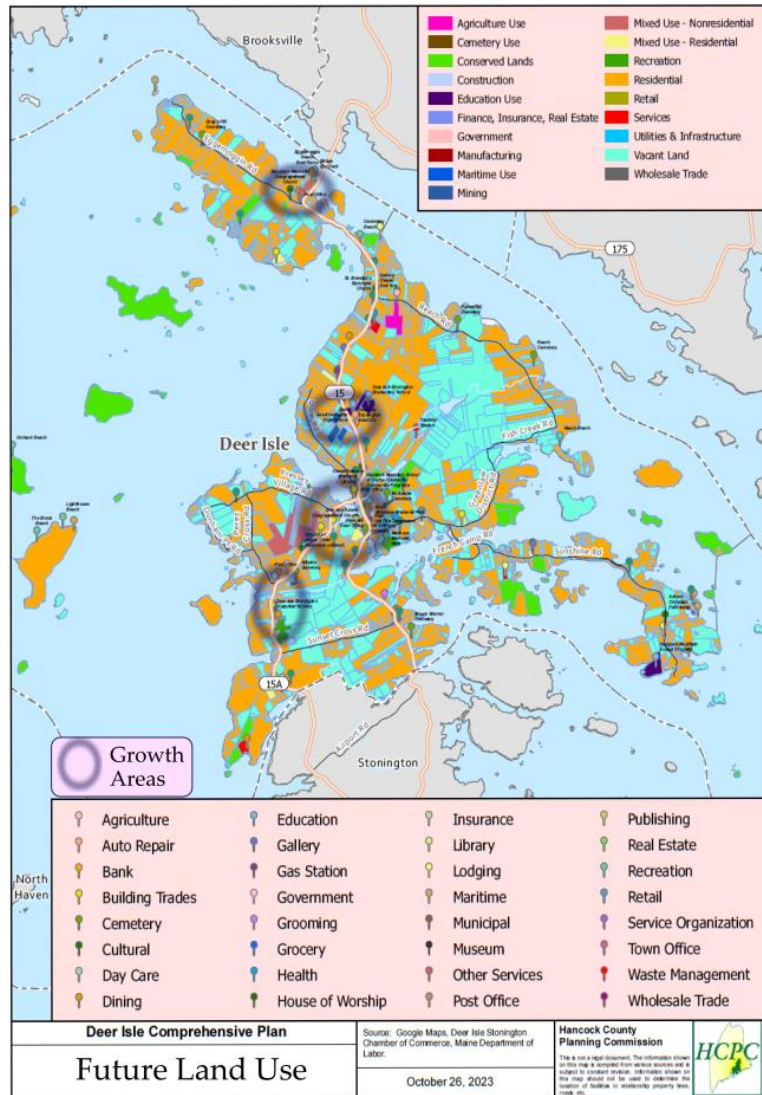
The **Transportation** chapter highlights the challenges of the Town's aging transportation infrastructure. It recommends the replacement of the Deer Isle-Sedgwick Bridge and the reconstruction of the Deer Isle Causeway and other Town causeways and infrastructure at risk from sea level rise. It also recommends improvements to bus transportation opportunities and bicycle and pedestrian ways.

**Public Facilities and Services** notes the need for improvements to various Town facilities and services, including the High School building, Fire Department facilities, the Transfer Station and road maintenance. More than 80% of the public opinion survey respondents supported merging the Deer Isle and Stonington Fire Departments.

The **Fiscal Capacity** chapter analyzes the Town's revenue sources and expenditures and sets forth a Capital Investment Plan for major capital and environmental expenditures. It notes that the Town has substantial capacity to take on debt for projects such as the High School renovations or the construction of a new Fire Station.

**Existing Land Use** describes the historical pattern of land development in Deer Isle. Approximately 100 housing and commercial structures have been built over the last ten years. Most have been scattered about the Town; only one-third were in the shoreland zone.

The **Future Land Use** chapter looks ahead over the next ten years. It is required by the Growth Management Act to identify “growth areas” where it is expected the majority of the Town’s growth will occur over that period. The purpose of this requirement is to prevent development sprawl from degrading the State’s cherished rural landscapes. Growth areas are supposed to reflect historical patterns of development; contain soils suitable for construction, water wells and septic fields; be reasonably accessible to Town services; and not encroach on areas with critical natural resources. The Plan has identified Deer Isle Village, Sunset Village, the area near the School complex and the Bridge End area in Little Deer Isle as future growth areas. It is important to note that the designation of a growth area does not have the effect of a zoning restriction on the use of properties in the area. Instead, the Plan anticipates that development will be encouraged with incentives. For example, the Town is required to plan to direct at least 75% of new municipal growth-related capital investments into growth areas.



Other Plan chapters and components include a **Regional Coordination Summary** outlining the planned cooperation with Stonington and other regional entities to promote its goals; a **Climate Change** chapter summarizing the principal effects of climate change and sea level rise on the Town; a **Summary of Public Opinion Survey** setting forth the detailed results of the survey; a **Summary of Public Engagement** highlighting the public outreach and feedback conducted during the planning process; and the **Implementation and Evaluation Program** required by the Growth Management Act, calling for annual assessments of progress toward meeting Comprehensive Plan goals.

In several instances, the Plan recommends the revival or creation of committees of Town residents to study and recommend needed improvements. Much of the success of the Plan will depend on the energy and expertise these committees bring to their tasks.

Comprehensive Plan Steering Committee

# Introduction

The purpose of this Comprehensive Plan is to propose a vision of Deer Isle's desired future and to suggest ways of realizing it. The vision presented in this Plan is informed by the views expressed by residents in the Public Opinion Survey conducted in 2023 and by input gathered during multiple public meetings held to solicit ideas and suggestions.

Among the most prominent themes identified by residents is the desire to preserve Deer Isle's small town sense of community and its natural beauty. Balanced against that are concerns with jobs for the future, housing affordability, the schools and the effects of climate change, among many others.

Maine's Growth Management Act dictates much of the structure and format of the Plan. Each chapter begins with an inventory and analysis of the Town in the required areas such as water resources, marine resources, economy, housing, transportation, public facilities and services, existing land use and future land use. Each chapter ends with a table articulating overall Town goals for that area, objectives and strategies for reaching those goals, parties responsible for implementing the strategies and timeframes. Although the Growth Management Act requires us to address all these matters, our responses are our own.

It is important to note that the Comprehensive Plan does not have the force of law. Its recommendations, such as that we take action to protect working waterfront or build a new fire station, can be key to obtaining State or other third party grant funding. However, actual implementation of these projects will still require approval of the Select Board and, in the case of such matters as new or revised ordinances or items affecting the Town budget, a Town Meeting vote.

Also noteworthy is that the Plan does not recommend land use zoning for Deer Isle. We are required to identify "growth areas" in the Plan, but it is recommended that development there be encouraged with incentives, rather than enforced with prohibitions.

In several instances, the Plan recommends the revival or creation of committees of Town residents to study and propose needed improvements. Much of the success of the Plan will depend on the energy and expertise these committees bring to their tasks

# Vision Statement

The Town of Deer Isle was incorporated in 1789 and is now home to more than 2000 year-round residents. Although bridged to the Blue Hill Peninsula, it maintains a distinct and independent island character. It has a long maritime history, a strong arts community and beautiful harbors and seascapes.

The Town of Deer Isle shall grow by attracting young families and new small businesses, but shall retain its strong sense of community, small town character and scenic qualities. New development shall be encouraged in areas designated for growth, where environmental conditions are suitable. Marine trades shall remain a key component of the economy of the Town, including fishing, clamming, boat storage, service and repair, small-scale aquaculture, seafood processing and related businesses. Traditional shore-based businesses will maintain their role. The creative economy and diversification will provide resilience against the effects of climate change and broader economic trends.

Young families will be able to afford to rent or purchase homes in the Town, helping preserve a vibrant year-round community. Our older residents will be able to remain safely in their homes or choose senior or assisted living facilities and nursing care close to their families. Our aging housing stock will be upgraded to improve health, comfort and efficiency. Residents will be able to access medical and dental care on the Island.

Island schools will meet the needs of our children and help attract new families to the Town. Graduates of our schools will be able to pursue careers and livelihoods wherever they choose, but will also find ample opportunity at home.

The Deer Isle-Sedgwick Bridge will be replaced by a modern, wider and more robust structure. The Deer Isle Causeway and other climate sensitive infrastructure of the Town will be rebuilt to be resistant to the effects of sea level rise. Town facilities and operations will be models of environmental sensitivity, energy efficiency and the use of renewable resources. Deer Isle Village will continue to thrive as a commercial and cultural center for the Town while new centers expand to serve residents and visitors. It will be safe to walk or ride a bike along Rte 15 and other Town roads.

Native wildlife and plant species will continue to thrive in designated areas and corridors in the Town that are protected against development. The arts community will continue to invigorate the cultural life of the Town. Summer residents and a manageable level of tourism will add to the Town's economy without overcrowding or traffic jams. Volunteer, religious and nonprofit organizations will continue to contribute to the community in ways that Town government cannot.

The Town will cooperate closely with the Town of Stonington and the Blue Hill Peninsula communities to provide shared services desired by residents.



## Chapter A: **Historic and Archaeological Resources**

### **1. Purpose**

A comprehensive plan should identify important historical and archaeological resources that warrant protection. They are important to the Town of Deer Isle's history, help establish a quality of life for residents and must be considered as we anticipate and plan for the future. This section will:

- a. Provide a brief history of settlement (including indigenous people) and industry in Deer Isle
- b. Identify and describe Deer Isle's historical and archaeological resources
- c. Assess current and future threats to the existence and integrity of these resources; and
- d. Assess the effectiveness of existing measures to protect and preserve these resources

### **2. Key Findings and Issues**

Coastal erosion resulting from increased storm activity and sea level rise impacts shell middens and other archaeological resources.

The Town of Deer Isle does not have any policies for preserving historic homes and sites.

There is no comprehensive shoreline survey of Little Deer Isle identifying archaeological and historic sites.

Deer Isle cemeteries are primarily maintained by small volunteer groups, many of which struggle to sustain membership, leadership and funding for cemetery maintenance.

### **3. Summary the Draft 2006 Comprehensive Plan**

While Deer Isle has 167 state-recognized pre-historic sites and five buildings listed on the National Register of Historic Places, there are few local measures in place to protect these resources. Some other buildings and sites may be eligible for listing. There is no specific program in place for widespread public recognition and preservation of these resources. Due to its long period of indigenous occupation and its early European settlement, the town has a rich and diverse history that contributes to the town's character

### **4. Public Opinion Survey Results**

Almost 46% of the survey respondents believed that the Town should be more involved in protecting Historical and Archaeological Resources. Slightly fewer (44%) were satisfied with current levels of protection. In contrast, less than 38% rated the Town's Cemeteries as excellent or good, but a plurality (48%) opposed further Town investment in them.

Numerous respondents cited the historic character of the Town as among the things they valued most about Deer Isle. One suggested that refurbishment of historic homes could be part of the solution to the Town's housing shortage.

## 5. Town History

Deer Isle is Maine's second largest island and has a human history stretching back thousands of years. Since written records do not begin until the arrival of Europeans early in the seventeenth century, our knowledge of history prior to that relies primarily on archaeology, linguistics and oral traditions of the Wabanaki.

### Pre-Colonial History

Archaeological sites are numerous on Deer Isle. The oldest known site is about 6100 years old and lies underwater off Sunshine, near the Lazygut Islands (Haviland 2012: 28). It was discovered when scallop fishermen brought up some stone artifacts in their drags. Early humans lived on and frequented Deer Isle. They were food foragers who relied on wild plants, animals and marine resources for subsistence. To get fish, they constructed fish weirs. The name Eggemoggin is a corruption of the Wabanaki word for "The fish weir place". It was originally the name of the gap between Deer Isle and Little Deer Isle. Indigenous people lived here for thousands of years.

During the 1700's Deer Isle was supposedly known as "The Place of the Lobsters". (Sakiq, see Haviland 2015.)

### Early Settlement and Commerce

In 1761, the first English speaking settlers came to Deer Isle. In 1789, Deer Isle was incorporated. The Town originally included what are today Stonington and Isle au Haut. It was not until 1868 that the State established exact boundaries for the Town. In 1874, Isle au Haut separated from Deer Isle, leaving Merchant's Row as the southern boundary. In 1897, Stonington separated, establishing a line from Crockett Cove to Holt Mill Pond as the southern boundary for the Town of Deer Isle.

The earliest settlers established themselves in log cabins close to the shore. As soon as sawn lumber became available, they built houses on higher ground away from the shore. To sustain themselves until their farms were sufficiently productive, the early settlers also hunted and fished. In the 1800's maritime commerce was growing. "The chief pursuit . . . became to follow the sea in coasting and foreign voyages, but few as fishermen." Deer Isle men became so caught up in seafaring that earning a captain's license was as common as a high school diploma is today. In 1895 and 1899, the America's cup was won with crews entirely from Deer Isle.

In the late 1800's, Maine experienced a mining boom. Charles Bryant, no local connection, established the Eastern Maine Marble Company and opened a quarry on Tyler's Hill on Reach Road. He also quarried limestone on what is now Yellow Birch Farm also on Reach Road. In 1878, Bryant established the Deer Isle Silver Mining Company and mined silver and zinc ore on Dunham's Point. This one employed 20 men from Deer Isle and Blue Hill. It closed in 1885, but was reopened in the early 1900s.

During this time and following, there were other small industries such as sail making, canning operations and some small and short-lived shipyards. There was also ice cutting and shipping, bay coasting and freight carrying as part of the local economy. The Pants Factory served the region and gave jobs on site (beyond the Mill Dam) and in homes on Deer Isle. A review of Deer Isle's history reveals the rich fabric of skills and enterprise that has resulted in the character of the Town. Deer Isle Village once had more than 50 businesses. From east to west, several enterprises could be found. Dr. Wasgatt had offices, Allie Greene's Blacksmith shop and Harkie Pickering's ice cream shop served the whole island. William Sellers sold meat and groceries, Charles Lufkin had a competing blacksmith shop, Ella Higgins produced millinery, and George Higgins sold jewelry. On the north side of the village, John Spofford sold dry goods, the A.O. Gross block (3 floors) housed Dr. L. W. Hart, dentist, Elmer Spofford, lawyer, the US Customs House and the central Office of the Deer Isle Telephone Company (Mamie Green, operator). George Scott had a barbershop and confectionery on the site of the present Chase Emerson Library. The south side of the village had Sam Pickering's general store and Moses Joyce's store also sold caskets. There were Fred Beck's meat market, Dr. Ferguson's drug store and Mike Carman's cobbler shop. Dodie and Julia Spofford sold candy and paper goods, among other things and S.S. Scott and Tom Gray both ran livery stables.

Hudson Pressey published the first newspaper, The Deer Isle Weekly, on Main Street in 1818. He later sold it to Percival Knowlton who changed the name to the Deer Isle Messenger. Hezekiah Lufkin of Sunset was the undertaker and Joseph Judkins, also of Sunset, made caskets for him.

For its first hundred years of existence, access to Deer Isle was difficult. Travel by land was tough and use of a ferry was required to get to the island from the mainland. The first ferry service was established by John Scott in 1792. It consisted of a peapod rowed by two men. It carried passengers and mail across the Reach. In 1910, the peapod was replaced with a towboat and a decked over scow. The original ferry landing was located near where today's causeway goes to Little Deer Isle, on what is now Scott's Landing Preserve. With the coming of steamboats, it was moved to the shore below what is now the Inn at Ferry Landing. This operation passed over five generations until service ended in 1939 with the opening of the Deer Isle-Sedgwick Bridge.

In 1927, the Town began to build the Deer Isle Causeway. Construction material of stone was acquired from as far away as the Village. In 1938, the Causeway was completed. In 1939, the Deer Isle-Sedgwick Bridge opened. In 1947, the maintenance of the Causeway was taken over by the State. In that year it was widened with stone quarried from nearby Pine Hill. These stones were replaced by guardrails in 2017.

In the twentieth century, as the granite industry declined in Stonington, fishing continued to gain in importance. Fish weirs continued to be built and used. People dug clams and speared flounder. Flounder spearing came to an end with the construction of the Deer Isle Causeway. Clamming continues to be an important activity. In the mid 1900's, lobstering was of particular importance. In the 1850's, as the mackereling business slowed, lobstering began. By 1880, more than 100 people were employed in the lobster industry. In 1941, the presidential yacht USS Potomac, with Franklin D. Roosevelt aboard, anchored off Sunshine where Bert Betts supplied them 105 pounds of lobster. In 1947, Gus Heanssler supplied 700 pounds of lobster for the royal wedding of Queen Elizabeth and Prince Phillip. Lobster had become a gourmet favorite.

In the 1940's and 50's, shrimp, scallops, herring and ground fish were harvested. Scallops are still doing well, but other fisheries have collapsed. Today lobster dominates local fishing, although it continues to become increasingly expensive.

Deer Isle was accessed by steamboats during the Civil War. There was regular service linking Deer Isle and Stonington to Rockland. After the war, the first summer vacationers, also called rusticators, discovered this region. In cities like Philadelphia, New York and Boston summers were uncomfortably hot, humid, dirty and unhealthy. Men who could afford it sent their wives and children to vacation spots that were cooler, cleaner and had nature to experience. Bar Harbor was the major destination, but Deer Isle saw an influx of these vacationers and traveling salesmen. There were two hotels in Deer Isle: the Lynnmore, which burned in 1954, and the Pleasant View, now a private residence, is still there. There were two other hotels in Sunset: the Firs and Felsted. They eventually had the same owner. The Firs was torn down at the time of World War II. Felsted had a three-story wing added by this owner. Just before World War II, it was sold and restored and is now on the National Register of Historic Places. Babson's Inn on Little Deer Isle was built in 1880 by the keeper of the Pumpkin Island lighthouse. The inn had several cottages with it to help house the increasing number of vacationers to Deer Isle.

Other summer colonies began to start around the island at the same time around Dunham's Point and Sylvester's Cove. The Dunham's Point colony was instrumental in founding the Deer Isle Yacht Club at Sylvester's Cove, which is still there today. Catering to seasonal visitors has become a mainstay of Deer Isle's economy.

Historic patterns of settlement are still evident throughout the Town of Deer Isle.

Other significant dates in Deer Isle's history

- 1925 Electricity (Stonington-Deer Isle Power Co)(George H. Noyes)
- 1927 Cable laid across Reach
- 1928 Island Country Club
- 1930 Deer Isle Post Office (Darwin Davidson Building) (Cy Weed)
- 1936 Deer Isle Fire Department organized
- 1951 First elementary school built
- 1967 Memorial Ambulance Corps organized
- 1968 Island Medical Center built and opened
- 1973 New building to contain both Town Hall and Fire Department constructed
- 1976 Deer Isle-Stonington High School
- 1982 Masonic Building on route Sunset Road
- 1983 Island Nursing Home opened (closed in 2021)
- 1985 Deer Run Housing opened
- 2001 Deer Isle-Stonington Elementary School (Reach Performing Arts Center)

## 6. Identified Historic and Archaeological Sites

An archaeological site is any place that contains physical remains of human use. In Maine, habitation dates back to the retreat of the last glaciers up to 10,000 years ago. Sites that existed before written records (before the arrival of the first Europeans) are called Prehistoric Archaeological sites. Such sites would be evidence of villages, burials, monuments or sites where indigenous people created stone tools or harvested natural resources. Threats to these

sites include construction of buildings and roads and erosion from heavy precipitation, rivers, streams and the ocean with sea level rising.

Once sites are identified, they should be reviewed for nomination to both national and municipal inventories in order to obtain maximum protection. Owners of important sites should also be advised of possible private offers to maintain the integrity of the sites. Public education, public acquisition, tax incentives for maintenance and publicly funded maintenance are other tools that the Town, State or private groups can use to protect and preserve historic resources. MHPC (the Maine Historic Preservation Commission) does not release the location of these sites in order to help protect them from disruption.

Some other sites are:

1. HARBOR DISTRICT (1 mile radius)

Comprised of:	Church Street	Dow Road
	King Row	Barbour's Hill (North Deer Isle)

Bridge Street	Main Street
---------------	-------------

- The Ark (Pilgrim's Inn) (1793)
- Cattle Pound (1796) opposite Old Settlers Cemetery (Only one in Penobscot County)
- Chapel of Parish House (1905)
- Chase Emerson Memorial Library (1929)
- Congregational Church (1886)
- Deer Isle Town Hall and Fire Department (1974)
- Haulover portage
- Masonic Hall Church Street (1868 - 1981)
- Mariners Memorial Park (1961)
- Masonic Building Sunset Road (1982)
- Mill Dam (1793) site of Grist and saw mills. In 1864 the Town bought the mill and made it a Town road.
- Mt Adams Cemetery (King Row)
- Pleasant View (1896)
- Old High School (1903 - 1976)
- Old homes of sea captains, big landowners and merchants (Historical Society)
- Old Settlers Cemetery (1764) (Sunset Road corner of Sunshine Rd)
- Pants Factory (opposite Mill Pond on Bridge Street)
- Parsonage (1804)
- Peter Powers Home (1785) corner of Sunshine Rd
- Sail Loft (behind old Fire House) torn down in 1919
- Shakespeare School House (Rte 15) (c. 1840-1921) named for a Deer Isle sailing vessel
- Site of the old Town Hall (Mill Dam) that burned in 1972. The original townhouse site was on the Center District Crossroad.
- Telephone Company (1900)
- Veterans Monument (1922)

Volunteers created a historic walking tour of the Harbor District in 2019. The brochure is available at <https://www.deerisle.com/deer-isle-village-walking-tour/>, and is partially reproduced below.

## 2. SUNSET

- Birch Tree Inn (Sylvester's Cove) private
- Buckminster Fuller House
- Cemeteries
  - Hillside Cemetery (off Sunset Road, Grayson Farm Road)
  - Old cemetery behind Elmer Eaton & Son (Revolutionary War veteran) (private property)
  - Packard Hill Cemetery-Crockett Cove (on private land)
  - Thomas Small (near Historical Society) (1827)
  - Willard and Ann Stinson family cemetery (private land)
- Congregational Church (1884)
- Dance Pavilion (1928)
- Felsted (1897) built as the summer home of Frederick Law Olmstead (now private)
- Hosmer's Beach
- Island Country Club (1928)
- Johnny Johnson's Store (now Olson's)
- John Olmsted Home (1896) (Gill's)
- Old road from Historical Society to Long Cove (Oliver Place, Oliver Pond)
- Parish House
- Salome Sellers House (1830) Deer Isle-Stonington Historical Society
- Silver Mine (1885) Dunham's Point
- Small's Cove (War of 1812 battle site)
- Southwest Harbor Town Landing
- Sylvester's Cove Beach
- Summer Colony Dunham's Point (1885)
- Sunset House
- Yacht Club (Sylvester's Cove) (1925)

## 3. SOUTH DEER ISLE

- Bridge to Stonington (site of first sawmill-Kent's Mill, became Grist Mill)
- Old Methodist Church
- Holt Mill Pond
- Mt. Warren Cemetery (Rte 15 behind Old Methodist Church) (1811)

## 4. LITTLE DEER ISLE

- Billings Brothers Shipyard, 1900, original site of the future Billings Diesel Marine, Stonington (private property)
- Deer Isle Causeway (1938)
- Cemeteries:
  - Billings Private Cemetery
  - Blastows Cove Road (near Eaton's Lobster Pool/Appletree Lane)



- Gray's Hill (Eggemoggin Road)
- Hardy/Weed Cemetery (Point on Weed Point Road)
- Harris/West Cemetery (Eggemoggin Road)
- Haskell Cemetery (Haskell District Road)
- Howard's Hill (Howards Hill Drive/Eggemoggin Road)
- McWilliam's Cemetery (Point on Weed Point Road)
- Weed (Weed Point Road/Honey Road)
- Deer Isle-Sedgwick Bridge (1939)
- Eggemoggin Summer Colony (1880s)
- Elementary School (private property)
- Pine Hill (Island Heritage Trust)
- Pumpkin Island Lighthouse (NRHP) (1854-1933)
- Saunders Memorial Church (1896)
- Scotts Ferry Landing (1792)

## 5. NORTH DEER ISLE

- Causeway Beach
- Cemeteries:
  - Closson
  - Hardy's Hill
  - Powers
- Ferry Landing on Ferry Landing Road (Dates)
- Grange Building (Currently Calvary Church) (2/23/1888)
- Hardy Homestead on Hardy Hill (private property) (1795)
- Lime Quarry and Kiln
- Little White Schoolhouse (now red)
- Old Congregational Church, formerly RLDS (Currently St. Brendans)
- Steamboat Wharf

## 6. THE REACH

- Asbestos Mine or Copper Mine
- Forest Hill Cemetery
- Gray Cove Beach
- Marble (Serpentine) Quarry (1873)
- The Old Manse (Building removed, cattle yard wall remains, private)
- Reach Cemetery
- Schoolhouse (moved and home of P. Weirs)
- Torrey's Mill Pond

## 7. SUNSHINE

- Advent Christian Church (1908)
- Evergreen Cemetery (Sunshine Road) (1906)
- Sunshine Causeway built over an indigenous fishweir. Improved to all tides (1933)
- Sunshine Post Office (Conary Cove Date Part of building moved) (1892-1940)
- Eastside Brickyard - Eastside Road
- Heanssler Lobster pounds (Conary Cove Road, Old Place Road)

- Haystack Mountain School of Crafts (1961)
8. MOUNTAINVILLE
- Carrying Place Mill (indigenous portage at beginning of Mountainville)
  - French Camp on Bray's Mountain (private)
  - LDS Church (circa 1910) (private)
  - Toothacher Cemetery (Tennis Preserve)(Civil War veteran)
  - Josh's Mill Pond (Freemans Run)
9. OUTER ISLANDS
- Campbell's Island - burial of a Frenchman and his companions was found
  - The village of Joseph Orono on White Island

The Maine Historic Preservation Commission (MHPC) lists 167 prehistoric archaeological sites in Deer Isle. Prehistoric refers to sites that pre-date written history (i.e., the arrival of the first Europeans). These sites are mostly shell middens, located along the coast line. The MHPC estimates that about one-third of these sites may be eligible for listing in the National Register of Historic Places.

The MHPC lists four historic archaeological sites. These include site number ME 120-001 (L'Archisnagam, a Native American fort from the 17<sup>th</sup> and 18<sup>th</sup> centuries) and site number ME 120-003, the Pond Island Archaeological District (a Native American contact area). The two other sites are number ME 120-003 (the Eastman Treasure Map, an 18<sup>th</sup> century English treasure map) and the Asbornsen Midden Jeton find (number ME 120-028, a Euro/native coin find). There are numerous historic shipwrecks associated with Deer Isle, including the schooner Shakespeare (1818), after which the Town's Shakespeare School is named.

There are six properties listed on the National Register of Historic Places. They are:

1. Felsted (Frederic Law Olmstead summer house), Sunset (1897)
2. Peter Powers house, Route 15 and Sunshine Road (1785)
3. Salome Sellers House, Sunset Road (1830)
4. Pumpkin Island Light Station, Eggemoggin Road (1854)
5. Squire Ignatius Haskell House, Main Street (1793) (Pilgrim's Inn)
6. Haystack Mountain School of Crafts (1961) (designed by Edward Larrabee Barnes)

The MHPC indicates that a comprehensive survey of above-ground resources needs to be conducted on Deer Isle in order to identify other properties that may be eligible for nomination to the National Register of Historic Places. Given the many homes of historic interest in Deer Isle, it is likely that other properties could be listed.

## Figure A-1: Deer Isle Village Walking Tour

[8] Coastline Physical Therapy & Performance Main Street



Over the years, the building has served as the Carman Shoe Store, the W. Sellars meat market, a fish market, and the Powers General Store, with a pool hall in the back. In recent years the building was an apartment of Pilgrim's Inn, office of David Hawkins, Attorney, and until 2018, Gallery Mozele. Under new ownership, Dr. Hollan Oliver opened Coastline Physical Therapy & Performance specializing in sports and orthopedic physical therapy. Call 207.619.4974; Email: hollan@coastlinetherapy.com Visit: www.coastlinetherapy.com

[9] Devta Doolan Studio Main Street



Built by Timothy B. Pickering, the building served as a grocery store run by Jeanette Pickering and sold home-made ice cream. It later housed several restaurants, including the "Spofford Corner Restaurant" and the Island Heritage Trust rented the site for its headquarters. Today the Devta Doolan Studio sells original jewelry and fine crafts and design. Email Devta Doolan: devta@devtadoolan.com or 348.3134 or 917.361.1861. Visit: www.devtadoolan.com

[10] Private House Main Street



Over the years the building has served as the town drugstore owned by Dr. C. Wasgatt; the office of the newspaper "Messenger" with P. Knowlton as publisher and editor; the Deer Isle Telephone Co. office; and Shepherd Real Estate office. Today it is under private ownership.

[11] Ronald Harte Antiques N. Deer Isle Road



Located near the site of the 19th century Haskell Sail Loft, the school house was moved to this location in the 1930s, with the lower floor serving as the Red School House, while the upper floor (ground) housed the local Volunteer Fire Department. Today the building known as the Old Firehouse sells antiques, art and vintage folk art crafts. Contact Ronald Harte 917.703.3003 or ronaharteartdesigns@gmail.com

[12] Deer Isle Parish House Church Street



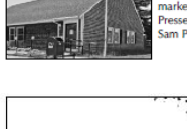
Originally built as the Parish House of the 1st Congregational Church, most recently the building served as an antiques store. Now under new ownership, plans include an event space, studio and art gallery. Visit: deerisleparishhouse.com

[13] Masonic Hall Church Street



Privately owned and closed to the public, the building was initially the town's Masonic Hall, built in 1865 during Abraham Lincoln's Presidency. The Lodge Hall was located on the 3rd floor, a banquet room and ladies powder room on the 2nd floor; and school children grades 3-8 attended classes on the 1st floor. The building is currently the private home of an artist.

[17] Deer Isle Post Office



On this site resided a number of businesses including Dr. F.B. Ferguson; Fred W. Beck grocery and meat market; M.D. Joyce and H. Pressey; T. B. Pickering & Sam Pickering.

[14] Seamark Building Church Street



Originally the town's McKinley High School, built c.1902, later called the Deer Isle High School. Current owners Bruce Bulger and his wife Holley Mead run a gallery of Bruce's fine woodworking, illustrations and paintings, and Holley's studio offering expertise in interior design, window treatments, and cushions. Please call 348.2333 or email: bruce.bulger@gmail.com. Visit: www.brucebulger.com

[15] Darwin K. Davidson Building Main Street



Originally the building served as the town's post office under F. Spofford, and at one time the O.B. Weed lumber office. It later sold candy, school supplies, ice cream, and included a beauty parlor. In recent years, the site included the Terrell Lester photo gallery, and the Haystack Mountain School of Crafts' winter office. Today the building serves the Spencer Insurance Co. on the 1st floor (Liz Perez 348.6156) and Darwin K. Davidson, photography, on the 2nd floor (Darwin Davidson 348.7767).

[16] The Periwinkle Main Street



The building originally served as the Carman shoemaker and harness repair shop. Neva Sylvester Beck then owned and ran the Periwinkle for over 47 years. Currently the Periwinkle sells crafts, art, and books by local and Maine artists, children's toys, alpaca stuffed animals and clothing, sweatshirts, te shirts, Deer Isle granite, whirligigs, wind bells, and so much more! Contact Jim and Candy Eaton at 348.5277; email: theperiwinkledeerisle@gmail.com Facebook: The Periwinkle Deer Isle

## Deer Isle Village Walking Tour



### Deer Isle Village Walking Tour July 2019

Named for an abundance of deer, Deer Isle was incorporated in 1789 and included Little Deer Isle, Deer Isle, and Isle au Haut. In 1868 Isle au Haut became a separate town, and in 1897, the southern third of Deer Isle incorporated as the town of Stonington.

In the 19th century, the granite industry flourished on Deer Isle where its quarries supplied granite for structures such as the Boston Museum of Fine Arts, the Smithsonian Institution, the US Naval Academy, the Brooklyn Bridge and at President John F. Kennedy's tomb at Arlington National Cemetery.

Throughout its history, the Village of Deer Isle has supported a wide range of commercial and civic enterprises. These included trades such as blacksmiths, livery, saddle makers, sail makers, shoemaker and harness repair, auto dealers, the elementary and high schools, the Town Hall, a pool hall, a basketball court, dance hall, movie theater with live piano, the Volunteer Fire Department, gasoline station, the telephone company, several restaurants, stores selling lumber, ice cream, candy & school supplies, drugstore, dentist, fish and meat markets -- to name a few!

This Walking Tour of Deer Isle Village is made possible with input from the following:

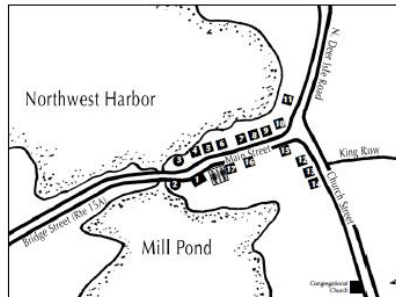
The Deer-Isle Stonington Historical Society  
The Town of Deer Isle  
Darwin K. Davidson, photography  
Maureen Farr, layout and graphic design  
Arthur J. Billings  
Neva Beck

Most importantly, we thank the business and private home owners who have given their enthusiasm for this project.

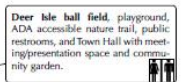
—Kate Holmes Caldwell,  
Deer Isle, ME  
July, 2019

Please note: Every effort has been made to ensure the accuracy of the historical background cited in this walking tour. If you wish to send corrections or amendments, please contact katehcaldwell39@comcast.net.

Visitor Information: www.deerisle.com 348.6124



[3] The Leon C. Weed Memorial Park Located beside the Library, the park honors Leon C. Weed, former Deer Isle postmaster.



Deer Isle hall field, playground, ADA accessible nature trail, public restrooms, and Town Hall with meeting/representation space and community garden.

[1] The Pilgrim's Inn Main Street



Built in 1793 by Ignatius Haskell, Esq. as his private residence, the building later became a boarding house known as "The Ark" and then closed during WWII. In 1977 the Inn reopened, establishing Pilgrim's Inn as a central hub for lodging and dining, listed on the National Register of Historic Places and a member of the Select Registry. Contact owners Scott Hall and Nicole Needer at innkeeper@pilgrimsinn.com or 207.348.6615; visit pilgrimsinn.com

[2] Historic Deer Isle Town Hall & Veterans Memorial Park



Built in 1870, the Town Hall burned to the ground in 1972, with meetings once held on the ground floor, and basketball played upstairs. Today with the foundation walls still visible, the Veterans Memorial Park honors all Veterans from the towns of Deer Isle and Stonington in the time of war, in peace, and in the future. The lovely garden is tended by Mary Cevasco and Rose Gardens. Contact 348.2523.

[4] Chase Emerson Memorial Library Main Street



Named for a famous Boston artist, Deer Isle's Chase Emerson Memorial Library (1929) grew out of the Jennings Library established in 1906 and the Library Sewing Circle, a women's group in the early 1900s. The building first served as the club house for the Job Boom Club, and today the library offers numerous services to the community through events, wifi access, inter-library loans, and much more. Contact the library at deerislibrary@gmail.com or visit www.deerislibrary.com

[5] Deer Isle Artists Association Gallery & Due North LLC Land Surveying and Mapping Services



Main Street Several buildings stood in the site of the Deer Isle Artists Association, Due North LLC and adjacent lots. Here Arthur Barter owned his lumber

Continued next column

Deer Isle Artists Association & Due North LLC, continued business; A. Gross and J. Spofford ran their general store and ship chandlery. In the 1930s the buildings served as a dance hall, Beacon Movie Theater with live piano, gas station, Deer Isle School Board meeting space, telephone office, P. Knowlton. Today the Deer Isle Artists Association holds numerous exhibits and programs throughout the year. Visit www.deerisleartists.com or call 348.2330. Due North LLC is a full service land surveying company that provides a wide range of surveys. Contact Linda Campbell at campbell@duenorthllc.com or 348.2902.

[6] Summerville / Mozele Gallery Main Street



In its early years, the building was owned by L. Dramis, and later, Coza Beck Torrey sold millinery and dry goods. Subsequently the building housed a fish market, barber shop, men's clothing store, and electrical supply store. Today the gallery offers beautiful paintings and collages by Jennie Summerville, and fine jewelry, pottery, ribbons, and glass by Mozele (Maureen Farr). Contact Jennie Summerville, 617.484.5262 or Maureen Farr, 207.460.2329. Visit: www.jenniesummerville.com and www.gallerymozele.com

[7] 44 North Coffee Main Street



In its early years the building served as a dentist office under Dr. F.G. McCollum, later Dr. G. Wheeler. Subsequently it became a barber shop with 2nd floor apartments, and later the Turtle Gallery before its move to N. Deer Isle Road. Today 44 North Coffee is the 5th successive women's owned business on this site, serving and selling custom roasted organic Atabica coffee beans. Contact coffee@44northcoffee.com

More listings on other side

## 7. Adequacy of Existing Protection Efforts

The vast majority of the identified sites in Deer Isle receive little or no formal protection or preservation effort. It is important for organizations and individuals taking any action on the

recommendations of this Plan to check with the organizations listed below and possibly others to obtain the latest information on resources and regulations. Programs and efforts that currently provide protection include:

a. National Register of Historic Places (NRHP)

Sites with national, state, or local significance are eligible for nomination to the National Register of Historic Places. This registry protects sites only from intervention or development by a federal agency. Highway projects with federal funding, for example, may be challenged if they impact registered sites. NRHP status is often erroneously assumed to protect buildings from alteration or destruction.

b. Maine Historic Preservation Commission (MHPC)

MHPC coordinates the National Register as it affects Maine. MHPC also maintains an inventory of historic, archaeological and coastal heritage sites in Maine, although the agency has no direct authority to protect sites. MHPC does, however, coordinate the distribution of available funds for preservation, restoration and inventory. Such funds are currently extremely limited, but may be more available with future appropriations and/or bonds. Archaeological sites are also protected by Maine State Antiquities Legislation.

c. The Deer Isle-Stonington Historical Society

The Historical Society plays an active role in identifying sites and promoting public awareness and protection, especially through the Sellers House Museum and Archives.

d. Private or Nonprofit Efforts

Private individuals and groups play an important part in preserving Deer Isle's historic resources. The Evergreen Garden Club maintains Mariners Memorial Park and has granted a conservation easement to Island Heritage Trust to protect its natural condition in perpetuity. The Town of Deer Isle and the Deer Isle American Legion post flags on veteran's graves annually. Veterans' graves are decorated annually with holiday wreaths by volunteers. There is also a veteran and mason currently procuring, accepting delivery of and placing grave markers for island veterans' graves. Individual owners of properties, including churches, homes and lighthouses, also protect their properties through maintenance, deed restrictions and other protective covenants.

e. Town Ordinances

The Deer Isle Shoreland Zoning Ordinance requires consideration of the protection of historic and archaeological resources in applications for development in the 250-foot shoreland zone. The Town's Subdivision Regulations provide that the Planning Board may require the preservation of scenic, historic and environmentally significant areas in its review of subdivision applications.

## 8. Threats and Planning Implications

Historic sites are threatened by a number of different factors.

Archaeological sites are often altered due to development and construction, especially if the site is not known. Climate change and sea level rise are taking a toll on the archaeological sites on the shoreline. Shell middens are eroding. Shoreline preservation strategies are encouraged, but should be carefully researched and considered to prevent inappropriate disturbance or covering of historic sites. Other archaeological sites are vulnerable to looting of artifacts.

Disrepair, alteration and development in the surrounding areas threaten historic buildings. Historic sites are expensive to maintain, and there is economic pressure to convert them to sustainable uses, or to find ways to decrease maintenance demands. Cemetery maintenance is managed either by the Town, a cemetery association or volunteers. The cemetery associations rely on perpetual care accounts and other contributions and are struggling to raise sufficient funds for maintenance and sufficient volunteers to manage the organizations.

The pressures of growth in Deer Isle directly challenge and confront the historic, cherished characteristics of the Town. Development pressures include new home construction on formerly historic sites and near shorelines with archaeological significance. Potential expansion of the transportation network may be a threat to Deer Isle's historic resources.

Few people would argue with the importance of protecting historic resources. The extent to which they should be protected, and whose money and property rights should be tapped in the process, however, is a difficult decision for any community. One of the first steps toward protection is identification. There should be continued efforts in Deer Isle to identify historic sites and assess their importance. Past publications, the Deer Isle-Stonington Historical Society, Island Heritage Trust and other community efforts work towards this end.

There is vast experience in successfully dealing with this problem in countless other communities in Maine. This experience, and the tools and techniques used, are readily available from government and private sources.

## 9. Goals and Objectives

GOAL: Protect key historical and archaeological resources from incompatible development and natural causes and undertake measures to assure long-term preservation and enhancement of the Town's historical sites and structures.			
Objective	Strategy	Responsible Party(ies)	Timeframe
Create a consistent and documented inventory of historic and archaeological sites and structures.	Identify resources for the Deer Isle-Stonington (DIS) Historical Society to undertake this task.	DIS Historical Society, Town Manager (Grants)	2025

	Sponsor educational events to build awareness of historic sites and benefits of their preservation.	DIS Historical Society, Town Office, Maine Historic Preservation Commission	Ongoing
Explore town policies to encourage preservation of key historical, scenic, and archaeological resources.	Review model ordinances that may be suitable for Deer Isle	Select Board, Conservation Commission	2026
Consider significant archaeological sites and historic properties for inclusion in the National Register of Historic Places.	Working from the inventory and in consultation with owners and the State, develop applications for inclusion.	Property owners, DIS Historical Society, Conservation Commission, MHPC, NRHP	2028
Create a program for labeling historic structures with honorary plaques.	Working from existing inventories and in consultation with owners, design and implement the program.	DIS Historical Society, Conservation Commission	2024 and ongoing
Protect historic and archaeological sites from climate change	Revive Conservation Commission	Select Board	2024
	Note climate vulnerability in historic asset survey (above)	DIS Historical Society	2025



# Chapter B: Water Resources

## 1. Purpose

This section presents an overview of Deer Isle's water resources, which are essential to protect the Town's drinking water. Specifically, this chapter:

- a. Describes the characteristics, uses, and quality of Deer Isle's significant water resources;
- b. Predicts and considers potential negative impacts to water quality caused by future growth and development; and
- c. Assesses the effectiveness of existing measures to protect and preserve these resources.

## 2. Key Findings & Issues

Deer Isle residents, institutions, and businesses rely on drilled wells for their water supply. According to a State hydrogeologist, the town is in a difficult situation as an island surrounded by salt water with granite bedrock that is extremely tight with limited water bearing fractures. In recent years some new wells have been found to be salty at the start. In addition, despite drilling over 50 wells over many years, the water district in neighboring Stonington presently uses only 6 or 7 of the wells due to very low yields. Deer Isle should conduct a study to find potentially promising sites for drilled bedrock wells and should find ways to discourage activity in the central parts of the island that would seriously compromise groundwater. The community should determine alternatives for safe and reliable public water supply systems in the future.

Deer Isle continues to experience a threat from overboard discharge systems (OBD) and pollution affecting ponds, streams and the ocean. Maine DEP has detailed mapping of licensed OBDs. Data for locations of septic systems is fragmented and incomplete.

## 3. Key Findings & Issues Taken from Draft 2006 Comprehensive Plan

Deer Isle has limited freshwater resources. Its aquifers are fractured bedrock, rather than the more productive gravel/sand aquifers. Bedrock aquifers are cracks and fissures in the bedrock that collect and hold water. Wetlands, including streams and ponds, are important because of their impacts on water quality, drainage, groundwater recharge, wildlife habitat, and recreation. While overall water quality appears to be satisfactory, the Town must monitor its resources carefully to meet future demands. Growth in seasonal population will continue to put pressure on resources during the driest time of year. Because of the importance of Deer Isle's ponds and wetlands, of both Torrey and Lily Ponds, development near and around these water bodies will need to be monitored carefully.

## 4. Public Opinion Survey Results

More than 69% of the Survey respondents felt the Town should be more involved in protecting aquifers for drinking water; 55% felt the same about streams and ponds. Over 84% supported or strongly supported preparing a watershed plan to protect natural habitat.

## 5. Surface Water Resources

### a. Lakes, Ponds, Rivers, and Streams

Deer Isle has a variety of surface and freshwater resources. As seen in Table B-1 and Figure B-1 below, there are approximately 136 acres of surface water (ponds) within the Town.

**Table B-1: Characteristics of Deer Isle Lakes and Ponds**

Name or Common Identifier	Area (acres)	Perimeter (miles)	Mean Depth (feet)	Max Depth (feet)	% 500-m buffer covered by impervious surface	Trophic State* (chlorophyll -a)
Lily Pond	35	1.5	17	20	1.6%	>7-30 ug/L
Olivers Pond	9	0.6	unknown	6	0.8%	<=7 ug/L
Torrey Pond	38	1.5	7	8	0.0%	<=7 ug/L
<b>Tidal Ponds</b>						
Holt Pond	33	1.5	tidal	tidal	4.8%	not available
Mill Pond	51	1.9	tidal	tidal	5.9%	<=7 ug/L
Total	133					
<p><b>*Trophic states</b> are based on lake fertility, specifically the productivity or “nourishment” in a waterbody. More fertile lakes have more nutrients and therefore more plants and algae. <b>Oligotrophic to Mesotrophic:</b> (&lt;=7 ug/L Chlorophyll-a) Describes a waterbody of low to moderate biological productivity and higher transparency or clarity. <b>Eutrophic to Hypereutrophic</b> (&gt;7-30 Chlorophyll-a) : A well-nourished waterbody, very productive, supporting a diverse array of organisms. Usually low transparency is due to high algae and chlorophyll-a content.</p> <p>* ug/L - micrograms of chlorophyll / liter of water</p>						

Sources: National Hydrographic Dataset, MaineDEP, Lake Stewards of Maine, Nature Conservancy—Northeast Lakes and Ponds Classification.

Table B-1 includes a column with impervious surface information. Stormwater running off buildings, as well as off of paved roads, driveways, and parking lots, degrades water quality in surface waters due to pollutants, high water temperatures, and high velocities. The more impervious surface in the area around a lake or pond, the greater the potential for water quality

impairment, and the greater the need for stormwater quality management. The percentages of impervious surface around Deer Isle's lakes and ponds are quite low.

One measure of water quality is the amount of nourishment in the waterbody (trophic state). According to the Nature Conservancy, more fertile lakes and ponds have more nutrients and therefore more plants and algae. For those that have been measured for this data, three of the ponds in Deer Isle are in the category of low to moderate biological productivity and higher transparency or clarity. The Lily Pond is considered to be a well-nourished waterbody, very productive, supporting a diverse array of organisms and, usually, with low transparency due to high algae and chlorophyll-a content.

The primary current use of the Lily Pond is for recreation and as a source of fire water supply for the Deer Isle Fire Department. The water level of the Pond is maintained by an earthen dam over 100 years old, located on property owned by Island Heritage Trust, Inc. since 2014. The condition of the dam has deteriorated over the years, and Island Heritage Trust is planning for its reconstruction. The outflow stream from the Pond runs approximately 2000 feet through a narrow culvert at Route 15 and a cistern used by the Fire Department and empties into the Mill Pond in Deer Isle Village. Island Heritage Trust has stated that it plans to coordinate its reconstruction efforts with the Town in order to accommodate transportation and fire water concerns. IHT has also expressed a desire for the dam, culvert and cistern to be reconfigured to allow for the return of anadromous fish passage to the Pond. Detailed design and construction of the project could take several years.

In addition to its lakes and ponds, Deer Isle has a number of (unnamed) small streams and pond outlets as well as many intermittent tributary streams. All these serve the important function of carrying nutrients to coves and mudflats where they support shellfish, fin fish breeding, waterfowl and shorebirds. Some are used by migrating smelt and elvers.

Vegetation bordering streams helps to filter run-off and maintain flow. Streamside vegetation also provides nesting habitat for birds and serves as a corridor for animals moving between habitats. For all these reasons there is a 75-foot buffer zone along all streams within the 250-foot shoreland zone and along outlet streams beyond the shoreland zone, where they comprise the Stream Protection District.

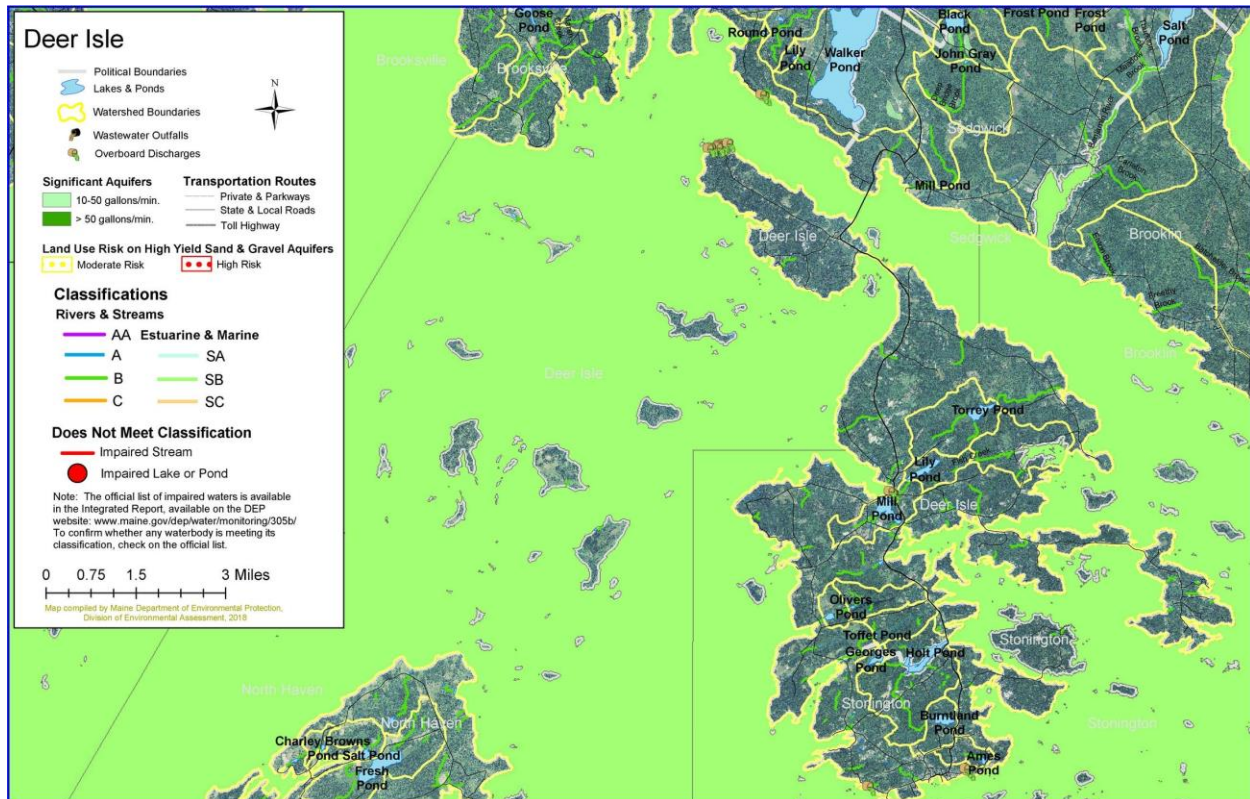
**Figure B-1: Deer Isle Ponds and Streams**



b. Watershed Boundaries

Deer Isle's watershed boundaries are depicted in Figure B-2 below (in yellow). None of the ponds or streams are categorized by DEP as impaired.

**Figure B-2: Deer Isle Water Resources**



### c. State Water Quality Classification

MaineDEP classifies the state's surface waters according to assigned water quality goals and sets uses and water quality criteria for each class. If classification standards are not met, the Water Quality Classification program directs the State to improve the quality to meet standards. The classification system includes four classes for freshwater rivers and streams (AA, A, B and C), three classes for marine waters (SA, SB and SC), and one class for lakes and ponds (GPA). According to MaineDEP:

A close comparison of the standards will show that there is actually not much difference between the uses or the qualities of the various classes. All attain the minimum fishable-swimmable standards established in the federal Clean Water Act. Most support the same set of designated uses with some modest variations in their description.

The classification system should be viewed as a hierarchy of risk, more than one of use or quality, the risk being the possibility of a breakdown of the ecosystem and loss of use due to either natural or human-caused events. Ecosystems that are more natural in their structure and function can be expected to be more resilient to a new stress and to show more rapid recovery. Classes AA, GPA and SA involve little risk since activities such as waste discharge and impoundment are prohibited. The expectation to achieve natural conditions is high and degradation is unlikely. Class A waters allow impoundments and very restricted discharges, so the risk of degradation, while quite small, does increase since there is some small human intervention in the maintenance of the ecosystem. Classes B and SB have fewer restrictions on activities but still maintain high water quality criteria. Finally, Classes C and SC have the least restrictions on use and the lowest (but not low) water quality criteria. Classes C and SC waters are still good quality, but the margin for error before significant degradation might occur in these



waters in the event of an additional stress being introduced (such as a spill or a drought) is the least.<sup>1</sup>

Including the unnamed pond labeled on the Ponds and Streams map with the identifier number 2682600, there are five ponds entirely located in the Town of Deer Isle. Only a small part of Georges Pond lies in the Town. Watersheds are an important concept in protecting water quality. The watershed of a pond is the land area which drains through that pond. Activity anywhere in a watershed may affect lake water quality.

As mentioned, water quality impaired streams, rivers, and lakes are those that do not meet the water quality criteria for their classification. According to the MaineDEP map in Figure B-2, none of Deer Isle's ponds or streams are impaired. All of Deer Isle's streams are class B.

MaineDEP classifies all natural lakes and ponds over ten acres of surface area as Great Ponds and are classified as GPA. According to Maine statutes, GPA water shall be of such quality as to be suitable for the designated uses of drinking water after disinfection, recreation in and on the water, fishing, industrial process and cooling water supply, hydroelectric power generation and navigation, and as habitat for fish and other aquatic life. The waters of natural ponds under ten acres are also classified as GPA.

Torrey Pond, Georges Pond and the Lily Pond are designated as GPA. They constitute the Pond District of the shoreland zoning ordinance, and special regulations apply. All of Olivers Pond and a portion of Torrey Pond are designated as Resource Protection.

In previous years both Torrey and Lily Ponds were considered to be threatened ponds by the Maine Department of Environmental Protection. Both were also rated as having "lowest lake management capabilities" by the University of Maine Environmental Studies Center. These two ponds are shallow, small, and receive little freshwater exchange. Torrey Pond has very little development in its watershed. There are several large wetlands around its shores. Most of the land around Torrey Pond is owned by a local commercial woods product business.

The 1990 Town Report stated that the Deer Isle Conservation Commission conducted a baseline study of Torrey and Lily Pond waters to assess whether runoff from the old Town dump was polluting Torrey or Lily Pond. At that time Professor Steve Norton of the University of Maine reported his opinion that the landfill runoff was adequately filtered and was not polluting either Torrey or Lily Ponds. Professor Norton recommended monitoring the ponds for algae content. There is no data on current levels of runoff or leachate from the transfer station.

More recent inspections by the Maine Department of Environmental Protection have resulted in closure of the transfer station burn pile, ash testing and an order to remove contaminated ash to a secure landfill. The Town is pursuing these orders. The DEP has also required towns to build salt-sand storage buildings to reduce salt runoff.

More recent tests on the [Lakes of Maine website](#) indicate that the Lily Pond and Torrey Pond have elevated phosphorus levels. Increases in impermeable surface and stormwater runoff

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<sup>1</sup> MaineDEP, Classification of Waters, accessed 4/25/2023 at <https://www.maine.gov/dep/water/monitoring/classification/>.

contribute to phosphorus loading in streams and ponds creating favorable conditions for an algae bloom which could threaten fish life and productivity.

A discussion of impairments of estuarine and marine waters, which are not included in the DEP-provided map, is contained in subsection f. below. An additional concern is salt runoff from the salt-sand storage area located next to the landfill.

#### d. Wastewater Outfalls and Overboard Discharges

As shown on the map in Figure B-2 there is no wastewater outfall in Deer Isle (given that the Town does not have a wastewater treatment facility). However, as of April 2023 there were 11 remaining properties with overboard discharge licenses—nine going into Eggemoggin Reach, one into Northwest Harbor, and one into Mill Pond.<sup>2</sup> According to MaineDEP:

An overboard discharge (OBD) is a discharge to surface waters of the State of domestic pollutants (sanitary wastes or wastewater from household activities generated at residential or commercial locations) that are not conveyed to municipal or quasi-municipal sewerage treatment facilities. The vast majority of OBDs in Maine are associated with residential dwellings and small commercial operations along the coast. Treated wastewater from the OBD system is discharged directly into Maine's rivers, streams and the ocean. The Department of Environmental Protection (DEP) has regulated OBDs since the 1970s when most direct discharges of untreated waste (i.e., straight pipes) were banned. By the late 1980s, most of the "straight pipe" discharges were connected to municipal wastewater treatment systems or were replaced with subsurface leach field systems. Certain properties were not within the reach of a public sewer line and did not have suitable soils for the installation of a subsurface treatment system. In these cases, OBDs were installed. There are approximately 1,300 licensed OBDs remaining in Maine as of October 2010, which is less than half the number of OBDs documented to be in existence in 1987. With advances in wastewater disposal technologies and revisions to Maine laws and rules, the number of OBDs in Maine continues to decrease each year.<sup>3</sup>

As discussed below in subsection f., OBDs and failed septic systems have resulted in the closure of portions of Deer Isle's shoreline to shellfish harvesting.

#### f. Impaired Marine Waters

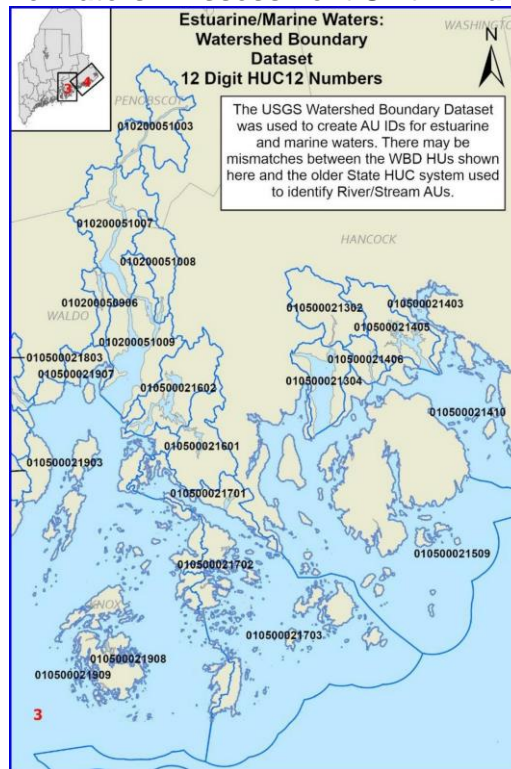
As discussed in the Marine Resources chapter, and as depicted in that chapter's Marine Resources maps, the waters surrounding Deer Isle display a range of water quality that leads to a corresponding range of regulation of such uses as shellfish harvesting. As excerpted below, there is additional tabular data about the quality of Deer Isle's estuarine and marine waters in the DEP's *Final Draft of the 2018/2020/2022 Integrated Water Quality Monitoring and Assessment Report Appendices* (see Table B-2).

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<sup>2</sup> Email from Irene Saumur, MaineDEP, 4/26/2023.

<sup>3</sup> DEP Issue Profile—Overboard Discharges (OBDs), revised February 2018, accessed on 4/25/2023 at [https://www.maine.gov/dep/water/wd/OBD/ip\\_obd.pdf](https://www.maine.gov/dep/water/wd/OBD/ip_obd.pdf).

**Figure B-3: Estuarine/Marine Waters – Assessment Unit ID Numbers**



Source: 2018/2020/2022 Integrated Water Quality Monitoring & Assessment Report Appendices

**Table B-2: Data from the Integrated Water Quality Monitoring and Assessment Report**

Assessment Unit ID	Segment Name	Location	Size (sq miles)	Class	Comments
Category 2: Estuarine and Marine Waters Attaining Shellfish Harvesting Designated Use					
ME010500021703_SB_EC_AE	Little Deer Isle, incl. Stonington (Approved)		119.01	SB	
Category 3: Estuarine and Marine Waters with Insufficient Data or Information to Determine if Shellfish Harvesting Designated Use is Attained					
ME010500021702_SB_EC_PE	Little Deer Isle, incl. Stonington (Prohibited)	Inner Harbor and Holt Pond (Deer Isle and Stonington)	0.13	SB	Contains Growing Area Section P3
ME010500021703_SB_EC_PE	Little Deer Isle, incl. Stonington (Prohibited)	Pumpkin Island (Deer Isle), Moose Island to Deer	0.58	SB	Contains Growing Area Sections P1, P4, P5



Assessment Unit ID	Segment Name	Location	Size (sq miles)	Class	Comments
		Ledges, Burnt Cove (Stonington)			
ME010500021908_SB_EC_PE	Little Deer Isle, incl. Stonington (Prohibited)	Northwest Harbor, Mill Pond (Deer Isle)	0.10	SB	Contains Growing Area Section P2
Category 5-B-1: Estuarine and Marine Waters Impaired for Shellfish Harvesting Designated Use by Bacteria Only – TMDL Required					
None	N/A	N/A	N/A	N/A	N/A
Category 2: Estuarine and Marine Waters Attaining Some Non-Shellfish Harvesting Designated Uses – Insufficient Information for Other Uses					
ME010500021703_SB_E	Cape Rosier (Brooksville) to Long Island (Frenchboro), Atlantic Ocean		209.43	SB	

Source: 2018/2020/2022 Integrated Water Quality Monitoring & Assessment Report Appendices

As discussed in the Marine Resources chapter, the water quality of the waters around Deer Isle are such that some areas are approved for shellfish harvesting or other designated uses and some are prohibited. None of the waters fall into the conditional or restricted categories. In addition, none of the waters are restricted for shellfish harvesting based on bacteria only and require a TMDL (Total Maximum Daily Load). Information about TMDL is as follows:

The Maine Statewide Bacteria TMDL (Total Maximum Daily Load) is designed to support action to reduce public health risk from waterborne disease-causing organisms. Specific types of non-pathogenic bacteria are used as indicator organisms, or surrogates, for these pathogens in water. Waterborne pathogens (bacteria, viruses, etc.) enter surface waters from a variety of sources, including human sewage and the feces of warm-blooded wildlife. These pathogens can pose a risk to human health due to gastrointestinal illness through different exposure routes, including contact with and ingestion of recreational waters, ingestion of drinking water, and consumption of filter-feeding shellfish (clams, mussels, etc.).

Maine’s bacteria TMDL consist of two formats of targets for allowable levels of bacteria:

- Concentrations of bacteria (expressed as bacteria counts/100mL of water)
- Loads of bacteria (expressed as numbers of bacteria/day)

Both formats express targets designed to attain the designated uses of swimming and shellfishing, and to meet the associated criteria in Maine’s water quality standards. These

TMDLs set a goal of meeting bacteria water quality criteria at the point of discharge for all sources in order to meet water quality standards throughout the waterbody. Achievement of the goal will be assessed by ambient water quality monitoring.

These maximum bacteria levels for both point and nonpoint sources provide pollutant targets with which Clean Water Act actions (such as discharge permits) must be consistent. The concentration-based targets are most useful for guiding implementation of bacteria controls because the target is easy to understand, and achievement of that target is more readily assessed by groups with limited resources.

Maine's bacteria TMDL protections for recreational uses apply state-wide on a seasonal basis from May 15 through September 30, as required by Maine statute [MRSA §465]. Maine's bacteria TMDLs for the protection of shellfish harvesting apply year-round, as required by Maine statute [MRSA § 6172]. The TMDLs apply specifically to 62 river segments, 143 estuarine & marine waters (including 13 affected by CSOs) that are impaired for bacteria and are listed on Maine's 2008 §303(d) list of impaired waters needing TMDL development (as required under §303(d) of the federal Clean Water Act)(MEDEP 2008). As future monitoring identifies additional bacteria-impaired segments of Maine waters, these bacteria TMDLs may be applied to those waters and made available for public comment through Maine's publicly reviewed §303(d) listing process every two years.<sup>4</sup>

While detailed marine waters attainment information is contained in the Marine Resources chapter, the map in Figure B-4 below shows that the highest concentrations of bacteria are further up Penobscot Bay from Deer Isle, in Penobscot, and in the mouth of the Penobscot River.

#### g. Invasive Aquatic Plants

According to MaineDEP, invasive aquatic species are introduced exotic flora and fauna that displace native plant and animal communities. Infestations result in habitat disruption, loss of property values, diminished water quality, reduced fishing and water recreation opportunities, and significant expense for mitigating the environmental



**Figure B-4: DMR Legal Notice Areas 2009 – Highest Fecal Coliform**

<sup>4</sup> *Maine Statewide Bacteria TMDL – August 2009*, MaineDEP, <https://www.maine.gov/dep/water/monitoring/tmdl/tmdl2.html>, p. 4, accessed April 7, 2022.

costs. There are eleven invasive aquatic species identified in Maine law as illegal to import, sell, and transport.

According to MaineDEP's data on Invasive Aquatic Plants, Deer Isle does not have any invasive aquatic plants at this time. This may only mean that none of Deer Isle's water bodies are large enough to have been monitored. The closest infested waterbody on DEP's list is Alamoosook Lake, with variable leaf milfoil, in Orland.<sup>5</sup> None of Deer Isle's ponds have boat launch ramps, which create a high risk for contamination by invasive aquatic plants.

#### h. Watersheds of Lakes Most at Risk from Development, and Urban Impaired Streams

In connection with its regulation of developments requiring either a Stormwater permit or a Site Location of Development permit, the DEP maintains a list of direct watersheds of lakes most at risk from new development and also of urban impaired streams. Deer Isle, not being urban, does not have any waterbodies that are on these lists.<sup>6</sup>

#### i. Nonpoint Source Priority Watersheds

The DEP also maintains a Nonpoint Source Priority Watersheds List to encourage communities to take action to restore or protect waters impaired or threatened primarily by polluted runoff. The list also helps prioritize DEP nonpoint source water pollution control efforts and grant funds. Deer Isle does not have any lakes, streams, or marine waters on the DEP lists of impaired or threatened watersheds.

## 6. Drinking Water

### a. Groundwater

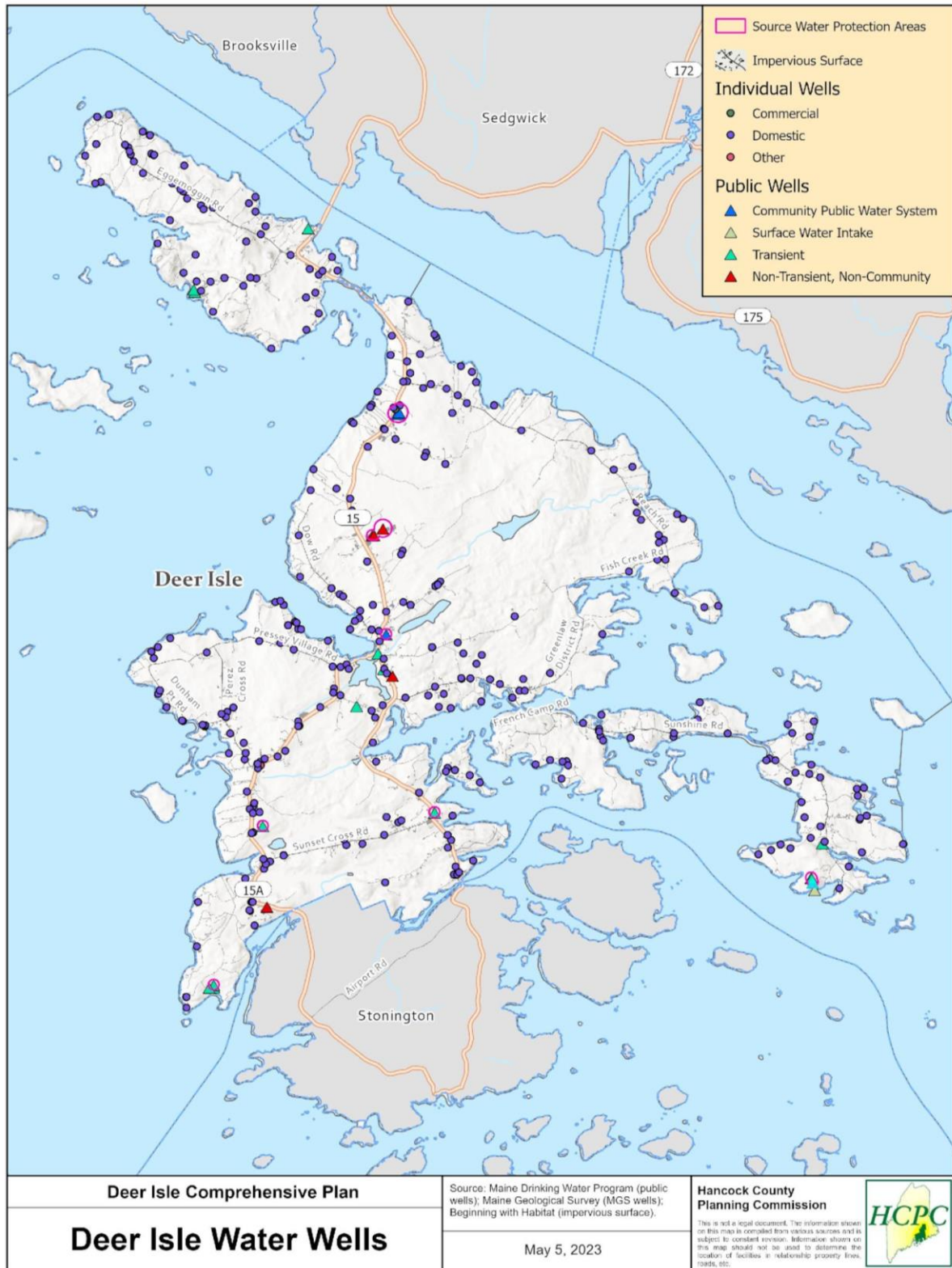
Groundwater is defined as subsurface water found in the saturated soils and water-bearing bedrock of the earth's surface. Its upper level, which rises and falls seasonally, is called the water table. A bedrock aquifer is a rock formation that contains recoverable volumes of groundwater. All groundwater is important to a community as a source of drinking water. Aquifers are especially important and are especially vulnerable to pollution from surface and subsurface sites.

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<sup>5</sup> See [https://www.maine.gov/dep/water/invasives/Maine\\_IAP\\_Map\\_2023\\_V5.pdf](https://www.maine.gov/dep/water/invasives/Maine_IAP_Map_2023_V5.pdf).

<sup>6</sup> See [https://www.maine.gov/dep/land/stormwater/stream\\_map\\_1.html](https://www.maine.gov/dep/land/stormwater/stream_map_1.html).

**Figure B-5: Deer Isle Water Wells**





Deer Isle does not have any sand and gravel aquifers. As such, there are no Deer Isle listings in the DEP Aquifer Quantitative Use Assessment—a tool to measure the potential risk from development.

Deer Isle is highly reliant on wells for water supply; there is no municipal public water supply system (other than the consumer owned utility serving 12 customers in the Deer Isle Village area). It was noted in the draft 2006 Comprehensive Plan that the majority of drilled wells in the Deer Isle area produce good water in sufficient quantity. However, there are areas in the vicinity of Parker Point Drive, Maple Lane and other locations that have a history of wells which either do not produce enough water or the water is of a poor quality. There appear to be scattered water quality issues elsewhere in Town, including, but not limited to the South Deer Isle area.

A State hydrogeologist has concerns about the future adequacy of well water in Deer Isle. These concerns are discussed in Section 6.b.ii below.

b. Public Water Systems

Data from the Maine Drinking Water Program indicate there are 28 public water wells in Deer Isle (see Figure B-5 above and Tables B-3 and B-4 below).

**Table B-3: Deer Isle Public Water Wells**

PWSID#	Public Water System Name	PWS Type	Source ID#
<b>PWS TYPE KEY:</b>			
C=Community NC=Non-Community NTNC=Non-Transient, Non-Community			
ME0006554	Aragosta at Goose Cove	NC	6554102
ME0006554	Aragosta at Goose Cove	NC	6554101
ME0006554	Aragosta at Goose Cove	NC	6554103
ME0094003	Deer Isle Consumer Owned Water Utility	NC	94003601
ME0090425	Deer Run Apartments	C	90425101; 90425102
ME0020926	Four Acre Woods Campground	NC	20926101
ME0006546	Haystack Mountain School of Crafts #1	NC	6546101
ME0006546	Haystack Mountain School of Crafts #1	NC	6546103
ME0006546	Haystack Mountain School of Crafts #1	NC	6546102
ME0006546	Haystack Mountain School of Crafts #1	INTK	6546404
ME0106546	Haystack Mountain School of Crafts #2	NC	106546101
ME0006548	Island Country Club	NC	6548101
ME0095310	Island Nursing Home	C	95310103
ME0095310	Island Nursing Home	C	95310102
ME0095310	Island Nursing Home	C	95310104
ME0009262	Deer Isle-Stonington JR/SR High School	NTNC	9262101
ME0009262	Deer Isle-Stonington JR/SR High School	NTNC	9262102
ME0094707	Deer Isle-Stonington K-8 School	NTNC	94707101
ME0092778	Snappers Child Care Center	NTNC	
ME0011296	There's A Treat	NC	11296102
ME0006540	unknown	NC	6540102

ME0017777	unknown	NC	17777101
ME0006537	unknown	NC	6537101
ME0006540	unknown	NC	6540101
ME0000194	unknown	NTNC	194101
ME0025988	unknown	NC	25988101

Source: Maine Drinking Water Program

A public water system is defined as:

Any publicly or privately-owned system of pipes or other constructed conveyances, structures and facilities through which water is obtained for or sold, furnished or distributed to the public for human consumption, if such system has at least 15 service connections or serves at least 25 individuals daily at least 60 days out of the year or bottles water for sale. The term "public water system" shall include any collection, treatment, storage or distribution pipes or other constructed conveyances, structures or facilities under the control of the supplier of water and used primarily in connection with such a system, and any collection or pretreatment storage facilities not under that control that are used primarily in connection with such a system.<sup>7</sup>

There are three types of public water systems, each of which is regulated differently:

#### Community Public Water Systems

A public water system that serves at least fifteen service connections used by year-round residents or regularly serves at least 25 year-round residents is considered a Community public water system. (Year-round is defined as a permanent residence greater than six months.) Examples include water utilities, mobile home parks, apartment buildings, nursing homes, etc.

#### Non-Transient, Non-Community Public Water Systems

A Non-Transient, Non-community (NTNC) public water system serves at least 25 of the same persons for six months or more per year. Examples include schools, office buildings, factories, etc.

#### Transient Public Water Systems

Transient public water systems are non-community systems that serve at least 25 persons, but not necessarily the same persons, for at least 60 days per year. Examples include restaurants, camps and campgrounds, motels and hotels, golf courses, etc.

Deer Isle has a spring-fed consumer-owned public water utility in its Deer Isle Village area that serves 12 customers.

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<sup>7</sup> What is a Public Water System?, MaineDEP Division of Environmental and Community Health, <https://www.maine.gov/dhhs/mecdc/environmental-health/dwp/pws/whataPWS.shtml>, accessed 4/27/2026.

**Table B-4: Risk Assessments for Deer Isle Public Wells, 2003**

Year	2003	2003	2003	2003	2003	2003	2003
Assessment for:	Haystack Mtn School of Crafts #1	Haystack Mtn School of Crafts #2	Island Country Club	Goose Cove Lodge	MSU 76 Deer Isle-Stonington K-8 School	MSU 76 Deer Isle Jr/Sr High School	MSU 76 Deer Isle Jr/Sr High School
Well ID #	6546101	106546101	6548101	6554101	94707101	9262101	9262102
Well type	Bedrock	Bedrock	Bedrock	Bedrock	Bedrock	Bedrock	Bedrock
Well description	Dr Well 260'	Dr Well 240'	Dr Well 100'	Dr W 180'- Cottages & Kitchen	360' Bedrock Well 4-5-2000 12.5 Gpm	Dr Well 300'	250' Bedrock Well
Overburden thickness (feet)	20	20	20	30	40	Unknown	Unknown
Wellhead protection radius around well	no data	no data	no data	no data	900	300	300
Reported distance of land control around well	no data	no data	no data	no data	275	50	50
Wellhead Protection Ordinance in effect	no data	no data	no data	no data	no data	Unknown	Unknown
<b>Existing Risk of Contamination based on Well Type and Site Geology</b>	<b>Low</b>	<b>Low</b>	<b>Low</b>	<b>Low</b>	<b>Low</b>	<b>Moderate</b>	<b>Moderate</b>
Positive coliform test	Yes	No	Yes	Yes	No	Yes	Yes
Nitrate test greater than 5 ppm	No	No	No	No	No	No	No
Septic system within 300 feet of well	No	No	Yes	No	No	No	No
Animal feedlot(s)/manure pile(s) within 300' of well	No	No	No	No	no data	no data	no data
<b>Existing Risk of Acute Contamination</b>	<b>High</b>	<b>Low</b>	<b>High</b>	<b>High</b>	<b>Low</b>	<b>High</b>	<b>High</b>
No legal land control or control status is unknown or legal control is less than a 150-foot radius around the well	n/a	n/a	n/a	n/a	No	Yes	Yes
Legal control of at least a 150-foot radius of property around well	n/a	n/a	n/a	n/a	Yes	No	No
Legal control of at least a 300-foot radius of property around well	Yes	Yes	Yes	Unknown	No	No	No
<b>Future Risk of Acute Contamination</b>	<b>Low</b>	<b>Low</b>	<b>Low</b>	<b>Moderate</b>	<b>Moderate</b>	<b>High</b>	<b>High</b>
Detection of chronic chemical contaminant	no data	no data	no data	no data	No	No	No
Name(s) of chronic chemical contaminant detected	no data	no data	no data	no data	None	n/a	n/a
Total no. of potential sources of contamination within WHPA	no data	no data	no data	no data	None reported	4	3
Distance to nearest "Significant Potential Source of Contamination" (feet)	no data	no data	no data	no data	1,275'	no data	no data
Name of nearest "Significant Potential Source of Contamination"	no data	no data	no data	no data	Aboveground oil storage tank	no data	no data
<b>Existing Risk of Chronic Contamination</b>	<b>no data</b>	<b>no data</b>	<b>no data</b>	<b>no data</b>	<b>Low</b>	<b>Moderate</b>	<b>Low</b>
Legal control of Entire Wellhead Protection Area	no data	no data	no data	no data	No	No	No
Legal control of 2500 Phase II/V Waiver Radius	no data	no data	no data	no data	No	No	No
<b>Future Risk of Chronic Contamination</b>	<b>no data</b>	<b>no data</b>	<b>no data</b>	<b>no data</b>	<b>High</b>	<b>High</b>	<b>High</b>

Source: Maine Drinking Water Program

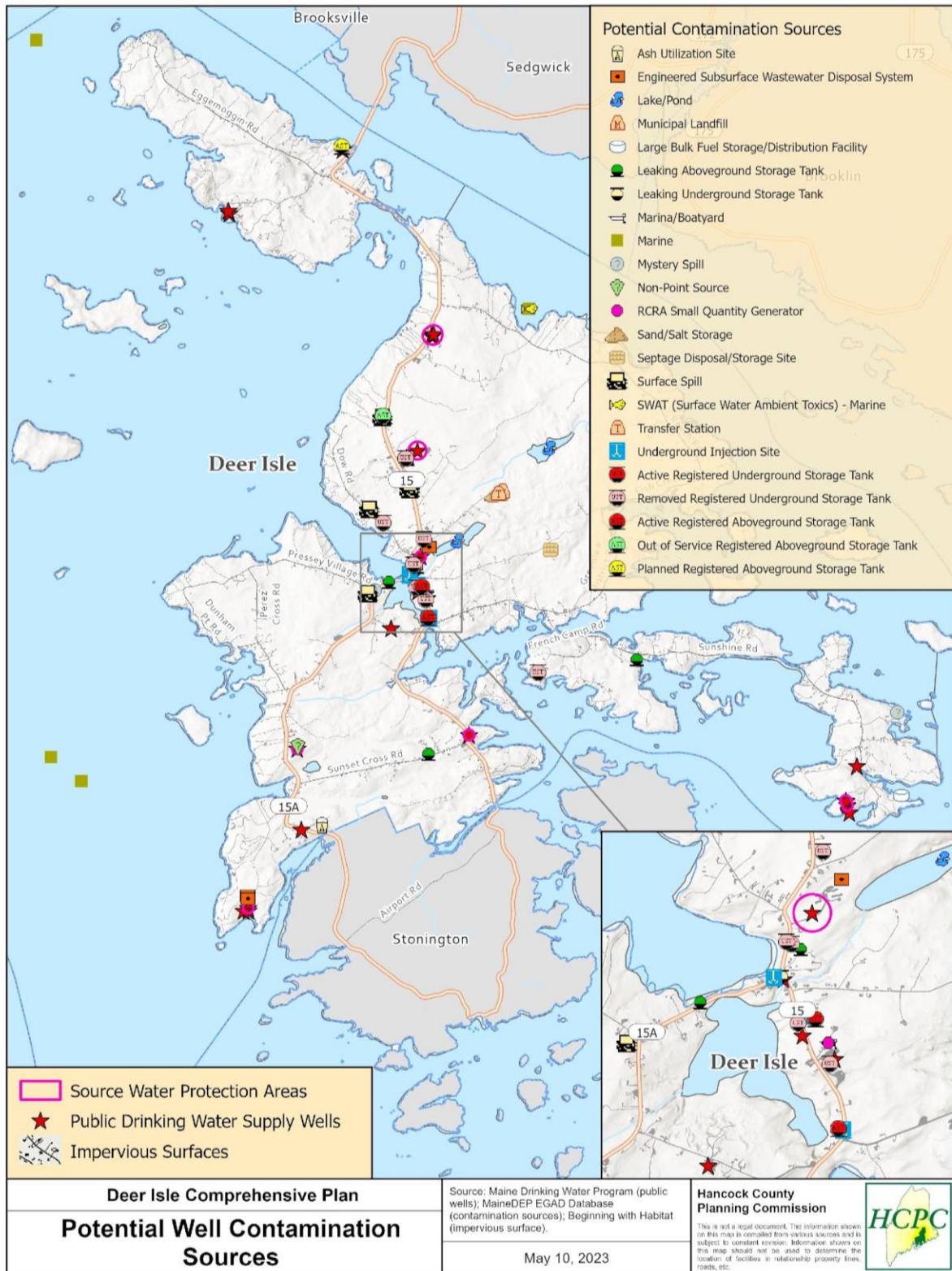
**Table B-5: Risk Assessments for Deer Isle Public Wells, 2003 (cont.)**

Year	2003	2003	2003	2003	2003	2003	2003
Assessment for:	<b>Maggies Clam digger Restaurant</b>	<b>Deer Run Apts</b>	<b>Deer Run Apts</b>	<b>Deer Isle Consumer Owned Water Utility</b>	<b>Island Nursing Home</b>	<b>Island Nursing Home</b>	<b>Island Nursing Home</b>
Well ID #	11296102	90425101	90425102	94003601	95310102	95310103	95310104
Well type	Bedrock	Bedrock	Bedrock	Spring	Bedrock	Bedrock	Bedrock
Well description	Bedrock Well New 1996 (atf)	Drilled Well	Bedrock Well	Spring 3'	Drilled Well #2 700'	Drilled Well 400'	500' Bedrock Well 8-29-2001 8 Gpm
Overburden thickness (feet)	20	Unknown	40	Unknown	Unknown	Unknown	40
Wellhead protection radius around well	no data	300	300	no data	500	500	500
Reported distance of land control around well	no data	no data	<200'	no data	no data	250	200
Wellhead Protection Ordinance in effect	no data	No	No	no data	No	No	No
<b>Existing Risk of Contamination based on Well Type and Site Geology</b>	<b>Low</b>	<b>Moderate</b>	<b>Low</b>	<b>High</b>	<b>Moderate</b>	<b>Moderate</b>	<b>Low</b>
Positive coliform test	Yes	No	No	Yes	Yes	Yes	Yes
Nitrate test greater than 5 ppm	No	No	No	No	No	No	No
Septic system within 300 feet of well	Yes	Yes	No	Yes	No	No	Yes
Animal feedlot(s)/manure pile(s) within 300' of well	No	no data	no data	No	no data	no data	no data
<b>Existing Risk of Acute Contamination</b>	<b>High</b>	<b>Moderate</b>	<b>Low</b>	<b>High</b>	<b>High</b>	<b>High</b>	<b>High</b>
No legal land control or control status is unknown or legal control is less than a 150-foot radius around the well	n/a	Yes	No	n/a	Yes	No	No
Legal control of at least a 150-foot radius of property around well	n/a	No	Yes	n/a	No	Yes	Yes
Legal control of at least a 300-foot radius of property around well	Unknown	No	No	Unknown	No	No	No
<b>Future Risk of Acute Contamination</b>	<b>Moderate</b>	<b>High</b>	<b>Moderate</b>	<b>Moderate</b>	<b>High</b>	<b>Moderate</b>	<b>Moderate</b>
Detection of chronic chemical contaminant	no data	No	No	no data	Yes	Yes	Yes
Name(s) of chronic chemical contaminant detected	no data	No	None	no data	Cyanide, Toluene	Cyanide, Toluene	Cyanide, Toluene
Total no. of potential sources of contamination within WHPA	no data	2	0	no data	4	3	4
Distance to nearest "Significant Potential Source of Contamination" (feet)	no data	no data	n/a	no data	105'	16'	60'
Name of nearest "Significant Potential Source of Contamination"	no data	Unknown	None	no data	Parking lot	Parking lot	Parking lot
<b>Existing Risk of Chronic Contamination</b>	<b>no data</b>	<b>Low</b>	<b>Low</b>	<b>no data</b>	<b>High</b>	<b>Moderate</b>	<b>High</b>
Legal control of Entire Wellhead Protection Area	no data	No	No	no data	No	No	No
Legal control of 2500 Phase II/V Waiver Radius	no data	No	No	no data	No	No	No
<b>Future Risk of Chronic Contamination</b>	<b>no data</b>	<b>High</b>	<b>High</b>	<b>no data</b>	<b>High</b>	<b>High</b>	<b>High</b>

Source: Maine Drinking Water Program



**Figure B-6: Deer Isle Public Wells and Potential Sources of Contamination**



There are numerous cases cited above where the public water supply is considered to be at risk of coliform bacteria and chemical contaminants. Regular testing is carried out by the Consumer Owned Water District and the school system. Other testing is at the discretion of the owners.

i. Maine Drinking Water Program

The locations of the public water supply systems in Deer Isle are listed above and shown in the maps contained in this chapter. Public wells in Deer Isle are governed by the source water protection regulations of the Maine Drinking Water Program (MDWP). This program's regulations are contained in the Rules Relating to Drinking Water, 10-144 Code of Maine Regulations. MDWP defines a Source Water Protection Area as the area that contributes recharge water to a surface water intake or public water supply well (see the maps in Figures B-5 and B-6). Pursuant to the rules cited above, operators of public water supply systems must be notified of land use applications that could affect the source water protection area. This allows the operators to participate in the municipal decision-making process and helps reduce the risk of contamination to public water supplies. The rules also contain such regulations as where a public well can be sited, wellhead protection area mapping for the assessment of contamination threats, and the reporting of any spills within well protection areas.

The Maine Drinking Water Program also manages the Maine Source Water Assessment Program. This involves completing an assessment of the risk of contamination for each public water supply source and publishing the results for the benefit of the operators of each system and their customers. See Table B-4 above for the risk assessments for Deer Isle's public wells (generated in 2003). More recent testing shows unsafe levels of lead in the Deer Isle Stonington Elementary and High School drinking water >4 ppb (<http://www.medwp.com/schools.html>)

Per- and Polyfluoroalkyl Substances (PFAS) have recently been recognized as harmful man-made chemicals that do not break down in the environment and can cause medical issues such as cancer if consumed in sufficient quantities. With the signing of LD 129 on June 21, 2021, all community public water systems and non-transient, non-community schools and daycares were required to sample finished water for PFAS before December 31, 2022. An interim standard of 20 ppt for six PFAS chemicals (alone or in combination) was put into effect. In 2022 the Deer Isle-Stonington High School was found to have elevated levels (122.8 ppt) of PFAS chemicals in its drinking water. Mitigation efforts will be needed to again make the wells for this facility safe for drinking.

Other potential sources of contamination to Deer Isle's public water supply systems are depicted in the map in Figure B-6 above. In many cases the data are old, in some cases dating back to the 1970's, so it would be worthwhile to investigate the current status of these files.

ii. Water Supply

An analysis of Deer Isle's water supply is perhaps best provided by presenting a memo from Daniel B. Locke, a Hydrogeologist with the Maine Geological Survey to the Deer Isle Town Manager:

"... . Deer Isle is in a very tough situation because they are on an island surrounded by salt water and the granite bedrock out there is extremely tight with regard to water bearing fractures. Much of the development occurs along the coastline and as you would expect, nearly everyone is drawing on individual wells. In examining our water well database, I see

where Mark Taplin of Williams and Taplin Well Drilling has reported salt in a number of the wells that he has been hired to drill. Despite the fact that they are new wells, they are salty at the start!! As you know, salt water is more dense than fresh water and as a result, coastal islands and narrow peninsulas sit over a lens of fresh water which is generally convex in shape. In very general terms, for every foot of fresh ground water occurring above sea-level at a given point, there is 40 feet of fresh groundwater extending downward below sea-level at that point. It should be noted however, that this relationship ([Ghyben-Herzberg Ratio](#)) cannot be strictly counted on in bedrock that is preferentially fractured! Wells situated near the shoreline can sometimes draw in salt water especially if the fractures are well connected to the salt water. The tides, sea level rise, water usage, and storms with significant surge components all have a significant influence upon this very precious fresh water lens.

As you likely know, the **Town of Stonington** has a public water supply which also taps into this very tight Deer Isle granite that I made reference to above. They used to rely on a surface water source known as [Burntland Pond](#) which was relatively small, shallow, and offered poor quality water that was very difficult to treat. They ultimately discontinued use of this source when the USEPA increased further the surface water supply treatment requirements and they started their journey toward finding a ground water supply. ..., this turned out to be a very challenging process given the low yields found in the poorly fractured granite bedrock. The Stonington Water District hired one of the best water supply hydrogeologists by the name of Brad Caswell. He utilized aerial imagery and looked for linear features which he could discern from the photographs known as [photo lineaments](#) in his search for favorable sites to drill. Typically, where there are photo lineament intersections, there is a greater likelihood for higher well yields. Clearly, it is in these areas where you want to drill. Ultimately, the Stonington Water District drilled a total of 50 wells over the years in their search for a supply. Despite this, they presently use only 6 or 7 of all the wells drilled because many had very low yields. Their wells are situated near the center of the south part of the island allowing them to take full advantage of the thickest parts of the underlying freshwater lens and the associated available recharge. Also, these wells are in a wooded, undeveloped area making the situation nearly ideal from a groundwater protection standpoint.

I think that Deer Isle needs to be seriously thinking about their future drinking water supply. At a minimum, it would be wise for the town to have a reputable hydrogeologist do some aerial imagery investigations to identify potentially promising places for drilled bedrock wells and the area of focus should be near the interior/central parts of the island. Sites identified need to be ground-checked to ensure that the lineaments are not man-made features such as trails, old roads, and stone walls. The town should discourage any activity in the central parts of the island which could seriously compromise the groundwater. To the extent possible, these areas need to be protected from development by possibly creating a park or possibly work with IFW and create wildlife management areas if desired or practical. Some of the areas to examine might include the undeveloped areas near Torrey Pond, north-northeast of Oliver's Pond, and the areas near George's Pond. It is the hope here that there would be a place for the town to someday develop a safe and reliable public water supply when they need it."

## 8. Deer Isle's Activities Relative to Nonpoint Sources of Pollution

As discussed in the Impaired Marine Waters section above, as well as in the Marine Resources chapter, the water quality of the waters around Deer Isle are such that some areas are approved for shellfish harvesting while others are prohibited. Neighboring towns have enacted additional restrictions on the sale and use of pesticides other than those specifically listed as "allowed" in the National Organic Program (U.S. Department of Agriculture's National List of Allowed and Prohibited Substances).

The Deer Isle public works department is experimenting with less hazardous applications of winter salt, including timing and quantity of salt applied during snow events. Additionally the Town is building maps of stormwater systems and analyzing means for reducing runoff and resulting phosphorus loading in streams and ponds.

## 9. Protection of Groundwater and Surface Water Supplies and Their Recharge Areas

As discussed in Section 6 above, some of Deer Isle's public water wells face threats of both acute and chronic contamination. The data for these cases is old and needs updating. In addition, mitigation of the excessive PFAS levels at the high school is necessary. Most importantly, the memo from the hydrogeologist included above makes a strong case for conducting a careful study of Deer Isle groundwater resources and taking steps to obtain control of the land use activity and development potential in areas important for ensuring that the community's wells will continue to provide fresh water (and/or for creating a municipal water district).

Deer Isle has a Shoreland Zoning Ordinance that has been carefully crafted to fit the geography and the needs of the Town. For instance, the ordinance includes in its Resource Protection District the land within 250 feet of the upland edge of areas that the State has mapped as being moderate to high value inland or shore waterfowl and wading bird habitat. This goes above and beyond the average shoreland zoning ordinance in Maine. However, more may still need to be done to protect surface waters, such as extending Resource Protection zones or further restricting development in other zones, such as the Pond Zone. In addition, it would appear, based on the water supply issue that either Shoreland Zoning in Deer Isle needs to be amended to include areas related to groundwater as well as surface waters, or some other land use regulation needs to be enacted, or land rights need to be acquired.

## 10. Best Management Practices

Deer Isle's Public Works employees and contractors should use best management practices to protect water resources in their daily operations. This should include:

- Protecting salt and sand storage from the weather in order to limit stormwater contamination.
- Cleaning culverts and replacing a number of them as needed.
- Maintaining clean operations at the Town's Transfer Facility, including following DEP best management practices for storage of ash, demolition debris, solid waste and recycling.

## 11. Opportunities to Partner to Promote Water Resource Protection

The Beginning with Habitat program has a project called the Bagaduce River Focus Area. It includes the communities of Castine, Penobscot, Sedgwick, and Brooksville, and it is an effort to protect the high ecological value of the Bagaduce River estuary. Deer Isle may want to take a page from this nearby program and, through its membership in the Hancock County Planning Commission, work with its neighboring communities to better document nonpoint source contamination and improve the quality of its water resources.

## 12. Goals & Objectives

GOAL: Protect current and future drinking water sources			
Objective	Strategy	Responsible Party(ies)	Timeframe
Support IHT Reconstruction of the Lily Pond dam	Seek grants for upgrading the fire water supply	Select Board, Fire Department, IHT	2024
	Study the potential for a drinking water supply	IHT, Planning Board	2025
Conduct a townwide hydrography study to identify future surface and ground water resources	Contract with a licensed hydrologist to conduct the study	Select Board, HCPC, College of the Atlantic	2025
Enact surface and groundwater protection ordinances	Organize public forums on drinking water resources	Select Board, DEP	2024
	Consult with the Maine Drinking Water Program	DEP-Drinking Water Program	2024
	Seek approval of ordinance at town meeting	Select Board	2025-26
Incorporate groundwater protection in future commercial development	Adopt Commercial Site Plan Review Ordinance	Planning Board, Select Board	2024

GOAL: Minimize pollution discharges			
Objective	Strategy	Responsible Party(ies)	Timeframe
Replace remaining OBDs	CEO meet with owners to develop a timeline	CEO, Planning Board, Select Board, DMR, DEP	2024
	Seek grants to assist qualified properties for OBD replacement	Town Manager, HCPC, DEP	2025
Identify failed septic systems and require replacement	Seek funding for inspections	Town Manager, Licensed Plumbing Inspector, HCPC, DEP	2025
Identify downstream risk of transfer station runoff and leachate	Seek funding for water quality analysis	Town Manager, Select Board, DEP	2026
	Mitigate any contaminant runoff	Select Board	2027
	Seek grant for construction	Town Manager, Select Board, DEP	2025
Install a salt-sand storage building	Appropriate funds annually	Select Board	Annual
			2025
Identify areas at risk for PFAS contamination	Seek grant funding for PFAS testing	Town Manager, Select Board	
Reduce homeowner water contamination risks	Launch an educational campaign about water quality risks	Maine Drinking Water Program, Conservation Commission	Ongoing
Implement a Road Salt Management Strategy	Annual training for road maintenance crew on salt management	MaineDOT, Deer Isle Public Works	Annual
	Upgrading winter road maintenance equipment	MaineDOT, Select Board, Road Foreman	2027
Cooperate with Stonington to protect shared water resources of Holt Pond and Georges Pond from pollution	Include water resources concerns in joint Select Board meetings	Select Board Stonington Select Board	2024

# Chapter C: Natural Resources

## 1. Purpose

This chapter provides analyses and a detailed overview of Deer Isle's vital natural resources and addresses issues related to wildlife, fish habitats, and other important ecological systems. Development on or near these vital resources could imbalance the natural systems and negatively affect many quality of life issues such as: clean drinking water, protection from flooding, clean air and soil. Specifically, this chapter will:

- a. Describe Deer Isle's critical natural and scenic resources.
- b. Assess the effectiveness of existing efforts to protect and preserve these resources.
- c. Predict future impacts to these resources by growth and development.

## 2. Key Findings & Issues

Deer Isle has a wealth of natural resources that provide a variety of habitats for plants and animals and that perform many vital ecosystem functions. Deer Isle is home to some birds on Maine's Endangered and Threatened Species (October 15, 2015) as well as some recently "delisted" species. Deer Isle has some rare environmental settings that provide conditions that allow some extremely unique plant growth. There are a large number of areas, especially along the coast and on the offshore islands that are areas of special concern, conservation need, or are otherwise highly significant. The preservation efforts by Island Heritage Trust and others, combined with the Town's land use regulations, have provided a basic layer of protection for the community's coastal areas, less so for the inland areas not covered by Shoreland Zoning

## 3. Key Findings & Issues from the Draft 2006 Plan

The 2006 Draft Comprehensive Plan noted, "Deer Isle has many natural areas of importance. Some of these areas, such as eagle nests and wetlands, are protected by state and federal laws, and others are covered by the Town's Shoreland Zoning ordinance. Inland Significant Habitats for wildlife are largely unprotected and need to be addressed. There are 20 islands of Deer Isle that are entirely or partially conserved or protected. Some are land trusts owned by Island Heritage Trust, Maine Coast Heritage Trust, The Nature Conservancy, State of Maine or are privately owned. Some have easements with Island Heritage Trust, Maine Coast Heritage Trust or Acadia National Park. All allow public access, although some require contact of the landowner to do so. The protected or conserved areas of these islands amount to a total of 302.37 acres. Still others remain unprotected such as wildlife concentration areas and tidal and submerged lands."

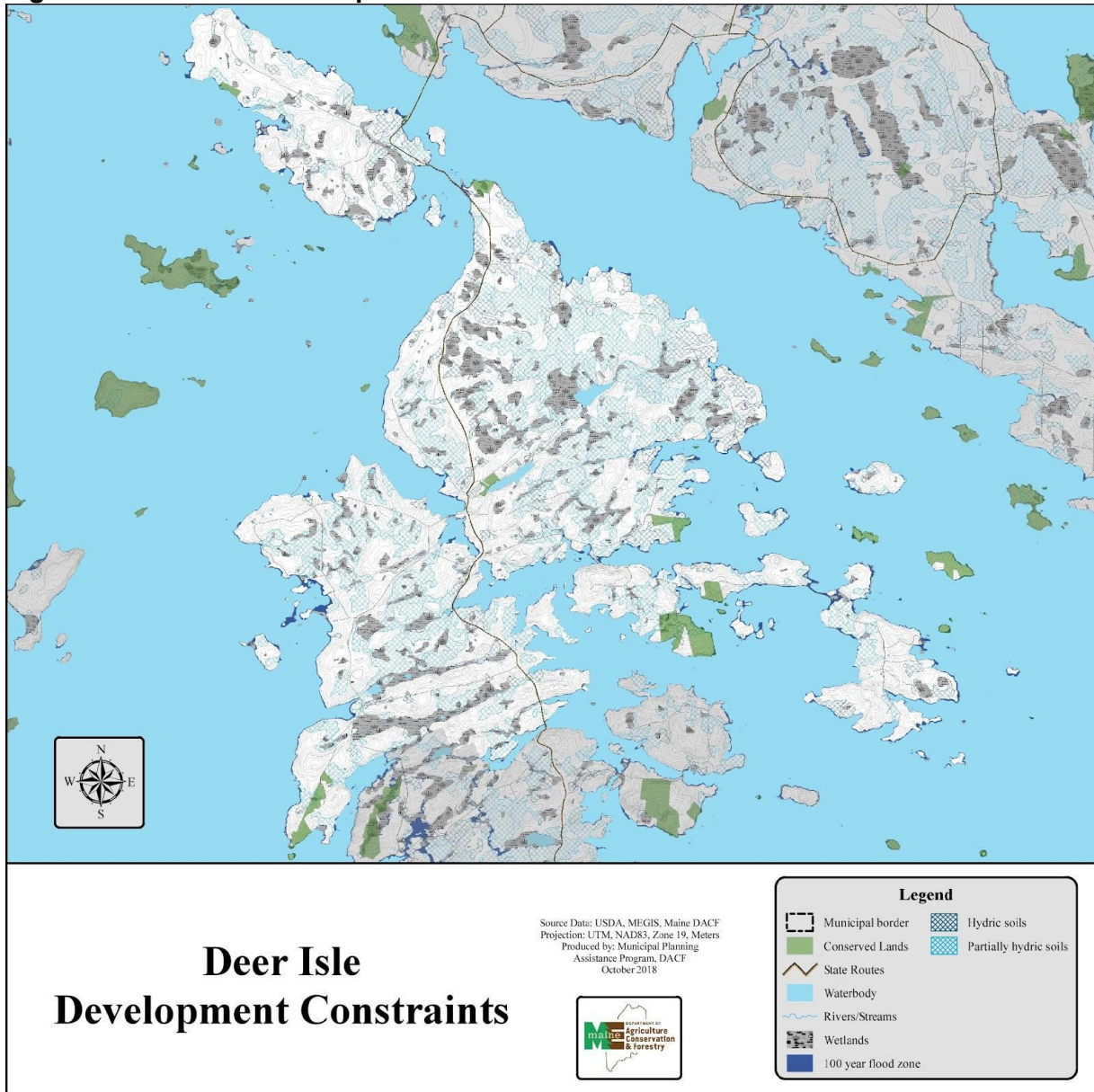
## 4. 2023 Public Opinion Survey

Approximately 60% of the Public Opinion Survey respondents believed the Town should be more involved in protecting wetlands, streams and ponds and wildlife habitats. A similar percentage supported preparing a watershed plan to protect natural habitat. There was rather less support for environmental education, outreach and engagement programs (48%) and



promoting green space and tree planting (47%). Although more than 64% believed the Town should be more involved in protecting coastal land, only 47% felt the same about forested land.

**Figure C-1: Deer Isle Development Constraints**



## 5. Summary of Habitats and Critical Natural Resources

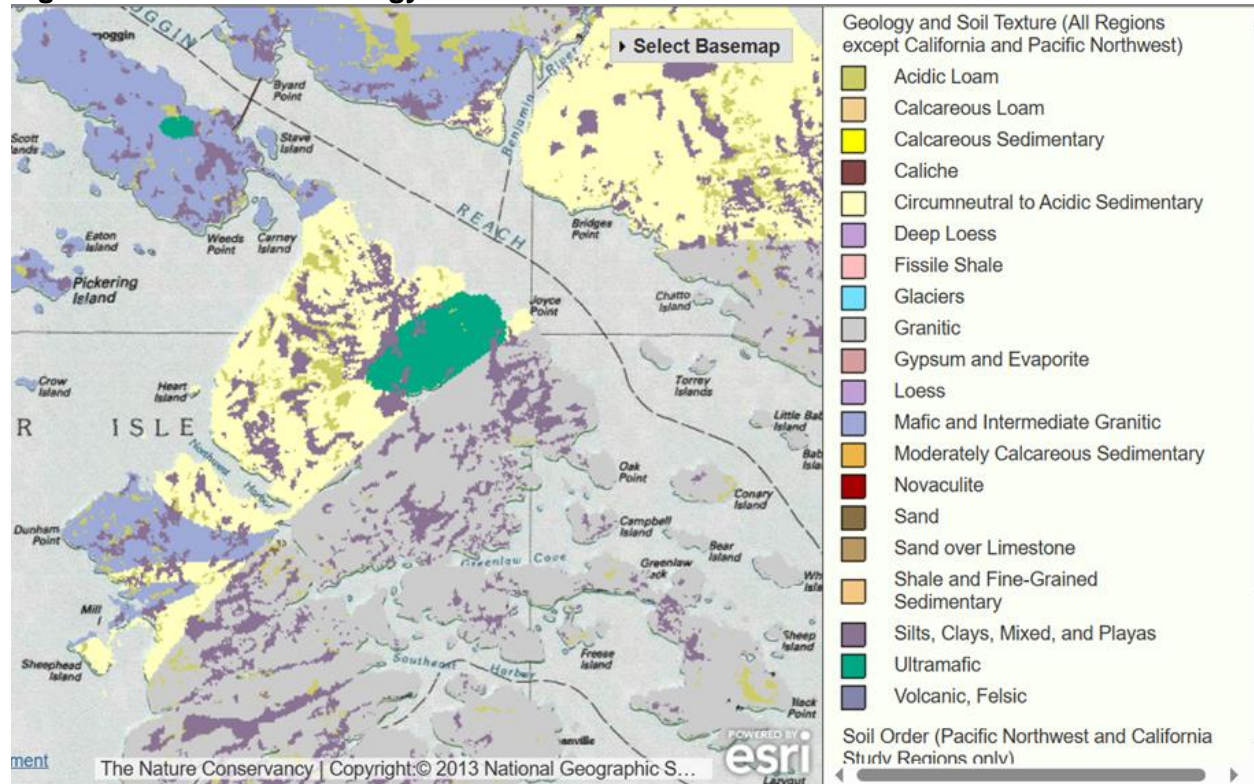
### a. Geology

The bedrock map of Deer Isle shows that most of Little Deer Isle is Castine Volcanics which erupted in the Cambrian Era. Ellsworth Schists cover the western part of Deer Isle from Small's Cove up to the causeway. There is a section of Torrey Pond serpentinite, but the remaining two thirds of the island, east and south, including the scattered islands of the Reach are Deer Isle granites. These are light pinkish-grey hornblende or porphyritic biotitic granite. The granite



contains biotite, feldspar and quartz. (Consult “A Geologic History of Deer Isle, Maine: A Thumb Nail Sketch” by Roger Hooke for a more complete listing of minerals.)(Ken and Marnie Crowell, Species Almanac).

**Figure C-2: Deer Isle Geology and Soil Texture**



Source: The Nature Conservancy Resilient Land Mapping Tool

Deer Isle’s major natural resources are discussed below. The natural resources topic overlaps with other chapters in this comprehensive plan. For additional information, see also the chapters on Marine Resources, Water Resources, and Agriculture & Forest Resources.

### b. Wetlands

Wetlands are one of the most critical natural resources. They often serve as aquifer recharge areas, allowing underground water supplies to be recharged. They also are critical wildlife and bird habitats. Wetlands are an important part of nature’s drainage system since they hold stormwater. Areas that have experienced extensive filling of wetlands often face increased flooding problems. Wetlands are also important as breeding areas for waterfowl and habitat for other wildlife. Additional wetland benefits include water purification, flood protection and shoreline stabilization.

As depicted in the Wetlands Characterization map (Figure C-3), Deer Isle has a variety of inland and coastal wetlands. There are approximately 962 acres of Forested and Forested/Shrub-Scrub Mix wetlands—6% of the main land area (Deer Isle proper and Little Deer Isle), 424 acres of Shrub-Scrub wetlands—3% of the main land area, and a small amount (30 acres or 0.2% of the main land area) of Emergent (herbaceous vegetation), Emergent/Forested Mix (woody

vegetation greater than 20 feet tall, and Emergent/Shrub-Scrub Mix (woody vegetation less than 20 feet tall) wetlands.

Aquatic Bed (floating or submerged aquatic vegetation) and Open Water wetlands comprise approximately 3,565 acres in all of Deer Isle while Other wetlands (rocky shore, streambed, unconsolidated shore, reef, rocky bottom) account for some 1,957 acres.<sup>8</sup>

In most cases, each of the wetlands in Deer Isle serves multiple ecosystem functions. These include:<sup>9</sup>

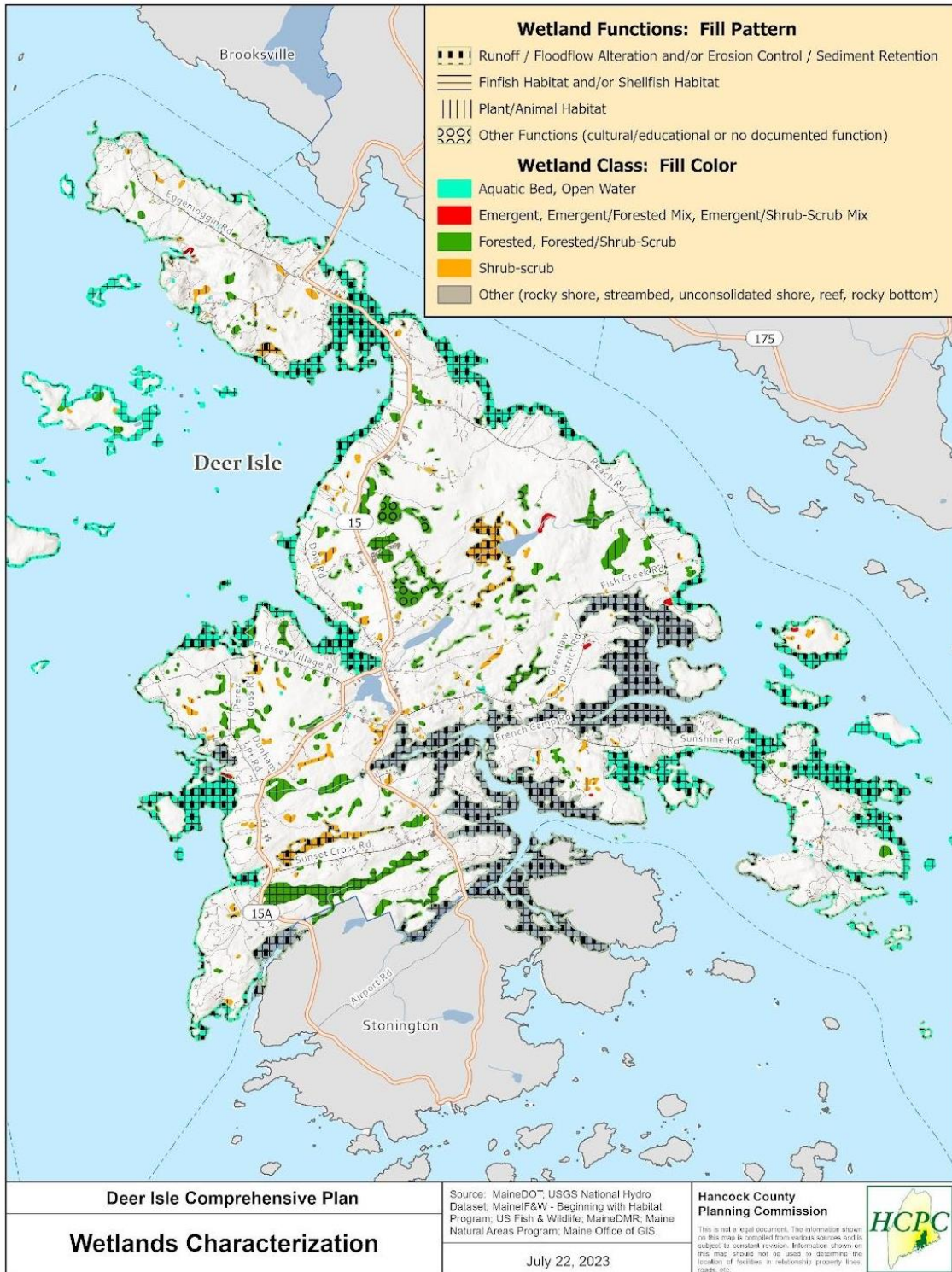
- **Runoff / Flood Flow Alteration:** Wetlands provide natural stormwater control capabilities. As natural basins in the landscape, wetlands are able to receive, detain, and slowly release stormwater runoff. Wetland shelves along stream banks naturally regulate flood waters by providing an area for swollen stream flows to expand and slow, thereby protecting downstream properties.
- **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.
- **Finfish Habitat:** Finfish Habitat is defined as a wetland with documented finfish populations, including wetlands adjacent to a river, stream, or lake.
- **Shellfish Habitat:** Inland wetland 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.
- **Plant/Animal Habitat:** Nearly all wildlife species, and many of Maine's plant species, depend on wetlands during some part of their life cycle.
- **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. Other good locations include Mariners Memorial Park, Bridge End Park, Tennis Preserve, Sylvester's Cove and Island Heritage Trust preserves.
  - **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.

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<sup>8</sup> Area calculations made from GIS mapping.

<sup>9</sup> Taken from the Legend of the Beginning with Habitats *Wetlands Characterization* map on the IFW Website.

**Figure C-3: Wetlands Characterization**



**c. Important Wildlife Habitat**

The term habitat refers to the resources in an area that support the survival and reproduction of a species. These include physical factors like soil, moisture, and temperature range as well as

the availability of food and the absence of predators. Every species has particular habitat requirements; some are able to thrive in a wide variety of environmental conditions while others require a limited set of specific factors to survive. Terrestrial habitat types include, among others, forests and grasslands; freshwater habitat types include, for example, wetlands, streams, and ponds; and marine habitat types include salt marshes, shoreland areas, and the open sea.

The Maine Department of Inland Fisheries & Wildlife (MDIFW) is charged with carrying out the mission of the Maine Endangered Species Act of 1975 to conserve all wildlife populations and ecosystems. “Endangered species” are a species of fish or wildlife that has been determined to be in danger of extinction throughout all or a significant portion of its range. “Threatened species” are a species of fish or wildlife that has been determined as likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. According to the map of High Value Plant & Animal Habitats (Figure C-4), there are no Endangered or Threatened species habitats in Deer Isle.

Another MDIFW category is Species of Special Concern. A species of special concern is 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; they do not have the legal weight of endangered and threatened species. As seen in Figure C-4, many of the islands in Deer Isle waters serve as habitat for Bald Eagles, a Species of Special Concern. Also in this category, there is Yellow Rail habitat on one of the Deer Isle islands, and there is Great Blue Heron habitat on one of the islands off Stonington.

In the more general category of Species of Greatest Conservation Need, there are a number of islands in Deer Isle waters that are home to the Purple Sandpiper.

As can be seen in the High Value Plant & Animal Habitats map, Figure C-4, there are a number of other significant wildlife habitat areas in Deer Isle. These include several candidate deer wintering areas (forested areas possibly used by deer for shelter during periods of deep snow and cold temperatures), inland waterfowl and wading bird areas, seabird nesting islands, shorebird areas, and tidal waterfowl and wading birds habitats.

#### d. Important Plant Habitat

The Maine Natural Areas Program (MNAP) maintains a list of native plant species in Maine that are highly vulnerable to loss, including species determined to be Endangered, Threatened, and of Special Concern. Species on this list are found in a very small number of sites in the state and may require unique habitat for survival. There are plants of local significance that are protected. A list of plant and animal species that can be found on Deer Isle done by Ken and Marnie Crowell can be found on Island Heritage Trust’s website under Virtual Guided Nature Walks-Species Almanac:

<https://www.islandheritagetrust.org/virtual-guided-nature-walks/#toggle-id-1>



## e. Natural Communities

MNAP also has classified 104 different natural community types that collectively cover Maine's landscape. These include habitats like floodplain forests, coastal bogs, and alpine summits, among many others. MNAP has ranked each type according to its rarity on a scale of 1 (rare) through 5 (common). The one relatively rare Natural Community identified in Deer Isle is the Salt-Hay Saltmarsh, which has a rarity rank of 3. According to the MNAP fact sheet:

These tidal marshes consist of expanses of saltmeadow cordgrass, smooth cordgrass, and/or black-grass. Shrubs are virtually absent, and the herbaceous cover is usually >85%. Much of the marsh is high marsh, where saltmeadow cordgrass forms meadows, and where black-grass may be dominant at slightly higher elevations. In the low marsh, along creeks or at elevations just below mean high water, smooth cordgrass is abundant. Salt pannes with abundant seashore saltgrass may dot the high marsh; goose tongue may also be locally common. Sea lavender and seaside goldenrod are often found at the upper tidal fringe. The dominant species typically form bands corresponding to tidal inundation zones.<sup>10</sup>

In addition, Deer Isle is home to many other, relatively common Natural Community types, including Maritime Spruce-Fir Forest, Spruce-Fir Wet Flat, Alder Thicket, Northern Hardwoods Forest, Northern White Cedar Swamp and Low-Elevation Bald.

## f. Focus Areas

Similar to, but perhaps a bit broader than, MNAP's natural community list, the Beginning with Habitat program maintains a list of natural areas that are of statewide ecological significance that contain unusually rich concentrations of at-risk species and habitats. These areas support: rare plants, animals, and natural communities; high quality common natural communities; significant wildlife habitats; and their interactions with large blocks of undeveloped habitat. Much of the coastal area of Deer Isle and Little Deer Isle are in a Focus Area of Statewide Ecological Significance.

## g. Species commonly found in Deer Isle:

**Mammals:** shrew, mole, gray and red squirrel, beaver, mouse, vole, muskrat, porcupine, snowshoe hare, red fox, eastern coyote, skunk, raccoon, deer, harbor and gray seal and dolphin.

**Birds:** Bald eagle, Sharp-shinned hawk, ruffed grouse, mourning and rock dove, downy, hairy and pileated woodpecker, flicker, blue jay, crow, raven, chickadee, nuthatch, cardinal, junco, goldfinch, robin, bluebird, wren, thrush, warbler, sparrow, turkey, hummingbird, turkey vulture, blackbird, grackle

**Seabirds and Waterfowl:** Loon, cormorant, blue heron, ducks, scoters, eider, killdeer, yellowlegs, gulls, terns, goldeneye, bufflehead, merganser, guillemot, kingfisher

**Trees:** Spruce, fir, larch, cedar, maple, oak, birch, aspen, alder

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<sup>10</sup> Maine Natural Area Program fact sheet for Salt-hay Saltmarsh.

**Wildflowers:** bunchberry, cranberry, mayflower, goldthread, jack-in-the-pulpit, starflower, twinflower, wintergreen, Queen-Ann’s lace, milkweed, yarrow, ragweed, pearly everlasting, pussytoes, burdock, thistles, asters, hawkweed, daisy, black eyed Susan, goldenrod, dandelion, yellow rattle, dames rocket, chickweed, garden valerian, vetches, clovers, blue flag iris, fireweed, primrose, speedwell

**Fishes:** American eel, brook trout, brown trout, largemouth bass, pumpkinseed, stickleback, rainbow smelt, white sucker, golden shiner, banded killfish. Saltwater fishes and those that spend any time in saltwater are mentioned in the Marine Resources chapter.

Deer Isle is home to various spiders, butterflies, moths, dragonflies, damselfly, amphibians, reptiles, freshwater fish and shoreline shellfish as well as many ferns, lichens and mosses. A complete listing of these and the other categories listed here can be found in Virtual Species Almanac on Island Heritage Trust’s website.

Species occasionally seen in Deer Isle (rare, reclusive, migratory):

Mammals: weasels, mink, otter, groundhog/woodchuck, fisher, black bear, bobcat, moose

Birds: owls, phoebe, redstart, crossbills, harrier, sap sucker, swallow, oriole, sandpiper, plover, grebe. At least two birds found on Deer Isle appear on Maine’s Endangered Species list: Great Cormorant, Peregrine Falcon

## 6. Beginning with Habitat

### a. About the Beginning with Habitat Program

Many of the maps in this chapter were created using data from Maine’s Beginning with Habitat program. This innovative program brings together public agencies and private conservation organizations to consolidate information on wildlife and habitat from all over the state. It also develops tools for communities to incorporate conservation into land use planning. Beginning with Habitat partners include Maine Audubon, Maine Coast Heritage Trust, The Nature Conservancy in Maine, Maine Department of Agriculture, Conservation and Forestry, Maine Department of Inland Fisheries and Wildlife, Maine Department of Transportation, Small Woodland Owners Association of Maine, and the U.S. Fish and Wildlife Service.

### b. Water Resources and Riparian Habitats

The Water Resources and Riparian Habitats map (Figure C-4) depicts surface water features and associated shoreline habitats, drainage areas, wells that supply drinking water, vernal pools, and commercially important coastal shellfish beds. Deer Isle was not shown to have significant aquifers or waters that continue to support native eastern brook trout—although there are streams with trout in nearby Sedgwick.

**Figure C-4: Water Resources and Riparian Habitats**



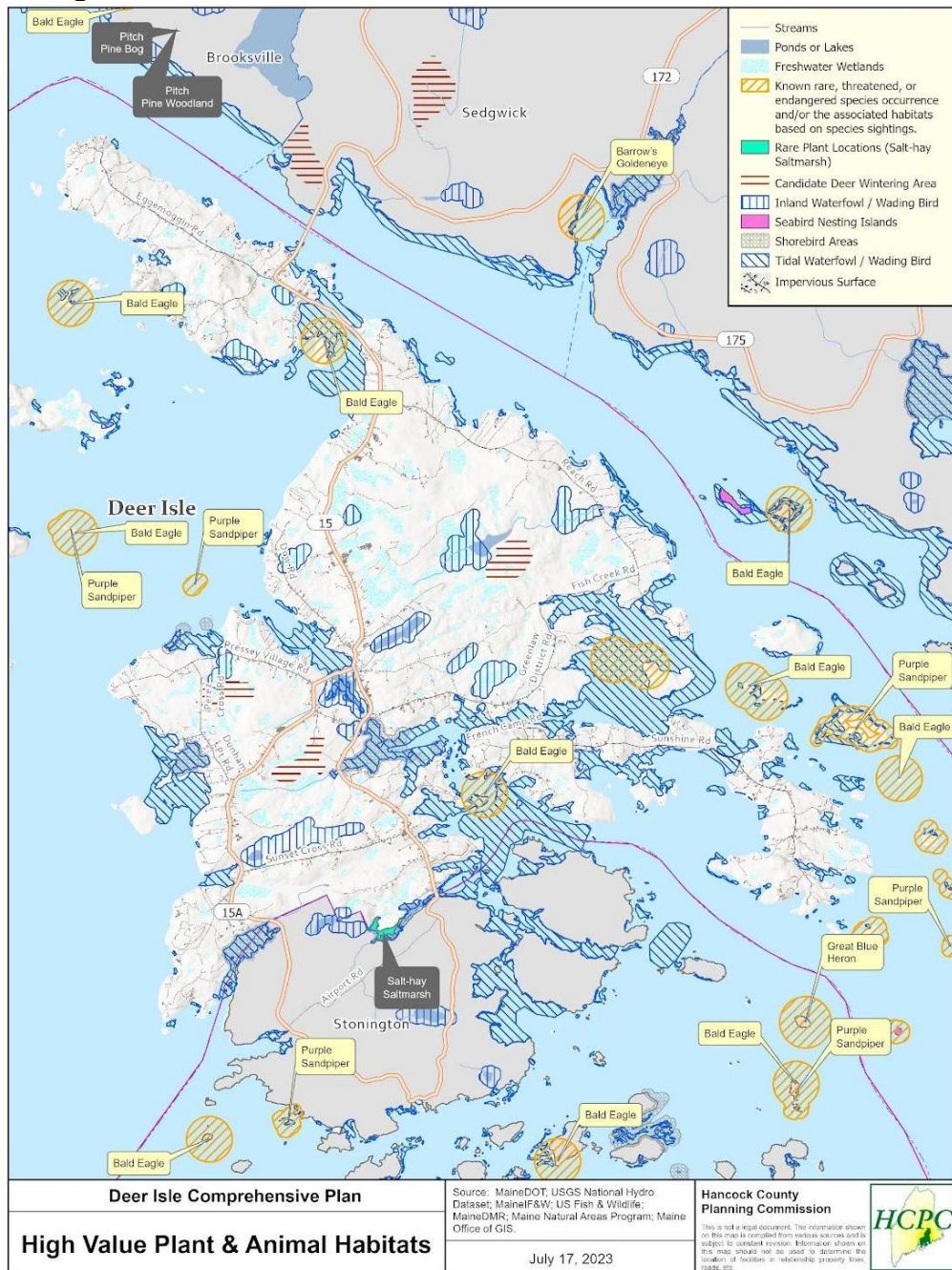
c. High Value Plant and Animal Habitats

The High Value Plant and Animal Habitats map (Figure C-5) includes known locations of rare species and habitats as provided by Maine’s principal natural resource agencies. These features include rare, threatened, endangered, or declining plant and animal species, significant habitats, and rare and exemplary natural communities. According to the High Value Plant &

Animal Habitats map, there are no Endangered or Threatened species habitat in Deer Isle, but there are areas with Species of Special Concern, Species of Conservation Need, and other significant wildlife habitat areas. The one exemplary natural community or ecosystem found in Deer Isle is the Salt-Hay Saltmarsh. (See discussion in 5.b. above.)

High value plant and animal habitats may have regulatory implications and restrictions under local and state land use laws; for more information, please contact the Maine Department of Inland Fisheries and Wildlife.

**Figure C-5: High Value Plant and Animal Habitats**

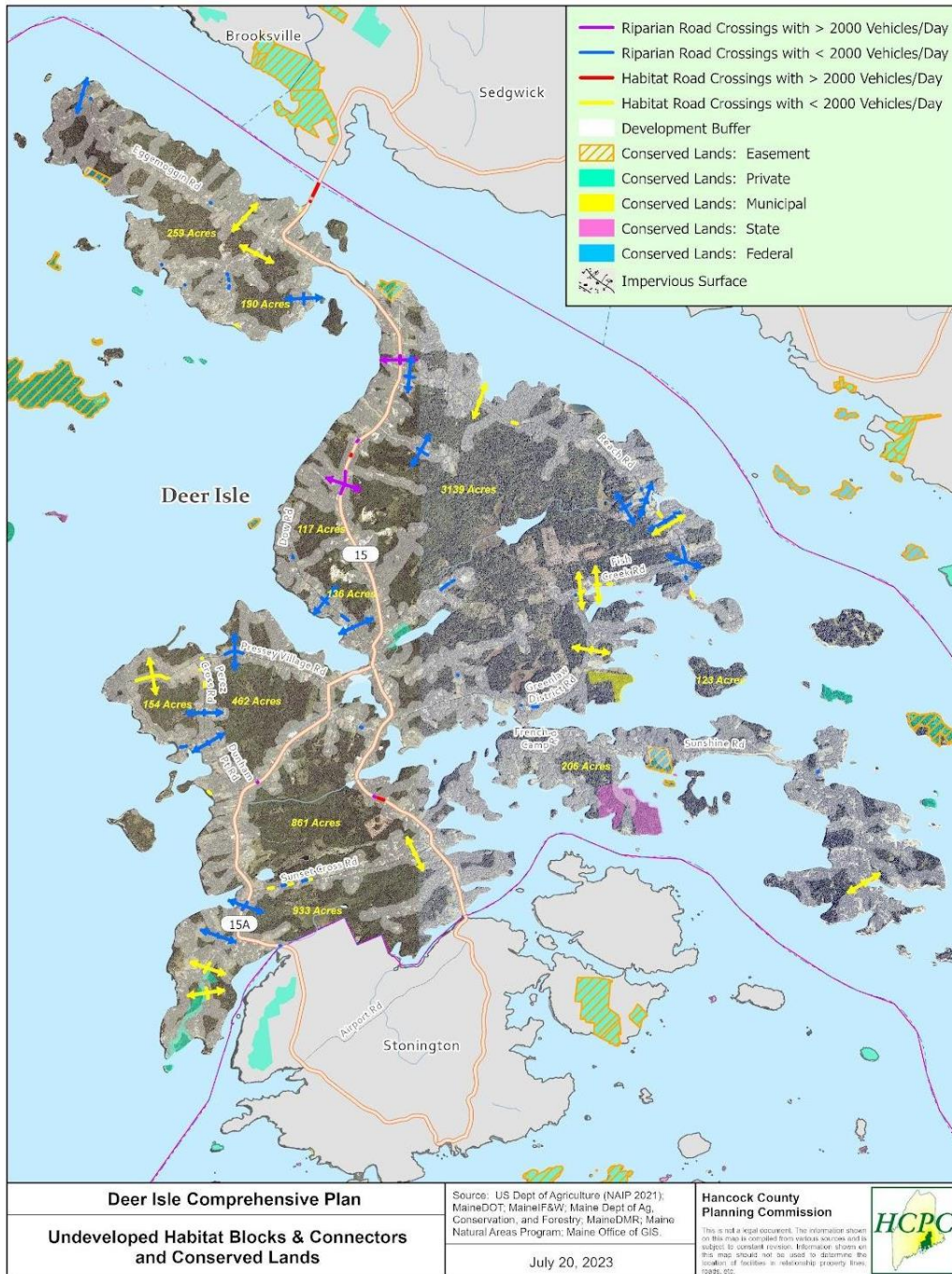




d. Undeveloped Habitat Blocks and Connections

The Undeveloped Habitat Blocks & Connections and Conservation Areas map (Figure C-6) highlights large areas of undeveloped land and marks probable habitat connections. In addition, the boundaries of protected lands are shown. The importance of the map is that it shows the best opportunities to conserve a broad network of intact habitats. Total size is listed for any intact blocks greater than one hundred acres in size.

**Figure C-6: Undeveloped Habitat Blocks & Connectors and Conserved Lands**



Deer Isle is fortunate to still have quite a few large tracts of undeveloped land. If development pressure increases and/or if state and federal environmental regulations weaken, the Town may want to consider additional efforts—regulatory, appeals for voluntary conservation, etc.—to try to preserve large undeveloped holdings. Requiring subdivisions to cluster homes on smaller lots so as to leave undeveloped open space is one method that can reduce the fragmentation of habitat blocks.

e. Stream Barriers

Streams are important habitat for fish, birds, insects, reptiles, mammals, and amphibians, but in some cases where a road crosses a stream the bridge or culvert is incorrectly sized, placed, or damaged and does not enable wildlife to freely pass under them. Examples of such barriers are shown in Figure C-7 below.

**Figure C-7: Stream Barrier Examples**



Source: Maine Stream Crossings

The Fish Passage Barriers map in Figure C-8 indicates that there are a number of stream barriers in Deer Isle. These include:

**Table C-1: Deer Isle Stream Crossings**

Site ID	Crossing Type	Crossing Class	Stream	Road	Survey Date	Crossing Condition	Beginning with Habitat Connectors	Crossing Comments	Outlet Grade	Inlet Grade	Material
51135	Culvert	Potential Barrier	Unknown	Dow Rd	2014-09-29	OK	Yes	No data	At Stream Grade	At Stream Grade	Metal
51125	Culvert	Potential Barrier	Unknown	Dow Rd	2014-09-29	Poor	Yes	No data	At Stream Grade	At Stream Grade	Metal
51132	Culvert	Barrier	Unknown	Dow Rd	2014-09-29	OK	No data	No data	Free Fall	At Stream Grade	Plastic
51117	Culvert	Barrier	Unknown	Church St	2014-09-29	OK	No data	pumphouse for firefighters	Free Fall	At Stream Grade	Concrete
51131	Culvert	Potential Barrier	Unknown	Route 15	2014-09-29	Poor	No data	No data	At Stream Grade	At Stream Grade	Metal
51121	Culvert	Potential Barrier	Unknown	Sunset Ave	2014-09-29	OK	Yes	No data	At Stream Grade	At Stream Grade	Metal
51118	Multiple Culvert	Potential Barrier	Unknown	Sunset Ave	2014-09-29	Poor	No data	No data	At Stream Grade	At Stream Grade	Metal
51133	Culvert	Barrier	Unknown	Dunham Point Rd	2014-09-29	OK	No data	No data	Free Fall	Perched	Plastic
51137	Culvert	Barrier	Unknown	Greenlaw District Rd	2014-09-29	Poor	No data	do to condition water flows in ~1/2 through and exits 3/4 of the way out	Free Fall	At Stream Grade	Concrete
51138	Multiple Culvert	Potential Barrier	Unknown	Sunshine Rd	2014-09-29	OK	No data	No data	At Stream Grade	At Stream Grade	Plastic
51112	Culvert	Barrier	Fish Creek	Fish Creek Rd	2014-09-29	Poor	Yes	No data	Free Fall	At Stream Grade	Concrete
51123	Culvert	Potential Barrier	Torrie Brook	Reach Rd	2014-09-29	Poor	Yes	No data	At Stream Grade	At Stream Grade	Metal
51110	Multiple Culvert	Potential Barrier	Unknown	Reach Rd	2014-09-29	OK	No data	small walking bridge downstream	At Stream Grade	At Stream Grade	Plastic
51122	Culvert	Barrier	Unknown	Eugene Ln	2014-09-29	OK	Yes	No data	Free Fall	At Stream Grade	Plastic
51109	Multiple Culvert	Barrier	Mill Pond	Bridge St	2014-10-01	OK	No data	No data	Free Fall	At Stream Grade	Concrete
51120	Bridge	No Barrier	Unknown	Route 15	2014-10-01	No data	No data	No data	No data	No data	No data

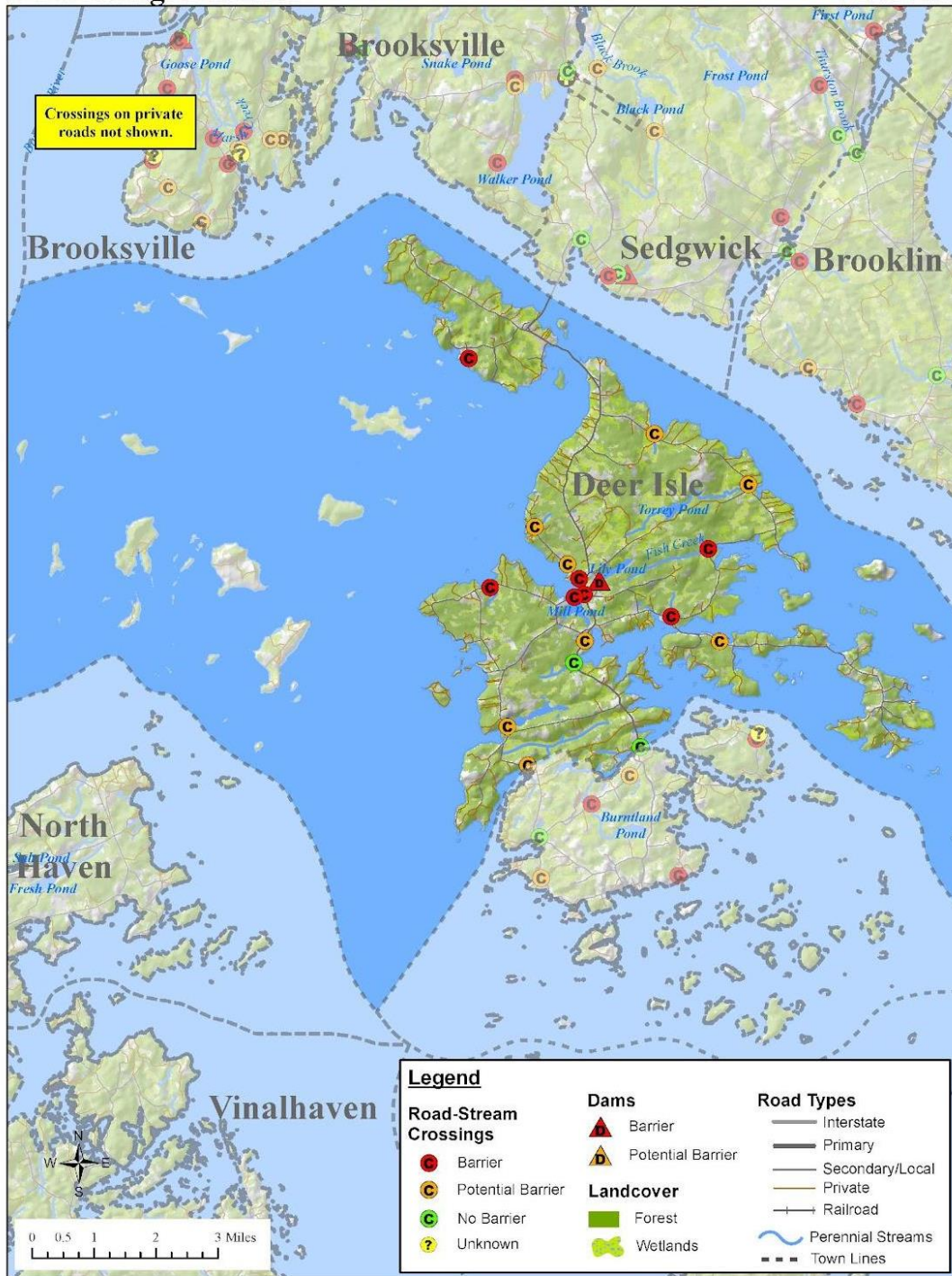
Source: MaineIF&W, Beginning with Habitat, Maine Stream Habitat Viewer

The Town of Deer Isle routinely inspects culverts and prioritizes replacements. One Stream Crossing Grant has been awarded. It is recommended that Deer Isle review the stream crossing data and contact the Hancock County Planning Commission to explore future grant funding opportunities for improving its culvert barriers.



**Figure C-8: Fish Passage Barriers**  
**Fish Passage Barriers**

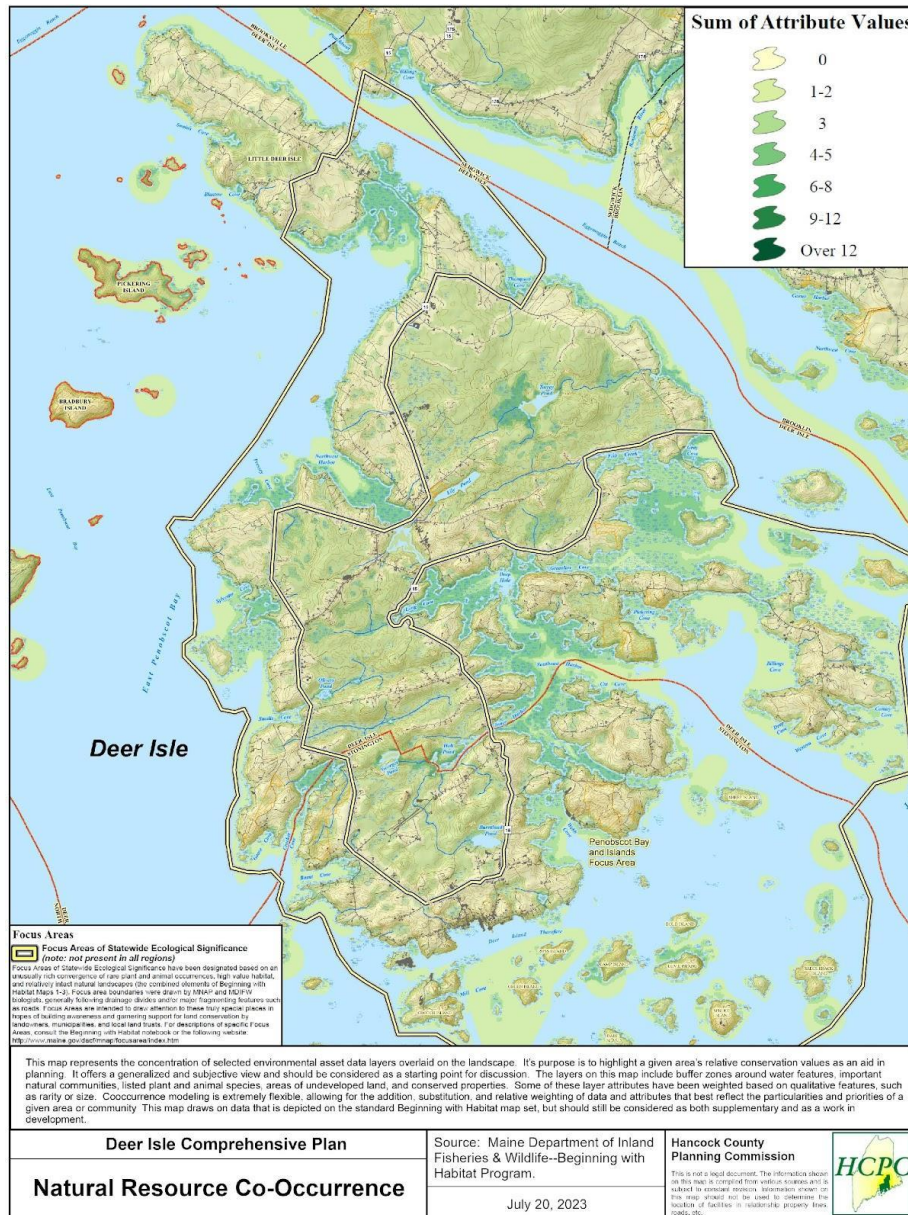
**Deer Isle**



f. Co-Occurrence

The last of the maps with data from Beginning with Habitat, Figure C-9, represents the concentration of selected environmental asset data layers overlaid on the landscape. Its purpose is to highlight a given area's relative conservation values as an aid in planning. It offers a generalized and subjective view and should be considered as a starting point for discussion. The layers on this map include buffer zones around water features, important natural communities, listed plant and animal species, and areas of undeveloped land. Some of the layers were weighted by the environmental agencies participating in Beginning with Habitat based on rarity, size, or other qualitative features. In Figure C-9, the darker green the area, the higher its score as a valuable natural resource area.

**Figure C-9: Co-Occurrence**



g. Wetlands Characterization

The Wetlands Characterization map in Figure C-3 is also part of the Beginning with Habitat set. It depicts wetlands that have been evaluated and prioritized based on six different ecological functions:

1. Runoff/flood-flow alteration
2. Erosion control/sediment retention
3. Finfish habitat
4. Shellfish habitat
5. Plant and animal habitat
6. Cultural/educational uses

Each wetland on the map is coded by the specific ecological function that it provides. This information can help identify wetlands in need of conservation or greater local protection. (See the detailed discussion in 5.a. above.)

## 7. Scenic Resources

Deer Isle abounds in scenic views. A Regional Scenic Inventory and Analysis was carried out by the Hancock County Planning Commission ([www.hcpcme.org](http://www.hcpcme.org)) in 2010 that identifies views of local, regional and statewide significance. That assessment identified 20 public locations with significant scenic views, though many more exist from private properties. The Town of Deer Isle, Island Heritage Trust and other conservation groups maintain a variety of nature preserves open to the public that provide forest and marsh views as well as outstanding views of the ocean and surrounding islands. Deer Isle is part of the panoramic view from a scenic turnout at Caterpillar Hill on Route 15 in Sedgwick.

Downeast Maine is noted for dark skies due to limited light pollution. Dark skies benefit natural systems and have become a focal point for tourism. Animal, bird and insect migration are threatened by bright outdoor lighting. Invasive species like browntail moths are drawn to outdoor lighting creating a threat to public health.

## 8. Offshore Islands

Deer Isle has scores of coastal islands ranging from rock outcrops and ledges to the well over 100-acre Conary Island. Many of these islands are uninhabited. Many other islands in local waters are regulated by the Land Use Planning Commission as Unorganized Territories and are independent of Town government, notwithstanding having a long historical connection to Deer Isle. The island environment in general is much more fragile and ecologically sensitive than the mainland because of the combination of exposure, strong wind and wave action, thin soil cover, weakly anchored, often stressed vegetation and very limited freshwater resources. Twenty of the islands are in some form of public or conservation ownership.

In general the smaller the island the less amount of development that can be allowed. Although many factors enter in, size is the limiting hydrological factor. Groundwater supplies are typically extremely limited and nitrates leaching from septic systems can rapidly become a more serious pollutant. Soils and bedrock type is also influential in determining groundwater conditions. With thin soil cover, and often dense, impermeable granite bedrock formations, groundwater is less

available, and what is there is more susceptible to contamination. Salt water intrusion is another critical concern as the fresh groundwater that floats above the denser salt water, allowing it to rise and contaminate the deeper drilled wells with usage.

## 9. Assessment of Threats to Deer Isle's Critical Natural Resources

There is the risk of immediate, longer-term and cumulative damage through future development. This is particularly true in those areas not protected by Shoreland Zoning or by state essential habitat designation. Development can cause fragmentation of large habitat blocks, excessive stormwater runoff, groundwater pollution, saltwater incursion and other adverse environmental impacts. The Beginning with Habitat program provides guidance for protecting large blocks of land as well as sites of particular environmental significance.

Global climate change and sea level rise affect many of the species that we consider our natural resources. Animals are competing for a food supply that is becoming more limited as less severe conditions allow their numbers to unnaturally increase and the introduction of more species migrating northward. Plant species may not be able to adapt to these same environmental and weather changes. Plants are also likely to be consumed beyond what they can maintain due to the increasing animal populations. The plant and animal habitat changes are strongly and negatively influenced by the increasing number of invasive plants and insects that seem to be a direct result of global warming.

Contamination and plastic pollution are a growing concern. Microplastics in particular are emerging as a threat to wildlife and human health. Illegal burning is a threat to the environment, particularly when materials such as lead painted siding, waste oil or other toxic materials are included. The Deer Isle transfer station is currently unable to accept household hazardous waste. In the past, the Hancock County Planning Commission has hosted annual household hazardous waste collections that help to reduce storage of toxic chemicals in homes as well as reduce dangerous and illegal dumping of chemicals. A permanent regional household hazardous waste collection site would be more effective.

Deer Isle and Stonington have an annual roadside cleanup in the spring that is coordinated by Island Heritage Trust and the town governments. This is extremely important to maintaining the plant and animal habitats of the island. More community involvement in this event as well as year round maintenance would significantly lessen the threat imposed. An additional fall roadside cleanup has also proven effective in reducing litter.

### Threats caused by Invasive Species

An invasive species is an aggressive non-native species whose introduction causes or is likely to cause economic harm, environmental harm, or harm to human health. These species grow and reproduce rapidly, and can spread with or without human help, causing major disturbance to the areas where they are present. The estimated cost of invasive species damage to the U.S. is \$120 billion.

Some threatening species for Deer Isle include:



- Forest pests: Examples include the brown tail moth which is a hazard to human health and causes heavy damage to apple and oak trees among others, spruce budworm, and emerald ash borer.
- Marine invaders: In the open marine environment there are many ways for invasive species to be introduced. From the ballast water of large ships to the hull of a family boat, when left untreated or uninspected can provide an easy ride for invasives such as the green crab, sea squirt, and zebra mussel.
- Plant health pests: Examples include the spongy moth, formerly known as gypsy moth, which attacks hardwood trees, Japanese beetles, and Asian ladybugs.

Aggressive invasives on Deer Isle are numerous. One source of these invasives is from ordering from online nurseries or catalogs. Also, people may propagate and share invasives, not realizing their harmful impacts.

Another harmful invasive species is the Asiatic Bittersweet. In Mariners Memorial Park (MMP), for example, the bittersweet was left unattended for many years. They entwined apple trees and other trees and are choking their growth. Some people, unaware of the impact, have made Christmas wreaths with the flower seeds which has allowed for the spread of berries. Birds also eat the seeds and spread them.

Another invasive that was innocently planted in MMP were Autumn Olives. Autumn Olive fruit provides poor nutritional value to birds, which can slow migration and make birds vulnerable to other risks. Also, Autumn Olive leaves in wet depressions may increase production of West Nile virus carrying mosquitoes.

## 10. Consistency of Deer Isle’s Shoreland Zoning Standards with State Guidelines

Deer Isle’s Shoreland Zoning Ordinance and its amendments have been approved by the Commissioner of the Department of Environmental Protection on several occasions. In several respects, it establishes standards that are higher than required by State law. It was most recently amended in 2016, principally to adopt statewide timber harvesting standards and to cede their administration to the Maine Bureau of Forestry. New laws passed in 2023 will require all towns in Maine to update zoning and subdivision ordinances in 2024.

Discussion of shoreland zoning is included in chapters on current and future land use. The maps provided in this chapter should be reviewed to determine whether additional areas would warrant the more restrictive Resource Protection designation under Shoreland Zoning.

## 11. Measures to Protect Critical and Important Natural Resources

Protection of natural resources can be advanced through a mix of voluntary, educational, economic and regulatory tools. Island organizations like IHT, Evergreen Garden Club, HIP, youth projects, etc. provide voluntary and educational opportunities for property owners to protect the natural resources on their properties and public lands.



Maine State Government offers tax incentives for conservation of land including open space, tree growth easements, forever wild and public access designations. More information is available at the Maine Revenue Services website.

Deer Isle has a Shoreland Zoning Ordinance, a Floodplain Ordinance, and a Subdivision Ordinance. Accompanied by state and federal regulations, these Town ordinances provide a basic framework for protecting critical natural resources in Deer Isle. Consideration should be given to revising local ordinances to improve protection of natural resources.

In many cases the loss of environmental resources is gradual and not very noticeable over the short term. Cumulative construction of individual homes, subdivisions, and other small projects over time can transform a community from being rich in plant and animal habitats, as Deer Isle is now, to one that is average or poor. To overcome this a community cannot just rely on its basic land use regulations but must be engaged in a continuous process of identifying what natural resources it wishes to save. Landowners, conservation organizations, the regional planning agency, and others can use non-regulatory means for preservation as well as developing creative new growth management tools that achieve multiple objectives.

It is recommended that Deer Isle work with neighboring towns and the Hancock Regional Planning Commission in developing a natural resource protection plan that focuses on areas like those depicted in the Co-Occurrence map.

## 12. Regional Cooperation to Protect Shared Critical Natural Resources

Deer Isle is strongly engaged in regional natural resource protection efforts with regional partner organizations. These efforts will need to continue as the human and natural threats to the environment pose ongoing challenges.

Organization	Mission	Contact Information
Hancock County Planning Commission	Regional environmental and comprehensive planning	(207) 667-7131 www.hcpcme.org
Peninsula Tomorrow	Climate change mitigation and adaptation	Averi Varney, HCPC 667-7131 avarney@hcpcme.org
Hancock County Soil and Water Conservation Service	Soil conservation, erosion, agricultural practices, driveways	(202) 667-8663 hancockcountyswcd.org
University Cooperative Extension	Master Gardener Program	(207) 667-8212 extension.umaine.edu
Regional and local land trusts	Island Heritage Trust Maine Coast Heritage Trust	www.islandheritagetrust.org www.mcht.org

### 13. Goals & Objectives

GOAL: Conserve critical natural resources in the community.			
Objective	Strategy	Responsible Party(ies)	Timeframe
Revive the Deer Isle Conservation Commission	Recruit volunteers	Select Board	2024
Identify high value habitats	Engage students in identifying and monitoring habitats	Town staff, IHT, Schools, Landowners	2024-25
Work to conserve a broad network of high value habitats	Encourage voluntary conservation of high value habitats	Town staff, IHT	2025-26
	Review regulations for private roads and new construction	Town staff, HCPC	2025-26
Improve health of Town woodlands and resilience to forest fire risks	Educate public about forest health and forest fire risks	Fire Department Town Office Conservation Commission Maine Forest Service	2024
Improve culvert connections to wetlands	Review stream crossing data	Town staff	2024-25
	Pursue grant funding opportunities	Town staff, HCPC	Ongoing
Encourage dark sky protection	Evaluate existing sources of light pollution	Conservation Commission	2024
	Educate homeowners and business owners about night-sky friendly lighting	Conservation Commission	2025
	Enact policies to reduce municipal light pollution	Select Board	2026
Increase homeowner participation in protecting natural resources and thoughtful property and household management	Produce educational materials	Conservation Commission	2025
	Provide forest management consultation to small woodlot owners	Peninsula Tomorrow, Maine Forest Service	2025
	Identify demonstration sites and host demonstrations	Conservation Commission Evergreen Garden Club	Ongoing
Prevent and manage invasive plants and animals.	Educate the public about invasives and native species alternatives	Evergreen Garden Club, IHT, Conservation Commission	Ongoing
	Share the Maine Natural Areas Program tools with the public	Town staff, MNAP	Ongoing

GOAL: Reduce pollution, including litter and toxic chemicals			
Objective	Strategy	Responsible Party(ies)	Timeframe
Raise awareness about personal responsibility for reducing pollution	Provide education and incentives to the public to mitigate negative impacts of pollution	Conservation Commission, Schools	Ongoing
	Educate students about the damage to environment, wildlife and human health caused by litter, plastics and microplastics	Conservation Commission, Schools	Ongoing
Reduce litter along roadsides and shorelines	Partner with schools to provide litter prevention education	Schools, Conservation Commission	2024
	Biannual roadside and shoreline cleanup	IHT, Evergreen Garden Club, clammers, Town staff, students	Ongoing
Promote reduce, reuse and recycle	Reopen Take It or Leave It room	Select Board, Transfer Station	2024
	Explore regional coordination	Peninsula League of Towns, Conservation Commission	Ongoing
Develop regional hazardous waste disposal system that is user-friendly and well-known	Work with neighboring towns to develop disposal options	HCPC, DEP, MRRA	2026

# Chapter D: Agricultural and Forest Resources

## 1. Purpose

This section presents an analysis overview of Deer Isle's Agricultural and Forest Resources, particularly land available for natural resource utilization and ecosystem services (the various benefits to humans from the natural environment, such as drinkable water, productive soils and farmlands, timber lands, etc.). Specifically, this section will:

- a. describe the extent of Deer Isle's farming and forest land;
- b. predict potential future threats to viability by growth and development;
- c. assess the effectiveness of current protective measures to preserve important available lands for farming and forestry production.

## 2. Key Findings & Issues

Historically, much of Deer Isle was dedicated to small-scale farming and agriculture, with many residents growing food for their own use, raising livestock and exchanging surpluses with their neighbors. The Island's topography, relatively rocky soils and climate have never lent themselves to large scale agricultural operations. In more recent years, the amount of agriculture has diminished and farm fields and pastures have reverted to woodland, but there are currently two commercial farms and a range of home gardens producing food items. Given increased State emphasis on increasing local food production, Deer Isle has an opportunity to work with regional and State organizations to protect its agricultural soils and support its farmers. To address the potential for agricultural land or other open space to be sold to developers, Deer Isle can improve its land use regulations and seek to increase the protection of land through land trusts or agricultural easements and assistance with the acquisition of farmable property.

Deer Isle also has extensive woodlands and a small-scale forestry industry. Of the approximately 15 percent of land in Deer Isle enrolled in one of the current use tax law programs, the great majority is enrolled in Tree Growth.

## 3. Key Findings & Issues Taken from the Draft 2006 Comprehensive Plan

The Draft 2006 Comprehensive Plan stated, "Farming is a minor contributor to the economy, but it is important in preserving open land and providing a source of locally grown food. There was about a 20 percent decline in tree growth taxation acreage between 1996 and 2002. Small-scale forestry operations, such as portable saw mills and wood chipping, are a source of employment and income for local residents."

## 4. Public Opinion Survey Results

The Comprehensive Plan Survey elicited the following responses to questions related to agriculture and forestry:

Almost 57% of the Survey respondents believed that agriculture should be permitted anywhere in Town; most of the rest of the respondents would limit the activity to designated areas of the Town. Opinion was relatively evenly divided on the desirability of greater Town involvement in protecting agricultural land: over 40% favored more involvement; almost 39% preferred the status quo; almost 4% would reduce Town involvement; and more than 17% were unsure.

More Survey respondents would limit forestry to designated areas of the Town (almost 49%), with just under 40% concluding that it should be allowed anywhere. Support for protecting forested land was also split: almost 43% favored greater Town involvement; more than 45% would not change the level of involvement; less than 2% would reduce involvement; and around 10% were unsure.

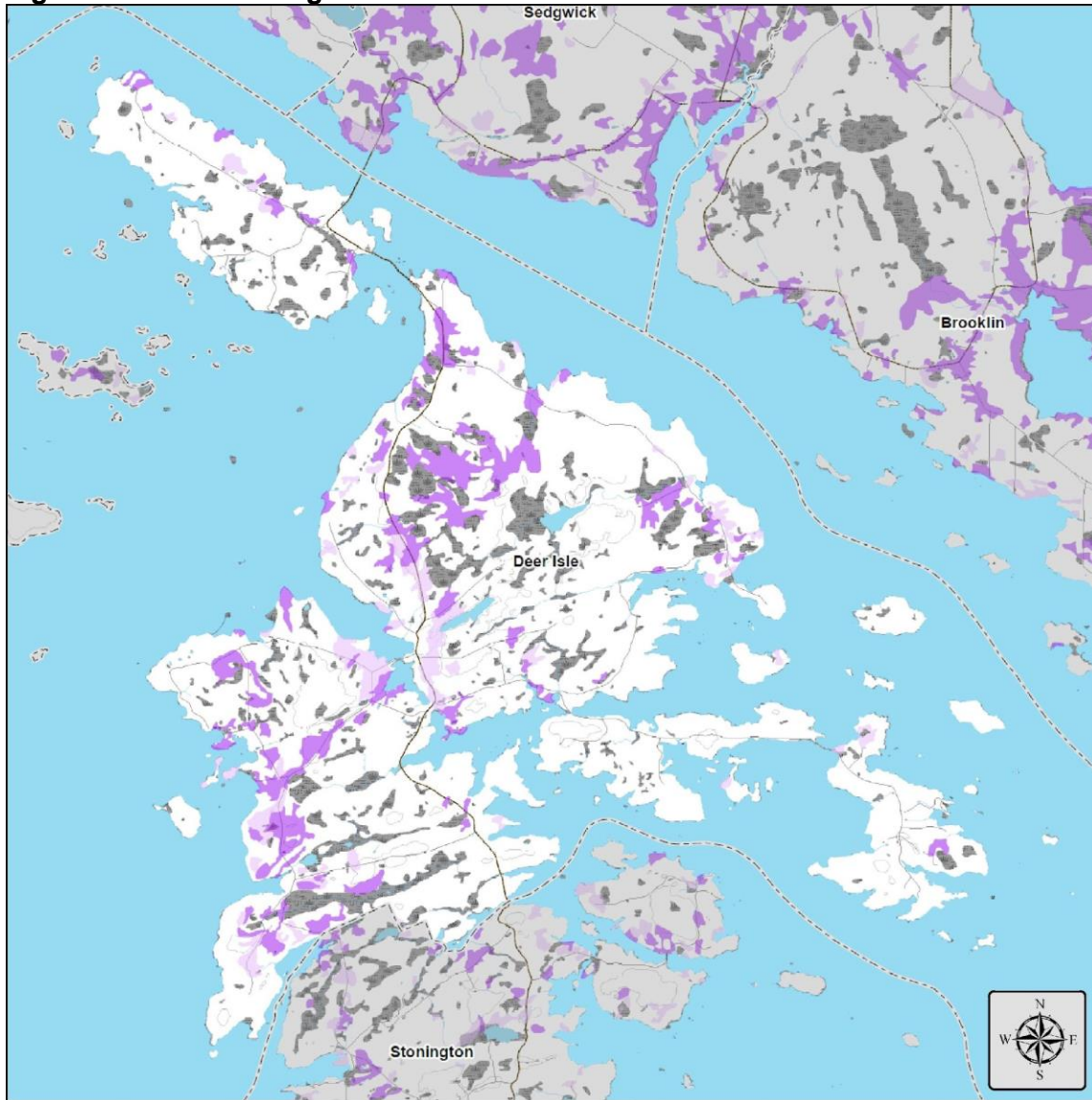
## 5. Agricultural Resources

### a. Agricultural Soils

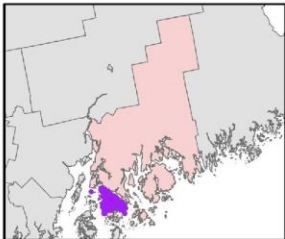
Based on GIS calculations using USDA Natural Resources Conservation Service data, Deer Isle (including the outer islands) has approximately 768 acres of prime agricultural soils and 1,567 acres of farmland soils of statewide importance (see map in Figure D-1). The term prime agricultural soils refers to soils that have the potential to have the highest agricultural yields but are not necessarily farmed. The soils of statewide importance category refers to soils that have a more modest yield. One of the larger concentrations of farmland of statewide importance is in the area north of the high school. There are concentrations of both kinds of soil beneficial for farming in various other parts of the town.

A map and table of the complete range of soils in Deer Isle, from which the agricultural soils map was derived, is provided below in Figure D-2 and Table D-1.

**Figure D-1: Deer Isle Agricultural Soils**



**Deer Isle  
Agricultural Resources**



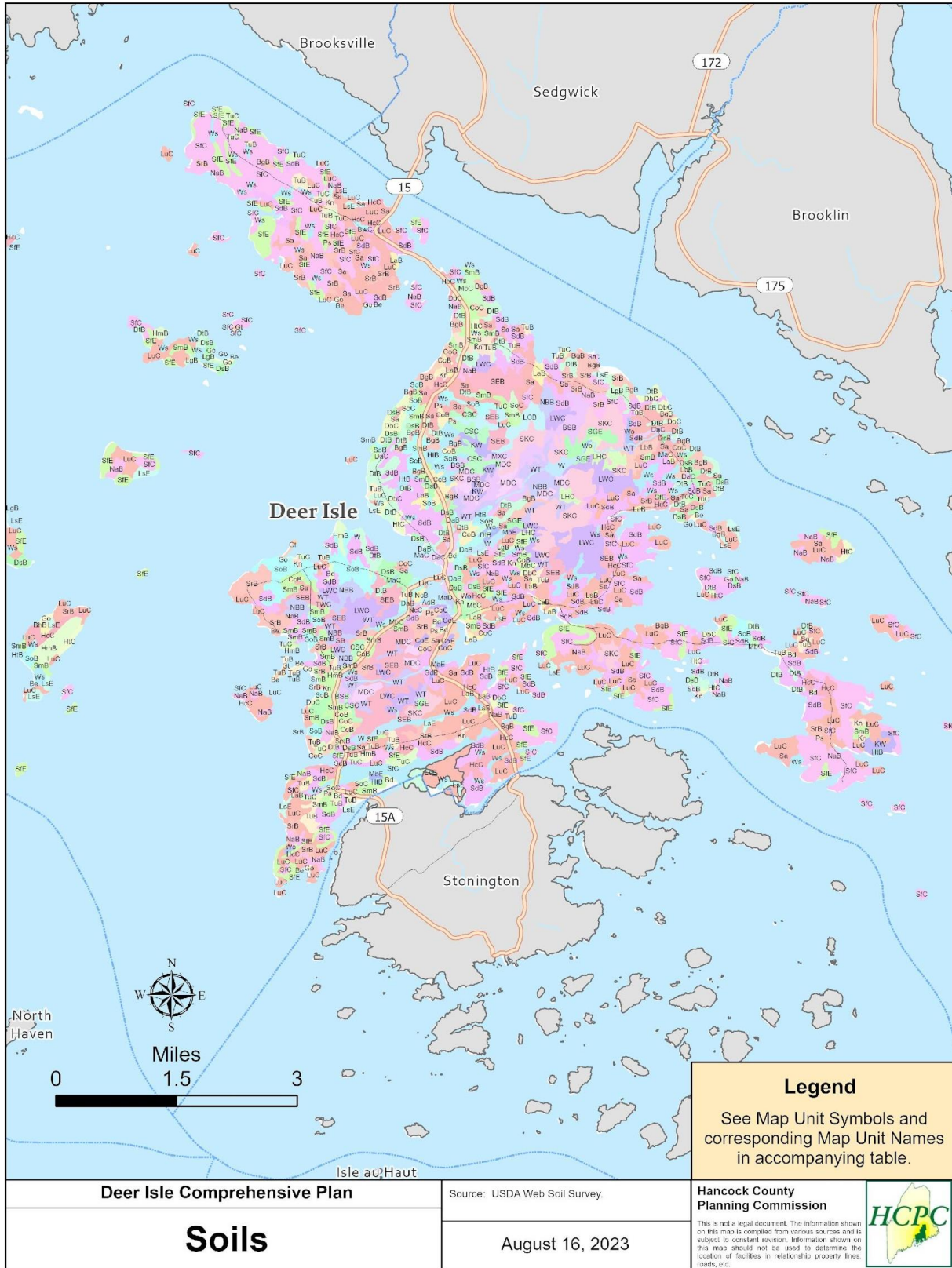
Source Data: USDA, MEGIS, Maine DACF  
 Projection: UTM, NAD83, Zone 19, Meters  
 Produced by: Municipal Planning  
 Assistance Program, DACF  
 October 2018



**Legend**

- Municipal border
- Farmland of statewide importance
- Prime farmland
- Rivers/Streams
- Waterbody
- Wetlands

**Figure D-2: Deer Isle Soils**





**Table D-1: Deer Isle Soils**

Map Unit Symbol	Map Unit Name	Number of Acres	%	Map Unit Symbol	Map Unit Name	Number of Acres	%
AdB	Adams loamy sand, 0 to 8 percent slopes	7.9	0.0%	LWC	Lyman-Tunbridge-Schoodic complex, 8 to 15 percent slopes, very stony	607.3	0.8%
Bd	Biddeford mucky peat, 0 to 3 percent slopes	43.2	0.1%	Mac	Marlow fine sandy loam, 8 to 15 percent slopes	11.3	0.0%
Be	Beaches, 0 to 2 percent slopes	38.9	0.0%	MaD	Marlow fine sandy loam, 15 to 25 percent slopes		0.0%
BgB	Brayton fine sandy loam, 0 to 8 percent slopes, very stony	265.1	0.3%	MbC	Marlow fine sandy loam, 8 to 15 percent slopes, very stony	105.7	0.1%
BhB	Brayton fine sandy loam, 0 to 8 percent slopes, rubbly	9.4	0.0%	MbE	Marlow fine sandy loam, 15 to 45 percent slopes, very stony	22.9	0.0%
BSB	Brayton-Colonel association, 0 to 8 percent slopes, very stony	284.3	0.4%	MDC	Marlow-Peru association, 3 to 15 percent slopes, very stony	173.8	0.2%
BwC	Buxton silt loam, 8 to 15 percent slopes	8.1	0.0%	MXC	Monadnock-Hermon-Peru complex, 0 to 15 percent slopes, extremely bedded	18.8	0.0%
CoB	Colton gravelly sandy loam, 0 to 8 percent slopes	130.4	0.2%	NaB	Naskeag-Schoodic complex, 0 to 8 percent slopes, very stony	470.5	0.6%
CoC	Colton gravelly sandy loam, 8 to 15 percent slopes	139.9	0.2%	NBB	Naskeag-Schoodic-Lyman complex, 0 to 8 percent slopes, very stony	205.5	0.3%
CoE	Colton gravelly sandy loam, 15 to 45 percent slopes	38.4	0.0%	NcB	Nicholville very fine sandy loam, 3 to 8 percent slopes	9.2	0.0%
Csc	Colton-Adams-Sheepsfoot association, 0 to 15 percent slopes	145.0	0.2%	NcC	Nicholville very fine sandy loam, 8 to 15 percent slopes	14.2	0.0%
DaB	Peru fine sandy loam, 3 to 8 percent slopes	86.1	0.1%	Ps	Pits, gravel and sand	34.5	0.0%
DaC	Peru fine sandy loam, 8 to 15 percent slopes	82.5	0.1%	Sa	Scatic silt loam, 0 to 3 percent slopes	1,041.9	1.3%
DbC	Peru fine sandy loam, 8 to 15 percent slopes, very stony	134.4	0.2%	SB	Scatic-Biddeford complex, 0 to 3 percent slopes	11.1	0.0%
DsB	Peru-Colonel complex, 3 to 8 percent slopes	415.2	0.5%	SdB	Scatic-Lamoine complex, 0 to 8 percent slopes, very stony	2,038.5	2.6%
DtB	Peru-Colonel complex, 3 to 8 percent slopes, very stony	579.9	0.7%	SEB	Scatic-Lamoine-Peru complex, 0 to 8 percent slopes, very stony	697.4	0.9%
Go	Fort Knox, Todds point, and Gouldsboro soils, 0 to 2 percent slopes	62.4	0.1%	SfC	Schoodic-Rock outcrop complex, 0 to 15 percent slopes	2,187.3	2.8%
Gt	Gouldsboro, Fort Knox, and Beaches soils, 0 to 2 percent slopes	14.5	0.0%	SfE	Schoodic-Rock outcrop complex, 15 to 65 percent slopes	921.0	1.2%
HcC	Hermon-Colton-Rock outcrop complex, 3 to 15 percent slopes, very stony	548.3	0.7%	SGE	Schoodic-Rock outcrop-Lyman complex, 15 to 60 percent slopes	89.3	0.1%
HmB	Hermon and Monadnock soils, 3 to 8 percent slopes	134.8	0.2%	SKC	Schoodic-Rock outcrop-Naskeag complex, rolling	587.3	0.7%
HmC	Hermon and Monadnock soils, 8 to 15 percent slopes	22.1	0.0%	SmB	Sheepsfoot sandy loam, 0 to 8 percent slopes	558.7	0.7%
HtB	Hermon and Monadnock soils, 0 to 8 percent slopes, very stony	69.1	0.1%	SoB	Sheepsfoot sandy loam, 3 to 8 percent slopes, very stony	489.7	0.6%
HtC	Hermon and Monadnock soils, 8 to 15 percent slopes, very stony	83.5	0.1%	soc	Sheepsfoot sandy loam, 8 to 15 percent slopes, very stony	40.0	0.1%
Kn	Kinsman loamy sand	119.0	0.2%	SrB	Sheepsfoot-Rock outcrop complex, 0 to 8 percent slopes	597.0	0.8%
KW	Kinsman-Wonsqueak association	104.9	0.1%	TuB	Tunbridge-Lyman complex, 3 to 8 percent slopes, rocky	269.9	0.3%
LaB	Lamoine silt loam, 3 to 8 percent slopes	122.2	0.2%	TuC	Tunbridge-Lyman complex, 8 to 15 percent slopes, rocky	149.3	0.2%
LbB	Lamoine-Scatic complex, 0 to 8 percent slopes	63.4	0.1%	TWC	Tunbridge-Lyman-Marlow complex, 3 to 15 percent slopes, rocky	6.0	0.0%
LCB	Lamoine-Scatic-Buxton complex, 0 to 15 percent slopes	123.6	0.2%	W	Water bodies	60,019.0	75.8%
LgB	Lyman-Brayton complex, 3 to 15 percent slopes, very stony	106.3	0.1%	Wo	Wonsqueak muck, 0 to 2 percent slopes, frequently flooded	30.5	0.0%
LHC	Lyman-Brayton-Schoodic complex, 3 to 15 percent slopes	103.2	0.1%	Ws	Wonsqueak and Bucksport mucks, 0 to 2 percent slopes	683.1	0.9%
LeE	Lyman-Schoodic complex, 15 to 35 percent slopes, rocky	354.1	0.4%	WT	Wonsqueak, Bucksport, and Sebago soils	291.4	0.4%
LuC	Lyman-Tunbridge complex, 0 to 15 percent slopes, very stony	2,319.0	2.9%		<b>Total</b>	<b>79,141.2</b>	<b>99.9%</b>

**b. Farm and Open Space Enrollment**

Another way to estimate current amounts of agriculture in Deer Isle is through the acreage of land held under the Farm and Open Space Act. This act allows farmland owners property tax breaks for parcels over five contiguous acres if they meet certain conditions, such as minimum farm-derived income. Normally, qualifying farmers with a long-term commitment to farming would participate in this program. More specifically:

In the Farmland program, the property owner is required to have at least five contiguous acres in their parcel of land. The land must be used for farming, agriculture or horticulture and can include woodland and wasteland. Additionally, the parcel must contribute at least \$2,000 gross income from farming activities each year.

The Department of Agriculture prepares a valuation guideline for municipalities, which results from studies based on suggested values using a correlation from income stream and market data attributable to agricultural enterprise.

If the property no longer qualifies as farmland, then a penalty will be assessed. The penalty is equal to the taxes that would have been paid in the last five years if the property had not been in farmland, less the taxes that were paid, plus any interest on that balance.<sup>11</sup>

The table below indicates that, as of 2021, there were only 2 properties with a total of 37 acres enrolled in the Farmland program.

**Table D-2: Farm and Open Space Taxation Parcels 1997 – 2021**

Year	Farmland		Open Space	
	Number of Parcels	Acres	Number of Parcels	Acres
1996	1	14	1	149
1997	1	14	1	149
1998	1	14	1	149
1999	1	14	1	143
2000	0	0	5	142
2001	1	14	5	142
2002	1	14	5	142
2003-2008	n.a.	n.a.	n.a.	n.a.
2009	1	14	5	142
2010	1	14	5	142
2011	1	15	3	65
2012	1	14	5	142
2013	2	Missing		
2014	1	14	6	120
2015	2	37	6	120
2016	2	37	7	122

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<sup>11</sup> Current Land Use Programs, Maine Revenue Services, <https://www.maine.gov/revenue/taxes/tax-relief-credits-programs/property-tax-relief-programs/land-use-programs>, accessed July 20, 2022.

Year	Farmland		Open Space	
	Number of Parcels	Acres	Number of Parcels	Acres
2017	2	37	8	178
2018	2	37	9	262
2019	2	37	10	277
2020	2	37	10	275
2021	2	37	11	319
Source: Municipal Valuation Return Statistical Summary, Maine Bureau of Taxation Property Tax Division. Data from 2003-2008 not available. 2013 data is questionable.				

There were 11 properties in 2021 enrolled in the Open Space portion of the program amounting to 319 acres, a low number relative to other towns in the area. The rules are as follows:

The municipal assessor is responsible for determining the value placed on open space land. In the determination of that value, the assessor must consider the sale price that a particular open space parcel would command in the open market if it were to remain in the particular category or categories of open space land for which it qualifies.

If an assessor is unable to determine the value of a parcel of open space land based on the valuation method above, the assessor may use the alternative valuation method. Using this method, the assessor reduces the fair market value of an open space land parcel by the cumulative percentage reduction for which the land is eligible according to certain categories. Those categories are as follows:

- Ordinary Open Space - 20% reduction
- Permanently Protected - 30% reduction
- Forever Wild - 20% (cannot be combined with Managed Forest)
- Public Access - 25% reduction
- Managed Forest - 10% reduction (cannot be combined with Forever Wild)

In other words, if the property met all of the above requirements, the owner would see a cumulative reduction of up to 95% of the assessed value of the classified land.

If property no longer qualifies as open space, a penalty will be assessed using the same methodology as is used for removal from the Tree Growth program (see below).<sup>12</sup>

#### c. Agriculture

There are currently only a few commercial farms and market gardens in Deer Isle. These farms and gardens produce dairy, eggs, livestock, fruit, flowers, value added products, and vegetables. There are also several horse farms, and at least one offers riding lessons. Home

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<sup>12</sup> Current Land Use Programs, Maine Revenue Services, <https://www.maine.gov/revenue/taxes/tax-relief-credits-programs/property-tax-relief-programs/land-use-programs>, accessed July 20, 2022.

gardening is widespread and has increased in recent years. Popular garden produce includes tomatoes, peppers, green vegetables, beans, corn, potatoes, onions, garlic, squash, peas, and cucumbers.

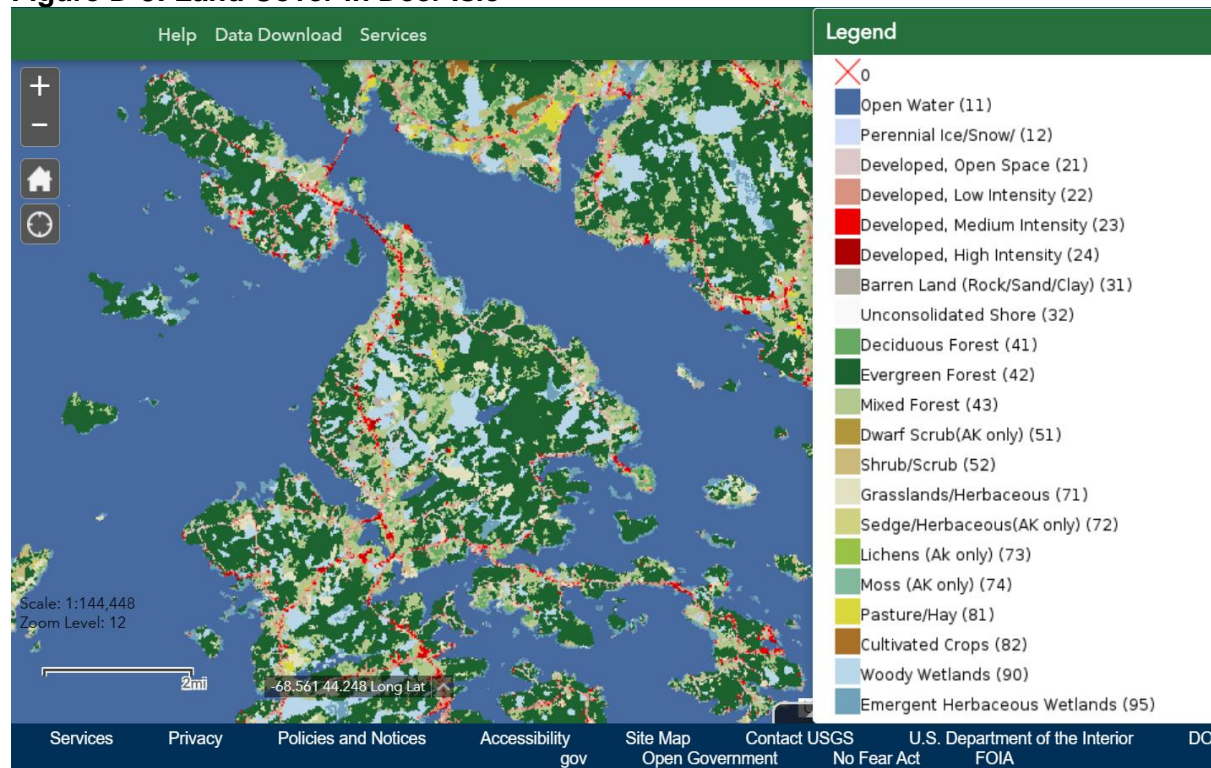
The small quantity of crops grown commercially in Deer Isle and the small number of properties in the Farmland current use taxation program are indicators that land-based agriculture in Deer Isle is not a major part of the community’s business economy. Small-scale farming is hard work, and its financial returns are unpredictable. Worker shortages also contribute to the challenges.

Nevertheless, there is growing indication of a new found market for fresh produce that may signal a possible expansion of agricultural activities. Popular farmers’ markets in nearby Stonington and Blue Hill are one sign. The Deer Isle Farm Drop sponsored by the Healthy Island Project is another—it provides access to a wide range of locally grown and raised food products.

## 6. Forest Resources

The US Geological Service has created a National Land Cover Database available online that displays the types of forest, vegetation and other surface cover throughout the United States. The Deer Isle map is set forth below:

**Figure D-3: Land Cover in Deer Isle**



Source: <https://apps.nationalmap.gov/viewer/>

According to the map, large portions of the Town are covered by Evergreen, Deciduous and Mixed Forests and Woody Wetlands.

Much of the Town’s current woodlands grew up on abandoned farm fields and pasture land following the decline of agricultural activities more than a century ago. Other stands succeeded from intensive harvesting in the middle of the twentieth century. As a result, many of the trees in a stand are of the same age and are reaching their maximum expected lifespan simultaneously. Many wooded areas are characterized by extensive blowdowns and diseased and dying trees. Reduction in the demand for paper products has undermined tree harvesting activities. Climate change and invasive pests also threaten the quality of Deer Isle’s forests.

Another source of information on Deer Isle’s forest resources is data on land held under the Tree Growth Taxation Act. This classification is similar to the Farm and Open Space Act in that owners of forested parcels meeting certain conditions can have their property assessed as forest land rather than for its potential development value:

This program provides a benefit for owners of at least ten acres of forested land used for commercial harvesting. A forest management and harvest plan must be prepared and a sworn statement to that effect submitted with the application. Applications must include a map of the parcel indicating the forest type breakdown as well as all other areas to be excluded from the tree growth program.

Each year, the State Tax Assessor determines the valuation per acre for each forest type by county. For a list of current Tree Growth rates, see Rule 202 (PDF).

If forest land no longer meets the criteria of eligibility or the landowner opts to withdraw from the tree growth program, a penalty will be assessed. Depending upon the length of time that the parcel has been enrolled, the penalty is between 20% and 30% of the difference between the 100% Tree Growth value and the fair market value of the land.<sup>13</sup>

As of 2021, there were 55 parcels in Deer Isle totaling 2,536 acres that were enrolled in the Tree Growth program:

**Table D-3: Tree Growth Parcels, 1994 – 2020**

Tree Growth Parcels					
	Number of Parcels	Softwood Acres	Mixed- Wood Acres	Hardwood Acres	Total Acres
1996	74	2,813	742	18	3,573
1997	73	2,803	742	18	3,563
1998	72	2,803	711	18	3,532
1999	61	2,231	827	59	3,117
2000	61	2,231	827	59	3,117
2001	46	1,653	1,120	117	2,890
2002	46	1,653	1,120	117	2,890
2003- 2008	n.a.	n.a.	n.a.	n.a.	n.a.

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<sup>13</sup> Current Land Use Programs, Maine Revenue Services, <https://www.maine.gov/revenue/taxes/tax-relief-credits-programs/property-tax-relief-programs/land-use-programs>, accessed July 20, 2022.

Tree Growth Parcels					
	Number of Parcels	Softwood Acres	Mixed- Wood Acres	Hardwood Acres	Total Acres
2009	52	1,821	1,120	128	3,068
2010	52	1,821	1,120	128	3,068
2011	57	2,478	389	72	2,939
2012	52	1,820	1,120	128	3,068
2013	59	2,458	399	70	2,926
2014	60	1,360	1,216	164	2,740
2015	60	1,467	1,149	162	2,778
2016	59	1,509	1,086	150	2,745
2017	57	1,422	1,101	149	2,671
2018	57	1,407	1,099	150	2,656
2019	60	1,390	1,095	148	2,633
2020	61	1,391	1,094	148	2,633
2021	55	1,197	1,196	143	2,536
Source: Municipal Valuation Return Statistical Summary, Maine Bureau of Taxation Property Tax Division. Data from 2003-2008 not available. 2013 data is questionable.					

Table D-4 and the accompanying chart in Figure D-5 below summarize the various forms of land protected by State preferential taxation programs.

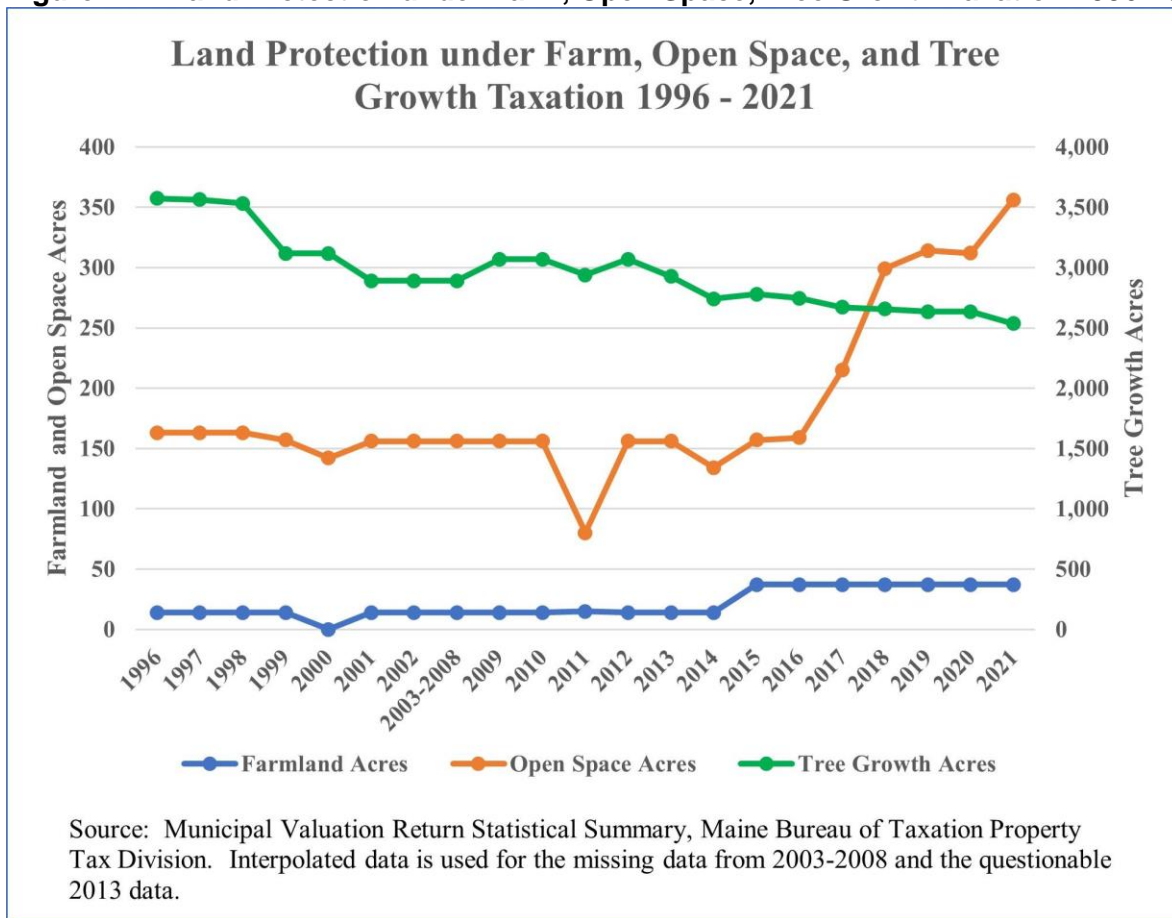
**Table D-4: Summary of Farm, Open Space, and Tree Growth Taxation Parcels**

	Farmland Acres	Open Space Acres	Tree Growth Acres
1996	14	149	3,573
1997	14	149	3,563
1998	14	149	3,532
1999	14	143	3,117
2000	0	142	3,117
2001	14	142	2,890
2002	14	142	2,890
2003-2008	n.a.	n.a.	n.a.
2009	14	142	3,068
2010	14	142	3,068
2011	15	65	2,939
2012	14	142	3,068
2013	Missing		2,926
2014	14	120	2,740
2015	37	120	2,778
2016	37	122	2,745
2017	37	178	2,671

	Farmland Acres	Open Space Acres	Tree Growth Acres
2018	37	262	2,656
2019	37	277	2,633
2020	37	275	2,633
2021	37	319	2,536

Source: Municipal Valuation Return Statistical Summary, Maine Bureau of Taxation Property Tax Division. Data from 2003-2008 not available. 2013 data is questionable.

**Figure D-4: Land Protection under Farm, Open Space, Tree Growth Taxation 1996-2021**



Note that the Tree Growth line in Figure D-4 is on a different scale than the lines for the other two programs; its axis is at the right of the chart.

Timber harvesting trends for Deer Isle are shown below. These data represent timber harvests that are subject to State reporting. In 2017, 116 acres were harvested, which was somewhat less than the average of 152 acres over the 24 year period.



**Table D-5: Deer Isle Timber Harvesting Trends, 1991 - 2019**

YEAR	Selection harvest, acres	Shelterwood harvest, acres	Clearcut harvest, acres	Total Harvest, acres	Change of land use, acres	Number of active Notifications
1994-1995	156	0	10	166	100	4
1996-1997	53	80	116	249	50	7
1998	150	5	70	225	100	6
1999	56	19	0	75	6	16
2000	41	30	0	71	2	17
2001	124	9	0	133	2	14
2002	106	0	0	106	2	9
2003	37	19	0	56	0	16
2004	51	0	0	51	1	16
2005	45	5	0	50	0	16
2006	50	80	42	172	4	26
2007	354	32	0	386	5	31
2008	177	44	0	221	10	42
2009	144	54	20	218	10	32
2010	175	5	0	180	1	33
2011	147	70	30	247	2	33
2012	175	0	0	175	2	30
2013	92	0	0	92	0	26
2014	214	2	0	216	0	21
2015	64	10	0	74	5	15
2016	65	2	0	67	3	11
2017	46	45	25	116	1	13
Total	2,521	511	313	3,345	306	434
Average	115	23	14	152	14	20
Source: Department of Agriculture, Conservation and Forestry - Maine Forest Service. Data compiled from Confidential Year End Landowner Reports to Maine Forest Service.						

Local uses of wood include home sawmills, firewood, holiday wreaths, crafts, and furniture. Blowdowns are often removed and put to use heating houses. A community wood supply would benefit low income households.

## 7. Analysis of Agricultural and Forest Resources in Deer Isle

### a. Importance of Agriculture and Forestry to the Town

Deer Isle has approximately 2,335 acres of prime or significant agricultural soils as compared with 37 acres enrolled in the Farmland Protection program. Approximately 116 acres of timber were harvested in 2017 (the most recent year for which data are available). There are several farms and stores that attract tourists visiting Deer Isle.

b. Deer Isle's Steps to Protect Productive Farming and Forestry Lands

Although the Farm, Open Space, and Tree Growth preferential property tax programs offer some protection to Deer Isle's farms and woodlots, there is no guarantee that land will not be withdrawn from these classifications and sold for development. The tax penalties for withdrawing land often do not outweigh the profits realized from land development.

Presently there are no direct regulations in the Town's land use ordinances to safeguard farm and forest land, but there are several measures that contribute to their protection. Town ordinances include shoreland zoning standards for timber harvesting and standards for the retention of natural beauty and the preservation of open space. There are similar standards in the Subdivision Regulations. These ordinances are supplemented by a relatively small amount of land that is protected by conservation land trust ownership or easements (See the Natural Resources chapter). There is little indication that those protections extend to farmland or working woodlands, however.

c. Level of Use of Current Use Tax Laws

As discussed above, in 2021 there were 2,892 acres of land in Deer Isle enrolled in one of the current use tax law programs. This represents 15 percent of the total land area of Deer Isle (19,021 acres). As such, it appears that Deer Isle landowners are somewhat familiar with the preferential tax programs and that a number of owners are using them.

d. Sale of Large Tracts of Agricultural or Forest Lands

Despite the small tracts of land in Deer Isle that are being farmed or forested, there does appear to be the potential for substantial impact on the community from the sale of farms or forest land for development. There is a significant amount of non-agricultural open space in Deer Isle that is outside of Shoreland Zoning that would affect neighbors if developed for large subdivisions or other uses. Land trusts have obtained conservation easements to preserve undeveloped land. Town may consider adding a density bonus to its Subdivision Regulations to incentivize developers to use smaller lots.

e. Support for Community Forestry and Agriculture

Deer Isle is supportive of local farms and forests. The public opinion survey showed strong support for farming anywhere and forestry in designated places. Deer Isle has a community garden, a gardening and greenhouse program at the elementary school. The local Evergreen Garden Club has a growing membership and maintains a popular park for picnics, hiking, boating and picking apples. Healthy Island Project coordinates a Farm Drop where people can pick up products from local producers each week. Most years Deer Isle has a farmers market, and farmers markets are held in several nearby towns.

f. Incompatible Uses Affecting Agriculture and Forestry

Although development for new homes or other uses has limited the amount of land available for agricultural and forestry activities, there have been relatively few instances of such uses adversely affecting normal farming and logging operations.

g. Woodland Under Management

Deer Isle has public woodlands accessible on walking trails and ADA accessible trails. These public woodlands would benefit from use of best forestry management practices.

## 8. Goals & Objectives

GOAL: Preserve lands suitable for agricultural and forestry uses			
Objective	Strategy	Responsible Party(ies)	Timeframe
Identify existing commercially active agricultural and forestry areas, prime farmland and farmland of statewide significance	Identify existing commercial uses	Conservation Commission, HCPC	2024
	Analyze Deer Isle Agricultural Resources maps and data on existing competing uses	Conservation Commission	2025
Revise land use ordinances to support farm and forest preservation	Review Shoreland Zoning Ordinance and Subdivision Regulations for consistency	Planning Board Select Board Maine Forest Service, NRCS, HCSWCD	2025-2026
Educate landowners about Farm and Open Space Tax Programs	Provide information to landowners at Town Office and on website	Treasurer, Town Manager, Conservation Commission	2024
Refer interested landowners to land conservation groups for consideration of conservation easement protection	Provide information to landowners at Town Office and on website	Treasurer, Town Clerk, Town Manager, IHT, Maine Farmland Trust	2025
Identify areas at risk for PFAS contamination	Seek grant funding for PFAS testing	Town Manager, Select Board	2025
Promote standards for erosion control and soil conservation	Provide educational materials and workshops	HCSWCD, Code Enforcement Officer	2025

GOAL: Promote local agricultural activity to ensure food security			
Objective	Strategy	Responsible Party(ies)	Timeframe
Educate the public about benefits and practices of gardening and farming	Host public farming and gardening events.	HCSWCD, University Cooperative Extension, EGC, Conservation Commission, Healthy Island Project	2024
	Educate students in schools to grow and prepare food		
Assist local agricultural producers with business management and marketing	Provide information on farmers' markets and other opportunities on Town website	Town Office Healthy Island Project	2025
	Develop Deer Isle brand recognition	Economic Development Committee	2026
Encourage suitable locations for roadside stands, community gardens, greenhouses and pick-your-own operations	Develop guidelines for roadside stands	Code Enforcement Officer	2025
	Seek grants to fund food security projects	Town Manager, Conservation Commission, EGC	2026

# Chapter E: Marine Resources

## 1. Purpose

A comprehensive plan for a coastal community like Deer Isle needs to address marine resources and climate resilience. This section:

- a. describes Deer Isle's coastal marine resources, marine resource-dependent uses, and existing infrastructure;
- b. assesses the adequacy of existing facilities and public access points to handle current and projected use demands; and
- c. assesses the effectiveness of existing measures to protect and preserve coastal marine resources and marine resource-dependent uses.

## 2. Key Findings & Issues

Deer Isle has the longest shoreline mileage of the towns in Hancock County and is home to one of the state's largest populations of commercial fisheries license holders. While most of the fishing-dependent residents make use of neighboring Stonington's shoreside infrastructure to moor their boats and land their catch, existing intertidal access, wharfs, and other supporting shoreside infrastructure must be preserved and when possible, improved upon, to maintain a vibrant, diverse, adaptive and resilient marine economy. In addition, the Town needs to continue to work with neighboring communities and the State on shellfish conservation and the protection of critical upland, intertidal, and marine habitats to ensure fishery opportunities remain available well into the future.

The Town's economy boomed as lobster landings catapulted throughout the 2010s. However, since Stonington became the top lobster port in the US over a decade ago, the Towns of Deer Isle and Stonington have become precariously dependent on a single species fishery. The decline in fisheries diversity has increased dependence on lobster fishing. Diversification in marine resource opportunities is possible, as long as the Town commits to preserving working waterfront, ensures safe and adequate intertidal access for shellfish harvesting, and prioritizes owner-operator scales of aquaculture. To achieve this, the Town's moorings may need improved management, and there is also a need for increased recognition of the growing pressure from recreational and aquaculture sectors. Finally, additional attention to pollution and waste streams, including existing overboard discharge systems, and encouraging more sustainable waste management will be critical.

## 3. Key Findings & Issues from the Draft 2006 Comprehensive Plan

The Draft 2006 Comprehensive Plan noted fears that the Town's economy would be adversely affected by the decline in fishing-related employment. The loss of groundfish in the mid-nineties followed by declining landings in the winter urchin and scallop fisheries throughout the early 2000s had been increasing the island's dependence on lobster fishing. In 2006, the Town's moorings were also noted to need improved management as there was perceived rising

competition between commercial and recreational boating interests. The report noted that Deer Isle's marine resources faced several challenges, including reduced public access opportunities and the potential impact of fisheries restrictions and aquaculture ventures. High waterfront tax assessments were making it difficult for many water-dependent users to remain in business. Overall, the Town's working waterfront was seen as threatened and with it, the way of life for many households dependent on marine resources.

## 4. Public Opinion Survey Results

Sixty-nine percent of Survey respondents believe that the Town should be more involved in protecting working waterfronts, and 63% favored more involvement in protecting recreational waterfront access. Although 85% of respondents favored more Town investment in Marine/Harbor Wharf Facilities, 48% would only support such investments if grants and/or subsidies reduced Town costs. Opinion was relatively evenly divided on the question of whether to restrict commercial fishing land usage to designated areas of the Town, with 54% of respondents agreeing, while 43% would allow such usages anywhere in Town. In contrast, almost 73% would restrict aquaculture to designated areas.

## 5. Overview of Deer Isle's Marine Resources

Deer Isle has the longest shoreline mileage of the towns in Hancock County. The Town also has the fourth largest commercial fishing fleet in the County, following Stonington, Gouldsboro, and Tremont. Currently large areas of clam flats are open to harvesting, but some are at risk of seasonal closure. The role of aquaculture in the waters around Deer Isle is controversial. Applications for aquaculture leases for oysters, scallops, and other shellfish have been increasing. There has been some push back from waterfront property owners and recreational boaters, as well as concerns from commercial fishermen about the loss of other commercial fishing opportunities at these sites. The growth in aquaculture has also raised concerns about issues such as aesthetics, conflicts of use, and ecological impacts. There is a need for additional oversight and planning to preserve our marine resources and build resilience in our commercial fishing industry and other marine trades.

## 6. Marine Resource Areas

### A. Commercial Marine Fishing

The licenses shown below are those sold by the Maine Department of Marine Resources (DMR) to Deer Isle residents. Note that the town where a person resides does not determine where they fish, as most fishing activity occurs outside of municipal waters. Tables E-1 and E-2 show the number of Maine DMR-issued marine dealer and harvester licenses for 2021 for Deer Isle residents and the length of vessels associated with those licenses. The total of 480 DMR-issued licenses for 2023 shows the importance of marine resources to the Deer Isle economy. Of note, many individuals hold multiple licenses: 294 individuals have commercial licenses to marine resources, and 274 of these have some kind of access to lobster. Deer Isle has a total of 209 full-fledged commercial lobster licenses.



**Table E-1: MaineDMR-Issued Marine Dealer and Harvester Licenses as of 8/10/2023**

License Type	# of Licenses
Commercial Fishing Crew (CFC)	32
Commercial Fishing Single (CFS)	3
Commercial Pelagic and Anadromous Crew (CPC)	11
Commercial Pelagic and Anadromous Single (CPS)	3
Commercial Shellfish (CS)	28
Commercial Shellfish +70 (CSO)	3
Eel Pot/Hoop Ned (EP)	2
Elver Dip Net Crew (EOC)	1
Green Crab (GC)	3
Lobster/Crab +70 (LCO)	6
Lobster/Crab Apprentice (LA)	3
Lobster/Crab Apprentice Under 18 (LAU)	1
Lobster/Crab Class 1 (LC1)	35
Lobster/Crab Class 2 (LC2)	60
Lobster/Crab Class 2 +70 (LC2O)	10
Lobster/Crab Class 3 (LC3)	91
Lobster/Crab Class 3 +70 (LC3O)	7
Lobster/Crab Non Commercial (LNC)	24
Lobster/Crab student (LCS)	37
Marine Worm Digging (MWD)	1
Menhaden Commercial (MENC)	14
Menhaden Non Commercial (MENR)	26
Mussel Dragger (MD)	1
Mussel Hand (MH)	1
Non Federal Halibut Crew (NFHC)	1
Recreational Saltwater Fishing Operator (SWRO)	4
Recreational Saltwater Registry (SWR)	16
Scallop Diver (SDI)	1
Scallop Dragger (SD)	24
Scallop Non Commercial (NCS)	22
Sea Cucumber Drag (SCD)	1
Sea Urchin Dragger (SUB)	5
Seaweed (SW)	1
Spat (SPT)	2
Total	480
Source: Maine Dept. of Marine Resources	

**Table E-2: Vessel Length – Maine DMR Licensed Vessels**

Vessel Length (feet)	# of Vessels	Vessel Length (feet)	# of Vessels
10-15	22	31-35	69
16-20	30	36-40	89
21-25	26	41-45	41
26-30	29	46-50	10
		N/A*	111
		Total	316

\*Of note, not all licenses require a vessel, for example Softshell Clams, Recreational Saltwater Registry, Eels, and Lobster Apprentice, which is why not all licenses have an associated vessel.

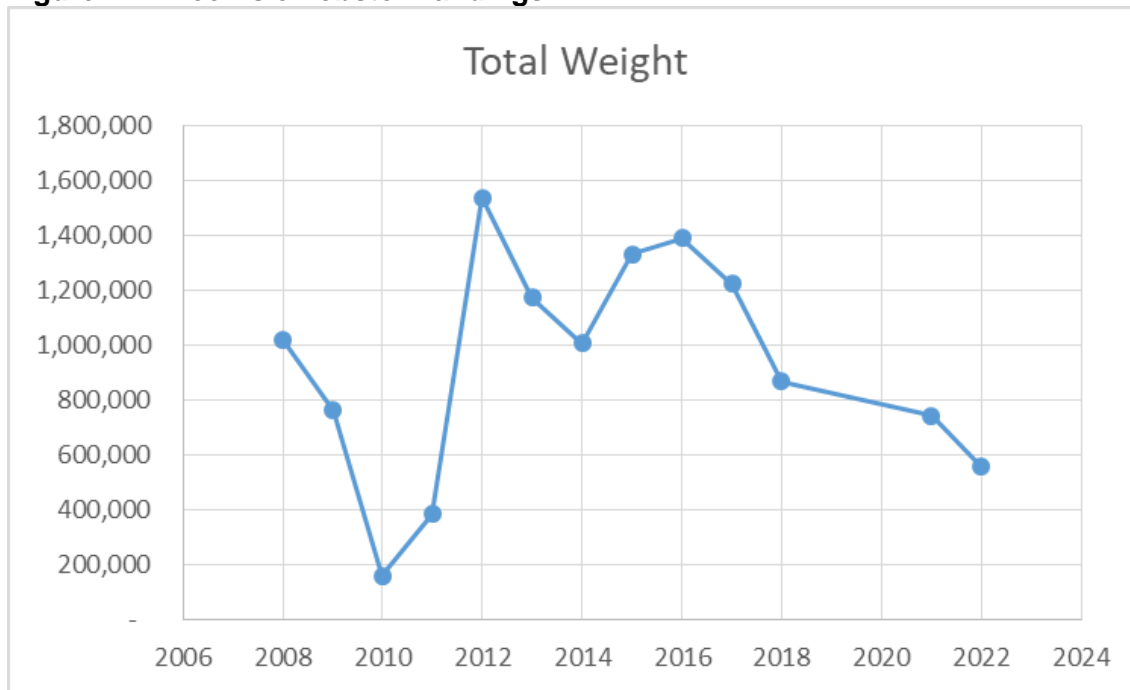
**Table E-3: Deer Isle Lobster Landings 2008-2022**

Year	Total Weight	Total Value	Total Trips	Total Harvesters
2008	1,018,365	\$3,676,704	3,439	71
2009	763,370	\$2,226,181	2,147	42
2010	161,783	\$560,577	329	13
2011	386,678	\$1,309,720	772	32
2012	1,537,008	\$4,363,266	2,119	50
2013	1,173,707	\$3,660,888	1,633	39
2014	1,007,680	\$4,101,404	1,266	38
2015	1,334,041	\$5,925,883	1,733	36
2016	1,390,774	\$6,060,779	2,013	36
2017	1,224,181	\$5,040,028	2,255	47
2018	870,488	\$3,696,520	1,321	23
2021	744,283	\$5,215,915	1,408	19
2022	558,344	\$2,343,201	899	17

Source: Department of Marine Resources

Note: some reports were inconsistent possibly due to non-disclosure to protect proprietary information in years with three or less businesses providing data. This may have resulted in lower total amounts reflected in the figure below for some years, for example in 2010.

**Figure E-1: Deer Isle Lobster Landings**



Deer Isle lobster landings have fluctuated widely over the period 2008-2022, with a notable downward trend in the years since 2016. Deer Isle 2022 landings of 558,344 lbs. contrast with Stonington landings of 10,991,606 lbs. in the same year. Given that more lobster fishing licenses have been issued to Deer Isle residents than Stonington, the data suggest that most Deer Isle fishermen fish out of Stonington and land their catches there. In the last five years, this has been attributed in part to the loss of working waterfront in Sunshine, which has experienced a significant reduction in local infrastructure for landing lobster. Fishermen residing in Deer Isle primarily participate in nearshore, state-managed fisheries. Forty-six Deer Isle residents are federally permitted to fish outside of state waters. Of those vessels, 15 are homeported in Deer Isle (the others list Stonington as the homeport) and only one of those permits does not include lobster.

Neighboring Stonington has always been a major fishing port along Maine's coast, and over the past 15 years Stonington has secured a position as Maine's top port in fishery landings value. This has occurred as the lobster populations in eastern Maine have increased and dragger fleets for groundfish and shrimp located in the midcoast and Portland have declined. This boom in lobster landings has brought many economic benefits to not only the island of Deer Isle, but throughout eastern Maine's coastal communities. It helped soften the blow for these two mostly fishing-dependent counties along the US Atlantic coast as other fishery resources declined (see Appendix from 2006 Draft Plan).

Myriad challenges such as mismatched fishery management and climate change have reduced populations of previously valuable and abundant marine species (e.g., groundfish, shrimp, mussels, urchins). While other coastal fisheries have benefitted from habitat restoration (e.g., alewives, elvers), management interventions (e.g., sea scallops), or ecosystem shifts (e.g., menhaden/pogies, bluefin tuna), lobster has provided a backbone for Stonington/Deer Isle fishermen as these changes have occurred. It is no secret that the Gulf of Maine is warming

faster than 99% of the world's oceans, but in eastern Maine warming trends are less obvious and likely to progress differently than along the midcoast and southern Maine coastal ecosystems. Fishery and ecological trends east of Penobscot Bay have often differed in timing and direction from those observed west of Penobscot Bay; however, Deer Isle's current reliance on a single species fishery is undoubtedly precarious.

Lobster has been a "climate winner" in the Gulf of Maine as suitable juvenile habitats have expanded to include deeper water and less structured bottom. Lobster management measures including protecting reproductive females with a v-notch have contributed to lobsters taking full advantage of these climate and predatory conditions, resulting in a doubling of Maine lobster landings over just a decade: from ~50 million lbs. to ~110 million lbs. from 2000-2010. Other species in the Gulf of Maine, e.g., the North Atlantic Right Whale, have not been so fortunate, and regulatory attempts to save them threaten the future of the lobster fishery in the short term. The Consolidated Appropriations Act of 2023 declared current lobster fishery activities compliant with federal marine mammal and endangered species laws until 2028, effectively buying the lobster fishery six years to reduce interactions with the critically endangered whale.

Climate change poses other less immediate impacts; some are challenging while others may bring new fishery opportunities. Invasive species such as green crabs have expanded in these warming conditions, with fewer winters forming ice in our coves. Green crabs destroy salt marsh habitats that are critical nurseries for many marine species and prey on juvenile softshell clams. Invasive algae have covered some shallow habitats and are thought to be outcompeting or somehow reducing the survival of juvenile lobsters in these areas. Native sea squirts have also been observed colonizing lobster traps, lines, docks, and sea scallop habitats in densities so thick that traps become too heavy to maneuver on deck, stop fishing, or even, perhaps, outcompete juvenile scallop settlement. Northward shifts in mid-Atlantic species are being observed and are predicted to result in established local populations at some point in the future. In the short term, species interactions such as predation on juvenile lobster by black sea bass, or competition with blue crab in the upper bays, might threaten inshore lobster populations. Over the longer term, however, these shifts will likely result in fishery diversification opportunities (e.g., squid, bluefish, tilefish), but only if we are able to protect critical nursery habitats, maintain working waterfront infrastructure, and engage proactively in fishery management and ecosystem monitoring.

Other indirect effects of climate change on our traditional commercial fisheries and recreational boating activities/economies are the political and economic pressures to expand shared uses of marine space. These "new" uses include offshore renewable energy, aquaculture, and other forms of blue economy diversification (e.g., charter boats, kayaking, port expansions, etc.). Comprehensive planning can prepare communities for these development pressures and enable assessment of what might fit sensibly, responsibly, and opportunistically in ways that align with predefined goals and strategies.

## B. Shellfish and Shellfish Closures

Softshell clams are one of Maine's largest fisheries and have been harvested in the state for

over 10,000 years.<sup>14</sup> It takes approximately three to four years for clams to grow to legal size to harvest. Soft shelled clams are regulated by the Maine Department of Marine Resources (DMR) and most coastal towns through a co-management system. In addition, Deer Isle has a shellfish ordinance that establishes a Shellfish Conservation Committee as well as licensing requirements, conservation time, and harvesting limits for recreational licenses.

The adoption of a shellfish ordinance by the Town in 1999 has protected the clam resource. However, access to the Town’s clam flats is under threat. Although most residents who own shore property on Deer Isle have historically given harvesters permission to clam, there is an increasing trend of access being denied. Residential development of the shoreline has increased real estate prices and valuations, making it difficult for the fishing community to preserve the working waterfront. There are concerns that these trends may adversely affect the commercial fishing industry and change the unique characteristics of Deer Isle.

As shown in the table below, the Deer Isle softshell clam harvest has fallen sharply in recent years to a low of 165,518 lbs in 2022. One of the causes of this decrease is demographic: there are fewer harvesters than there used to be, as some have aged out and others have shifted to working on lobster boats as crew. These demographic shifts have affected license sales and landings.

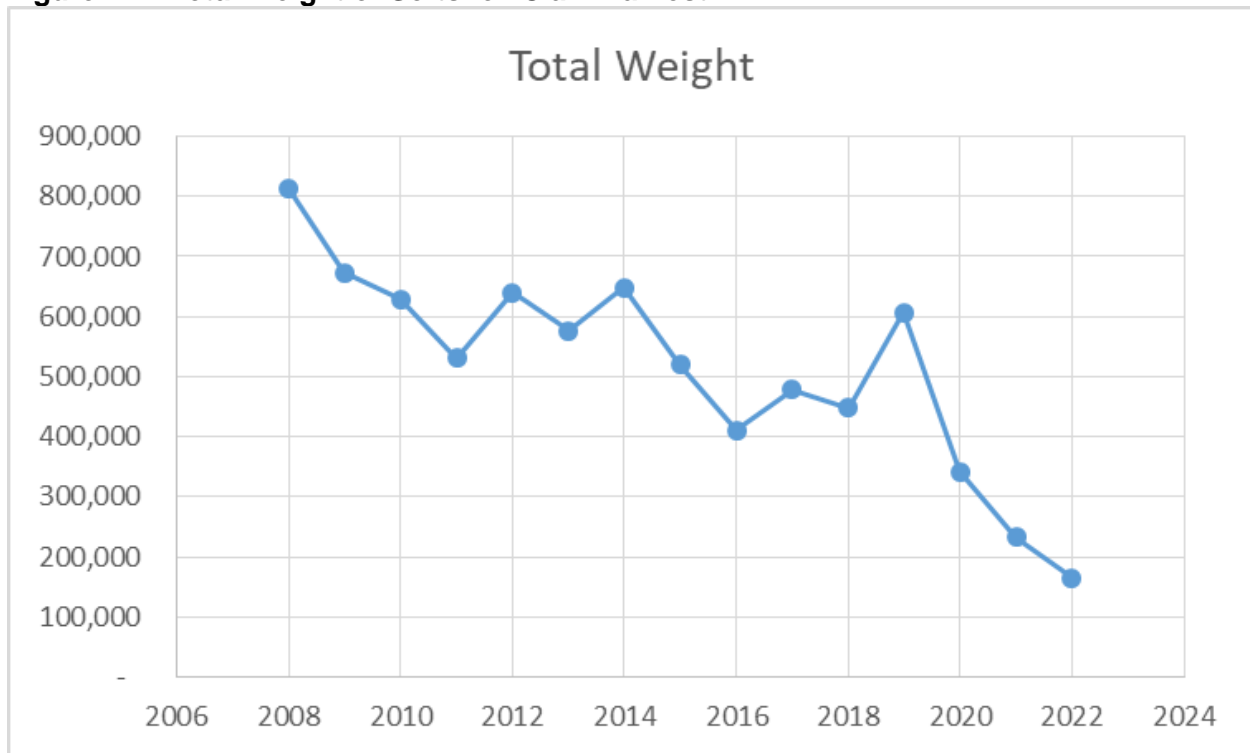
**Table E-4: Deer Isle Softshell Clam Harvest 2008-2022**

Year	Total Weight	Total Value	Total Trips	Total Harvesters
2008	812,267	\$956,471	6,695	128
2009	672,963	\$796,022	5,805	126
2010	629,014	\$706,938	5,609	117
2011	531,301	\$675,435	4,593	117
2012	639,575	\$824,367	4,952	140
2013	575,889	\$822,020	4,918	107
2014	648,017	\$1,193,655	5,348	159
2015	520,293	\$1,184,698	5,645	141
2016	411,313	\$825,693	4,715	152
2017	478,933	\$840,299	4,070	120
2018	448,664	\$738,270	3,019	87
2019	606,496	\$1,344,116	4,326	109
2020	342,227	\$709,703	3,016	97
2021	232,781	\$723,759	2,128	91
2022	165,518	\$421,164	1,559	68

Source: Department of Marine Resources

<sup>14</sup> “Soft-Shell Clams (Essok; Mya Arenaria),” The Mudflat, <https://themudflat.org/shellfish-in-maine/#:~:text=Soft%20shell%20clams%20support%20one%20of%20the%20largest,harvest.%20The%20harvest%20size%20is%20minimum%202%20inches>, accessed 27 October, 2021.

**Figure E-2: Total Weight of Softshell Clam Harvest**

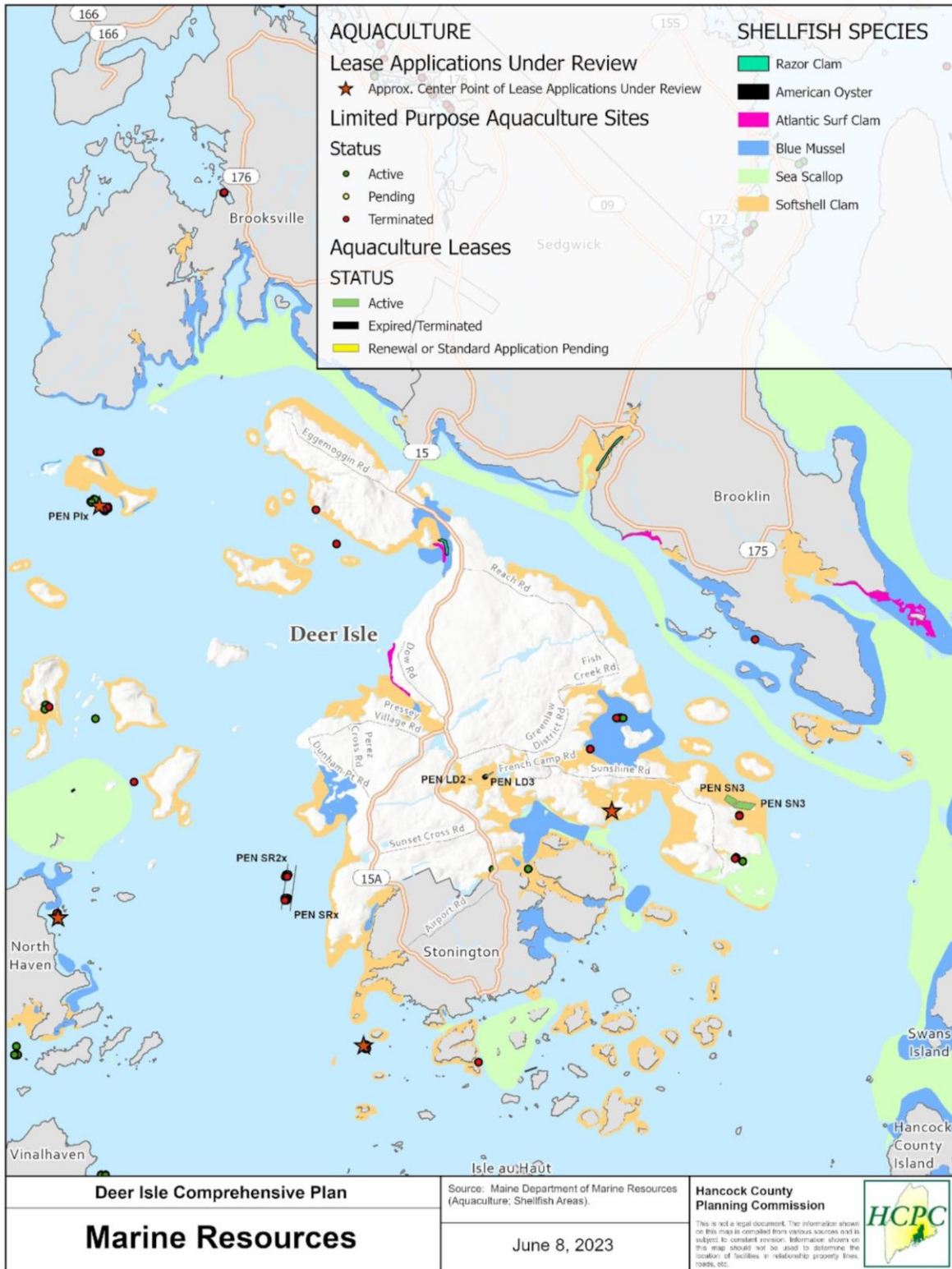


The commercial shellfish harvest refers specifically to the wild harvest of softshell, razor, and hen clams, as well as oyster, scallop and mussel aquaculture. As seen in the Marine Resources map and accompanying inset maps below, there are several areas where the harvesting of shellfish is “Conditionally Approved” (CA), “Conditionally Restricted”(CR), “Restricted” (R), or “Prohibited” under DMR’s Shellfish Growing Area Classification Program—a part of the National Shellfish Sanitation Program (NSSP). This program is primarily concerned with two types of contamination: 1) disease-causing microorganisms, like bacteria and viruses, associated with sewage pollution, and 2) marine biotoxins associated with harmful algal blooms, like “red tide.” Deer Isle currently has 11 properties with overboard discharge permits, each of which poses a significant sewage contamination risk to the shellfish harvest. Maine DMR reports that all shellfish growing areas are regularly monitored and that marine water samples are collected throughout the year.

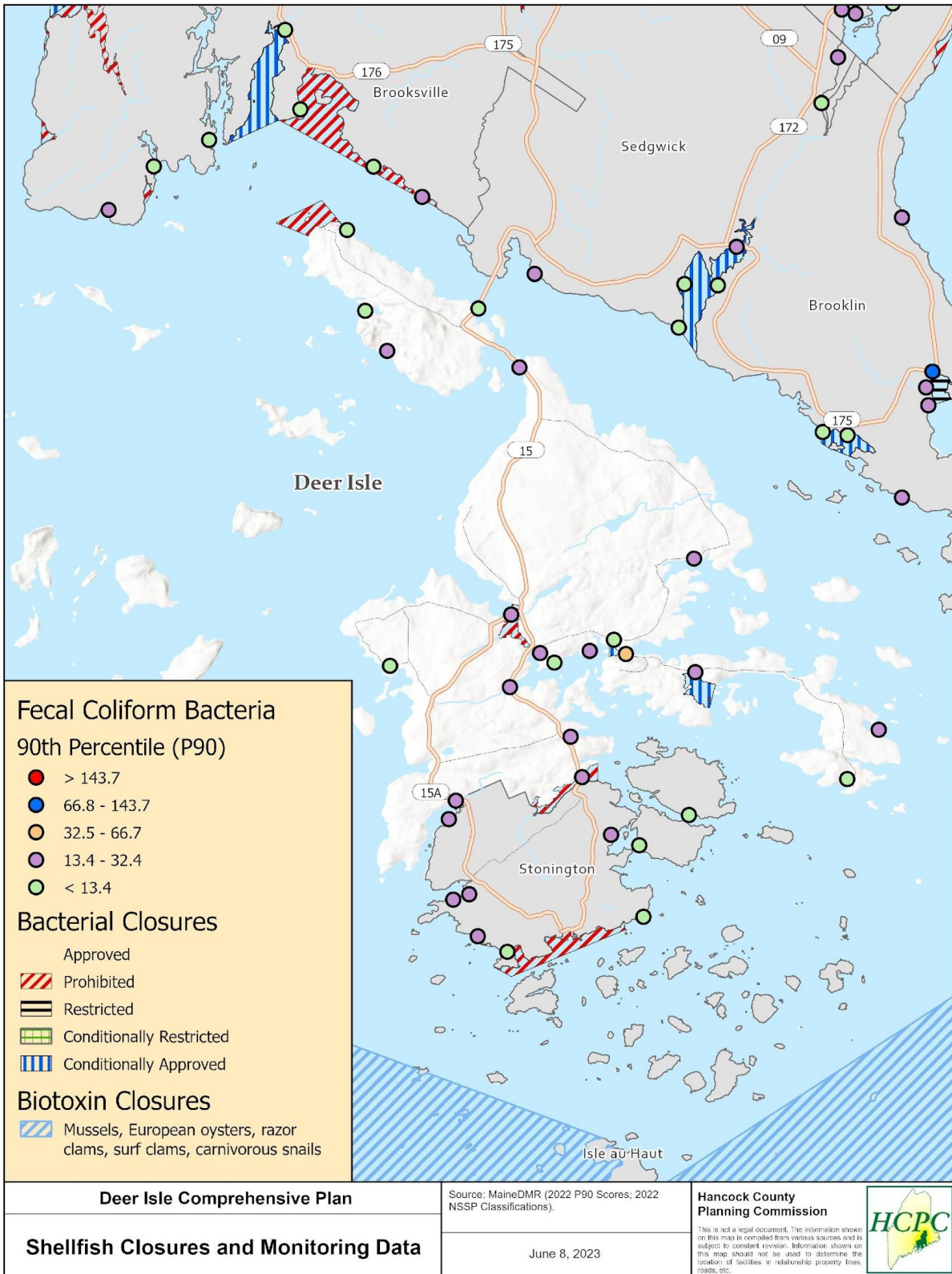
The water is regularly tested by the DMR, which determines any harvesting restrictions and/or closures. The following maps depict the Maine DMR’s shellfish harvesting restrictions pertaining to the Deer Isle area as of 6/5/2023.



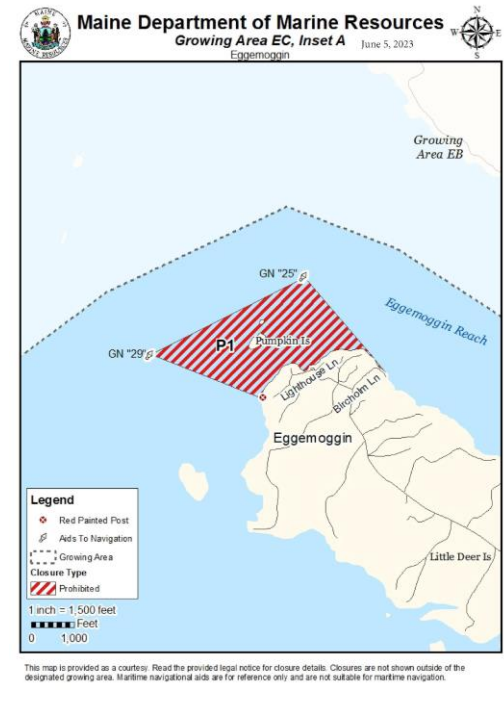
**Figure E-3: Deer Isle Marine Resources**



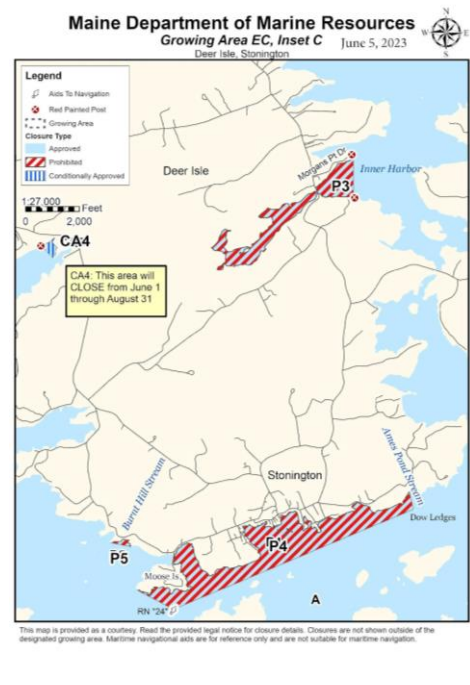
**Figure E-4: Shellfish Closures and Monitoring Data**



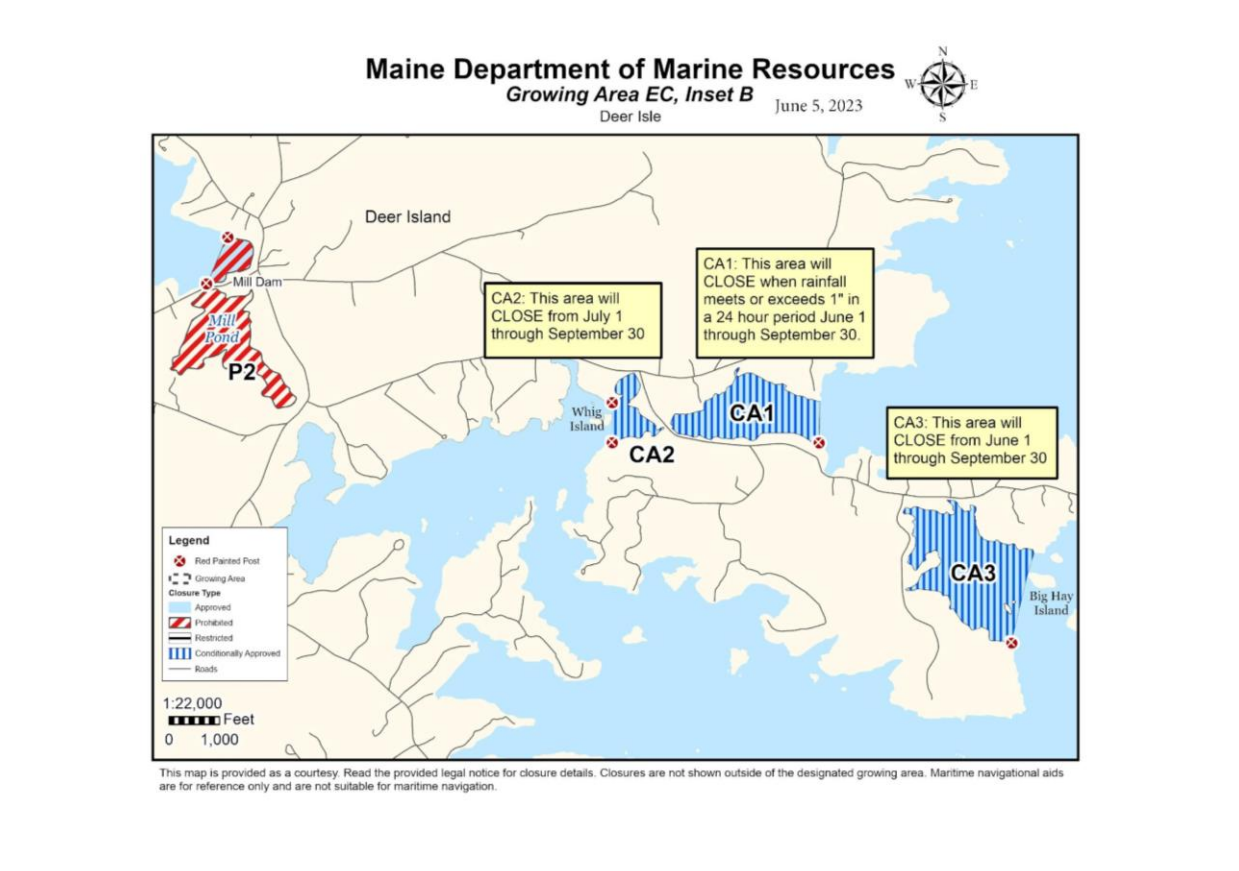
**Figure E-5: Area Prohibited for Harvesting off Little Deer Isle**



**Figure E-6: Southern Deer Isle and Stonington Areas Regulated for Shellfish Harvesting**



**Figure E-7: Central Deer Isle Areas Regulated for Shellfish Harvesting**





### C. Aquaculture

Aquaculture is the farming of aquatic organisms such as fish, shellfish, and plants. It can refer to both marine and freshwater species and includes land-based as well as ocean production. Regulation of aquaculture in Maine comes under the Maine Department of Marine Resources (DMR). Aquaculture has been present in Maine waters since the 1800s, but the first issuance of a DMR lease of state-owned waters to a private interest for aquaculture was in 1973. There are currently 68.7 acres off the coast of Deer Isle that are under lease from DMR for the cultivation of oysters, mussels, scallops, and seaweeds. There are an additional 54 acres of pending leases, subject to approval by DMR.

**Table E-5: Aquaculture Sites in Deer Isle Waters (As of August 2023)**

<b>Limited Purpose Aquaculture:</b> up to 400 square feet for one calendar year for culture of certain shellfish species and marine algae using certain types of gear		
Species	Number of Leases	Number of Lease Holders
Scallops	7	2
Oysters	6	3
Kelp	1	1
Total	14	6
<b>Experimental Leases:</b> up to four acres, short in duration (up to three years) and cannot be renewed unless they are for scientific purposes		
Species	Acres	Number of Lease Holders
Scallops	3.91	
Sugar Kelp	3.99	
Scallops, Sugar Kelp	3.96	
Total	11.86	3
<b>Standard Leases:</b> up to 100 acres for up to 20 years and can be renewed		
Species	Acres	Number of Lease Holders
Mussels	39.91	
Oysters, Mussels, Kelp, Scallops	2.94	
Total	42.85	2
<b>Pending Leases:</b> applications have been filed, but not approved by DMR		
Species	Acres	Type of Lease
Oysters, Seaweed	4.24	Standard lease for 20 years
Scallops	41.2	Standard lease for 20 years
Oysters	4.74	Standard lease for 20 years
Kelp	3.95	Experimental lease for 3 years
Total acreage of pending leases	54.13	

As seen in the maps above, there are several areas in Deer Isle that have Maine DMR-licensed aquaculture leases. The sites cultivate a fairly wide variety of species. Care must be taken that any potential development does not affect access of shoreland owners or interfere with commercial fishing gear, navigation, or other designated current uses such as mooring and anchorage areas. An emphasis on an owner-operated scale could help to ensure that

aquaculture is managed sustainably. As one fisherman stated in a focus group, *“You won’t have overfishing if everything is owner operated, because you’ve got to sleep!”*

The harvesting of seaweed for personal and commercial use is regulated by the DMR. Up to 50 pounds per day may be harvested for personal use. A permit from DMR is required to harvest beyond this limit and for all commercial use. Commercial harvesting of seaweed has been observed off the coast of Deer Isle.

#### D. Other Species/Key Habitat

There are several anadromous fish species in Deer Isle that are critical to the marine sector given their critical habitat and their role as prey for other marine fish. These include alewife, sea-run rainbow smelt, and brook trout. Preserving and restoring the anadromous fish habitats (e.g. salt marshes, streams, and headwater ponds) on Deer Isle will be critical to ensuring the sustainability of the marine ecosystem as we continue to feel the effect of climate change. The map below is taken from the Maine Stream Habitat Viewer website hosted by the Maine Department of Inland Fisheries and Wildlife<sup>15</sup>:

**Figure E-8: Alewife, Sea-Run Rainbow Smelt, and Brook Trout Habitat**



Source: Maine Dept. of Inland Fisheries & Wildlife

<sup>15</sup> <https://webapps2.cgis-solutions.com/MaineStreamViewer/>, accessed 5/28/2023.

## D. Related Marine Employment

It was noted in the Draft 2006 Comprehensive Plan that women of Deer Isle participating in the processing of seafood products suffered numerous setbacks during the 1990's. The sardine factory in Stonington closed, and herring boats and weirs unable to work along the coast meant a decreased supply to be processed. Foreign competition also affected the canning industry, both locally and statewide. The crabmeat picking industry also declined during the 1990's as a result of the high cost of implementing the federal Hazard Analysis and Critical Control Point (HACCP) regulations, which closed many of the home-based crabmeat pickers.

There are currently a very limited number of marine-related employment opportunities in Deer Isle. These include a fishing gear store that caters to the local fishing community, a few home-based crab picking businesses, a marine diesel mechanic, small engine repair, and individuals that offer boat repair, traps for sale, and other fishing-related services. In nearby Stonington, located a few miles away, all of the above services are available, in addition to kayaking, tours and sightseeing and other types of recreational boating.

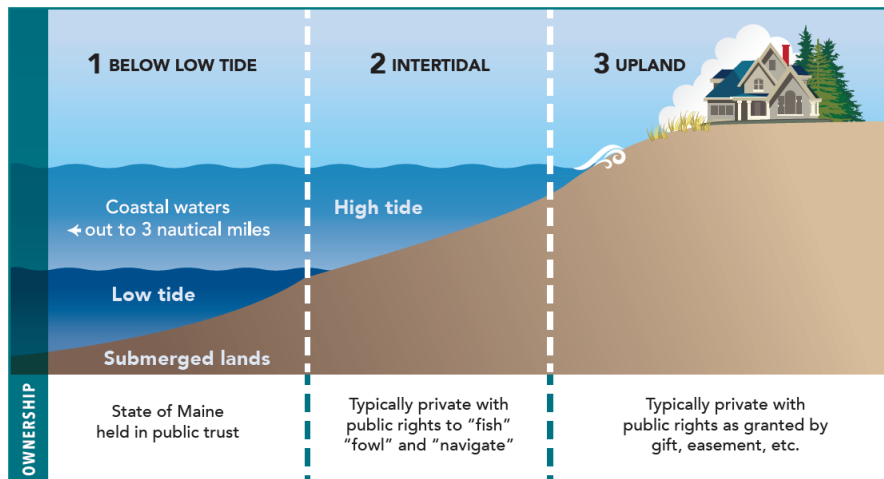
## 7. Public Access to the Coastal Shore

### A. Publicly and Privately Owned Access Points

In Maine, rights for accessing the shoreline generally are as follows:

- Private property owners usually own the shore down to the low water mark.
- The state or town may own shoreline areas, including beaches.
- The public has certain rights to use the shoreline, even where a private owner holds legal title.

**Figure E-9: Public Shoreline Access in Maine**



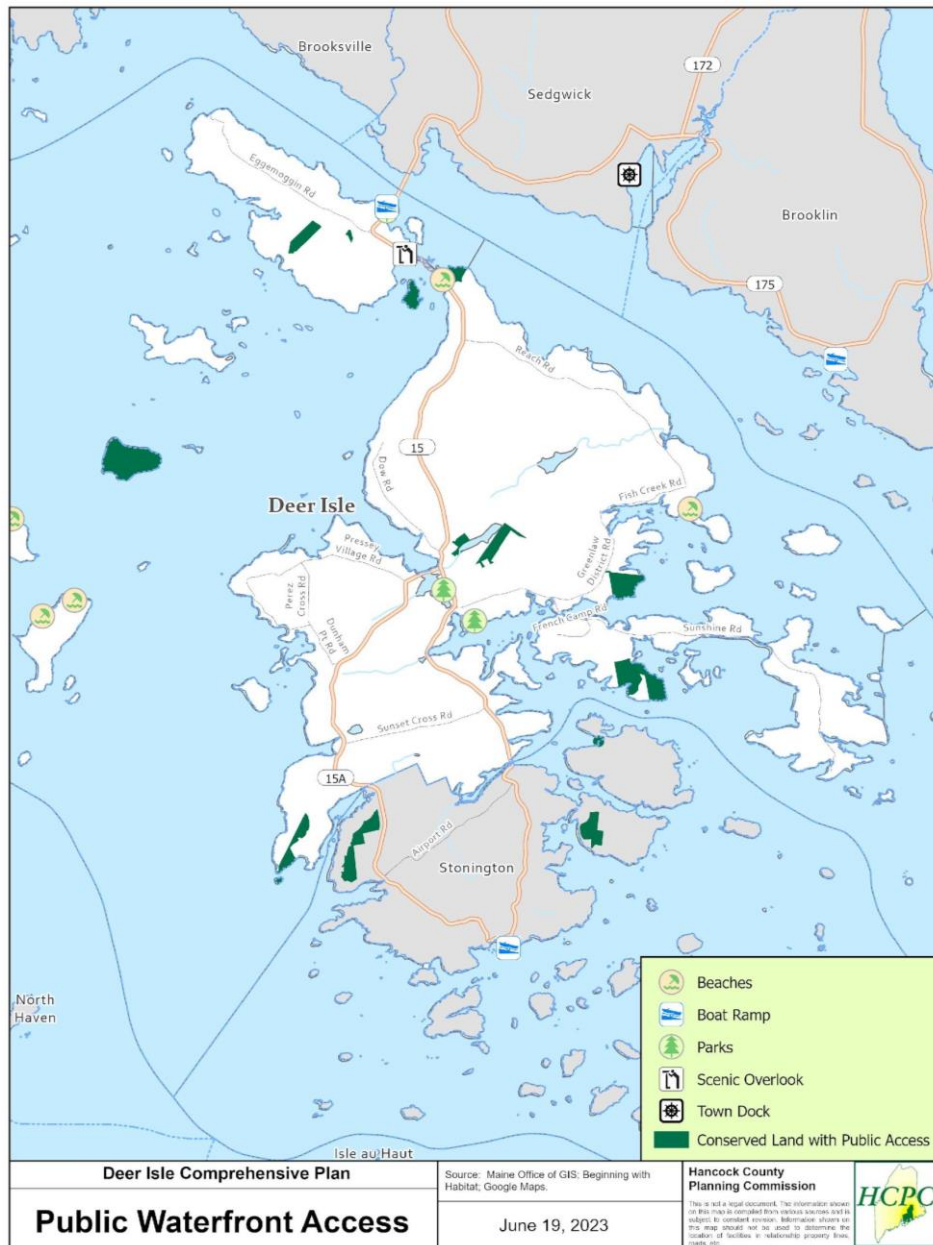
Credit: Public Shoreline Access in Maine: A Citizen's Guide to Ocean and Coastal Law, 2016

Of note, there was a court case in 2023 (suit was pending decision as of this writing) about recreating in the intertidal zone and whether or not this can now be prohibited. A countersuit by rockweed harvesters was filed and rejected earlier in the year, as well. Shoreline landowners in Maine can now register their rockweed as "unharvestable" with the State.



As seen in Figure E-10, there are a number of boat ramps, beaches, parks, and conserved lands in Deer Isle and surrounding towns that provide public access to the waterfront. In addition to the Bridge End boat launch on Little Deer Isle, there is informal boat access in Deer Isle Village (to Northwest Harbor, near Mill Pond), on Ferry Landing Road, at Fish Creek, at the old steamboat launch, and on the old Town right-of-way of Deer Isle Causeway. However, Deer Isle lacks deep water access, especially public access. Although there are many private docks, piers, and wharves, including for both recreational and commercial uses, the Town itself does not own any shore side facilities that provide all tide access to the water. Also, the working waterfront is increasingly under threat of being purchased for private, often seasonal use.

**Figure E-10: Deer Isle Public Waterfront Access**



B. Adequacy of Access

Deer Isle continues to lose public access to the water, as working waterfront is converted to ownership for personal, often seasonal use. As shoreline property transfers ownership, there are instances of new owners being more restrictive on access to clammers and others.

## 8. Water Dependent Uses

Water-dependent uses are those that require direct access to coastal waters and cannot be located away from those waters. Existing coastal water-dependent uses in Deer Isle include:

- a. Commercial fishing of lobsters, crabs, clams, mussels, sea urchins, and scallops
- b. Marina, boat storage and repair
- c. Boat, kayak, and canoe rentals
- d. Boat charters and excursions
- e. Recreational boating and fishing

Deer Isle has several potential coastal water dependent use sites that are sheltered, have five feet of water within 150 feet of the shore at low water, and do not have steep slopes. However, these sites are privately owned and have poor road access. There are no plans at present to encourage their development.

There is a concern that commercial fishing related uses are being driven inland by the rise of shorefront property values. It is feared that the additional loss of working waterfront will alter the fishing village character of Deer Isle and that a traditional way of life for generations will be lost to shorefront development. This is an important issue for the community to continue to monitor and consider opportunities to preserve working waterfront in critical locations. There is also concern about potential competition between commercial fishing, recreational users, and potential aquaculture sites.

## 9. Harbor and Mooring Facilities and Other Marine Resources

### A. Mooring Facilities

The Town does not currently manage any mooring facilities. The Deer Isle Yacht Club has moorings for members, but these are not available for public rental. There are limited locations along the coast of Deer Isle for all-tide mooring access.

### B. Adequacy of Facilities

Deer Isle made a significant investment in its marine infrastructure when it took over the Bridge End property in 2012, which was donated by the Maine Coast Heritage Trust (MCHT). The Town improved the property with the creation of the Bridge End park and boat ramp. This facility, which provides public access to Eggemoggin Reach, has floats, eight parking spaces for rig parking, and nine vehicle parking spaces, is fully ADA accessible, and has a toilet facility.

Deer Isle does not currently have any deep water public access sites. Additionally, while other marine industries (recreational boating, tours, etc.) present an economic opportunity for the Town, there are currently very limited services (fuel docks, moorings, dock space for pick-up, etc.). In a focus group with fishermen residing in Deer Isle, they also noted the lack of facilities for future aquaculture endeavors, including the challenges of supplying the necessary water and power to a commercial freezer or other infrastructure needed for aquaculture businesses.

Deer Isle has a number of formerly accessible harbor areas that have silted in over time, such as the upper reaches of Northwest Harbor. However the limited number of current marine-dependent uses in this area have not made dredging a priority for the Town.

## 10. Effectiveness of Existing Measures to Preserve Marine Resources

Deer Isle’s marine resources are regulated and protected through the Town’s Shoreland Zoning Ordinance and Shellfish Conservation Ordinance, as overseen by the Planning Board, Shellfish Committee, and the Select Board. However, there is a need for additional measures to protect Deer Isle’s marine resources, such as a Marine Resource Committee.

## 11. Regional Marine Resource Issues

Apart from the obvious connection with Stonington, it is apparent from the Marine Resources map that Deer Isle shares marine habitats and resources with a variety of Penobscot Bay communities. It is important that Deer Isle continue to work with these towns, such as through the Hancock County Planning Commission, and with the State environmental agencies to maintain healthy ecological systems and to be able to preserve fishing in its various forms as a contributor to the local economy.

## 12. Goals & Objectives

GOAL: Support an adaptive and diversified fisheries-based economy			
Objective/Policy	Strategy	Responsible Party(ies)	Timeframe
Protect, maintain and, where warranted, improve marine habitat and water quality	Mandate replacement of existing overboard discharge systems	Select Board	2025-2028
	Collaborate with the State to ensure regular testing of water quality	Select Board, DMR	2023-ongoing
	Work with neighboring communities on the protection of critical upland, intertidal, and marine habitats	Towns of Deer Isle and Stonington, Island Heritage Trust (IHT), MCHT, Maine Center for Coastal Fisheries (MCCF), Shaw Institute	2024-ongoing
	Identify target locations for “managed retreat” as a result of sea level rise and mitigating measures	Towns of Deer Isle and Stonington, IHT, MCHT, MCCF	2024-2026
Improve management of marine resources	Create a Marine Resources Committee that represents diverse stakeholders	Select Board	2024

	Catalog and survey existing moorings and determine need for Town oversight	Marine Resources Committee	2024-2025
Foster the sustainable development of aquaculture businesses	Prioritize owner-operated businesses [See Economy Chapter]	Marine Resources Committee	Ongoing
	Identify suitable zones for aquaculture	Select Board, Marine Resources Committee	2024-2026
	Explore more localized options for shellfish testing	Marine Resources Committee	2025-ongoing
Identify and support additional commercial fisheries	Create a plan to monitor environmental changes and emerging species	Marine Resources Committee, MCCF	2024-2026
	Facilitate development of required infrastructure to support new fisheries	Select Board, Marine Resources Committee, MCCF	2025-ongoing
	Develop strategies for obtaining access to new fisheries prioritizing owner-operators	Select Board, Marine Resources Committee, MCCF	2025-ongoing
	Implement outreach to lobster fishery/other commercial fisheries to educate about new opportunities	MCCF	2025-ongoing
	Provide/share information on education/training opportunities for individuals in new commercial fisheries	MCCF	2025-ongoing
Support other fisheries-based businesses, including recreational charter fishing	Conduct economic development needs assessment to determine needs of sector in coordination with Town of Stonington	Select Board, Marine Resources Committee, Economic Development Committee [See Economy Chapter]	2025-2026
	Track funding opportunities related to this sector	Select Board, Marine Resources Committee, Economic Development Committee	2025-ongoing

GOAL: Preserve and create working waterfronts			
Objective/Policy	Strategy	Responsible Party(ies)	Timeframe
Preserve existing working waterfront being used for commercial fishing, aquaculture, and other commercial marine trades	Update shoreland zoning ordinance to protect existing marine dependent uses	Select Board, Planning Board, Marine Resources Committee, Island Institute, Maine DMR, Land for Maine's Future Program (Department of Agriculture, Conservation, and Forestry)	2025
	Identify tax benefits/other incentives for conservation of working waterfront	Select Board, Marine Resources Committee, Island Institute, Maine DMR, Land for Maine's Future Program	2024-2025
	Identify successful approaches from other communities	Marine Resources Committee, Island Institute, Maine DMR, Land for Maine's Future Program	2025
Support Town acquisition/access to priority waterfront locations and/or deep water access sites	Survey shoreline and existing working waterfront to determine priorities for Town acquisition (deep water access, etc.)	Marine Resources Committee, Select Board, Island Institute, Maine DMR, Land for Maine's Future Program	2025-2026
	Explore options to expand deep water access (dredging; extend boat ramp at Bridge End park; other strategies)	Select Board	2026-2028
	Conduct outreach to property owners of priority locations to share information about current use taxation program	Select Board, Marine Resources Committee	2025-ongoing
	Create a reserve fund for purchase or working waterfront easement protection of deep water frontage	Select Board	2026

GOAL: Support other marine activities including recreational fishing, boating, and marine trades			
Objective/Policy	Strategy	Responsible Party(ies)	Timeframe
To protect, maintain and, where warranted, improve public access to the community's marine resources for fishing, recreation, and tourism	Collaborate with local property owners, land trusts, and others to preserve and expand public access to the water	Select Board, Marine Resources Committee, IHT, MCHT, Maine Island Trail Association (MITA)	2026-ongoing
	Conduct outreach to property owners of priority locations to share information about current use taxation program	Select Board, Marine Resources Committee	2025-ongoing
Expand marine-related business opportunities	Offer training for small businesses [See Economy Chapter]	SBA, SCORE	2027
	Host Captain's License Training locally	Marine Resources Committee, Coast Guard, Maine Maritime Academy, DISHS	2026-2027
	Develop commercial- recreational opportunities	Marine Resources Committee, Economic Development Committee	2025-ongoing
	Conduct educational outreach to recreational boating industry	Marine Resources Committee, Deer Isle Yacht Club	2025-ongoing
	Support/create marine-focused education programs at schools (Skippers Program, etc.)	School Board, Deer Isle-Stonington Schools, Marine Resources Committee	2026-2028

GOAL: Support adaptive municipal shellfish management			
Objective/Policy	Strategy	Responsible Party(ies)	Timeframe
Preserve access for residential clambers to the clam flats	Survey current flats and access points	Municipal Shellfish Committee, IHT, MCCF (Downeast Shellfish Committee)	2024



	Conduct educational outreach to property owners on their rights and responsibilities	Municipal Shellfish Committee, Maine Shellfish and Aquaculture Committee, MCCF	2024-2026 (and ongoing as needed)
	Conduct educational outreach to clammers on their rights and responsibilities	Municipal Shellfish Committee, Maine Shellfish and Aquaculture Committee, MCCF	2024-2026 (and ongoing as needed)
Support Deer Isle-Stonington municipal Shellfish Committee	Conduct outreach to recruit Committee members	Select Board, MCCF	2025
	Provide administrative support to Committee for reporting and other requirements	Select Board, MCCF	2024-ongoing
	Identify/create “conservation hour” opportunities for clammers	Downeast Institute, Manomet, MCCF	2024-ongoing

# Chapter F: Population and Demographics

## 1. Purpose

Population is a foundational data set to guide all aspects of a comprehensive plan. An understanding of the Town's past, current, and future population trends supports many other aspects of the plan, such as housing, land use, and transportation, and will help the Town of Deer Isle prepare for future municipal expenditures and investments. This section will:

- a. Describe Deer Isle's population trends;
- b. Discuss how these recent trends relate to and contrast with Hancock County and the State; and
- c. Review likely future population trends.

## 2. Key Findings & Issues

Deer Isle's older population has seen the largest and most significant increase between 2000 and 2020. This significant increase has implications for municipal services and community character. Deer Isle's median household income of \$58,250 is less than several surrounding towns, the County (\$60,354), and the State (\$63,182), but has increased by 10% in the last twenty years.

Deer Isle has a greater percentage of high school graduates compared to other area communities, the County, and the State, but attainment of higher education is not comparable, as Deer Isle has a significantly lower percentage of people with a Bachelor's degree or higher.

Since 2000, Deer Isle's average household size has decreased from 2.32 persons per household to an estimated 2.2 per household, a 5.2% decrease. This decrease is likely related to the significant aging of Deer Isle's population.

## 3. Key Findings & Issues from Draft 2006 Comprehensive Plan

The Draft 2006 Comprehensive Plan for Deer Isle stated, "Deer Isle's rate of year-round population growth slowed to 2.3 percent during the 1990s after an approximately 23 percent rate in each of the two previous decades. The median age of the population is increasing. While there was a 25 percent decrease in those aged 18-44, there was a 47 percent increase in those aged 45 to 64. The Town faces two major population trends, the out migration of its youth and an influx of persons of or approaching retirement age.

"While income levels have increased and poverty levels decreased between 1990 and 2000, the Town still lags behind the county. A slow overall rate (around 2 percent) of population growth is projected between 2000 and 2015. The number of persons between 65 and 79 years is expected to increase at a 27 percent rate."

## 4. Public Opinion Survey Results

The median age of those who filled out the Survey was 65, compared with a Census median age of 52.4. While the youngest participant was 19, the most recurring age represented was 71. Thus, the majority of opinions represented here are from the Town's older population.

Seventy percent of participants identified themselves as year-round residents, and 28% identified as seasonal residents. By comparison, approximately 50% of housing is occupied year round and approximately 50% is seasonal. This suggests that the Survey results are somewhat weighted in the direction of year-round residents.

Participants in the Survey first identified aspects of Deer Isle that are valued and appreciated. Some of the most prominent comments included: the supportive and tight-knit sense of community among islanders, the natural and unique beauty of the island, and the quiet tranquility of small town life. Participants were also asked to identify two or three issues that concerned them most about Deer Isle in the next twenty years. The most common concerns included:

1. Availability of affordable housing on the island so those with lower incomes may move to the Town or continue to afford living there
2. An aging population with a lack of access to services such as nursing homes, hospice, and other healthcare facilities
3. A general concern for the public schools and the ability to maintain and support school staff

Other questions generated responses that were relatively consistent with the Census and American Community Survey data. The Public Survey responses yielded a median household income of approximately \$80,000, while the 2021 ACS estimated a median household income of \$58,250. Despite this difference, Survey respondents represent a wide range of income levels. See table below.

**Table F-1: Deer Isle Survey and 2021 ACS Income Categories:**

Income Category	Survey Results	Census ACS
Less than \$10,000	1%	5%
\$10,000 to \$14,999	1%	6%
\$15,000 to \$24,999	4%	12%
\$25,000 to \$34,999	5%	16%
\$35,000 to \$49,999	9%	5%
\$50,000 to \$74,999	17%	12%
\$75,000 to \$99,999	17%	10%
\$100,000 to \$149,999	18%	15%
\$150,000 to \$199,999	10%	13%
\$200,000 or more	17%	6%

Source: U.S. Census Bureau, 2017-2021 American Community Survey 5-Year Estimates

## 5. Census Data

The population and demographic data in this chapter come from two primary sources: the U.S. 2020 Census and the 2021 American Community Survey (ACS) 5-Year Estimates. The decennial census is considered to be the most accurate representation of population, but asks a very limited number of questions such as age, gender and race. The ACS is a five year moving average of sample data that allows for more depth in survey questions, such as income and education. The margins of error for the ACS are often quite large due to the small sample size. For example, the 5-year estimates from the ACS count 59 persons between the ages of 15-19 living in Deer Isle, with a margin of error around  $\pm 53$ .

## 6. Historical Trends

Many factors influence rural populations, including proximity to larger urban centers, access to mass transit and transportation, and the condition of local and regional economies. Another major influence on population trends is access to broadband/fiber internet.

Deer Isle's population reached a peak of 3,590 at the start of the Civil War in 1860, then declined to a low of 1,129 in 1960. The population then began a growth period and increased to around 1,876 in 2000. The 2020 population increased by 11% over 2010. Currently, the State projects the population of Deer Isle will increase to 2,346 by 2040.

State projections should be reviewed periodically. Most population increase in Deer Isle is the result of migration which is very difficult to predict. In 2020, Maine's rural population saw and continues to see a dramatic increase in population size due to the influx of residents leaving more populated areas as a result of the COVID-19 pandemic and/or climate change impacts. These specific migration patterns have yet to be documented and accounted for in regional Census data. Deer Isle's population may increase as more people seek out areas of lower population density and are able to work remotely due to newly available and reliable internet connection.

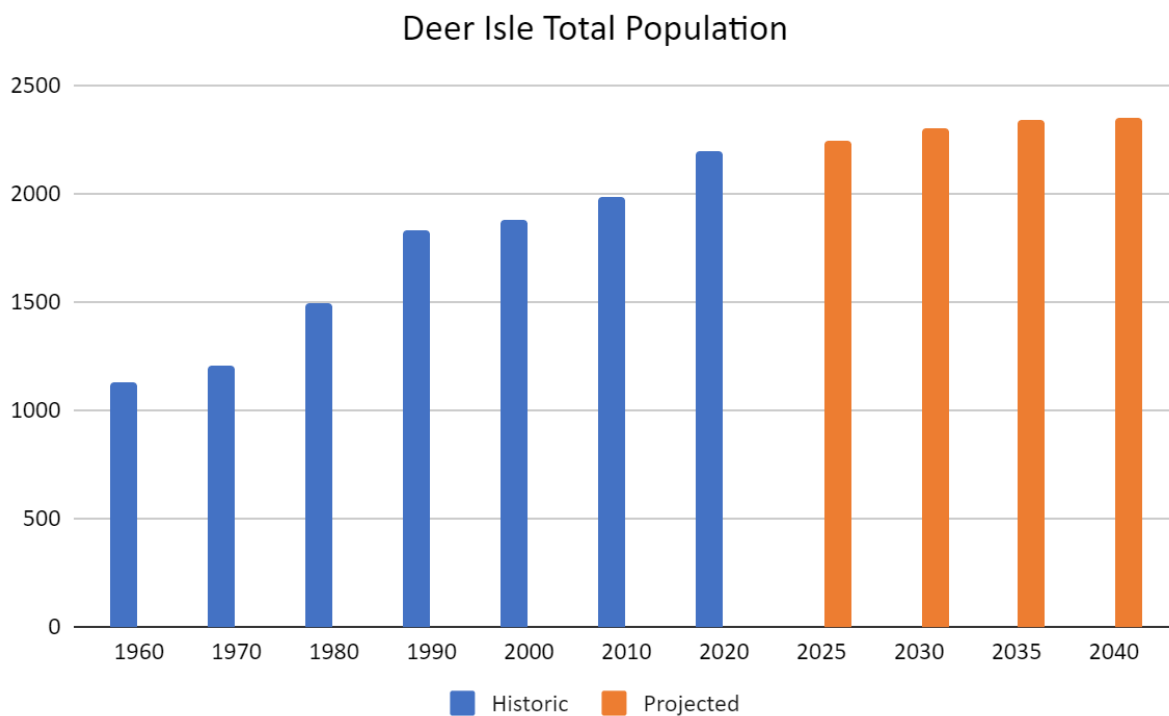
**Table F-2: Historical Year-Round Population Trends:Deer Isle & Hancock County & State:**

Historic & Projected Population						
Year	Deer Isle		Hancock County		State of Maine	
	Population	Percent Change	Population	Percent Change	Population	Percent Change
1850	3,037	N/A	34,372	N/A	583,169	N/A
1860	3,590	18.21%	37,757	9.80%	628,279	7.70%
1870	3,414	-4.90%	36,495	-3.30%	626,915	-0.20%
1880	3,266	-4.34%	38,129	4.50%	648,936	3.50%
1890	3,422	4.78%	37,312	-2.10%	661,086	1.90%
1900	2,047	-40.18%	37,241	-0.20%	694,466	5.00%
1910	1,946	-4.93%	35,575	-4.50%	742,371	6.90%
1920	1,718	-11.72%	30,361	-14.70%	768,014	3.50%
1930	1,266	-26.31%	30,721	1.20%	797,423	3.80%
1940	1,303	2.92%	32,422	5.50%	847,226	6.20%
1950	1,234	-5.30%	32,105	-1.00%	913,774	7.90%

1960	1,129	-8.51%	32,293	0.60%	969,265	6.10%
1970	1,211	7.26%	34,590	7.10%	992,048	2.40%
1980	1,492	23.20%	41,781	20.80%	1,124,660	13.40%
1990	1,829	22.59%	46,948	12.40%	1,227,928	9.20%
2000	1,876	2.57%	51,791	10.30%	1,274,923	3.80%
2010	1,975	5.28%	54,418	5.10%	1,328,361	4.20%
2020	2,194	11.09%	55,478	1.90%	1,362,359	2.60%
2025*	2,449	2.30%	56,140	1.2%	1,374,728	0.90%
2030*	2,302	2.60%	56,707	1.0%	1,397,663	1.70%
2035*	2,337	1.50%	56,698	0.00%	1,407,396	0.70%
2040*	2,346	0.40%	56,092	-1.10%	1,404,176	-0.20%

Sources: "Deer Isle, Maine," Wikipedia, accessed September 8, 2023, [https://en.wikipedia.org/wiki/Deer\\_Isle,\\_Maine#cite\\_note-DecennialCensus-9](https://en.wikipedia.org/wiki/Deer_Isle,_Maine#cite_note-DecennialCensus-9); 2020 Decennial Census, \*Maine State Economist Population Projections, released June 2023

**Figure F-1: Deer Isle Total and Projected Populations:**



## 7. Current Conditions

### A. Age Characteristics

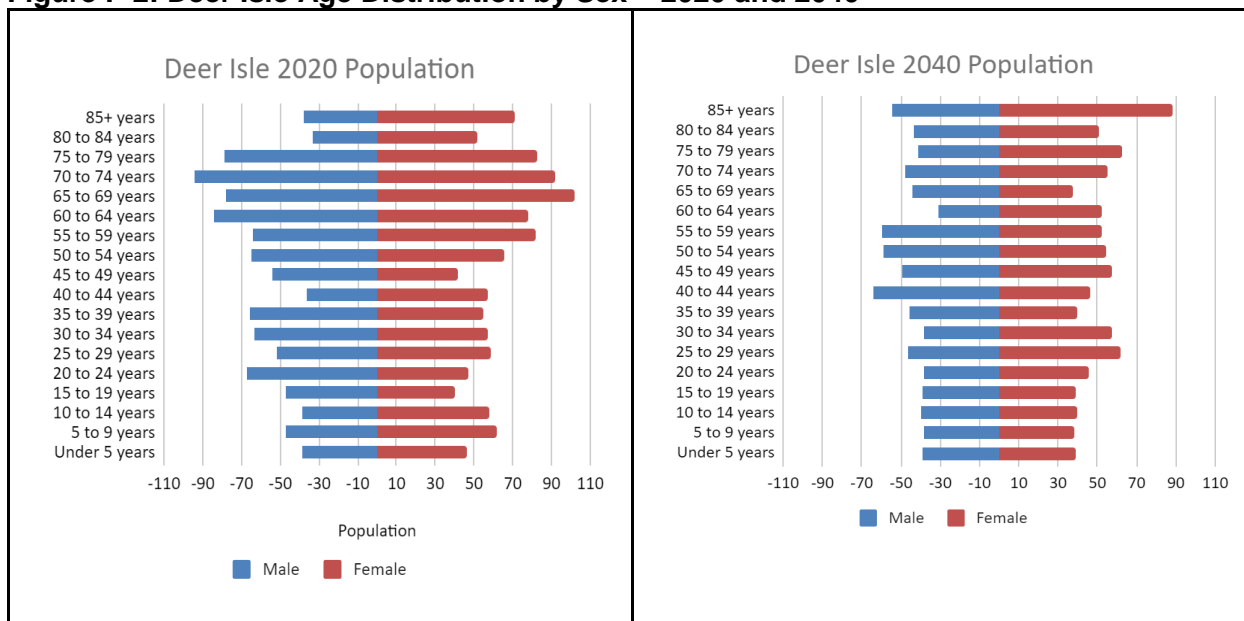
Figure F-2 shows the age categories for Deer Isle in 2020 and a cohort survival projection to 2040. Approximately equal numbers of male and female births result in a similar sex ratio until

the late teens. Females appear more likely to move away from Deer Isle, possibly to pursue higher education or other career and marriage opportunities. Men are more likely to stay. The sex ratio balances again in midlife and remains so until after retirement when male mortality exceeds female mortality.

Population is aged forward in the second part of Figure F-2 by 20 years. By 2040, the large cohort of people over 60 are now over 80, with many deceased. All age cohorts are projected to be roughly equal. Changes in the economy and migration are not included in the cohort projections and will play an important role in the future of Deer Isle.

Based on this projection the demand for services may not increase appreciably for younger ages. School enrolments are projected to decline slightly, while costs continue to rise. Elder care services will remain in high demand for at least ten years then may decline. The working age population will be a higher proportion of the total.

**Figure F-2: Deer Isle Age Distribution by Sex – 2020 and 2040**



Source: U.S. 2020 Census and 2040 Cohort Survival Projection

Additionally, when looking at age distribution trends by age cohort, Deer Isle’s population appears to be getting significantly older. As seen in Table F-3, Deer Isle lost a large population of people between the ages of 5-17, but gained population in all other age groups. The 85 and older category had the largest population change in the last twenty years. This cohort more than doubled between the years 2000 to 2020. The Town experienced an overall population growth but saw significant decreases in the younger age cohorts and major increases in the cohorts above 45 years of age.



**Table F-3: Age Distribution for Deer Isle, 2020 Estimate**

Age	2000	% of Total	2010	% of Total	2020	% of Total	% Change 2000 - 2010	% Change 2010 - 2020	% Change 2000 - 2020
0 - 4	86	4.6%	107	5.1%	109	5.2%	24.7%	1.6%	26.7%
5 - 17	337	18.0%	198	9.4%	201	9.5%	-41.3%	1.7%	-40.4%
18 - 44	533	28.4%	676	32.1%	594	28.1%	26.8%	-12.1%	11.4%
45 - 64	498	26.5%	641	30.5%	652	30.9%	28.8%	1.7%	30.9%
65 - 84	359	19.1%	431	20.5%	554	26.2%	20.1%	28.5%	54.3%
85+	63	3.4%	50	2.4%	143	6.8%	-19.9%	183.3%	127.0%
Total	1,876		2,103		2,113				

Source: U.S. Census Bureau, 2016-2020 American Community Survey 5-Year Estimates

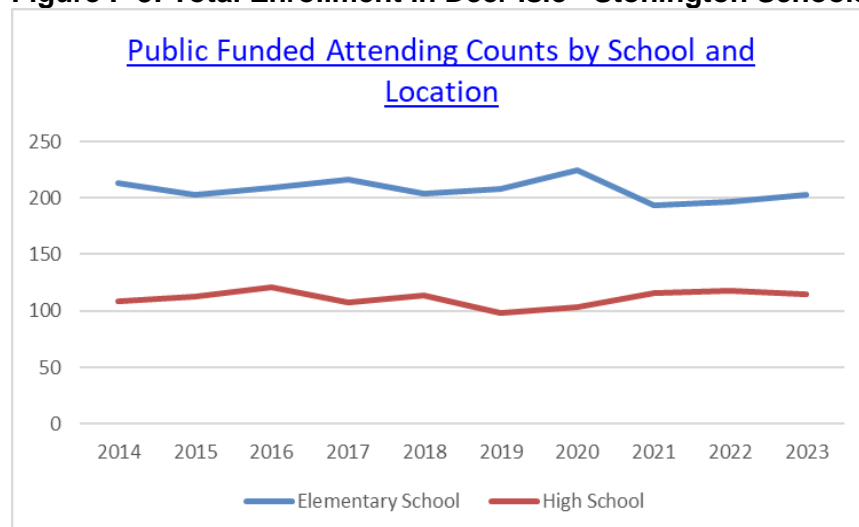
## B. Education

### School Enrollment:

Student enrollment at the Deer Isle-Stonington Elementary School and the Deer Isle-Stonington High School has stayed fairly constant over the last 10 years. High School students come not only from Deer Isle and Stonington, but also from other surrounding towns outside of Deer Isle. Figure F-4 indicates how many students from Deer Isle attend an educational institution anywhere.

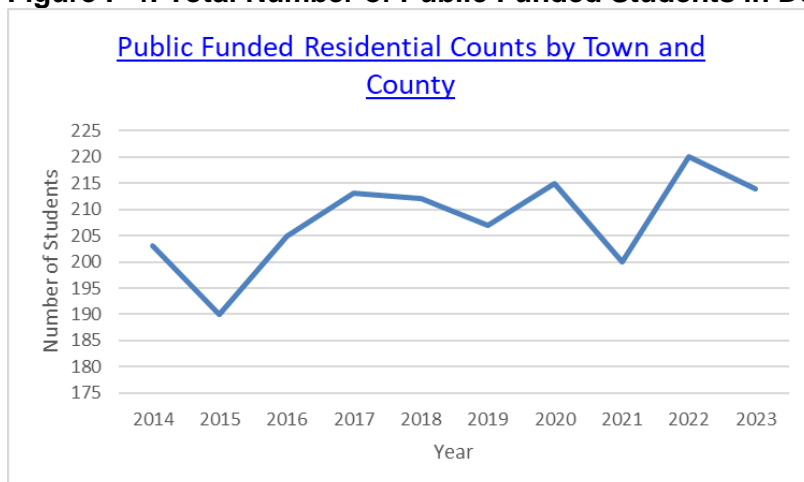
According to the State Department of Education, in 2022, 78.26% of the senior class at Deer Isle-Stonington High School graduated and received their high school diploma. (Source: [Longitudinal Graduation Report - 2022\\_0.xlsx \(live.com\)](#))

**Figure F-3: Total Enrollment in Deer Isle - Stonington Schools from 2014-2023**



Source: Student Enrollment Data | Department of Education (maine.gov)

**Figure F-4: Total Number of Public Funded Students in Deer Isle Only**



Source: Student Enrollment Data | Department of Education (maine.gov)

Some Deer Isle resident students attend schools in neighboring towns like Blue Hill.

**Educational Attainment:**

Deer Isle’s percentage of high school graduates is higher than Hancock County and the State. The percentage of people with bachelor’s degrees in Deer Isle is lower than the county and state percentage. This could be a result of the island’s strong fishing industry. See table below. The relatively high percentage of the population with graduate or professional degrees may reflect the large retiree community in Deer Isle.

**Table F-4: Educational Attainment for Deer Isle, Hancock County, and State:**

	Deer Isle		Hancock County		Maine	
	Total	Percentage	Total	Percentage	Total	Percentage
Less than 9th grade	41	3%	605	1%	21,249	2%
9th to 12th grade, no diploma	61	4%	1,420	3%	41,358	4%
High school graduate (includes equivalency)	686	41%	13,222	31%	30,7382	31%
Some college, no degree	264	16%	8,067	19%	18,8263	19%
Associate's degree	42	3%	4,018	10%	10,2198	11%
Bachelor's degree	233	14%	9,333	22%	20,9253	21%
Graduate or professional degree	336	20%	5,713	14%	12,5197	13%
Population 25 years +	1,663	(X)	42,378	(X)	994,900	(X)

Source: U.S. Census Bureau, 2017-2021 American Community Survey 5-Year Estimates

### C. Household Size

Since 2000, Deer Isle’s average household size has decreased from 2.32 persons per household to 2.20 (estimate), similar to neighboring towns and the County. One implication of declining household size is that more housing units are needed for the same population.

**Table F-5: Average Household Size: Deer Isle, Neighboring Towns, And County & State**

	<b>2000</b>	<b>2010</b>	<b>2020</b>	<b>Percent Change 2000 - 2020</b>
Blue Hill	2.23	2.19	2.06	-7.6%
Brooklin	2.27	2.31	1.88	-17.2%
Brooksville	2.21	1.97	2.12	-4.1%
Castine	2.16	2.59	2.09	-3.2%
Deer Isle	2.32	2.14	2.20	-5.2%
Sedgwick	2.34	2.58	2.15	-8.1%
Hancock County	2.31	2.26	2.21	-4.3%

Source: US Decennial Census 2000 and 2010, 2020 ACS – 5 Year Estimates.

### D. Race

According to the Census Bureau, over 96% of Deer Isle’s residents identify as being white alone. Less than 2% identify as being black, African American, American Indian, Alaska Native or Asian alone.

**Table F-6: Race, Deer Isle 2021 Estimate**

Race	2021 Estimate
White alone	2,072
Black or African American alone	14
American Indian and Alaska Native alone	16
Asian alone	4
Native Hawaiian and Other Pacific Islander alone	0
Some other race alone	0
Two or more races:	32
Two races including Some other race	32
Two races excluding Some other race, and three or more races	0
Total:	2,138

Source: U.S. Census Bureau, 2017-2021 American Community Survey 5-Year Estimates

### E. Income and Poverty

According to the American Community Survey 5-year estimates, Deer Isle’s median income of \$58,250 is higher than that of surrounding towns such as Brooklin (\$54,191), Blue Hill (\$53,566), and Brooksville (\$52,917). However, it is less than that of Hancock County (\$60,354) and the State (\$63,182). Deer Isle’s percent increase in median income from 2000 to 2021 was relatively high (10%) compared to surrounding towns, the County, and Maine as a whole. See table below.

**Table F-7: Median Household Income (2000, 2010, & 2021)**

2021 Inflation Adjusted Dollars				
	2000	2010	2021	Percent Change (2000-2021)
Castine	\$74,955	\$77,328	\$85,556	14%
Sedgwick	\$56,723	\$49,448	\$64,803	14%
Deer Isle	\$53,199	\$53,702	\$58,250	10%
Brooklin	\$59,617	\$57,207	\$54,191	-9%
Blue Hill	\$51,024	\$55,749	\$53,566	5%
Brooksville	\$59,085	\$58,271	\$52,917	-10%
Hancock County	\$58,037	\$60,010	\$60,354	4%
Maine	\$60,081	\$59,252	\$63,182	5%

Source: US Decennial Census 2000; 2010 and 2021 ACS 5-Year Population Estimates.

According to the 2021 American Community Survey 5-Year Estimates, 16.7% of Deer Isle residents were below the poverty level, compared with 10.3% of the residents of Hancock County as a whole. Among all families 11.8% are below the poverty level, but this percentage increases to 79.2% for female headed families with no spouse present.

Deer Isle is not designated as a service center by the State. The level of commuting out of Deer Isle is somewhat higher than the level of commuting in, and no particular services are required to support the daytime population. The daytime population of day-trip tourists and the small workforce have created demand for lunch wagons and small restaurants, but this has been a challenging market. The local grocery stores serve sandwiches and pizzas for the lunch-time population.

## F. Seasonal Population

There are no census or other statistical measurements available directly showing the seasonal population of Deer Isle. However, the 2020 Maine State Housing data for housing units in Deer Isle indicate that the Town had 1,936 total housing units, with 970 of those units being year-round and 966 being seasonal or vacant. Were the average household size of both year-round and seasonal units equal, the data would suggest a potential doubling of the Town's population in the summer. The 361 housing units added since the year 2000 were also relatively evenly divided between year-round and seasonal use. In the year 2000, there were around 1,575 total units with 781 of those units being year-round and 794 being seasonal.

The seasonal population has an outsized impact on the Deer Isle economy. The most valuable coastal properties are disproportionately seasonal, paying a correspondingly large proportion of the property taxes. Several businesses in Deer Isle open only during the summer season and others increase their hours. Seasonal residents support non-profit and philanthropic organizations.

The seasonal population surge also places greater strain on local services and infrastructure. The seasonal population generates additional ambulance calls and services at Northern Light

Primary Care Stonington. Solid waste demands double in the summer. Roads and other infrastructure experience greater wear.

Perhaps the largest impact of seasonal use is to reduce the availability of year-round housing. Online services like AirBnB and VRBO have generated additional conversions of year-round housing to seasonal, short-term rentals. Owners elect to rent seasonally for much higher amounts, rather than renting year round for lower monthly amounts. The State assessed value of housing increased by 20% last year. As a consequence, housing prices are not affordable for locally employed families.

## G. Projected Population

The Maine State Economist’s population projections for Deer Isle are discussed in Section 6 - Historical Trends above. Projecting small town population is often imprecise due to the many factors that influence rural population. Any estimate will need to be reviewed within five years to measure accuracy. Sources for more current population figures include the American Community Surveys and Maine Department of Health and Human Services data sets. Recent real estate turnover and prices, as well as major events such as the COVID-19 pandemic, could prompt an influx of people moving to rural Maine, which is not shown in the projected population. To monitor how Deer Isle’s population changes, it will be necessary to review school enrollment, permits for new structures and updated Census data.

The State population projections show an modest increase for Deer Isle’s population. Population aging will require new housing solutions. Smaller, more energy efficient housing, including rental units, will permit aging in place and accommodate smaller and younger families.

State projections for 2018 included a decline that did not occur. Deer Isle was the second fastest growing town in Hancock County between 2010 and 2020 adding 219 people. The evidence suggests that migration has more than compensated for population aging and that births currently equal deaths. The evident growth of population suggests the need for additional housing. If the population forecast were to add 219 additional people between 2020 and 2030, and if we had an approximate household size of 2, Deer Isle would require an additional 110 housing units and related services, such as education, solid waste, and groundwater.

## 8. Goals & Objectives

GOAL: Grow Deer Isle’s population by attracting and retaining young families			
Objective	Strategy	Responsible Party(ies)	Timeframe
Improve housing options for families (see Housing Chapter)	Partner with organizations like Island Workforce Housing	Select Board Housing Committee	2024
	Amend local ordinances to promote year-round housing in growth areas	Select Board Planning Board Housing Committee	2025
Invest more in local schools (see Public Facilities Chapter)	Add school classes and programs that could provide a competitive advantage	CSD 13	2025

Promote Deer Isle as a desirable place to live and work (See Economy Chapter)	Develop promotional strategies and infrastructure	Economic Development Committee, Chamber of Commerce, HCPC and State agencies	2025
Expand recreational opportunities for residents of all ages (Health and Recreation Chapter)	Promote access and engagement	Island Community Center, Healthy Island Project, Island Recreation Board, Healthy Peninsula	2024
Integrate new residents into Town culture and organizations	Provide welcome packages to new residents	Town Office Staff Nonprofits, Churches, Real estate companies	2024

GOAL: Support older residents to enable them to remain in their homes as they age			
Objective	Strategy	Responsible Party(ies)	Timeframe
Develop public transportation, rideshare and pedestrian facilities suitable for non-drivers (See Transportation Chapter and Health and Recreation Chapter)	Work with Downeast Transportation to expand public bus schedule	Economic Development Committee	2025
	Promote unified call mechanism for ride sharing for doctor's appointments, etc.	Friends in Action Healthy Island Project	2024
	Build sidewalks linking residential areas to village and recreational areas	Public Works Department, Village Revitalization Committee	2025
Support community paramedicine and other home health care services (see Health and Recreation Chapter)	Seek grant funding for programs	Island Health & Wellness Foundation Healthy Island Project Memorial Ambulance Corps	2024

# Chapter G: Economy

## 1. Purpose

Understanding past, current, and future economic trends in the local and regional economy is essential for assessing Deer Isle's future needs. As employment patterns change, such as increasing numbers of at-home workers and telecommuters, other major sources of employment, retail, transportation, telecommunication, and energy infrastructure will all be impacted and require planning. This section aims to:

- a. Describe employment trends in Deer Isle;
- b. Describe the local and regional economy; and
- c. Discuss likely future economic activity and market changes that may impact Deer Isle.

## 2. Key Findings & Issues

Deer Isle's economy is based on small businesses in three major sectors: marine-related businesses, tourism and recreation, and the creative economy. Deer Isle has also attracted a diverse population attracted to our rural, coastal environment including retirees and remote workers in a wide range of occupations who also contribute to the economy. Fishing and marine-related occupations have always been important in Deer Isle, and aquaculture is emerging as part of that sector. Tourism and recreation have been part of island life since the mid-1800s. The creative sector, which includes arts, writing and publishing, and performance, has been particularly invigorated by the move of Haystack Mountain School of Crafts to Town in 1961. With the advent of broadband internet, digital commuters have joined retirees choosing to live in Deer Isle bringing incomes earned elsewhere.

These interrelated sectors generate demand for work within their supply chains, including people who work in the trades and provide personal and professional services. The natural and built environments and a strong sense of community and identity are foundational to all these activities, as is the entrepreneurial spirit of Deer Isle's residents.

The Island has two towns—Deer Isle and Stonington—that share places of work, schools and culture. They are inextricably bound together.

Observations about the economy:

- Deer Isle is part of the Blue Hill peninsula's regional labor and housing markets.
- More of Deer Isle's residents commute to other towns for work than have employment within the Town.
- Stonington is both the largest destination for Deer Isle's outbound commuters and the largest source of inbound commuters.
- Self-employment is a large and growing segment of the economy.
- Unemployment rates increased during the Great Recession and the COVID pandemic; there has been a 6.5% decrease in Deer Isle employment since the year 2000.
- The range of seasonal unemployment is relatively large as compared with the State as a whole.
- The Town and State are currently experiencing a period of worker scarcity.



### 3. Key Findings & Issues from the Draft 2006 Comprehensive Plan

The Draft Deer Isle 2006 Comprehensive Plan notes, “Deer Isle had a much higher self-employment rate than Hancock County. While the number of persons employed in fishing, agriculture and forestry declined between 1980 and 2000, Deer Isle still had roughly double the proportion of people employed in this sector than in Hancock County. The number of persons in the labor force in Deer Isle increased by 1.5 percent during the 1990s, while the county labor force increased at a 19 percent rate. There was a shortage of well-paying, year-round jobs. This lack of jobs was one of the major issues facing the town in 2005.”

### 4. Public Opinion Survey Results

Ninety percent of the Survey respondents supported or strongly supported community and economic development. A plurality believed that local job opportunities need improvement or attention right away (40%).

Seventy-eight percent of the Survey respondents believed that home-based businesses should be allowed anywhere in Deer Isle. Most respondents believed that other businesses should be limited to designated areas of the Town: manufacturing (69%), commercial retail trade and services (68%), restaurants (56%), inns and hotels (65%) and gravel pits/quarries (73%). A majority felt that mining should not be allowed anywhere in Deer Isle (64%).

### 5. Conditions and Trends

#### Historical Perspective

Prior to its settlement by Europeans, the Wabanaki inhabited the area and pursued a semi-agricultural, semi-hunting and gathering livelihood. The first non-native visitors likely were Northern European fishermen who may have visited the coast as early as the 1500s. The Town of Deer Isle was founded in 1789, at which time it included the islands of Little Deer Isle, Deer Isle, and Isle au Haut. In 1868 Isle au Haut became a separate town, and in 1897 the southern portion of Deer Isle became the Town of Stonington.

The Town has a long history of marine trades, including shipbuilding, shipping and fishing. Lumbering and farming have also been significant industries. Tourism and summer visitors and residents arrived in the mid-1800s to private homes, then inns and small hotels. Haystack Mountain School of Crafts moved to Deer Isle in 1961, sparking the vibrant development of the local arts community.

Deer Isle was made significantly more accessible by the construction of the Deer Isle- Sedgwick suspension bridge in 1938. Prior to completion of the bridge, Deer Isle had many more essential businesses, including doctor’s offices, blacksmiths, groceries, millinery shops and hardware stores.

#### Local and Regional Economic Development Plans

Deer Isle’s economic planning has been directly or indirectly addressed in several studies and plans over the last five years. These include:

- Assessing the Carrying Capacity of the Blue Hill Peninsula, Blue Hill Heritage Trust (2022)
- Valuing the Economic Benefits of Conservation Lands in Downeast Maine, University of Maine (2019)
- Housing Needs Analysis and Assessment: Deer Isle-Stonington, ME, Island Workforce Housing, Inc.

### Employment & Unemployment

The tables below show labor force, employment and unemployment trends in the Town of Deer Isle. The labor force includes employed and unemployed individuals who are actively looking for work. It does not include homemakers, retired people, those in the military or discouraged workers.

U.S. Census and American Community Survey data are collected based on where people live, not where they work. Some employment data released by the Maine Department of Labor are taken from unemployment tax collection records filed by businesses and, therefore, reflect the location of the employee’s place of work, not residence. We try to indicate if the data are based on place of residence or place of work.

The number of unemployed people living in Deer Isle more than doubled from 35 in 2000 to 79 in 2010. The jump likely reflects the impact of the Great Recession of 2008-2010. Additionally, the data from 2020 indicate a further decline in the size of the Town’s labor force, with the number employed declining by 70 and the number unemployed decreasing by 38. The decline in the number of unemployed coupled with shrinkage in the workforce indicates that some people either aged out of the labor pool or dropped out. The result is that Deer Isle’s labor force shrank by 108 from 2010 to 2020.

**Table G-1: Deer Isle Employment Trends**

	2000	2010	2020	% Change 2000 - 2020
Deer Isle				
Civilian Labor Force	937	922	814	-13.1%
Employment	902	843	773	-14.3%
Unemployed	35	79	41	17.0%
Unemployment Rate %	3.7	8.6	5.0	1.3%
Hancock County				
Unemployment Rate %	4.0	9.2	5.3	1.3%

Source: Maine Department of Labor, Center for Workforce, Research, and Information

### Employment by Type of Employer

Table G-2 enumerates Deer Isle’s working residents based on whether they worked in the private or public sectors or were self-employed or unpaid family workers. All who are not direct government employees are considered private-sector employees; therefore, those who work for non-profit enterprises are private-sector workers. The data for 2020 were collected before the Island Nursing Home closed in August 2021. However, not all the Nursing Home’s employees lived in Deer Isle.

In 2020 46.0% of Deer Isle’s workers were employed in the private sector, another 47.3% were self-employed or unpaid family workers, and 6.7% worked for local, state, or federal

government. Self-employment among Deer Isle’s residents more than doubled, increasing by 271 since 2000. The growth in self-employment offset 110 lost private-sector jobs among the population.

**Table G-2: Class of Workers, Employed Persons 16 Years and Older**

	Year 2000			
	Deer Isle		Hancock County	
	Number	Percent	Number	Percent
Private Wage/Salary	526	64.6%	17,470	69.8%
Fed/State/Local Gov't	77	9.5%	3,511	14.0%
Self-Employed and Unpaid Family Workers	211	25.9%	4,053	16.2%
Total	814		25,034	
	Year 2010			
	Deer Isle		Hancock County	
	Number	Percent	Number	Percent
Private Wage/Salary	461	47.9%	20,088	71.8%
Fed/State/Local Gov't	81	8.4%	3,238	11.6%
Self-Employed and Unpaid Family Workers	420	43.7%	4,669	16.7%
Total	962		27,995	
	Year 2020			
	Deer Isle		Hancock County	
	Number	Percent	Number	Percent
Private Wage/Salary	416	46.0%	20,438	72.9%
Fed/State/Local Gov't	61	6.7%	3,359	12.0%
Self-Employed and Unpaid Family Workers	428	47.3%	4,232	15.1%
Total	905		28,029	

Sources: 2000: Census Table DP3; 2010 & 2020: ACS 5-Year Estimates.

#### Employment of Deer Isle Residents by Industry

According to Census estimates for 2020, 24.8% of Deer Isle’s employed civilians 16 years and over work in jobs associated with agriculture, forestry, fishing and hunting, and mining, followed by 20.4% in education, health care, or social services. The next largest industry sector was retail trade, which accounted for 11.9% of Deer Isle adult workers. These three sectors account for 57.1% of the employment of Deer Isle residents.

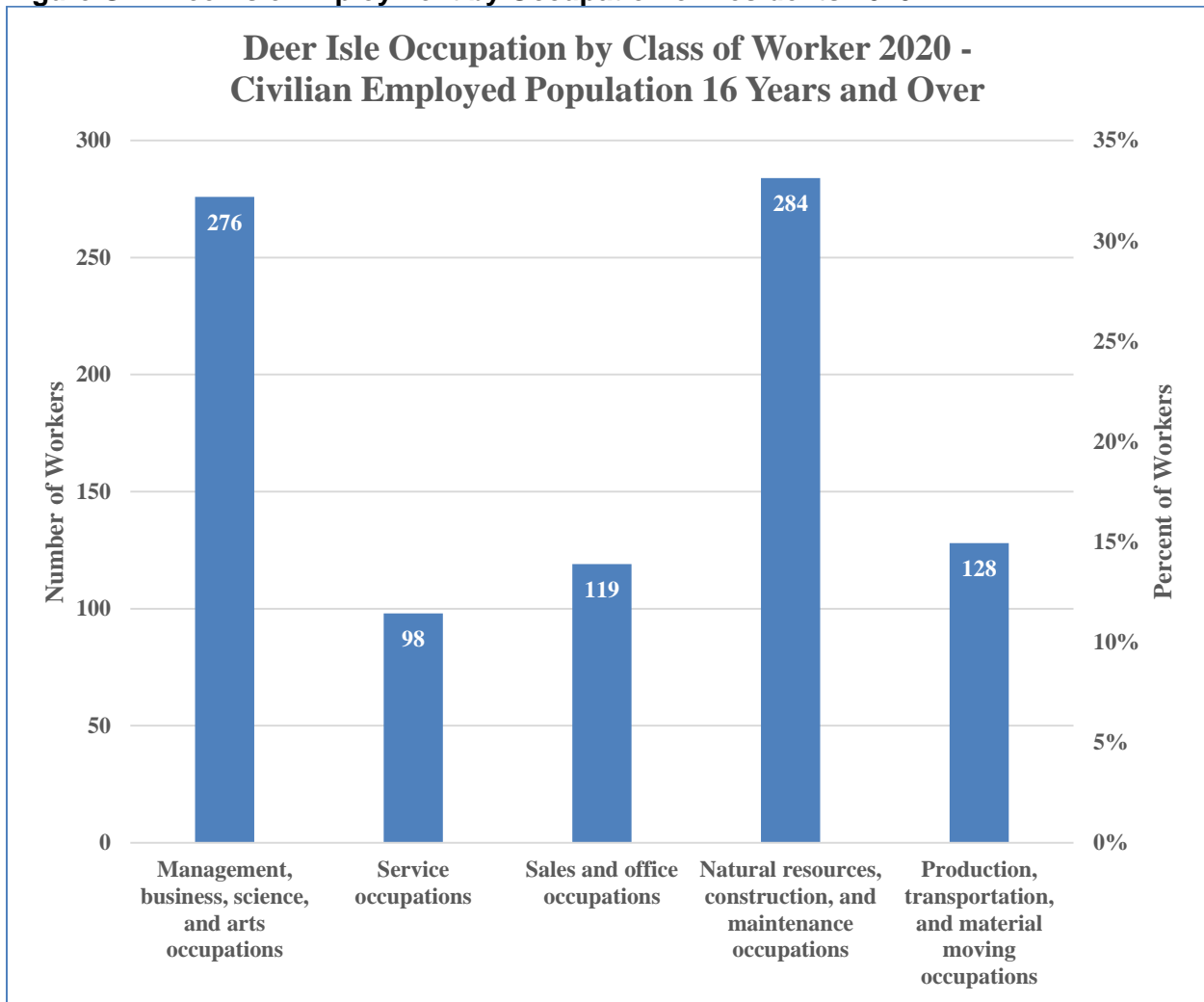
**Table G-3: Employment by Industry 2020, Deer Isle and Hancock County**

	Deer Isle		Hancock County	
	Number	Percent	Number	Percent
Agriculture, forestry, fishing and hunting, and mining	224	24.8%	1,906	6.8%
Construction	69	7.6%	2,133	7.6%
Manufacturing	26	2.9%	1,574	5.6%
Wholesale trade	73	8.1%	539	1.9%
Retail trade	108	11.9%	3,219	11.5%
Transportation and warehousing, and utilities	33	3.6%	1,081	3.9%
Information	7	0.8%	346	1.2%
Finance and insurance, and real estate and rental and leasing	22	2.4%	1,228	4.4%
Professional, scientific, and management, and administrative and waste management services	49	5.4%	3,734	13.3%
Educational services, and health care and social assistance	185	20.4%	7,349	26.2%
Arts, entertainment, and recreation, and accommodation and food services	36	4.0%	2,524	9.0%
Other services, except public administration	58	6.4%	1,532	5.5%
Public administration	15	1.7%	864	3.1%
Total civilian employed population 16 years and over	905		28,029	

Source: ACS 5-Year Estimates

Figure G-1 presents a different view of the types of work performed by Deer Isle’s residents; this is by occupation. Each of the two dominant occupational groups accounts for slightly less than one-third of Deer Isle’s working residents. The first is natural resources, construction and maintenance, with 284 people, or 31 percent. The second is management, business, science and the arts, with 276 people, or 30 percent. Production, transportation and materials hauling accounts for 128 jobs. Deer Isle has a moderately diversified occupational distribution for a small, natural resource-dependent rural community. Moreover, the distribution of employment by occupation reflects the natural endowments of the Town and Island, where one-third of employment is directly connected to natural resources of fish, forest and minerals.

**Figure G-1: Deer Isle Employment by Occupation of Residents 2020**

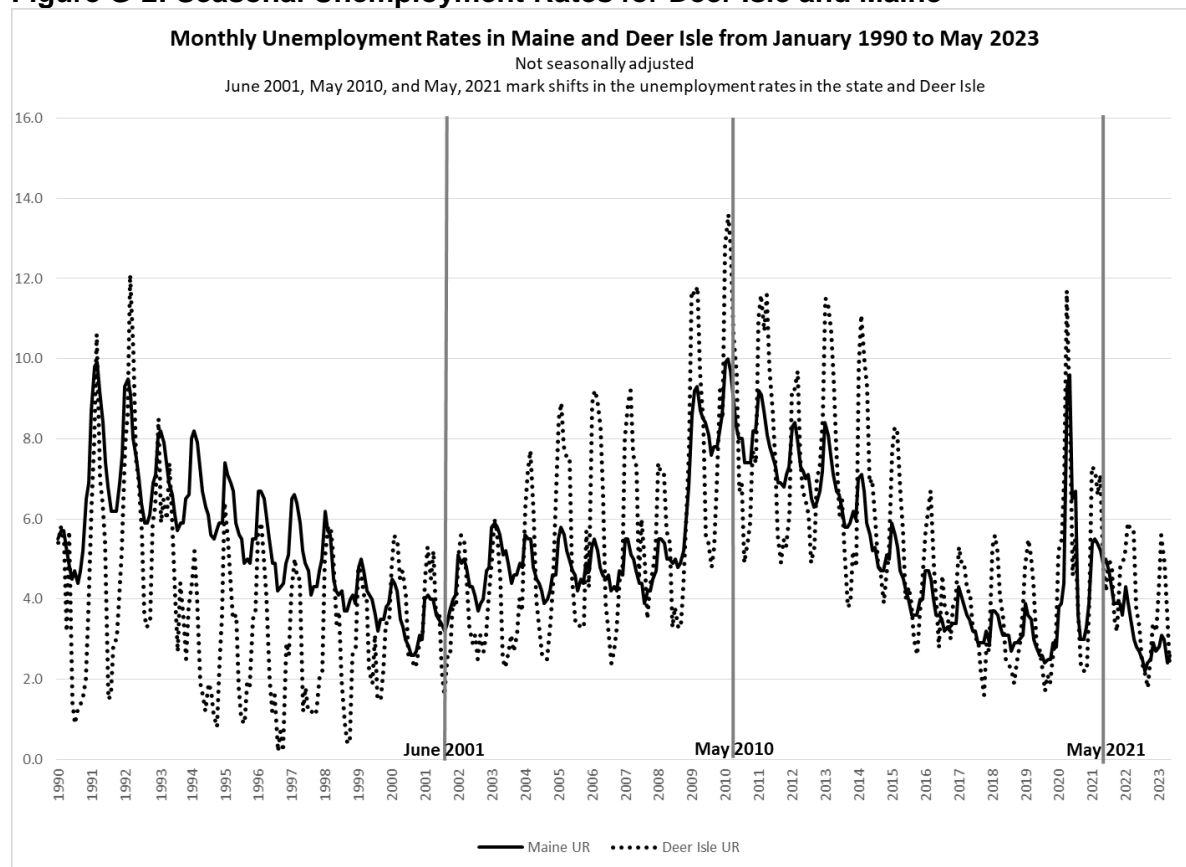


Source: ACS 5-Year Estimates

### Unemployment Rates

Figure G-2 below shows the seasonal fluctuation in unemployment rates for Deer Isle and for Maine. Deer Isle experiences a lower unemployment rate in the summer months, and the amount of seasonal fluctuation is greater than that for the State as a whole. The graph also depicts the peaks in unemployment corresponding to the Great Recession and the COVID pandemic.

**Figure G-2: Seasonal Unemployment Rates for Deer Isle and Maine**



Source: Maine Department of Labor, Center for Workforce, Research, and Information

Unemployment rates in Deer Isle are much higher in the winter months, especially in February and March, than the summer, consistent with seasonal changes in the fishing and tourism and recreation industries. The State also experiences seasonal employment volatility, but within a much narrower range. From January 1990 to June 2001, Deer Isle's unemployment rates were generally lower than those of the State as a whole. In June 2001, the relationship began to change. From June 2001 to February 2023, Deer Isle's unemployment rate exceeded the State average in 137 months out of 252, or 54% of the time. Deer Isle's summer unemployment rate remains below that of the State, but the difference is narrower. May 2021 began a period of relative worker scarcity in Deer Isle and the State, even in the winter months.

### Commuting Patterns

Where people work, how long it takes to get there, and by what means are important aspects of daily life. Table G-4 below compares a number of these commuting characteristics for 2010 and 2020. According to the data, the percentage of people driving to work (car, truck, or van) increased over the decade and almost no one walked, rode a bus, or rode a bike. This has somewhat negative implications for the climate change mitigation objective of reducing vehicle miles traveled (VMT) by driving and for the smart growth objective of compact village patterns where people can go to work, shop, and do other activities within walking distance. On the other hand, there was an increase in people working from home, due no doubt to the pandemic.

**Table G-4: Deer Isle Commuting Patterns, 2010 and 2020**

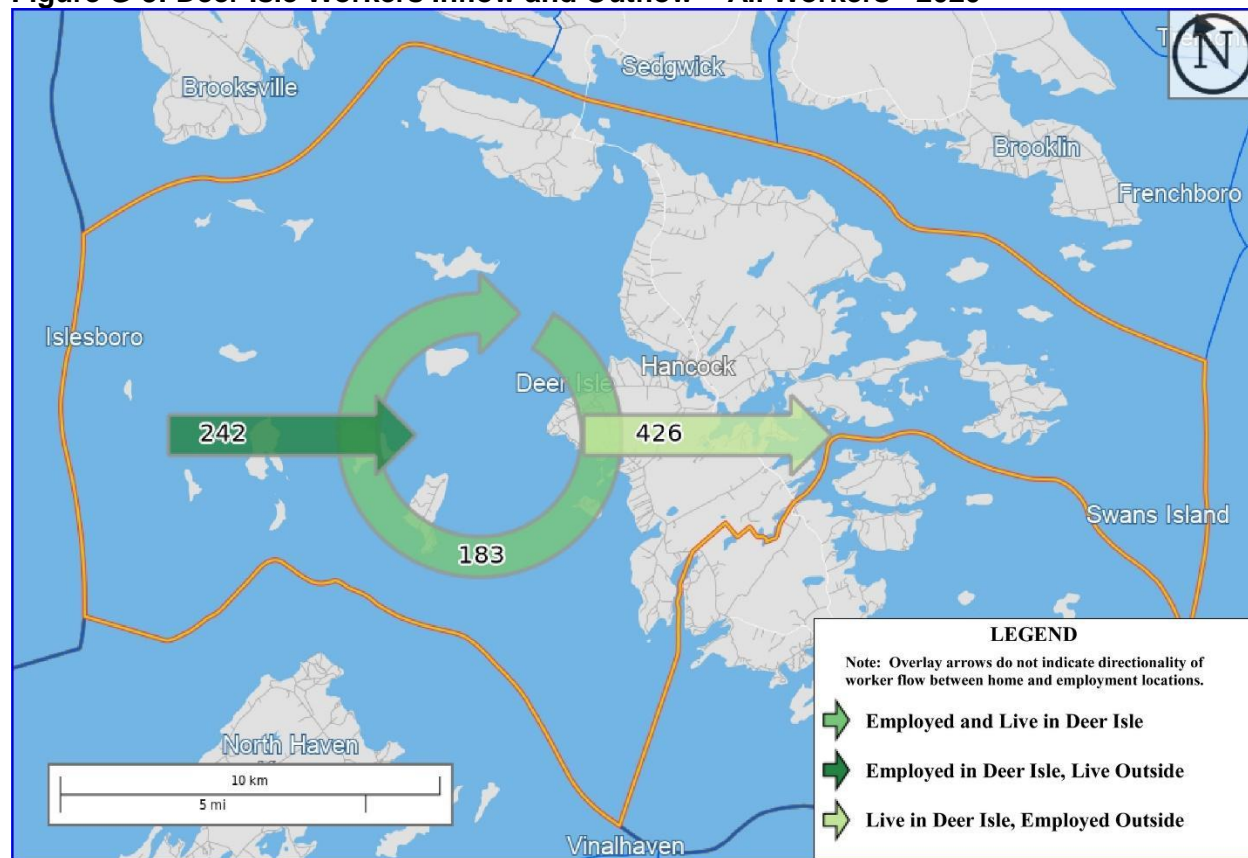
	2010	2020
Workers 16 years and over	963	871
<b>MEANS OF TRANSPORTATION TO WORK</b>		
Car, truck, or van	79.0%	85.2%
Drove alone	60.4%	76.5%
Carpooled	18.6%	8.7%
Workers per car, truck, or van	1.14	1.06
Public transportation (excluding taxicab)	0.0%	0.0%
Walked	7.3%	0.8%
Bicycle	0.7%	0.0%
Taxicab, motorcycle, or other means	3.7%	0.0%
Worked from home	9.2%	14.0%
<b>PLACE OF WORK</b>		
Worked in state of residence	99.4%	99.3%
Worked in county of residence	99.4%	96.7%
Worked outside county of residence	0.0%	2.6%
Worked outside state of residence	0.6%	0.7%
Worked in town of residence	58.9%	52.1%
Worked outside town of residence	41.1%	47.9%
Workers 16 years and over who did not work from home	874	749
<b>TRAVEL TIME TO WORK</b>		
Less than 10 minutes	33.8%	23.5%
10 to 14 minutes	30.0%	28.3%
15 to 19 minutes	10.3%	13.6%
20 to 24 minutes	11.0%	18.4%
25 or more minutes	14.9%	16.2%
Mean travel time to work (minutes)	15.1	17.7
<b>VEHICLES AVAILABLE</b>		
Workers 16 years and over in households	963	871
No vehicle available	3.2%	4.0%
1 vehicle available	16.2%	20.2%
2 vehicles available	44.8%	33.9%
3 or more vehicles available	35.8%	41.9%

Source: US Census American Community Survey, 2010 and 2020

The map and table below show more specifically where people who work in Deer Isle live, on the one hand, and where Deer Isle residents go to work, on the other. The data demonstrate that Deer Isle is not a bedroom community; a majority of the people living in Deer Isle go to other places to work, but there also are a substantial number of people who come into Deer Isle from the surrounding area for their jobs. Deer Isle experiences an unusual traffic pattern with heavy commuting from off Island to Stonington very early in the morning as fishermen head to work.



**Figure G-3: Deer Isle Workers Inflow and Outflow – All Workers - 2020**



Source: US Census OnTheMap

Table G-5 shows that a large majority of the people who leave Deer Isle to go to their place of employment are going to neighboring Stonington, but quite a few go to other, mostly nearby communities. Table G-6 similarly demonstrates that most of the people coming into Deer Isle to work come from Stonington. The commuting data have large margins of error and may overstate commuting to distant locations.

**Table G-5: Where Do People Who Live in Deer Isle Work?**

	2019		2020	
	Number	Percent	Number	Percent
Total	634	100%	609	100%
Deer Isle Town (Hancock, ME)	195	31%	183	30%
Stonington Town (Hancock, ME)	165	26%	170	28%
Off island in Hancock County	129	20%	96	16%
Other Maine	114	18%	137	22%
Out of state	16	3%	15	2%

Source: Longitudinal Employer-Household Dynamics (LEHD) Origin-Destination Employment Statistics (LODES) US Census, OnTheMap.

The data in Table G-6 demonstrate that Town residents fill 40 to 45% of Deer Isle’s jobs, about 20% of the Town’s jobholders are from Stonington, another 20% live off-island in Hancock County, and 15% are Maine residents who live outside Hancock County.

**Table G-6: Where Do People Who Work in Deer Isle Live?**

	2019		2020	
	Number	Percent	Number	Percent
Total	444	100%	425	100%
Deer Isle Town (Hancock, ME)	195	44%	183	43%
Stonington Town (Hancock, ME)	86	19%	89	21%
Off island in Hancock County	85	19%	80	19%
Other Maine	72	16%	65	15%
Out of state	6	1%	8	2%

Source: Longitudinal Employer-Household Dynamics (LEHD) Origin-Destination Employment Statistics (LODES) US Census, OnTheMap

The data in the two tables and the accompanying figures are for 2019 and 2020. The COVID-19 pandemic and accompanying economic shock likely influenced the 2020 data, and neither year reflects the decline of the Island Nursing Home, which closed in October 2021.

#### Employers

For a relatively small community, Deer Isle has quite a few employers. Data on business establishments, employment and payroll in Deer Isle for 2019 and 2021 are available from County Business Patterns, released in April 2023 by the Census Bureau. If a person is self-employed and incorporated, they are recorded in these data. Sole proprietorships and other unincorporated businesses are not included. This may substantially undercount individuals engaged in the fishing industry, for example. Although nonprofit corporations are included, public employment is omitted. The data are collected in the mid-March payroll period, so the 2021 numbers should include the Island Nursing Home.

**Table G-7: Private establishments, payroll and employment in Deer Isle in 2019 and 2021**

2019			2021		
Establishments	Annual Payroll	Employment	Establishments	Annual Payroll	Employment
75	\$11,308,000	282	69	\$12,136,000	273

Source: County Business Patterns, 2019 and 2021, Bureau of the Census, U.S. Department of Commerce. Released April 2023 and Retrieved July 1, 2023, from <https://www2.census.gov/programs-surveys/cbp/data/2021>.

Some of the larger employers based in Deer Isle are set forth in Table G-8 below. Of these, the largest is Community School District 13. Employment levels fluctuate seasonally and with market conditions.

**Table G-8: Major Deer Isle Employers, 2023**

Employer Name	Employer Name
Aragosta Restaurant and Inn	44 North Coffee
Community School District 13	Bar Harbor Bank & Trust
Deer Isle Town Government	Eaton Oil Co
Haystack Mountain School of Crafts	Heanssler Oil Co
Pilgrim's Inn & Whale's Rib	Island Country Club
B K Burgess Construction	Island Sea Products LLC
Eaton Paving & Excavation LLC	Nervous Nellie's Jams and Jellies
Stewart Construction Inc	There's a Treat Restaurant
Percy L Brown & Son Inc [Plumbing and Heating]	MD Joyce / Barter Lumber Hardware and Building Supplies

Source: Maine Department of Labor, Center for Workforce, Research, and Information

Another facet of employment and work in Deer Isle is the important role of self-employment. Deer Isle is an entrepreneurial island, and many in the Town of Deer Isle are entrepreneurs. The OnTheMap data show that between 609 and 634 Deer Isle residents work and the 2020 Census recorded more than 840 employed.

## 6. Analyses

### Change in the Economy

The employment base of Deer Isle has changed dramatically over the past twenty years. Self-employment has doubled, commercial fishing has become largely dependent on lobster, the supply of year-round rental housing has diminished, and the Town of Deer Isle's workforce has decreased by 123 people (13%) from 2000 to 2020. Yet, the Town has become a place where remote work is taking root thanks to a reliable high-speed fiber optic network, experimentation with small-scale aquaculture has begun, construction is robust, and creative workers and retirees have chosen to live on the island year-round.

### Community Priorities for Economic Development

#### a. Housing

Housing is a priority area for Deer Isle. According to a 2019 report on Housing Needs Analysis and Assessment: Deer Isle-Stonington, ME, only 15% of all housing units in Deer Isle-Stonington are year-round rentals, and seasonal vacation rentals have been sharply increasing. Apart from the difficulties this creates for residents, the housing availability challenge makes it difficult for employers to attract and retain workers.

#### b. Broadband

The ability of Deer Isle residents and businesses to connect to our increasingly technology-reliant society depends on ubiquitous and high quality broadband services. A considerable amount of work by the Town's Broadband Committee and others was rewarded with a grant that allowed Consolidated Communications (Fidium) to provide fiber internet service to the Island. Broadband efforts going forward will focus on inclusion or equity and building new vocations that use high speed access, such as small scale manufacturing and business services.

#### c. Climate Change

A significant economic priority for Deer Isle is adapting to climate change. Rising sea levels in particular are a threat to the bridges, causeways and other transportation infrastructure that enable people to travel to and around the Island. Sea level rise also threatens piers, wharves, and other coastal infrastructure that are necessary for the Island's important fishing industry. Deer Isle officials and residents are working closely with State transportation and environmental agencies to plan for and implement vital climate change related improvements.

#### Village Center

Deer Isle has a small village center along Rt. 15 and Main Street in the vicinity of the Mill Pond. A number of the businesses are seasonal. Adopting a plan for improvement and expansion of the Village Center could revitalize local businesses. One of the challenges of this location is inadequate parking. Additionally, there are small commercial centers in Sunset, North Deer Isle and Little Deer Isle.

#### Tourism

Tourism is an important part of Deer Isle's economy. Deer Isle supports the Deer Isle-Stonington Chamber of Commerce. The Chamber helps to promote local businesses by publishing an Island Map & Guide, managing a Chamber website, greeting visitors at a Welcome Center, coordinating special island events, and providing networking forums for Chamber members.

#### Locations for Industrial or Commercial Development

Some communities seek to have a diversified local economy by providing areas within town for commercial and industrial development. Other than Shoreland Zoning, Deer Isle does not yet have zoning; it has a Subdivision Ordinance but does not have town-wide site plan review standards for commercial, industrial, and/or multi-family residential development. Moreover, Shoreland Zoning covers only areas within 250 feet of the high water line or stream or pond boundaries. In general, Deer Isle does accommodate commercial and industrial development, but there may be a need for a commercial site plan review ordinance to reduce potential negative impacts from commercial or industrial development that occurs outside of the Shoreland zones.

#### Home-based Businesses

Home-based businesses are a fundamental part of Deer Isle's economy. In the Deer Isle Shoreland Zoning Ordinance, a home occupation is defined as, "An occupation or profession which is customarily conducted on or in a residential structure or property and which is 1) clearly incidental to and compatible with the residential use of the property and surrounding residential uses; and 2) which employs no more than two (2) persons other than family members residing

in the home.” Examples include business services, cottage industries, studios and studio sales, and remote working. These businesses are likely to increase in Deer Isle as improved broadband services make it more feasible to create small businesses outside of city centers. Given their low impacts, these types of businesses generally are positive contributors to the community.

#### Public Facilities Necessary to Support Projected Economic Activity

There are several key infrastructure areas that Deer Isle has identified that are important for maintaining and advancing the local economy. These include land and waterside improvements to support the commercial and recreational fishing and marine industries, electrical and broadband improvements, and climate change adaptations to a number of roads, bridges, causeways, and coastal facilities. Sound infrastructure is essential to the success of businesses on the Island.

#### Use of Unique Assets for Economic Growth

In many cases a winning economic development strategy for a community is to focus on its unique assets, such as recreational amenities, historic architecture, civic events, etc. Deer Isle is successfully using this type of strategy. It is a coastal community that supports a commercial fishing fleet and a recreational boating industry through its public and private waterfront assets, and it attracts many tourists by maintaining the charm and history of a 19<sup>th</sup> century coastal Maine village. Due in large part to the efforts of the Island Heritage Trust and other area conservation-oriented organizations and individuals, there are opportunities for people to come to Deer Isle to enjoy its trails and scenic vistas. The Deer Isle-Stonington Historical Society is very active and has historic buildings and archives that are of interest to visitors. Deer Isle has built on its positive reputation in Maine as a beautiful town that has preserved many aspects of its rural Maine heritage while at the same time modernizing its technology and adapting to changing climate conditions.

#### Economic Development Incentives

Some communities seek to enhance their economic activity through the use of economic development incentive districts, such as tax increment financing districts. Tax increment financing districts, or TIFs, are a tool granted by the Maine Legislature to Maine municipalities that enables a community to shelter the increased tax revenue from new development, such that State funds to the municipality from revenue sharing and General Purpose Aid for Education are not reduced and the county tax is not increased. Some or all of the incremental tax revenues from the new development are diverted from the municipality’s general fund and are put into a segregated account that can be used for activities that are eligible under the stated purpose of the TIF, such as economic development, affordable housing, environmental remediation, public transportation, etc. Deer Isle currently does not have any TIF districts but may want to consider the use of this economic development tool in the future.

## 7. Goals & Objectives

GOAL: Grow the economy of Deer Isle by promoting marine trades, the creative economy, small businesses and other diversified enterprises consistent with the rural character of the Town			
Objective	Strategy	Responsible Party(ies)	Timeframe
Organize an Economic Development Committee	Seek volunteers from among the Town's business and community leadership	Select Board	2024
	Organize subcommittees around priority sectors such as marine trades, housing, arts, and business.	Economic Development Committee	2025
Enact Commercial Site Plan Review Ordinance and review other Town ordinances for consistency with economic development plans	Organize public outreach to seek support for ordinance adoption and revision	Select Board Economic Development Committee	2024-2025
Protect working waterfront and commercial water access from redevelopment	Inventory existing resources and seek public funding for protection measures [See Marine Resources Chapter]	Marine Resources Committee, Shellfish Committee	2024
Attract more owner operated, small-scale aquaculture businesses to the Town	Restrict large-scale leases; promote Deer Isle aquaculture brand [See Marine Resources Chapter]	Select Board, Economic Development Committee, Shellfish Committee	2024
Strengthen home-based and small businesses	Collaborate with Downeast Community Partners, Maine Manufacturing Partnership, SCORE, Coastal Enterprises Institute and other organizations to increase small business opportunities	Economic Development Committee	2026
Increase housing options for the workforce	[See Housing Chapter]		
Attract and retain more year-round families	[See Housing Chapter, Population Chapter and support for education in Public Facilities Chapter]		

Improve work readiness of students and retraining opportunities for older workers	Provide funding for offering shop classes and other training locally	Select Board, Town Meeting	2024
	Collaborate with Downeast Community Partners, Maine Manufacturing Partnership, SCORE, Coastal Enterprises Institute and other organizations to increase work experience opportunities	Economic Development Committee	2024
	Increase funding for Eastern Maine Skippers Program	Select Board, Town Meeting	2024
	Seek increased funding for Project Launch	Select Board	2024

GOAL: Revitalize Deer Isle Village and other community and commercial centers			
Objective	Strategy	Responsible Party(ies)	Timeframe
Organize Village Improvement Subcommittees of Economic Development Committee	Recruit representatives of Village businesses and residents to serve on subcommittees.	Select Board Economic Development Committee	2024
Develop a plan for Village improvements	Organize public forums to gather input on revitalization scope and strategies. Seek assistance from Hancock County Planning Commission on feasibility and financing.	Village Improvement Committees	2024 - 2025



# Chapter H: Housing

## 1. Purpose

A comprehensive plan needs to address several key housing issues. These include changes in conditions and needs as well as projecting future demand for housing. This section:

- a. Describes recent trends in Deer Isle’s housing stock in terms of types and number of units created.
- b. Discusses housing affordability (cost to rent or own).
- c. Projects future housing needs.
- d. Recommends ways to increase the supply of housing that is safe, energy-efficient and affordable for a multi-occupational and multi-generational community.

## 2. Key Findings and Issues

As is true across the country, Deer Isle has an affordable housing problem. Of the homes sold in Deer Isle in 2022, 78% were unobtainable to households at or below the Deer Isle median household income. Similarly, 54% of Deer Isle households in 2022 would have been unable to afford units offered at the 2-bedroom median rent. A local nonprofit organization is undertaking projects to increase workforce housing for Deer Isle and Stonington.

It is also significant that 50% of the dwellings in Deer Isle are seasonal, including short-term rentals. This is almost three times larger than the average in Maine, and has increased from 45% in 2000.

## 3. Key Findings & Issues from the Draft 2006 Comprehensive Plan

The number of housing units increased at a faster rate than the population between 1990 and 2000 (nearly 7 percent compared to about 2 percent). As of 2000, about 45 percent of the homes in Town were seasonal or vacation dwellings. Home purchase opportunities for first-time home buyers are limited. About 91 percent of the year-round households do not earn sufficient income to purchase the median priced home in Deer Isle. The limited supply of first-time home purchase opportunities for year-round residents is one of the major issues facing the Town. Rental opportunities are also very limited.

## 4. Public Opinion Survey Results

Housing is a top-level concern. Under “strengths” housing appears in three comments, whereas under “concerns” housing occurs 129 times. In particular availability, affordability, loss to seasonal and short-term rental conversions, and workforce shortages are noted. In a wide-ranging list of aspects of community life, the issue of housing affordability was the top vote getter with 54% stating it needs improvement right away and an additional 24% saying it needs improvement. Only 6% felt that housing affordability was not an issue.

Respondents are particularly willing to support workforce housing initiatives with tax increases (50%) and grant writing (38%). Support for senior housing and affordable housing are similarly high.

Attitudes about housing solutions are more complex. When asked about suitable locations for housing, 85% of respondents would permit single family dwelling anywhere in Deer Isle. That percentage declines with more complex housing developments. Respondents were most supportive of restricting locations for Mobile Home Parks and Campgrounds.

**Table H-1: Survey Responses on Location of Residential Land Uses**

Appropriate locations for:	Anywhere	Designated Areas	Nowhere	Undecided
Mobile Home Parks	13%	60%	24%	3%
Campgrounds	14%	72%	9%	5%
Multiunit Housing	28%	61%	7%	5%
Inns and Hotels	33%	61%	3%	2%
Short-term Rental Properties	37%	39%	14%	10%
Seasonal Rental Properties	48%	39%	6%	7%
Bed and Breakfast	52%	43%	2%	3%
Workforce Housing	58%	36%	4%	2%
Affordable Housing	60%	34%	4%	2%
Senior Housing	64%	34%	1%	2%
Single Family Residential	85%	13%	1%	1%

## 5. Condition and Trends

### Change in Dwelling Units

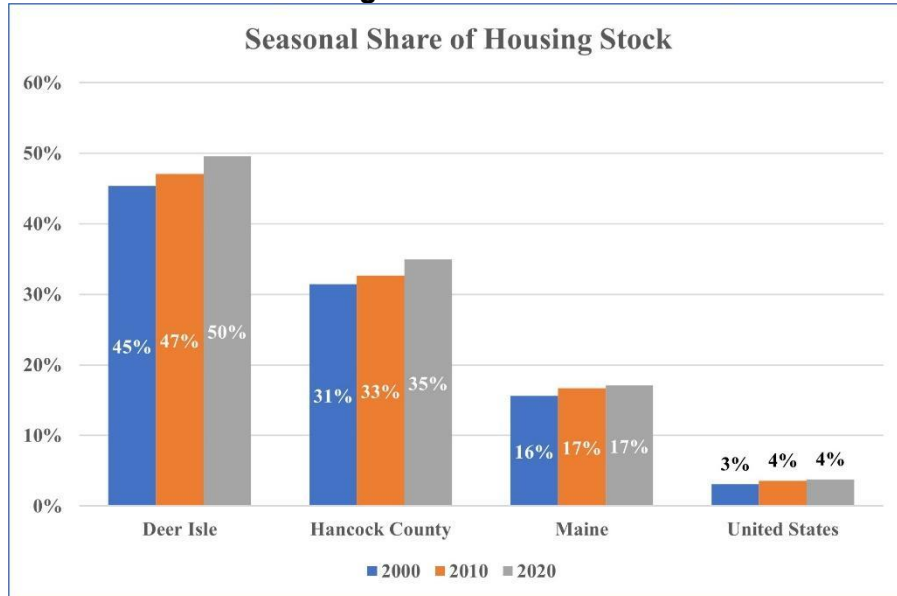
The total number of dwelling units in Deer Isle increased from 1,575 units in 2000 to 1,936 units in 2010. According to the Census American Community Survey (ACS) 5-Year Estimates, there was no change in total dwelling units from 2010 to 2020. However, the ACS estimated that seasonal residences in Deer Isle increased from 715 in 2000 to 950 in 2020. Note the small difference in the total number of housing units in 2020 contained in the Decennial Census Redistricting Data as compared with the figure from the ACS 5-Year Estimates. The Decennial Census is the more reliable source for basic counts and is used in this analysis of current conditions and future housing needs.

**Table H-2: Changes in Deer Isle Dwelling Units (Occupied and Vacant), 2000 - 2020**

	2000	2010	2020	% Change 2000- 10	% Change 2010- 20	% Change 2000- 20
Occupied	781	929	970	19%	4%	24%
Vacant	794	1,007	966	27%	-4%	22%
Total	1,575	1,936	1,936	23%	0%	23%
Source	2000 Census	2010 Census	2020 Census			
Vacant- seasonal	715	911	950	27%	4%	33%
% of Total	45.4%	47.1%	49.6%			
Vacant- non- seasonal	79	96	52	22%	-46%	-34%
% of Total	5.0%	5.0%	2.7%			
Total Housing Units	1,575	1,936	1,916			
Source	2000 Census	2010 Census	ACS 5- Year			

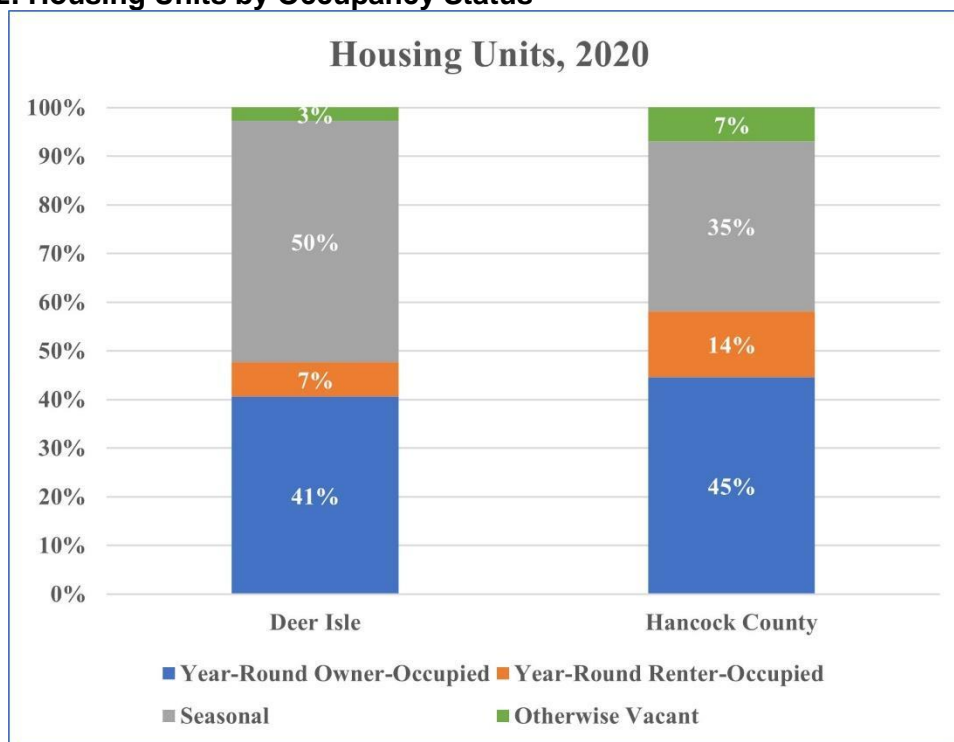
While the increase in total housing units between 2000 and 2020 was 5% greater in Deer Isle than in Hancock County, the increase in seasonal units was greater in the county (36%) than in Deer Isle (33%). Overall, half of the dwelling units in Deer Isle are seasonal—which is almost three times larger than the average in Maine and more than 12 times the national average.

**Figure H-1: Seasonal Share of Housing Stock**



Source: US Decennial Census, ACS 5-Year Estimates.

**Figure H-2: Housing Units by Occupancy Status**



Source: ACS 5-Year Estimates.

### Housing Unit Type

Over 90% of the dwelling units in Deer Isle are single-family homes. According to the ACS 5-Year Estimates, there were more mobile homes in Deer Isle in 2020 (97) than duplex or multi-family units (80). In Deer Isle, the percentage of duplex/multi-family units was 4.2% as compared with 10.3% for Hancock County. ACS data averages information collected over five years and includes significant margins of error.

**Table H-3: Changes in Dwelling Unit Type in Deer Isle, 2000-2020**

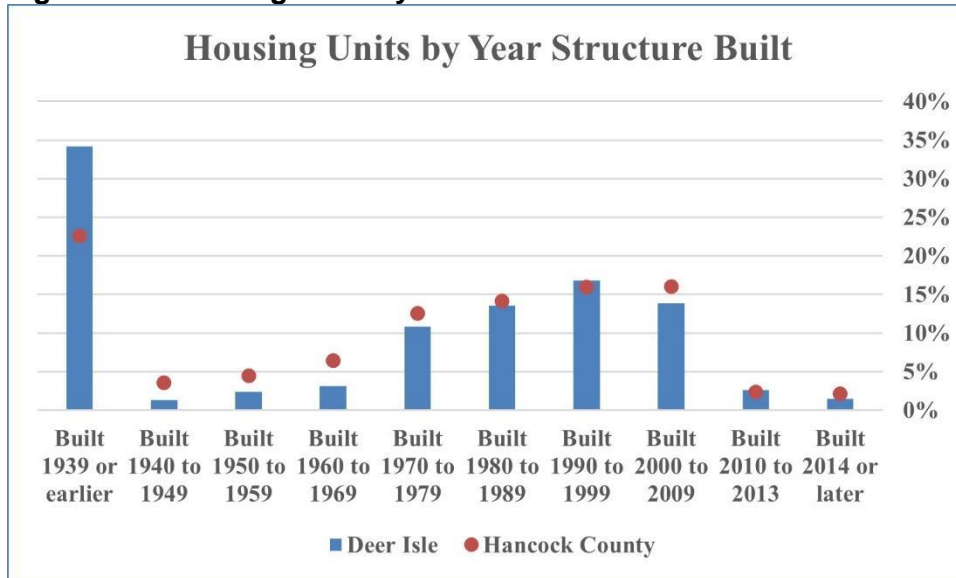
	2000		2010		2020		2000 - 2010	2010 - 2020	2000 - 2020
	Number	% of Total	Number	% of Total	Number	% of Total	% Change	% Change	% Change
Single-Family	1,360	87%	1,679	90%	1,739	91%	24%	3.6%	28%
Duplex/Multi-Family	56	4%	60	3%	80	4%	7%	33.3%	43%
Mobile Home	149	10%	134	7%	97	5%	-10%	-27.6%	-35%
Boat, RV, Van, etc.	8	1%	0	0%	0	0%	-100%	0.0%	-100%
Total Units	1,573	100%	1,873	100%	1,916	100%			

Source: US Decennial Census, ACS 5-Year Estimates

## Housing Stock Age

Almost 35% of Deer Isle housing was built in 1939 or earlier with another substantial number of units built between 1970 and 2009 (see Figure H-3 below).

**Figure H-3: Housing Units by Year Structure Built**



Source: ACS 5-year Estimates

Deer Isle has been averaging five building permit applications per year over the last 10 years for new residential buildings. Some permits did not result in constructed residences.

**Table H-4: Deer Isle Building Permits – New Residences**

	Building Permits - New Residences
2022	8
2021	6
2020	5
2019	2
2018	8
2017	5
2016	NA*
2015	2
2014	3
2013	6
* Permit summary not available for 2016.	

Source: Town of Deer Isle Annual Town Reports

## Tenure

Tenure refers to the financial arrangement and ownership structure under which someone has a right to live in a house, apartment, or other dwelling unit. In Deer Isle in 2020, 85% of the occupied year-round units (i.e., not seasonal or otherwise vacant) were owner-occupied and

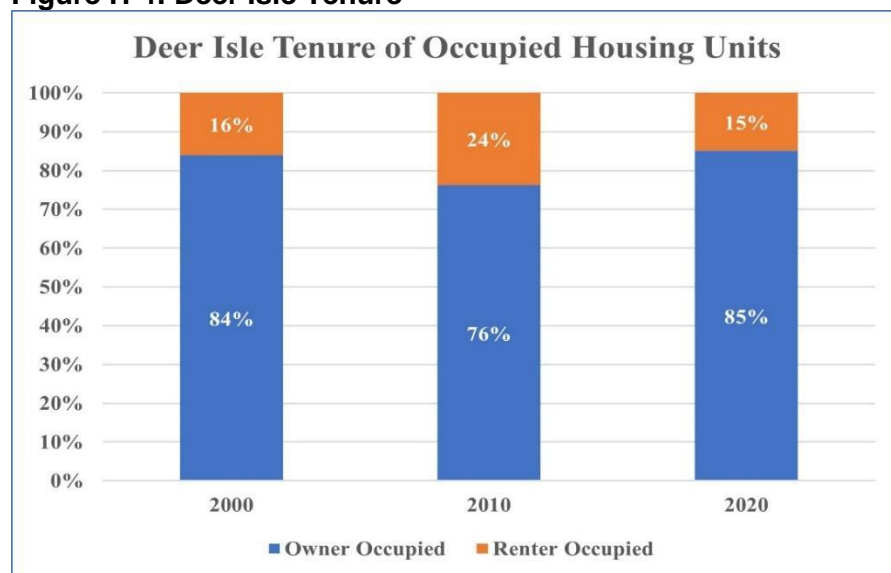
15% were renter-occupied. For the county as a whole, the percentage of renter-occupied units is substantially higher—23%.

**Table H-5: Tenure of Occupied Year-Round Housing**

Deer Isle	2000	2010	2020	Hancock County	2000	2010	2020
Owner-Occupied	654	750	778	Owner-Occupied	16,532	17,704	18,505
% of Total	84%	76%	85%	% of Total	76%	76%	77%
Renter-Occupied	125	233	136	Renter-Occupied	5,332	5,596	5,611
% of Total	16%	24%	15%	% of Total	24%	24%	23%
Total	779	983	914	Total	21,864	23,300	24,116

Source: US Decennial Census, ACS 5-Year Estimates

**Figure H-4: Deer Isle Tenure**

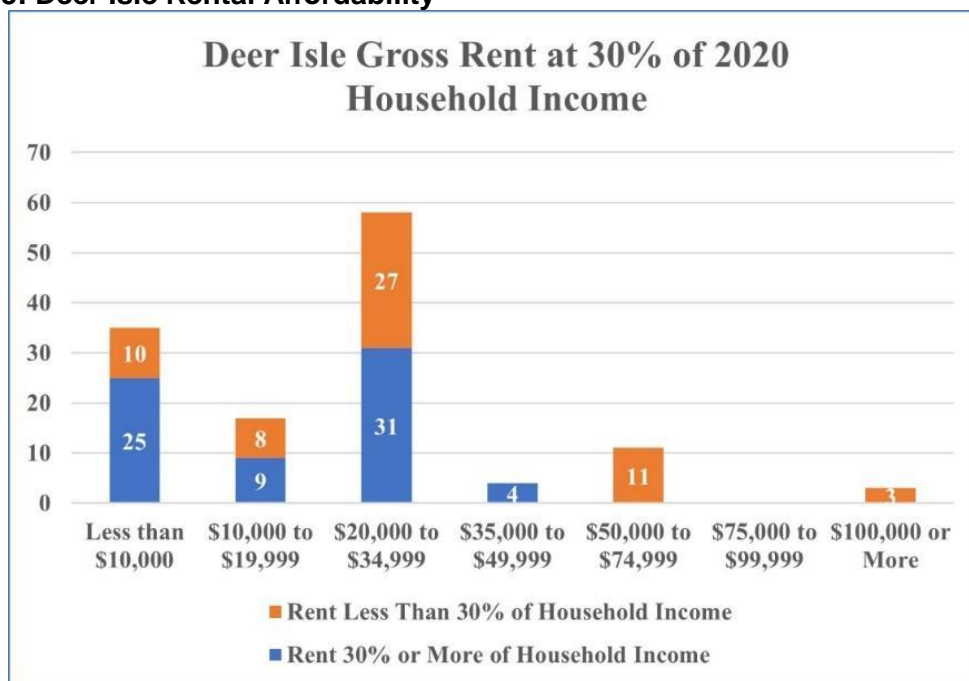


Source: US Decennial Census and ACS 5-Year Estimates

### Affordability--Rents

One measure of affordability is the index that MaineHousing calculates (see Table H-6 below). The Rental Affordability Index is the ratio of 2-Bedroom Rent Affordable at Median Renter Income to Median 2-Bedroom Rent. An index of less than 1 means the area is generally unaffordable - i.e., a renter household earning area median renter income could not cover the cost of an average 2-bedroom apartment (including utilities) using no more than 30% of gross income. According to MaineHousing, Deer Isle/Stonington is generally unaffordable for median income renters.

**Figure H-5: Deer Isle Rental Affordability**



Source: ACS 5-Year Estimates

**Table H-6: Rent Affordability, 2020**

	Renter Household Median Income	Income Needed to Afford Median 2 BR Rent	Index*	Median 2 BR Rent (with utilities)
Deer Isle - Stonington**	\$ 28,666	\$ 36,579	0.78	\$ 914
Hancock County	\$ 36,055	\$ 55,517	0.65	\$ 1,388

\* The Rental Affordability Index is the ratio of 2-Bedroom Rent Affordable at Median Renter Income to Median 2-Bedroom Rent. An index of less than 1 means the area is generally unaffordable - i.e., a renter household earning area median renter income could not cover the cost of an average 2-bedroom apartment (including utilities) using no more than 30% of gross income.

\*\*The MaineHousing Affordability Index does not list Deer Isle separate from Stonington.

Source: MaineHousing – 2020 Rental Housing Facts and Affordability Indexes for Maine

According to the 2021 ACS 5-year estimates, the median rent amount in Deer Isle was \$746 per month compared with \$818 for Hancock County. The table below compares rental amounts. Deer Isle is similar to Hancock County, with approximately ¼ of rents below \$500, ½ of rents between \$500 and \$1,000 and ¼ of rents greater than \$1,000. The federal Department of Housing and Urban Development’s (HUD) definition for affordable housing is a dwelling that a family or household can obtain—whether through rent or purchase—that costs 30 percent or less of the household’s income. The Deer Isle median household income in 2021 was \$58,250, which translates to affordable rent of \$1,456. Affordable rent for the median family in Deer Isle rises to \$2,011 and for non-family households falls to \$818. Based on income estimates,



approximately ¼ of all households cannot afford rent greater than \$500. 40% of households cannot afford a rent greater than \$750. A quick review of advertised rents in Deer Isle suggests that these open market units are generally greater than \$1,000/month. The challenge in Deer Isle may be as much a matter of availability as affordability.

**Table H-7: Contract Rents in Deer Isle & Hancock County**

Deer Isle			Hancock County		
Monthly Rent	Number	%	Monthly Rent	Number	%
< \$500	26	27%	< \$500	1,094	22%
\$500 - \$999	43	45%	\$500 - \$999	2,588	51%
\$1,000-\$1,499	20	21%	\$1,000-\$1,499	1089	22%
\$1,500 +	7	7%	\$1,500 +	260	5%
Total	96	100%	Total	5,058	100%
Median Rent	\$746		Median Rent	\$838	
No Cash Rent	22		No Cash Rent	547	

Source: 2021 ACS 5-Year Estimates

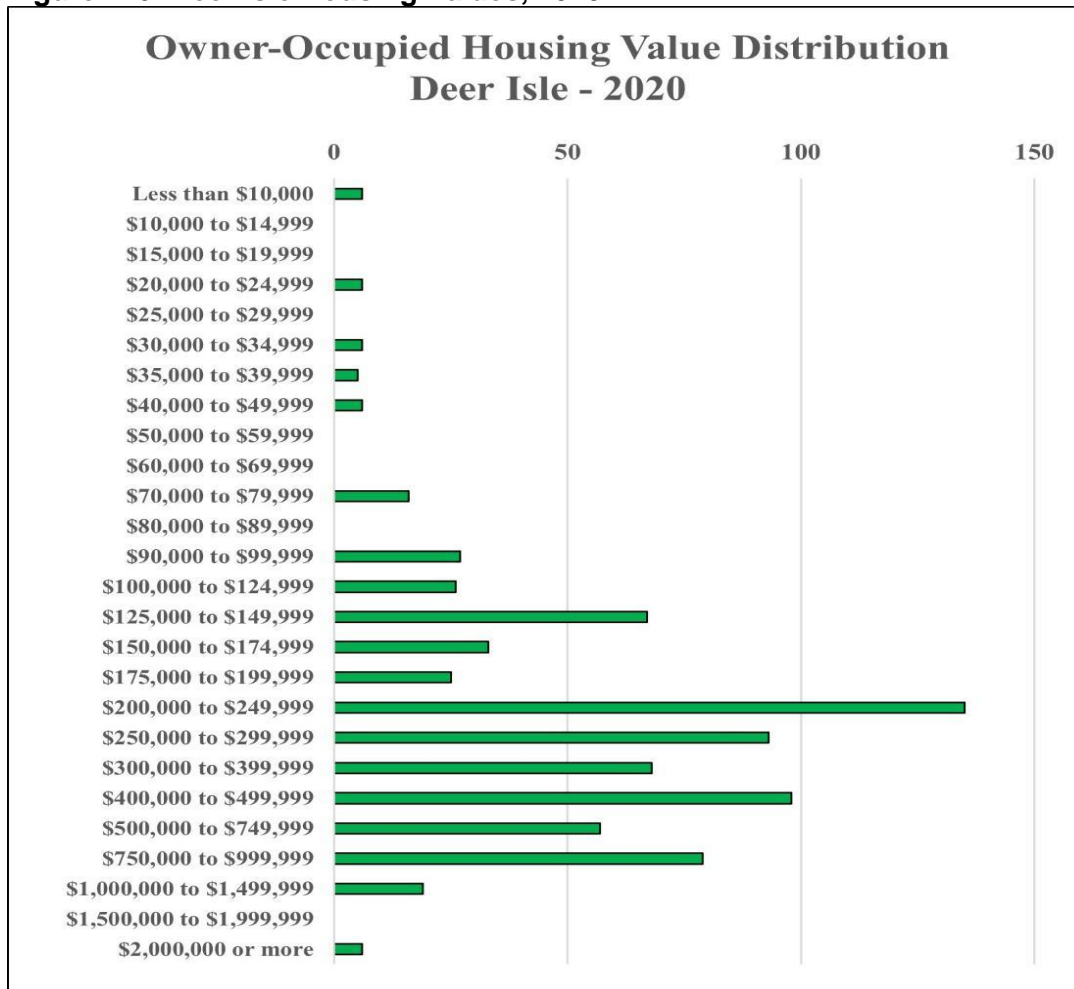
**Affordability—Home Ownership**

Figure H-6 below depicts 2020 owner-occupied housing values in Deer Isle. The two highest categories in which the housing values fell are, first, \$200,000 to \$249,999 and, second, \$400,000 to \$499,999. The median value of owner-occupied housing units in Deer Isle in 2020 was \$266,700. This is higher than the Hancock County 2020 median value of \$218,000. In addition, Table H-8 and Figure H-6 show that home prices in Deer Isle have risen at a rate greater than the rate of inflation.

**Table H-8: Median Housing Values in Deer Isle & Hancock County, 2020**

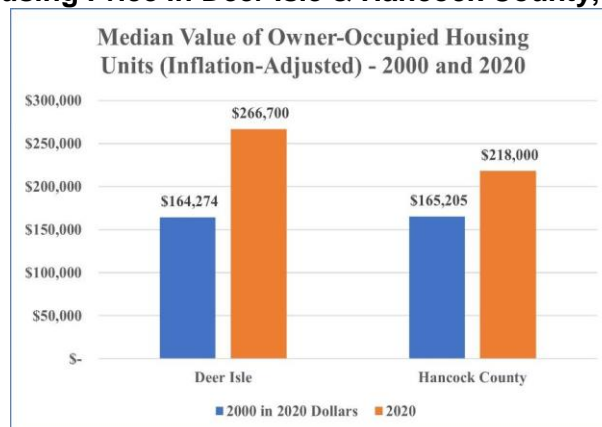
	2000	2000 in 2020 Dollars	2020	% Change 2000 - 2020 (Inflation Adjusted)
Deer Isle	\$ 109,300	\$ 164,274	\$ 266,700	50%
Hancock County	\$ 108,600	\$ 165,205	\$ 218,000	52%

**Figure H-6: Deer Isle Housing Values, 2020**



Source: ACS 5-Year Estimates

**Figure H-7: Median Housing Price in Deer Isle & Hancock County, 2000 & 2020**

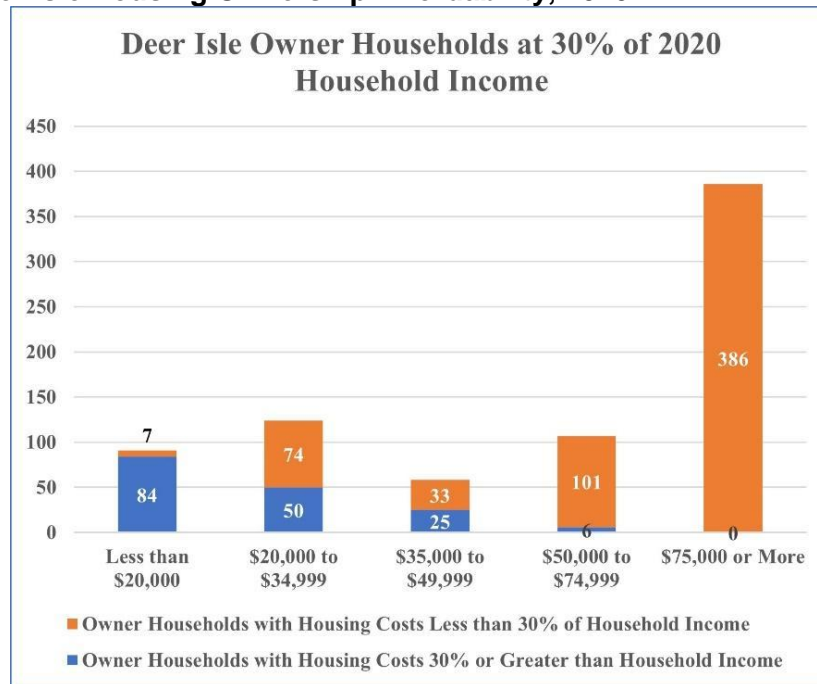


Source: ACS 5-Year Estimates

The Census defines housing costs for owner-occupied units as including mortgage payments, real estate taxes, property insurance, homeowner association fees, utility costs, routine

maintenance, etc. Based on HUD’s definition of housing affordability, housing for families or households that own their units is considered affordable if the housing costs are 30% or less than their household income. As seen in Figure H-8, owner-occupied housing costs in Deer Isle in 2020 were unaffordable for 159 of the 273 households with incomes of less than \$50,000 (58%), but for households with incomes of \$50,000 or more, only 1% were in the unaffordable category.

**Figure H-8: Deer Isle Housing Ownership Affordability, 2020**



Source: ACS 5-Year Estimates

In the case of owning a home, the MaineHousing affordability index calculation is based on the ratio of area median home prices to area median household incomes. A ratio of 1 or above indicates affordability. As seen below, 93% of the homes sold in Deer Isle in 2022 were unobtainable to households at or below the Deer Isle median household income. Figure H-9 shows that the increases in home prices in Deer Isle have been higher than the increases in household income and that the disparity is getting worse.

**Table H-9: Deer Isle Homeownership Affordability Index, 2022**

	Median Income	Income Needed to Afford Median Home Price	Index*	Median Home Price
Deer Isle	\$65,968	\$92,373	0.71	\$364,000
Hancock County	\$57,610	\$70,827	0.85	\$274,000

\* The Homeownership Affordability Index is the ratio of Home Price Affordable at Median Income to Median Home Price. An index of less than 1 means the area is generally unaffordable - i.e., a household earning area median income could not cover the payment on a median priced home (30 year mortgage, taxes, and insurance) using no more than 28% of gross income.

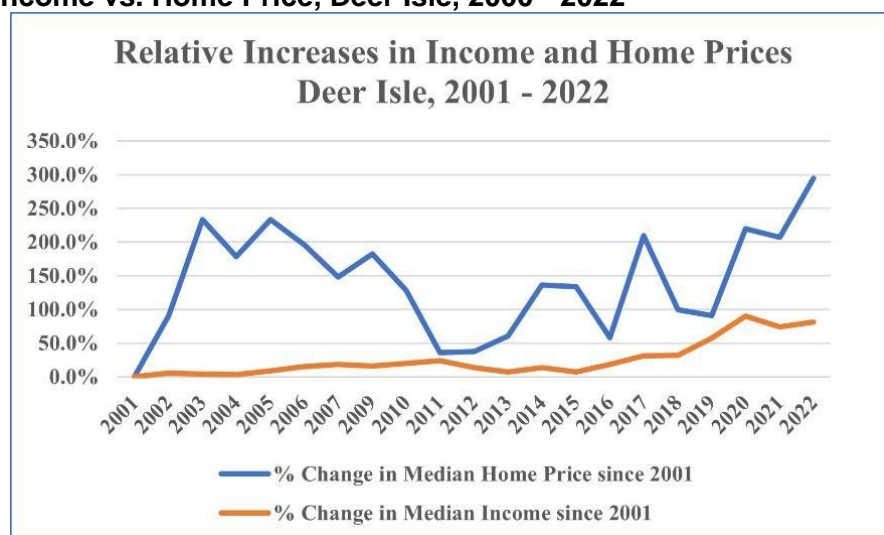
Source: MaineHousing – 2022 Homeownership Housing Facts and Affordability Index for Maine

**Table H-10: Deer Isle Homeownership Affordability Index, 2022 (cont.)**

	Households Unable to Afford Median Home	Unattainable Homes as a Percentage of Homes Sold
Deer Isle	78%	93%
Hancock County	74%	80%

Source: MaineHousing – 2022 Homeownership Housing Facts and Affordability Index for Maine

**Figure H-9: Income vs. Home Price, Deer Isle, 2000 - 2022**



Source: MaineHousing – 2022 Homeownership Housing Facts and Affordability Index for Maine

### Seasonal Units

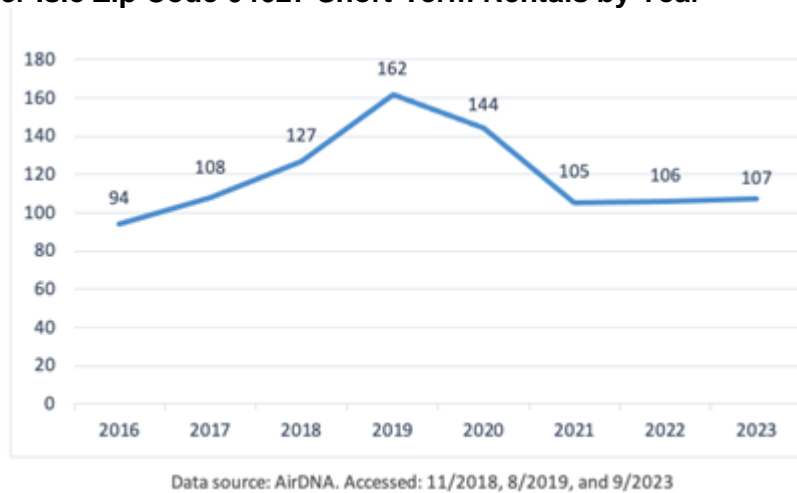
As discussed in the Change in Dwelling Units section above, the Census classifies housing for seasonal, recreational, or occasional use as being in the category of vacant housing units. According to the ACS 5-Year Estimates, seasonal residences in Deer Isle increased from 715 in 2000 to 950 in 2020.

### Short-Term Rentals

Short-term rental (STR) typically describes the rental of a residential home unit or accessory dwelling unit for stays of less than a month. Deer Isle has a robust short-term rental sector; there was a high of 162 active short-term rentals in 2019 (see figure below).<sup>16</sup>

<sup>16</sup> AirDNA, <https://www.airdna.co/vacation-rental-data/app/us/maine/deer-isle/overview>, accessed 3/14/2023.

**Figure H-10: Deer Isle Zip Code 04627 Short-Term Rentals by Year**



Source: AirDNA MarketMinder

#### Existing Local and Regional Affordable/Workforce Housing Coalitions (or similar efforts)

The Island Workforce Housing group (IWH) was formed in 2005 to research the demand for workforce housing on Deer Isle/Stonington and to develop possible solutions. This is housing for those who are employed on the island. The mission of Island Workforce Housing is “to create housing solutions in Deer Isle and Stonington that are permanently affordable to individuals and families working in these communities. Housing these valued community members is a critical first step in securing the longevity of the economic development and civic health and well-being of the island.”<sup>17</sup>

Neighboring Stonington’s 2017 Comprehensive Plan and 2023 Economic Resiliency Strategy, developed in 2022 by Camoin Associates, both identify a critical need to develop workforce housing as one of four key drivers to sustaining year-round community population and services. Recommendations and actions for Stonington include the creation of a Housing Reserve Fund; the creation of a Short-Term Rental Ordinance and/or Accessory Dwelling Unit Ordinance; and the identification of town-owned property and/or infrastructure to be made available for workforce housing development. Deer Isle may wish to explore housing policies aligned with Stonington in the future.

The IWH Oliver’s Ridge project has created five duplex buildings, each containing two 900-sq. ft., two-bedroom apartments. The rentals are income-based and are available to those making 60-120% of Hancock County’s Area Median Income (AMI). The property is tax exempt but receives Town services. The Town also provides modest funding as approved in the annual Town Meeting. Future initiatives are likely to need support from multiple parties, including non-profit organizations, municipalities and businesses.

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<sup>17</sup> Island Workforce Housing, Mission, <https://www.islandworkforcehousing.org/mission>, accessed 3/13/2023.

## 6. Analyses

### Housing Units Necessary to Accommodate Projected Population

The 2020 Census indicates that the Deer Isle population has grown by 11% since 2010, and the number of year round housing units has not increased. Growth is driven primarily by migration, which has increased since the 2020 census. State projections for population change have underestimated actual growth. Assuming that growth will continue to increase at a similar rate, land required to accommodate projected population growth (at one acre per additional household) will be as much as 100 acres of buildable land.

### Housing Affordability at the Median Income

As seen in the MaineHousing data below, 77.5% of the homes sold in Deer Isle in 2022 were unobtainable to households at or below the Deer Isle median household income. Similarly, 54% of Deer Isle renter households in 2022 were unable to afford units offered at the 2-bedroom median rent.

### Conversion of Year-Round Homes to Seasonal Use

According to Census estimates, the number of seasonal housing units in Deer Isle is increasing. It is likely that some amount of conversion of year-round homes to seasonal use is occurring. The conversion of housing units to short-term rentals and the reduction in affordable rental units is also a concern.

### Projected Need for Affordable, Senior, or Assisted Living Housing

According to information from MaineHousing, in 2020 there was one apartment facility in Deer Isle that offered 24 units of elderly and disabled income-based housing (rent and utilities generally not exceeding 30% of household income). Among the towns nearby, Stonington had one such apartment community, Ellsworth had six, Blue Hill had two, Bucksport had four and Sedgwick had one. In total, there are 136 low-income apartments in Hancock County that offer reduced rents to eligible households.<sup>18</sup> In addition, Section 8 housing vouchers—the Federal program that enables participants to receive housing vouchers to help with their rental costs—are available on a limited basis via the Maine Centralized Section 8/HCV Waiting List, a partnership between 20 housing authorities in Maine.

Although multi-family dwelling units are available in Deer Isle, it is likely, given the projected aging of the population, that new options for senior citizen housing will be needed. It may be possible to meet some of these needs through social services such as “aging in place” that make possible the delivery of home-based services. At least some of those needing assisted living or other special housing services would probably have to seek housing out of Town.

There are presently no Town-sponsored programs for first-time home-buyers and households with limited income. Some towns have created committees to explore options such as housing land trusts that create opportunities for first-time homebuyers to acquire homes at below-market

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<sup>18</sup> Affordable Housing Online, <https://affordablehousingonline.com/housing-search/Maine/Hancock-County>, accessed 3/14/2023.

rates. These ventures involve enforcing restrictions to assure the units remain affordable when they are resold.

#### Other Housing Issues - Substandard Housing

The 2020 ACS indicates approximately 28 dwelling units lack complete kitchen facilities or plumbing. The data appear to undercount the issue of substandard housing on the island based on reports to Code Enforcement and public health services.

**Table H-11: Substandard Housing in Deer Isle, County, & State**

<b>Substandard Housing</b>	<b>Deer Isle</b>	<b>Hancock County</b>	<b>Maine</b>
Lacking complete kitchen facilities	20	158	5,618
Lacking complete plumbing facilities	8	125	3,291

Source: 2020 ACS 5-Year Estimates

#### Other Housing Issues - Short-term Rentals

Short-term rentals provide unit owners with a source of income and lodgers with an increased number of rental options. However, in some communities there have been issues with STRs decreasing the availability of affordable housing and reducing neighborhood cohesion. It also can be difficult for municipalities to monitor STRs on their own and do enforcement for such regulations as the fire code. As such, some cities and towns in the U.S. have adopted rules and hired outside firms to better manage STRs, and STRs are a continuing topic of discussion, and potential law-making, by the Maine Legislature.

#### Local Regulations & Affordable Housing Policies

In February, 2023 Deer Isle enacted a six-month emergency growth moratorium based on concerns over the lack of a comprehensive plan and commercial site plan review ordinance. That moratorium was extended for another six months in August 2023. Housing density is limited due to reliance on well and septic systems and significant undevelopable wetlands. Limiting growth, while necessary for the reasons just mentioned, makes it more difficult to achieve housing affordability.

Currently Deer Isle regulates only plumbing, shoreland zoning and subdivisions following State guidelines. The Town will be required to adjust its ordinances to conform with changes enacted by the State.

## 7. Goals & Objectives

<b>GOAL: To encourage and promote adequate housing to support the community's and the region's economic development.</b>			
<b>Objective</b>	<b>Strategy</b>	<b>Responsible Party(ies)</b>	<b>Timeframe</b>
Enact a growth area land use regulation to encourage the	Establish a Deer Isle Housing Committee	Select Board	2024
	Create a communications strategy to describe housing needs and alternative solutions.	Housing Committee	2024



development of workforce and affordable housing	Collaborate with neighboring towns for workforce housing	Housing Committee Peninsula League of Towns	2025
	Examine options within defined growth areas for manufactured homes, mobile homes, tiny homes and apartments.	Housing Committee	2025
Recommend policies to encourage construction of workforce and affordable housing	Encourage education in related trades	DISHS Project Launch	2025 and ongoing
	Examine subdivision guidelines to encourage construction of workforce housing	Select Board Housing Committee	2024
	Seek to achieve a level of at least 10% of new residential development built or placed during the next decade to be affordable.	Select Board Housing Committee	2024
	Maintain, enact, or amend ordinances to allow the addition of at least one accessory apartment per dwelling unit in growth areas, subject to site suitability.	Select Board Housing Committee	2024 and ongoing
Upgrade older housing stock	Seek block grant funding for home improvements	Town Manager Housing Committee	2025

<b>GOAL: To determine a balanced approach to managing short-term rental housing that meets workforce, year-round, and seasonal needs</b>			
Objective	Strategy	Responsible Party(ies)	Timeframe
Enact policies to regulate short-term rental housing.	Examine options for registering, inspecting and managing short term rental properties.	Select Board Housing Committee	2024
	Enforce short term rental policies	Code Enforcement Officer	2025 and ongoing
	Evaluate outcomes of short term rental policies	Housing Committee	2024
	Collaborate with neighboring towns to identify effective strategies to manage short-term rental housing	Peninsula League of Towns	2025

<b>GOAL: To enlarge housing opportunities for our aging population.</b>			
Objective	Strategy	Responsible Party(ies)	Timeframe
Build or secure additional housing that is accessible for seniors	Collaborate with the INH Board of Directors for adaptive reuse of the facility	Select Board	2024
	Identify home share opportunities, accessory dwellings, and other creative housing solutions	Housing Committee	2025
	Collaborate with neighboring towns to identify effective strategies for senior housing	Peninsula League of Towns	2025

# Chapter I: Health and Recreation

## 1. Purpose

A community's quality of life is an important factor for most people deciding on a place to live and is often related to the growth and development of a Town or area. This section contains an inventory of current recreation and health facilities and an analysis of how these may be affected by future change and growth. Specifically, this section will:

- a. Describe current health and recreational resources in Deer Isle;
- b. Assess the current and future adequacy of these resources; and
- c. Predict whether the availability of open spaces for public access and recreation will be threatened by future growth and development.

## 2. Key Findings & Issues

Deer Isle has considerable natural resources available for recreational purposes, particularly along its coastline and off-shore islands. A number of these natural areas are managed by conservation organizations. Local schools contribute significantly to local indoor recreational opportunities. Additional indoor facilities are accessible throughout the region but are less prevalent in Deer Isle. Outside of Main Street's central core, pedestrian accessibility throughout the Town could be improved to encourage visits to natural and recreational areas.

There are no medical or dental facilities or offices located within the Town of Deer Isle. Residents are dependent on the clinic in Stonington and the hospital in Blue Hill, along with other regional medical and dental facilities and access to practitioners.

## 3. Key Findings & Issues from Draft 2006 Comprehensive Plan

The 2006 Plan stated, "Deer Isle has considerable natural resources available for recreational purposes, particularly along its coastline and off-shore islands. The greatest difficulty in utilizing these locations lies in obtaining adequate access, as much of the available shore access is privately owned. Many identified scenic resources have little or no protection other than through Shoreland Zoning and Subdivision regulation, which may not be adequate to guarantee long range preservation; therefore further consideration of means for protection should be considered."

74% of the respondents to the Town's public opinion survey felt recreational facilities needed improvement. One quarter of those responding were willing to see taxes increased for additional recreational facilities. Meanwhile, 68% of respondents wanted to see the Town acquire more publicly-owned shoreline.

## 4. Public Opinion Survey Results

Almost half of the respondents to the Town's Public Opinion Survey felt recreational facilities in Deer Isle were either excellent or good, while only 27% said the same for the Town's recreational programs. Almost 28% felt that recreation opportunities need improvement or

attention, with about 6% saying they need attention or improvement right away. Approximately 39% said that this is not an issue.

Almost 58% of the respondents wanted to see more investment in parks and recreational facilities, but only if grants or subsidies reduce costs. Only nineteen percent said yes to investment that required raising property taxes.

Almost 58% of survey respondents felt that the Town should be more involved in protecting recreational waterfront access, while approximately 43% felt that the Town should be more involved in protecting both scenic views and recreational open space inland.

Of those that responded, half characterized healthcare services as good or excellent, nearly 75% either supported or strongly supported planning and programs to reduce public health risks, and 78% supported or strongly supported environmental education, outreach and engagement programs.

## 5. Current Recreation & Health Resources

### a) Recreation Resources & Facilities

**Table I-1: Recreation Resources & Facilities**

Facility	Size	Owner	Activities
Bridge End Park	2.2 acres	Town	Picnic, boat launch, water access
Deer Isle ball field and playground	3 acres	Town	Playground, ball field, community garden, walking trail
Island Recreation Board (merged with the Island Community Center)		Town	Youth winter skiing, youth sports clinics, little league, basketball, soccer
High School/ Municipal ball field	2.2 acres	Town	Ball field, tennis courts
Deer Isle-Stonington High School	4.7 acres	School District	Gymnasium, Tennis, Athletic Fields
Deer Isle-Stonington Elementary School	4.25 acres	School District	Playground, Athletic Fields, Nature Trail, Gymnasium, Fitness Center, Basketball
Deer Isle Community and Adult Education		School	Adult Enrichment Courses
Mariners Memorial Park	23 acres	Evergreen Garden Club	Hiking, picnic, boat launch, water access
Chase Emerson Memorial Library, Town Park and Veterans Park	0.8 acres	Town	Library, water access
Lisa Tolman Wotton Nature Preserve	42 acres	Island Heritage Trust	Hiking, water access
Edgar M. Tennis Preserve	145 acres	Bureau of Parks & Lands/co-managed	Hiking, water access

Facility	Size	Owner	Activities
		by Island Heritage Trust	
Scott's Landing Preserve	24 acres	Island Heritage Trust	Hiking, beach, water access
Pine Hill Preserve	7 acres	Island Heritage Trust	Hiking
Shore Acres Preserve	68 acres	Island Heritage Trust	Hiking, water access
Church Land Preserve	47 acres	Island Heritage Trust	Hiking, water access
Bowcat Overlook	0.58 acre	Island Heritage Trust	Viewpoint, water access
Causeway Beach Preserve	0.57km	Island Heritage Trust	Beach, swimming, water access
Reach Beach at Gray's Cove	0.39km	Island Heritage Trust	Beach, swimming, water access
Lily Pond Park	32 acres (pond), 19.5 acres (preserve)	Island Heritage Trust	Hiking, fishing, hand-carry boat launch, beach, water access
Barred Island Preserve	28 acres	The Nature Conservancy, co-managed by Island Heritage Trust	Hiking, water access
Torrey Pond	36 acres	Private	Fishing
Mill Pond	50 acres	Town	Paddling, water access
Old School House Trail	0.2 miles	Town	Hiking
Deer Isle-Stonington Elementary School Nature Trail	0.3 miles	School District	Walking, education, nature study
Island Country Club	35 acres	Island Country Club, Inc.	Golf, Tennis, Fee for use
Eggemoggin Reach	.25 acres	Public	Trailer boat launch, water access
REACH Performing Arts Center	400 seats	School District, Private Non-Profit	Theater, dance, musicals, community events
Shakespeare School	NA	Town of Deer Isle	Theater, dance, community events
Sheep Island Stinson Neck	8.4 acres	Island Heritage Trust	Offshore Island
Carney Island	15.5 acres	Island Heritage Trust	Offshore Island
Whig Island	1.8 acres	Island Heritage Trust	Offshore Island
Polypod Island	4 acres	Island Heritage Trust	Offshore Island
<b>Stonington and Unorganized Territory</b>			
Bradbury Island	160 acres	Island Heritage Trust	Offshore Island
Mark Island Stonington	3 acres	Island Heritage Trust	Offshore Island
Wreck Island Stonington	60 acres	Island Heritage Trust	Offshore Island
Round Island Stonington	34 acres	Island Heritage Trust	Offshore Island
Millet Island Stonington	19 acres	Island Heritage Trust	Offshore Island
Stonington Opera House	NA	Opera House Arts	Theater, movies, dance, musicals, community events
Sheep Island (LDI/UT)	5 acres	Island Heritage Trust	Offshore Island

Facility	Size	Owner	Activities
Island Community Center		Island Community Center	Playground, Fitness Center, Gymnasium, Senior Activities, Youth Activities, etc.
Settlement Quarry Stonington	51 acres	Island Heritage Trust	Trails

Source: Town of Deer Isle, Island Heritage Trust, Maine Trail Finder, Maine.gov, Maine by Foot, beachnearby.com, lakesofmaine.org

Recreational programs and facilities are listed on Table I-1 along with Health Care Facilities on Table I-2. Organized recreation and cultural activities in Deer Isle are centered at facilities within and nearby the local elementary and high schools while the local land trusts and nature preserves also provide numerous nature based recreation and day use opportunities. Examples of organized programs include school based sports, performances at the REACH Performing Arts Center and events and cultural activities at the local library.

The Town of Deer Isle also contributes toward occasional small recreation programs, the Downeast YMCA in Ellsworth, and Chamber of Commerce activities on the Fourth of July and other special occasions. Acadia National Park's land on Isle au Haut impacts Deer Isle, drawing much traffic through the Town. Deer Isle is also within the legislative boundaries of the Park, which governs a few small islands in the Town and is allowed to consider expansion of facilities into Deer Isle. Public and semi-public organizations such as The Nature Conservancy, the Boy Scouts, the Deer Isle-Stonington Historical Society, and others also provide important recreational resources.

Island Heritage Trust conserves and manages or co-manages hundreds of acres of preserves and outdoor space, including Edgar M. Tennis Preserve, Lisa Tolman Wotton Nature Preserve and Lily Pond Park. Miles of hiking trails along with parking and other features of interest can be explored within these natural and protected areas. The Trust's "Trail Tuesday" work parties do an excellent job of maintaining its preserves and trails. The Trust provides additional environmental education programming as well as Virtual Guided Nature Walks for many of its preserves. There are several offshore islands that offer additional opportunities for recreation and exploring.

Mariners Memorial Park, owned by the Evergreen Garden Club of Deer Isle, provides over 20 acres of recreational space and a boat launching access point. The privately owned Island Country Club offers a nine-hole golf course totaling approximately 2,400 yards, three tennis courts and a clubhouse with a pro shop. The Weekly Deer Isle Artisans Market and local galleries flourish in the Town's vibrant creative and cultural scene.

Many recreation resources in Deer Isle have been used traditionally by the public although there is no formal public ownership, access, or use arrangement. There are a number of scenic areas, used for recreation and viewing opportunities, in Deer Isle and the surrounding Blue Hill Peninsula. Past access conflicts or misunderstandings have occurred, and other formal access sites or agreements have been neglected or forgotten over the years. The Town should actively identify all informal access points and work to develop formal arrangements with private sites that have public benefit.

As with many of the other parts of this Plan, what happens regionally is as important as what is being provided locally. Neighboring Stonington and other municipalities on the Blue Hill Peninsula serve as indoor and outdoor recreation destinations, both seasonally and year-round. The Island Community Center in Stonington opened its doors in 2002 to provide indoor facilities and programs for the region. The facility includes a gymnasium, fitness center, a cafe, a food pantry and additional space available for rent, as well as weekly and annual activities and other special events. The Community Center is the closest of its kind to Deer Isle. Opera House Arts, Crystal Cove, Settlement Quarry and Crockett Cove Preserve are other notable indoor and outdoor recreational spaces in Stonington. North of Deer Isle, Lawrence Family Fitness Center in Blue Hill and Holbrook Island Sanctuary in Brooksville are among other regional recreation possibilities. The Fitness Center in Blue Hill is a branch of the Down East Family YMCA. Offshore islands conserved by Island Heritage Trust as well as those managed by the Bureau of Public Lands, additional boat launching sites and beaches and privately owned land add to the abundance of outdoor recreation in the areas surrounding Deer Isle.

b) Healthcare Facilities

While Deer Isle does not have any medical facilities within its boundaries, a clinic offering primary medical care as well as dental services is located in Stonington. Seaside Pharmacy in Stonington is the nearest source of prescription medications and healthcare products. In addition, residents can access multiple hospitals or emergency medical centers within approximately 50 miles, the closest being Northern Light Blue Hill Hospital in Blue Hill. The Island Nursing Home and Care Center in Deer Isle closed in 2021. Ellsworth now provides the closest nursing homes to Deer Isle. Parker Ridge, a retirement community in Blue Hill offers 13 assisted living suites. Hospitals and other healthcare facilities that serve the area are listed in Table I – 2, along with their travel distance in miles. Their distance in minutes varies with the season and the traffic.

**Table I-2: Health Facilities**

Health Facility	Location	Distance From Deer Isle	Emergency Room/Medicine
Northern Light Primary Care Stonington (Island Medical Center)	Stonington	7 miles	No
Northern Light Primary Care Blue Hill	Blue Hill	18 miles	No
Northern Light Blue Hill Hospital	Blue Hill	18 miles	Yes
Northern Light Primary Care Castine	Castine	30 miles	No
Northern Light Maine Coast Hospital	Ellsworth	32 miles	Yes
Bucksport Regional Health Center-FQHC	Bucksport	34 miles	No
Trenton Health Center	Trenton	37 miles	No
MDI Hospital	Bar Harbor	53 miles	Yes
Northern Light Eastern Maine Medical Center	Bangor	54 miles	Yes
Seaport Nursing Home and Residential Care Facility	Ellsworth	32 miles	No
Parker Ridge Senior Living Community	Blue Hill	18 miles	No
Healthy Island Project	Deer Isle	NA	No
Opiate Free Island Partnership	Stonington	NA	No
Coastline Physical Therapy	Deer Isle	<1 mile	No
Deer Isle Yoga Studio	Deer Isle	<1 mile	No

Health Facility	Location	Distance From Deer Isle	Emergency Room/Medicine
Downeast Community Partners	Ellsworth	32 miles	No
Friends in Action	Ellsworth	32 miles	No
Memorial Ambulance Corps	Deer Isle	<1 mile	Yes

Source: Google Maps, Northern Light Health, Island Nursing Home

Memorial Ambulance Corps provides emergency medical service to the towns of Deer Isle, Stonington and Isle au Haut. The all-volunteer service provides around-the-clock service, 365 days a year and is dispatched from its Deer Isle facility on Sunshine Road. The service responded to 361 emergency calls in 2022. Additionally, 1,008 cost-free, non-emergent visits to patients in Deer Isle and Stonington were conducted as part of the service’s Community Paramedicine program. In 2023 the service had 20 licensed EMTs and 12 ambulance drivers. Each ambulance run is staffed by two EMTs and one driver. A shortage of trained volunteers has at times been a critical problem for the Corps. The Corps is funded by both public and private payments for services and by donations and memorial gifts. Peninsula Ambulance Corps based in Blue Hill provides mutual aid with Memorial Ambulance Corps as needed.

There are several additional resources for optimized health in Deer Isle outside of traditional medical facilities. Healthy Island Project focuses on enhancing the broad health and well-being of the Deer Isle and Stonington community by offering 25 programs that support residents of all ages. These efforts include delivered meals and social programs for older islanders, cooking workshops and food safety courses, a wide variety of nutritional security efforts, Magic Food Bus delivery, FarmDrop, WinterFest, bicycle safety sessions, labyrinth walks, health and wellness programs, community gatherings and more.

Medical appointment transportation, substance use assistance and school-based health programs are examples of support from the Island Health & Wellness Foundation, which also owns and maintains the Island Medical Center in Stonington for medical and dental care. The Eastern Area Agency on Aging offers a variety of wellness, nutrition and lifestyle programming for area senior citizens, while Hospice Volunteers of Hancock County enhances the lives of those experiencing or associated with life-altering illness. The Opiate-Free Island Partnership provides substance use prevention, recovery support, Narcan training, needle exchange, and other services to the Island community.

## 6. Adequacy of Deer Isle’s Recreational & Health Resources

Adequacy of recreational resources is evaluated by means of State criteria that establish what resources a town of Deer Isle’s size should have, supplemented by the subjective opinions of the residents themselves. The State standards are detailed in Table I – 3. As all towns are different, State standards are best considered as guidelines, and the local populace is the final judge of Deer Isle’s recreational resource adequacy.

Deer Isle benefits from regional cooperation in health and recreation. Local schools and the library provide indoor space for athletic, artistic and educational opportunities. Golf and tennis can be accessed albeit at a privately owned facility. Outside of Deer Isle the Island Community Center in Stonington fills many community needs, and Blue Hill does have an indoor pool, recreation and athletic complex, the Lawrence Family Fitness Center, an indoor tennis club and other resources for recreation and culture. The Deer Isle Yacht Club offers sailing instruction in



the summer. The Bucks Harbor Yacht Club in Brooksville also sponsors summer programming such as dances, sailing and tennis lessons for local youths.

**Table I-3: State of Maine Guidelines for Parks and Recreation Services**

		Population Criteria		Present in Deer Isle
I Administration		1,500-2,000	2,000-2,500	
	Parks & Recreation Committee	Y	Y	Y
II Leadership				
	Summer Swimming Instructor	Y	Y	N
	Summer Recreation Director	Y	Y	Y
III Public Programs				
	Swim Instruction	Y	Y	N
	Supervised Playground	Y	Y	N
	Senior Citizens Club	Y	Y	Y
	Skiing Instruction	Y	Y	N
	Ice Skating	Y	Y	N
	Community-wide Events	Y	Y	Y
	Arts & Crafts Programing	Y	Y	Y
	Evening Adult Education	Y	Y	Y
IV Public Facilities (Including School)				
A)	Outdoor Facilities			
	Community Recreation Area: 12 – 25 acres	Y	Y	Y
	Softball/Little League Diamond	Y	Y	Y
	Basketball Court	Y	Y	Y
	Tennis Court	Y	Y	Y
	Multi-purpose field	Y	Y	Y
	Ice Skating	Y	Y	Y
	Playgrounds	Y	Y	Y
	Horseshoe	Y	Y	N
	Shuffleboard	Y	Y	N
	Picnic Areas w/Tables etc.	Y	Y	Y
B)	Indoor Facilities			
	School Facilities Available to Public	Y	Y	Y
	Gym or Large Multipurpose Room	Y	Y	Y
	Auditorium	Y	Y	Y
	Public Library	Y	Y	Y
V. Finance				
	A) Minimum \$6.00 per capita for part-time programming	Y	Y	Y

Source: Recreation & Open Space Planning Workbook

The State has not established similar standards for healthcare resources. Although about half of Town residents characterized available healthcare as good or excellent, they often express concern over the remoteness of available medical and dental care. Mental health resources are notably deficient. Private organizations such as the Healthy Island Project and the Opiate-Free Island Partnership have stepped in to fill gaps in the State and regional healthcare system.

According to the 2021 American Community Survey 5-Year Estimates, 12.7% of Deer Isle residents lack health insurance coverage, compared with less than 10% for Hancock County as a whole.

Local health care facilities face staffing challenges including dentists, doctors, and nurses. Some services at Northern Light Blue Hill Hospital have been eliminated in recent years. The closest maternity services are located at Northern Light Maine Coast Hospital in Ellsworth.

## 7. Open Spaces

### a) Inventory of Open Spaces

Open space is land that contributes to the character of the community or a neighborhood merely by being undeveloped. In some cases the advantage is that the land is particularly scenic, or used for recreation and access, or merely provides a natural break in the landscape. Figure I-1 illustrates protected open spaces on Deer Isle. In addition, large tracts of the interior portions of the Town remain undeveloped and have customarily been used by local residents for hunting and other forms of recreation.

### b) Potential Threats & Impacts to Open Spaces

A number of techniques can be used to protect open space. Government acquisition, non-profit ownership, voluntary deed restrictions, and the Tree Growth Tax Law program currently serve to protect open space in Deer Isle. Deer Isle's land use ordinances do not presently contain mechanisms for open space protection or requirements for cluster development. Incentives or requirements for preservation are not uncommon in the ordinances of other towns. The Town does not have an open space fund or a formal partnership with local land trusts to acquire open spaces.

Open space protection by nonprofit organizations and the government includes the following: Island Heritage Trust is an accredited land trust and owns 27 conservation properties in fee and holds 38 conservation easements on the Island. The State of Maine holds the Tennis Preserve in Sunshine and, together with the US Government, protects all or parts of several islands through easements or ownership by the State or Acadia National Park. The Nature Conservancy holds by fee or easement two preserves on Deer Isle and several offshore islands. Maine Coast Heritage Trust is active in the region and works closely with Island Heritage Trust to protect local conservation properties.

Much private land in Deer Isle and all but one of Island Heritage Trust's preserves are open for hunting in season. The Lily Pond is popular for fishing; it is regularly stocked by the Maine Department of Inland Fisheries and Wildlife with brook and brown trout. ATV and snowmobile riders operate on several parcels of private property in Town under informal arrangements with landowners.

There are numerous parcels on the shore in Deer Isle that are owned by seasonal residents with homes on the shorefront part of the lot. Except for the summer months, these lots historically provided informal access to the shore for clamming and recreation. Traditionally, local attitudes have been that even though land is privately owned, it could be used without explicit owner permission. This pattern has shifted over time as more owners have gated their

driveways or posted their land restricting access. This shift highlights that the Town owns very little coastal land and that access to the shore is limited.

**Figure I-1: Open Spaces on Deer Isle**



Source: Island Heritage Trust

Changes in land ownership, whether for private use or development, could impact this important aspect of Maine life. Without a Town commitment of resources or the willingness to impose regulation, there may not be any guarantee that protection will be provided.

## 8. Local Issues

Although the Town wins high marks for its parks, preserves and trails, it also faces numerous recreational issues. Pedestrian and bicycle access to many parts of Town are limited by vehicle traffic volumes and patterns and by the lack of sidewalks, shoulders, and dedicated bike paths. Indoor recreational facilities for the general public are few. Trail access in natural areas for people with all abilities requires improvement. Although the State is forecasting the population of Deer Isle to shrink over the next ten years, growth consistent with recent historical patterns

may require the Town to expand its recreational facilities, particularly those targeted at older residents as the population ages. More information about programs, facilities, locations and schedules—and better dissemination of that information—would be desirable. For a community with such a long shoreline and focus on marine activity, the points of access to salt water for the general public are remarkably few; this includes access to Penobscot Bay, Eggemoggin Reach and Jericho Bay. Some freshwater bodies, such as Oliver’s Pond, are also difficult to access by the public. Current informal access arrangements to private lands for ATV and snowmobile riders might benefit from organized trail upkeep arrangements as are common in many parts of the State.

Rural communities’ access to healthcare is a challenge everywhere, and Deer Isle is no exception. Among the chief issues are the difficulty of attracting medical practitioners to the Island, the distance to available hospitals and emergency rooms and access to specialty care.

## 9. Regional Issues

Many of the issues faced by Deer Isle are intra-local or regional in nature. The Island Community Center shared with residents of Stonington has ongoing maintenance and renovation challenges. Regional recreational facilities are distant.

Healthcare facilities in this part of Maine are consolidating, reducing patient choices. The closure of the Island Nursing Home has hit local families hard, with many being required to place their loved ones in facilities far from home. Mental health care resources are limited throughout eastern Maine.

## 10. Goals and Objectives

GOAL: Deer Isle will be a center for outdoor recreation and healthy lifestyles.			
Objective	Strategy	Responsible Party(ies)	Timeframe
Support the combined activities of Island Recreation Board and Island Community Center	Coordinate with Stonington to appoint members	Towns	2024
Improve all tides access to the water [See Marine Resources Chapter]	Identify grant funding such as SHIP and LMF	Towns, Marine Resources Committee	2026
Protect open space for recreational uses	Collaborate with IHT and other land trusts	Select Board IHT, MCHT, TNC	2025
Create outdoor recreation opportunities, including off road and on-road trails for walking and biking	Work with MaineDOT to add shoulders to Route 15	Select Board MaineDOT	2026
	Provide educational materials regarding the benefits and protections for landowners allowing public recreational access on their property, including information on Maine's landowner liability law regarding recreational and harvesting use Title 14 MRSA 159A.	Town, Maine DACF	2024

GOAL: Deer Isle will be a center for outdoor recreation and healthy lifestyles.			
Objective	Strategy	Responsible Party(ies)	Timeframe
	Identify off-road routes to Deer Isle Village, Schools and neighborhoods	Recreation Board, HIP, Schools, IHT, MCHT, TNC	2024
Identify needs and improve Town recreational facilities	Inventory existing assets and unmet needs	Recreation Board, HIP, Schools	2024
	Seek funding to build new facilities and acquire equipment	Select Board, Recreation Board, HIP	2025

GOAL: Deer Isle residents will have ready access to health information and services.			
Objective	Strategy	Responsible Party(ies)	Timeframe
Enhance Age Friendly Community Status	Identify unmet needs for seniors	HIP, Friends in Action, Downeast Community Partners, Island Health and Wellness, Churches	2024
Enhance healthcare services for youth and young adults	Create a youth health task force	Schools, Opiate Free Island Partnership, HIP	2025
Increase the pool of healthcare professionals	Identify housing and tuition payback programs	Island Health and Wellness Foundation	2025

# Chapter J: Transportation

## 1. Purpose

The transportation system and mobility are some of the most important factors that influence a community's economic well-being and support (or negatively impact) the health and cohesion of its population. The transportation system, including parking, is also one of the costliest infrastructural elements a town must maintain. This section will discuss and analyze the major transportation issues facing Deer Isle. Specifically, it will;

- a. Identify and profile Deer Isle's roadway and transportation systems in terms of extent, condition, and use;
- b. Assess the adequacy of those systems in handling current use demands;
- c. Consider transportation improvements that will be needed to adequately accommodate the demands generated by projected increases in development within Deer Isle and Hancock County.
- d. Account for areas where sustainable transportation alternatives and long-term cost savings in infrastructure management may exist.

## 2. Key Findings & Issues

Route 15 and Sunset Road are the State maintained major and minor collector roads serving Deer Isle and Stonington. All through traffic follows on these two roads while a network of local roads provides access to the eastern and western sides of Deer Isle. Traffic volumes have remained stable over the past decade. The crash statistics indicate segments with higher risk of collision. Route 15 is a lifeline for the Island's economy, with over \$100 million of commerce reaching the mainland from Stonington and Deer Isle over this route.

Between the Deer Isle-Sedgwick Bridge and Deer Isle Village there are approximately 200 driveways, turnouts, and public roads with direct access to Route 15. South of Deer Isle Village to the Stonington town line are an additional 110 access points along Route 15. The terrain south of the Deer Isle Village has increasing hills and curves that limit sight distance for vehicles and pedestrians using the roadway shoulders. Additional development along these routes must consider the potential hazards associated with access and assess the need for additional signage or other means of mitigating possible safety concerns.

Climate change, sea level rise and associated severe weather events present serious risks to all of Deer Isle's transportation infrastructure. The Deer Isle-Sedgwick Bridge is deteriorating and requires replacement. The Deer Isle Causeway is at risk of washing away in severe storms. Other causeways, road segments and culverts require repair or replacement.



Deer Isle has minimal public transportation. It can be dangerous to walk or ride a bike along many stretches of Route 15 and Sunset Road.

Collaboration with the Federal government, the State, regional organizations and local partners will be essential to addressing the Town's many transportation challenges.

### 3. Key Findings & Issues from Draft 2006 Comprehensive Plan

The Draft 2006 Comprehensive Plan noted, "There has been a gradual increase in traffic flow in Deer Isle. For example, the annual average daily traffic on Route 15 increased by 140 percent between 1979 and 2003. The major deficiency in the state transportation system that serves Deer Isle is the Deer Isle-Sedgwick Bridge.

"As the town continues to grow, it faces an increase in the number of curb cuts as more driveways and subdivision roads are built. This may make it more important to enact access management standards that set distances between curb cuts and encourage subdivisions to be served by an interior road. If the town decides to enact town-wide zoning, it may want to restrict commercial uses from certain parts of town where such uses may pose traffic problems."

### 4. 2023 Public Opinion Survey

Almost 45% of the Survey respondents believed that road maintenance needed improvement, and over 55% said they were willing to pay higher taxes for it. More than 60% felt that public transportation needed improvement, but most said they would support more investment only if grants or subsidies covered the cost. Majorities supported paved shoulders on roads and bicycle and pedestrian paths/lanes if grants or other funding were identified, but less than a third said they would be willing to pay higher taxes to fund the latter. Numerous respondents cited the condition of the Deer Isle-Sedgwick Bridge, the Deer Isle Causeway and the condition of the roads generally as causes of concern.

### 5. Conditions and Trends

#### a. Road Mileage and Classification

The Maine Department of Transportation (MaineDOT) has classified all public roads in the State. The classification system is based on the principle that the roads that serve primarily regional or statewide needs should be the State's responsibility and roads that serve primarily local needs should be a local responsibility. The State's classification system includes the following:

**Arterials:** Arterial roads are a system of connected highways throughout the State that serve arterial or through traffic. There are no arterials in Deer Isle. The nearest is Rte 1.

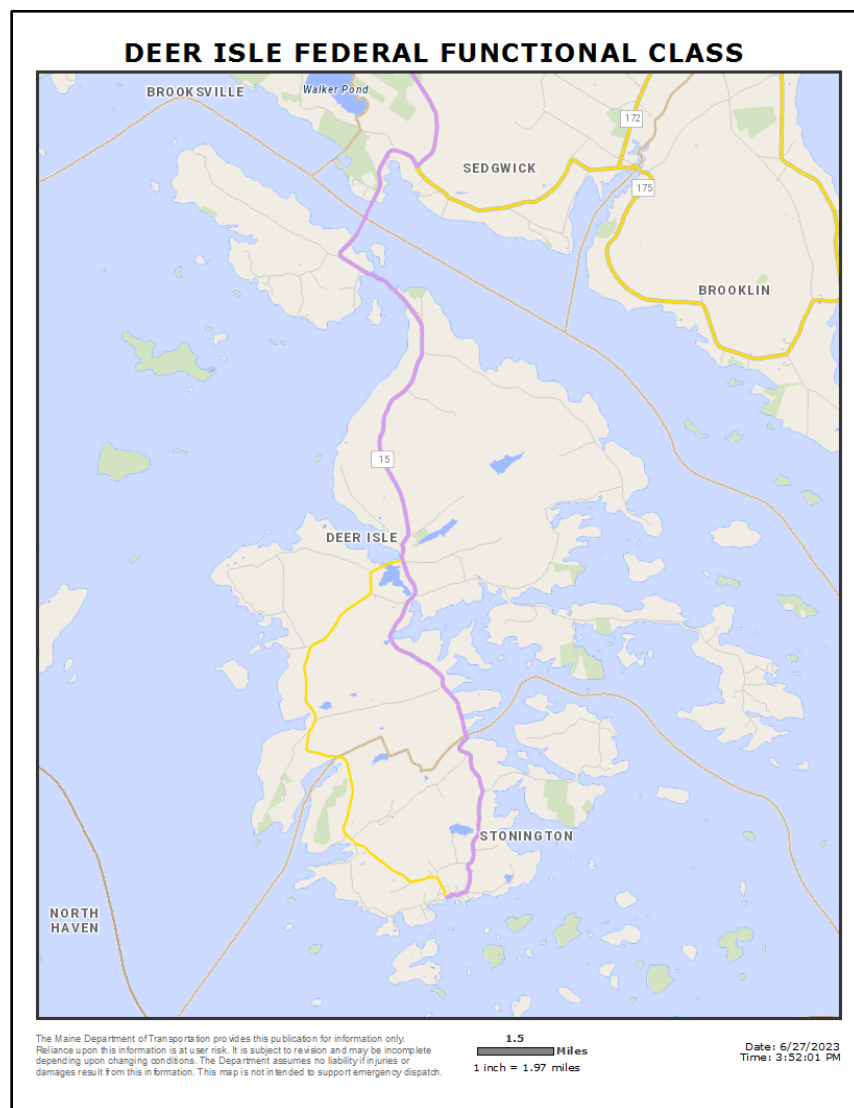
**Collectors:** Collectors serve as feeder routes connecting local service roads to the State arterial system. The State is responsible for maintaining Deer Isle's 12.79 miles of collectors, which include Route 15 and Sunset Road (locally referred to as Rte 15A). The Town is responsible for winter maintenance of Route 15 and Sunset Road.

**Local Roads:** Local roads include all other public roads not included in the State classification system. The Town currently maintains local roads and, based on the State system, roads that serve primarily as local service roads, which provide access to adjacent land. MaineDOT

classifies 37.40 miles of Deer Isle's Town roads as local. About 30 years ago the State shifted responsibility for local roads to the Town.

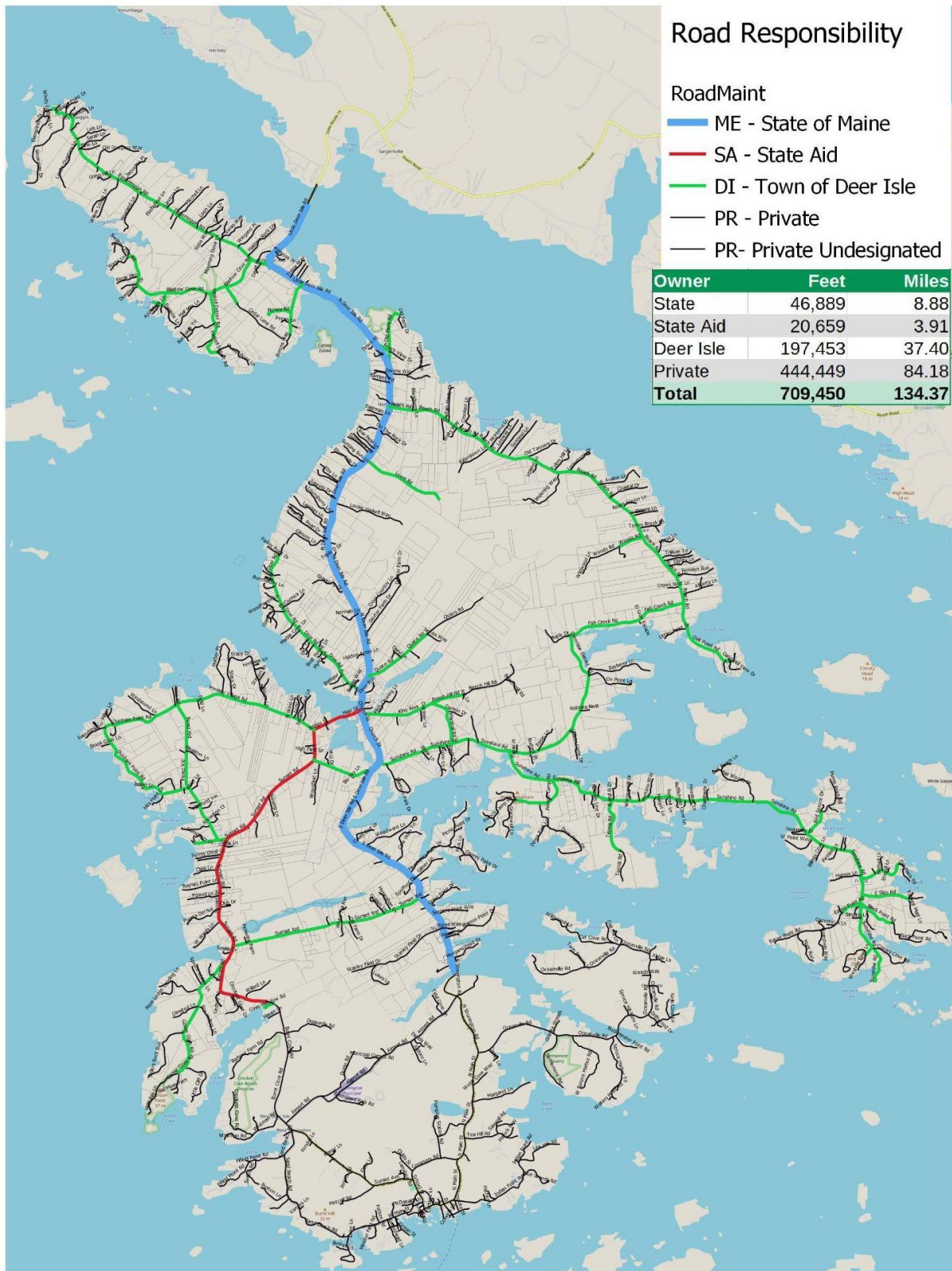
**Private Roads:** Private roads are defined as roads that serve three or more dwellings. Roads serving two or fewer dwellings are defined as driveways. There are just over 84 miles of privately owned road in Deer Isle.

The State classifies roads in Deer Isle as collector roads or local roads, depending on their function. Collector roads are designed to accommodate traffic moving longer distances, such as to Stonington and the mainland at moderate speeds. Access via local roads, entrances and driveways is intended to be limited in order to avoid friction for through travelers. Local roads are used at low speeds for residential use and feature higher levels of access. Many traffic problems are due to conflicts between mobility and access. For example, extensive residential or commercial development along Route 15 would result in reducing mobility and increase risk of crashes. Similarly, heavy through traffic on a local road designed for a low rate of traffic is disruptive for residents and also increases the chance of accidents.





**Figure J-1: Road Maintenance Responsibility**



b. Highway Corridor Priority

MaineDOT also categorizes roads using a Highways Asset Management methodology to provide a fair, structured framework to prioritize programs and projects. There are two parts—the Highway Corridor Priority (HCP) and the Customer Service Level (CSL). The first part of the method, the **Highway Corridor Priority (HCP)**, categorizes Maine’s highway assets into six levels of priorities:

**Priority 1 Roads:** Key arterial highways not found in Deer Isle.

**Priority 2 Roads:** High-priority, non-NHS arterials not found in Deer Isle

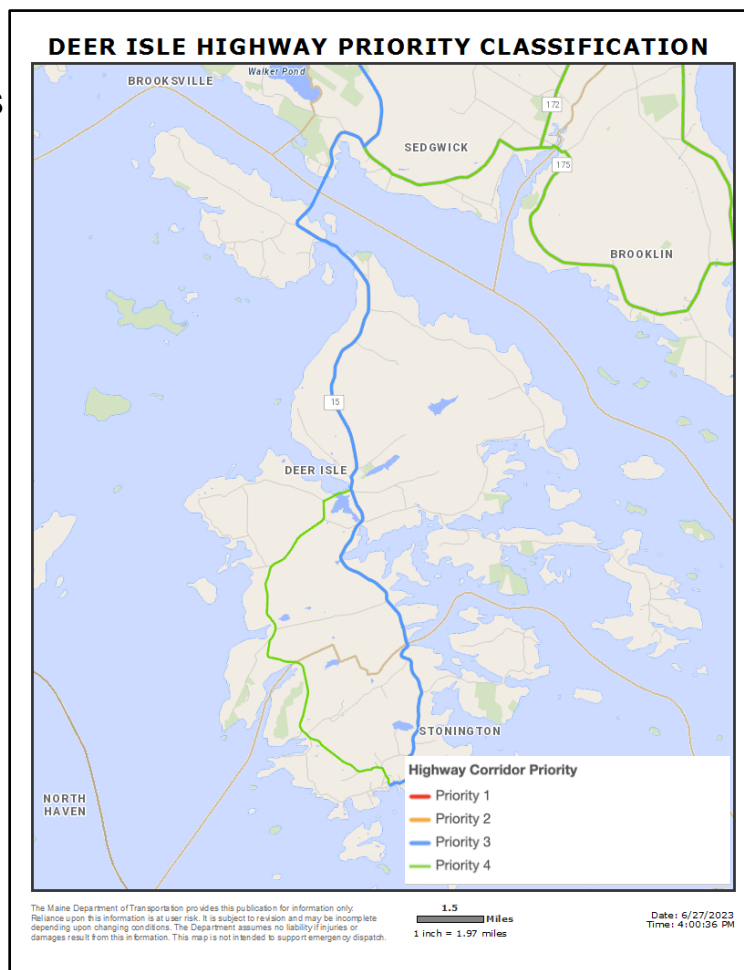
**Priority 3 Roads:** Remaining arterials and high volume major collector highways. Route 15 through Deer Isle falls into this category.

**Priority 4 Roads:** Remainder of the major and minor collector highways, and state aid system, in which road responsibilities are shared between the state and municipalities. Sunset Road falls into this category.

**Priority 5 Roads:** Local roads that are the year-round responsibility of Deer Isle.

As seen in Figure J-2 above, of Deer Isle’s primary collector, Rte. 15 is a Priority 3 road and Sunset Road is a Priority 4 State Aid Road in MaineDOT’s Highway Corridor Priority systems.

c. Customer Service Level and Safety

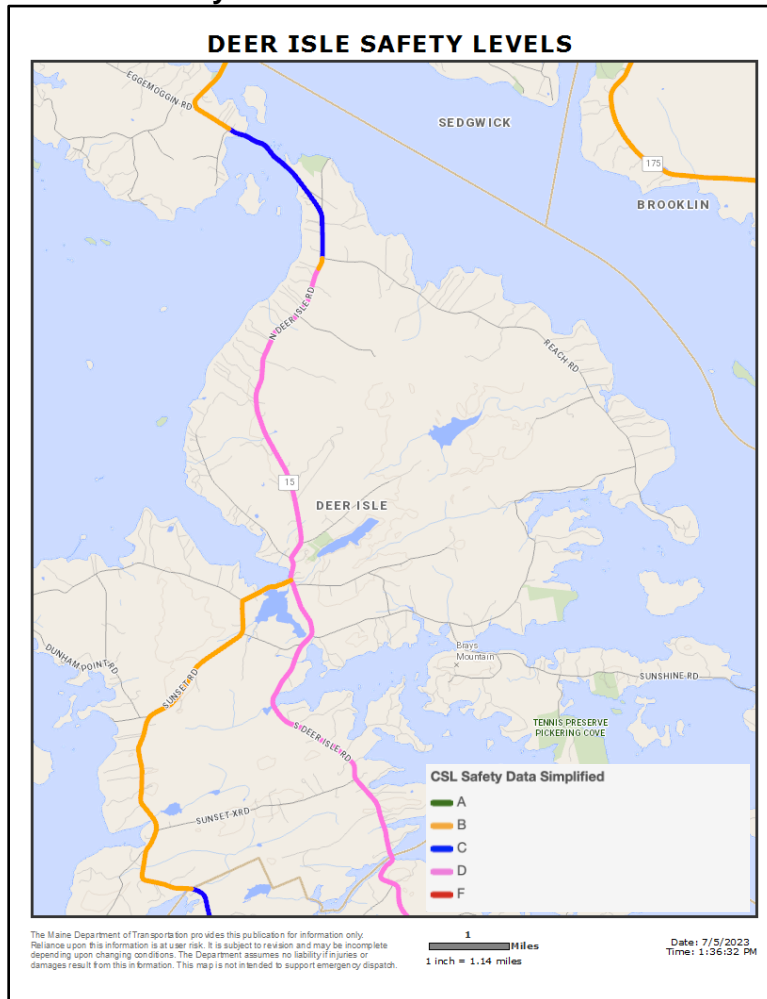


**Figure J-2: Deer Isle Highway Priority Classification**

The second part of the method is determining the **Customer Service Level (CSL)** that measures MaineDOT managed highway assets (Priority 1-5) in three areas. The CSL uses customer-focused engineering measures to track highway (1) Safety, (2) Condition and (3) Serviceability, and grades them similar to a report card (A – F). The factors that go into the Safety evaluation are: crash history, paved roadway width, pavement rutting, and bridge reliability.

Figure J-3 below shows roadway safety levels in Deer Isle. Much of Route 15 has a safety grade of D while portions of other roads in the Town are graded B and C. The Deer Isle Causeway has a better score than most of the corridor, but is a high priority for MaineDOT and the Maine Emergency Management Agency for improvements due to susceptibility to flooding and erosion.

**Figure J-3: Deer Isle Road Safety Levels**



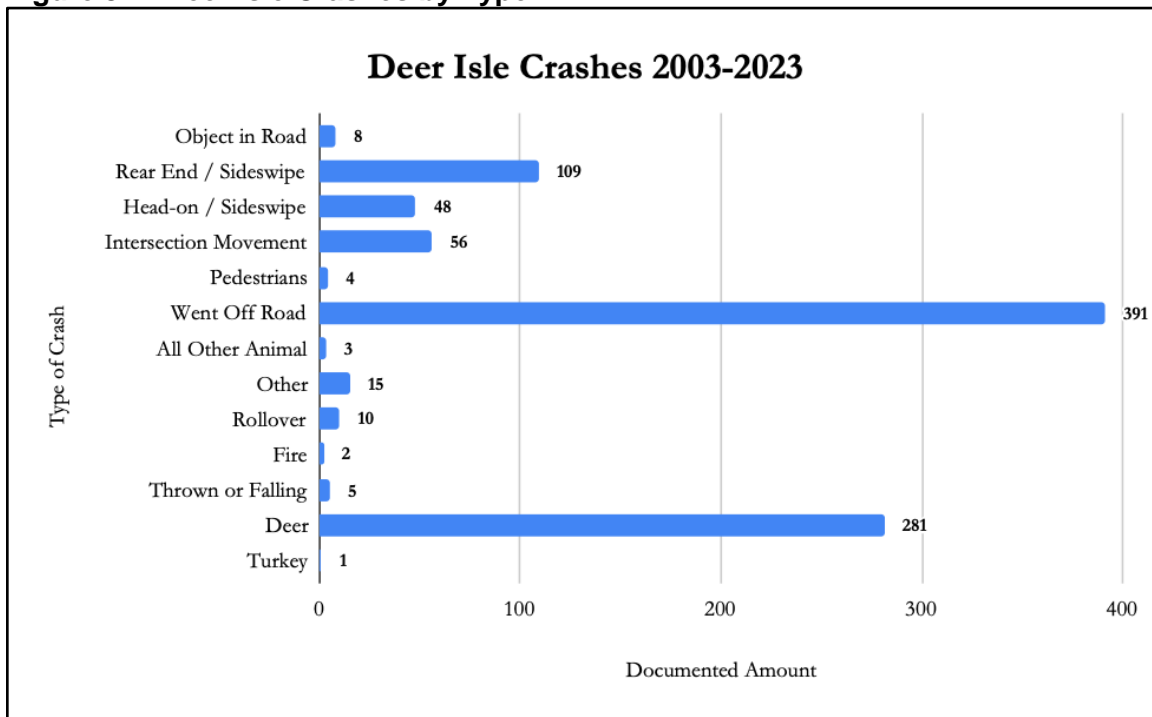
Source: Maine DOT

d. High Crash Type and Location

One of the ways transportation engineers evaluate roadway safety is by looking at High Crash Locations and High Crash Location Segments. A High Crash Location is one that has a minimum of eight accidents over a three-year period and a higher than average rate of accidents when compared with similar intersections across the state (Critical Rate Factor). In Deer Isle, between 2021 and 2023 there was one section of road identified as a High Crash Location according to the Maine Public Crash Query Tool. This was located along Route 15 (S Deer Isle Rd), north of the Deer Isle/Stonington town line and south of Sunset Cross Road, where nine crashes took place during this time period. The safety level assigned to this stretch of road is a D due to crash history and pavement width.

From 2003 to 2023 there were 943 total crashes in Deer Isle. As displayed in Graph 9 -1 below, 394 (42%) involved a vehicle going off the road while 285 (30%) involved deer. Other notable types of crashes included rear-end sideswipes, intersection movement and head-on sideswipes.

**Figure J-4: Deer Isle Crashes by Type**



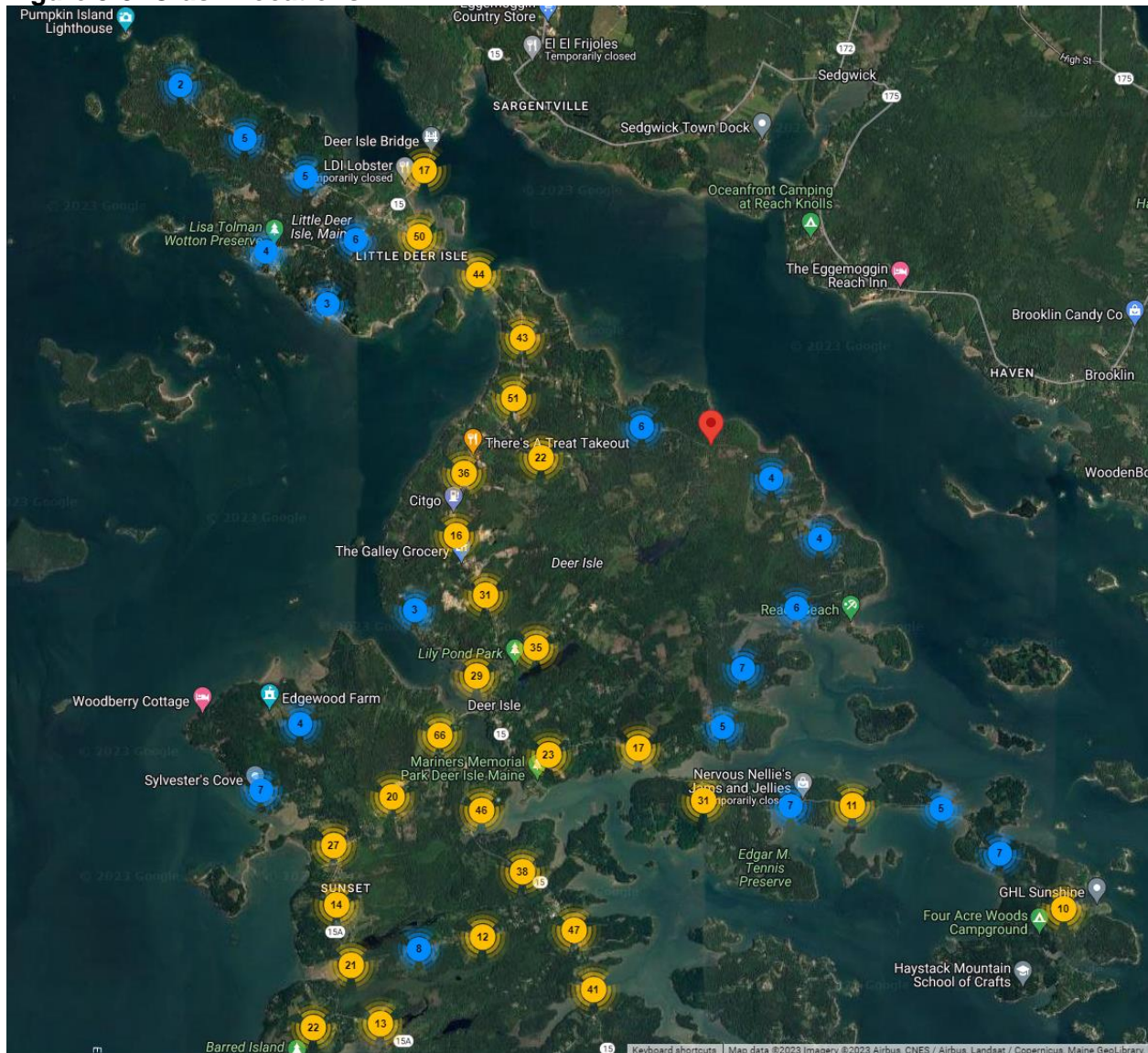
Source: Maine Public Crash Query Tool

The map below depicts where the largest concentrations of crashes occurred in Deer Isle over this same time period. A high volume of crashes took place along various sections of Route 15 and roads in its vicinity.

High Crash Segments	Total Crashes	Percent Injury	Injuries
Sunset Rd: DIS Town Line to Goose Cove Rd	8	37.5	3
S Deer Isle Rd: DIS Town Line to Sunset Crossroad	13	15.4	2
S Deer Isle Rd: Sunset Crossroad to Center District Crossroad	18	16.7	3



**Figure J-5: Crash Locations**



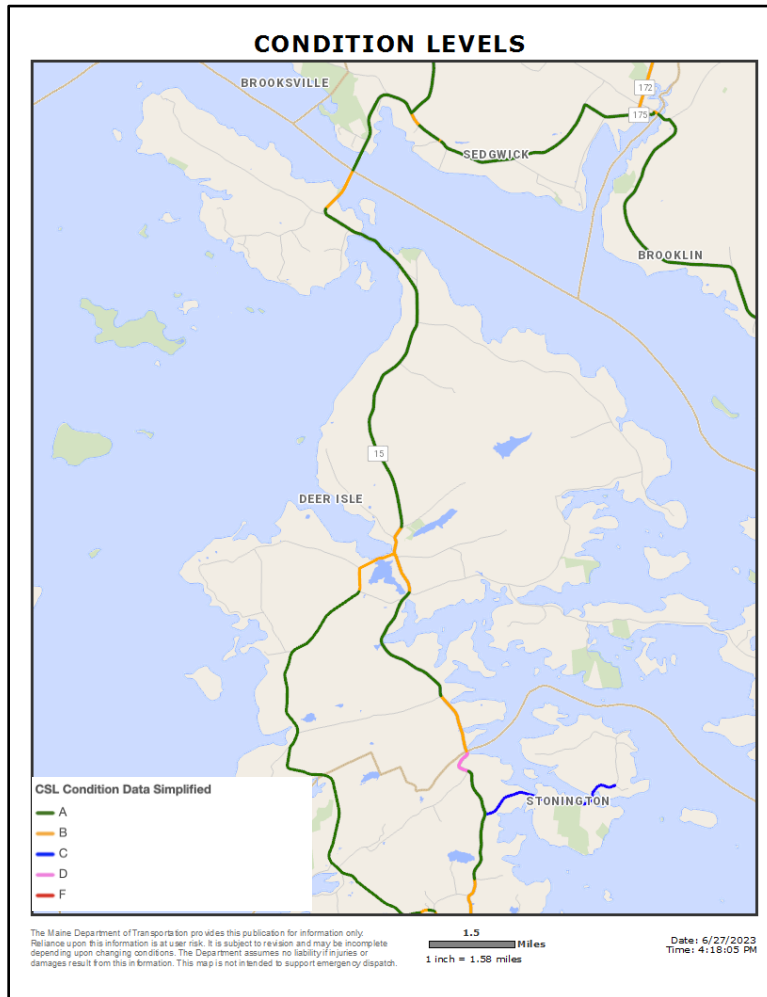
Source: Maine Public Crash Query Tool

Of the 943 crashes during the period analyzed, 171 involved speeding, 68 involved operating under the influence, 65 involved distracted driving and 97 involved unrestrained occupants.

e. Condition

The second part of MaineDOT’s Customer Service Level evaluation is Condition. This assessment is based on ride quality, pavement condition, roadway strength, and bridge conditions. As seen in Figure J-6, Deer Isle’s principal collector roadways, Route 15 and Sunset Road, are classified by MaineDOT as being in both Condition A and B depending on the section of road evaluated.

**Figure J-6: Condition Levels**



**Table J-1: Local roads maintained by the Town, including mileage, surface and condition**

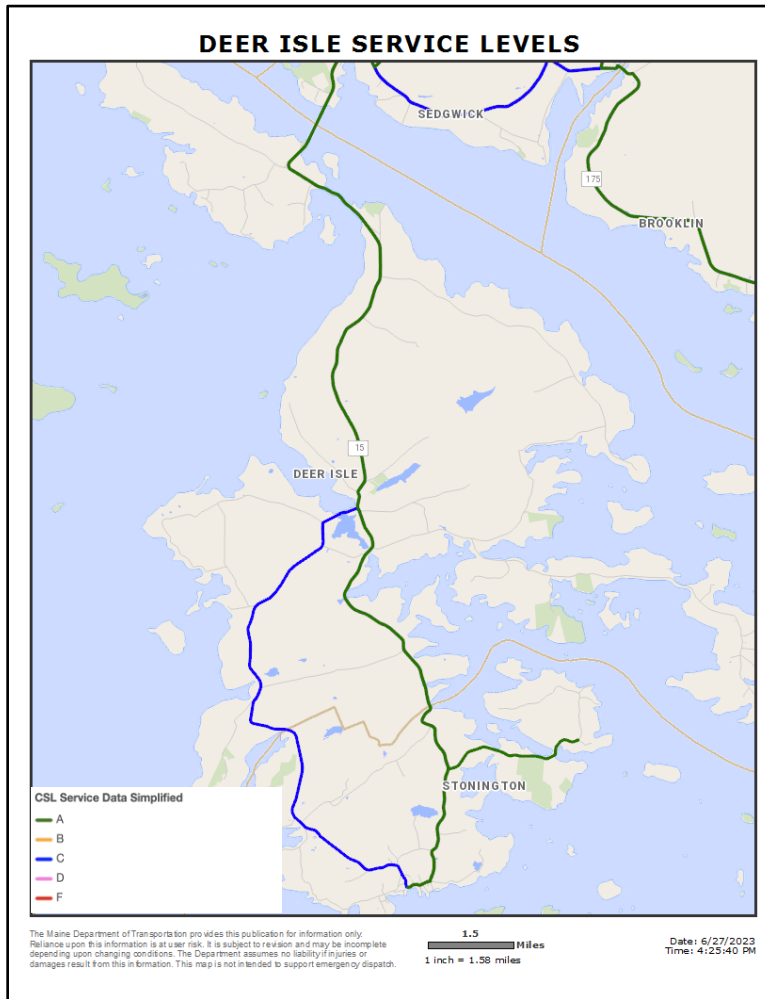
Road Name	Mileage	Surface	Condition
Beech Hill Road	0.28	gravel	poor
Blastow Cove Road	1.84	paved	good
Cedar Lane	0.12	gravel	poor
Center District Cross Road	0.58	paved	poor
Dow Road	1.45	paved/gravel	fair/poor
Dunham Point Road	2.60	paved	fair/poor
East Side Road	0.50	paved	poor
Eaton Point Road	0.12	paved	good
Eggemoggin Road	2.75	paved	good/poor
Fish Creek Road	4.20	paved	fair/poor
French Camp Road	0.60	paved	fair
Goose Cove Road	0.82	paved/gravel	good/poor

<b>Road Name</b>	<b>Mileage</b>	<b>Surface</b>	<b>Condition</b>
Greenlaw District Road	1.64	paved	poor
Hardy's Hill Road	0.25	paved	fair/poor
Haskell District Road	0.78	paved	fair
Honey Road	0.24	gravel	fair
King Row	0.47	paved	poor
Lobster Pool Lane	0.08	paved	fair
Lowe Road	0.82	paved	fair
Marshall Road	0.48	gravel	poor
Oak Point Road	0.80	paved/gravel	fair
Old Ferry Road	0.51	paved	good
Old Place Road	0.30	paved	good/poor
Perez Cross Road	0.82	paved	fair
Plumb Point Road	0.70	gravel	poor
Pressey Village Road	1.41	paved	fair
Quaco Road	1.03	paved	good
Reach Road	4.50	paved	fair/poor
Route 15 (State Road)	8.88	paved	good
Sunset Road (State Road)	3.62	paved	good
Sunshine Road	4.95	paved	good/fair/poor
Swain's Cove Road	0.64	paved	fair/poor
Tennis Road	0.58	gravel	poor
Weed Point Road	0.52	paved/gravel	good/fair
Western Cove Lane	0.06	paved	poor
Woods Road	0.27	gravel	poor
Total	50.22		
Source: MDOT & Town of Deer Isle			

f. Service

The Service component of the Customer Service Level evaluation includes whether a roadway segment is posted during spring thaw to protect longevity, the weight load restrictions of any bridges, and degree of congestion/delay with specific consideration for peak summer months due to the potential impact on tourism. In terms of Customer Service Levels, Route 15 has an overall service level grade of A while Sunset Road has a grade of C.

**Figure J-7: Service Levels**



**g. Traffic Flow**

The highest average annual daily traffic count (AADT) for Deer Isle in 2017 was 4,290 vehicles per day (see Table J – 2) on the stretch of Route 15 north of Main Street in Deer Isle Village. This was an increase of 160 vehicles per day from 2014 and represents a relatively low volume of less than 3 cars per minute when using 24 hour days. All daily traffic count numbers in 2014 and 2017 were lower than those documented in 2003. Traffic volumes vary considerably by season. The lone vehicle funnel to and from the Hancock County mainland is via the Deer Isle-Sedgwick Bridge, furthering the importance of regular monitoring and maintenance.

**Table J-2: Average Annual Daily Traffic**

Location	1979	1988	1993	1996	1998	2001	2003	2014	2017
Center District Crossroad (West of Rte. 15)	-	-				-	-	560	550
<b>Dow Rd</b> (Northwest of Rte. 15)	-	-				-	-	360	-
<b>Dunham Point Rd</b> (West of Sunset Rd)	-	-				-	-	440	-
<b>Greenlaw District Rd</b> (East of Sunshine Rd)	-	-				-	-	360	-
<b>King Row</b> (East of Rte. 15)	-	-				-	-	190	-



Location	1979	1988	1993	1996	1998	2001	2003	2014	2017
Little Deer Isle Rd (West of IR 1452)	-	-				-	-	750	-
<b>Main St</b> (West of Rte. 15)	-	-				-	-	2,140	2,040
Pressey Village Rd (West of Sunset Rd)	-	-				-	-	350	-
<b>Reach Rd</b> (East of Rte. 15)	-	-				-	-	430	-
Rte 15 - Church St (South of King Row)	869	2,320	2,630	2,750	-	3,100	3,360	3,160	-
Rte 15 - N Deer Isle Rd (North of Main St)	2,296	2,280	3,040	3,570	4,000	4,380	4,890	4,130	4,290
<b>Rte 15 - S Deer Isle Rd</b> (Southeast of Sunset Cross Rd)	1,276	-				2,560		2,450	2,580
<b>Rte 15</b> (Southeast of Little Deer Isle Rd)	1,732	-	-	2,690	3,220	3,370	3,700	3,220	-
<b>Rte 15</b> (Southwest of Center District Cross Rd)	1,373	-				2,490	2,660	2,590	-
<b>Sunset Rd</b> (Northwest of Sunset Cross Rd)	886	-				-	-	1,610	-
<b>Sunset Rd</b> (Southwest of Center District Crossroad)	1,225	-				-	2,310	1,790	-
<b>Sunset Rd</b> (South of Pressley Village Rd)	-	-				-	-	1,470	-
<b>Sunset Cross Rd</b> (Southwest of Rte. 15)	-	-				-	-	410	420
<b>Sunshine Rd</b> (East of Rte. 15)	-	-				-	-	1,590	1,510
<b>Sunshine Rd</b> (South of Greenlaw District Rd)	491	-		880	990	1,030	1,280	1,070	-
Source: MaineDOT Yearly Traffic Counts ( <a href="https://www.maine.gov/mdot/traffic/counts/">https://www.maine.gov/mdot/traffic/counts/</a> )									

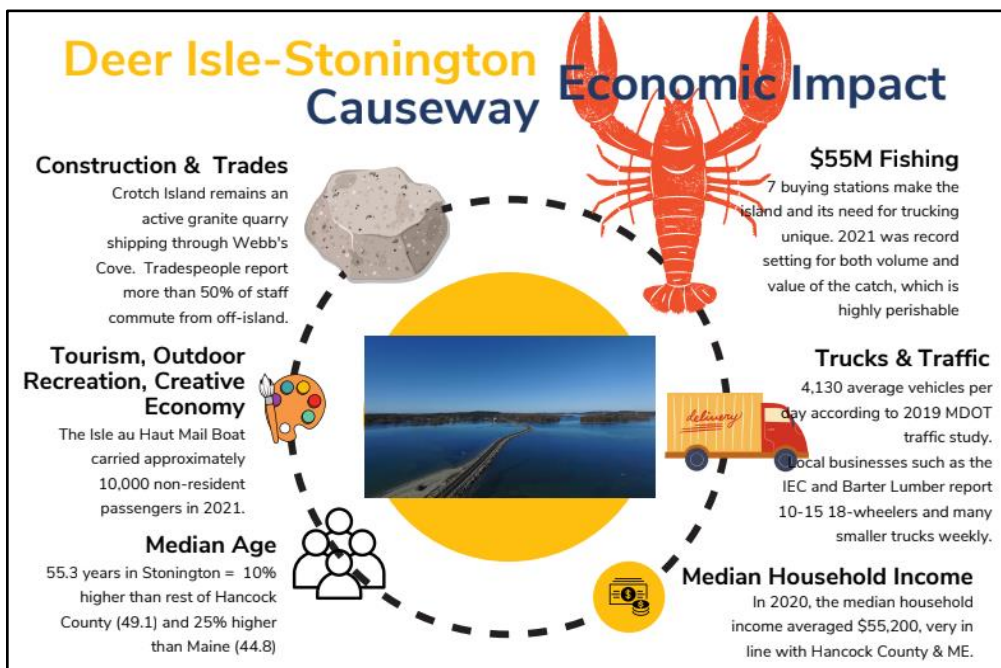
#### h. Long Term Infrastructure Improvements

MaineDOT has two planned capital and maintenance projects for the years 2023 through 2025. The first is \$300,000 for feasibility and pre-engineering of the Deer Isle causeway and the short causeway at the base of the Deer Isle-Sedgwick Bridge. The other planned project involves detailed work on a portion of the Deer Isle-Sedgwick Bridge; the estimated funding for the project is \$700,000. Previous work on a separate part of the bridge was completed in 2022. Several additional MaineDOT maintenance projects were also completed in 2022 such as road paving, patching and striping, rebuilding road shoulders and installing and maintaining road signage.

The Deer Isle-Sedgwick Bridge was completed in 1939 and has required numerous improvements and repairs over the years to maintain its safety. It currently carries over 4,000 vehicles a day and is the lifeline for a \$100 million a year Island economy. In September 2023, the Hancock County Emergency Management Agency conducted an emergency management tabletop exercise focused on a catastrophic failure of the bridge; the exercise highlighted the disastrous effects on Island residents and businesses and the regional economy from a bridge closure. The bridge has outlived its usefulness, and numerous Survey commentators advocated for its replacement by a modern, wider and more robust structure. In 2023, an Ad Hoc Committee of Island residents and businesses organized to press Maine DOT and other authorities to come up with a plan for the replacement of the bridge.

As evidence of sea level rise continues and the impact of climate change grows it will be important to improve Deer Isle's transportation system to meet new demands. One critical step

in this process is making improvements to the Town's causeways, which continually change due to weather events and other factors such as erosion. MaineDOT has committed to studying improvements that can be made to the Deer Isle Causeway and the causeway connecting the Deer Isle-Sedgwick Bridge to Little Deer Isle. The schedule for the project began in summer 2023 with the review of existing data and initial public meeting was held in August; the planning phase is slated to last 8-14 months with a final report by the summer of 2024. Project design and construction is scheduled to take place over the next several years. Possible adaptations include raising or widening these causeways, or increasing the frequency of maintenance. An Emergency Management Tabletop Exercise, sponsored by the Hancock County Emergency Management Agency, was conducted in September 2022. Participants concluded that freight movement, including importing heating oil and exporting live lobsters, will be all-but-impossible if there were a lengthy closure of the Deer Isle Causeway or Deer Isle-Sedgwick Bridge. [\(Link to the MaineDOT website page devoted to the Deer Isle Causeway\)](#)



Source: Deer Isle Causeway: Priority for Transportation Safety and Economic Resilience (2022)

An additional transportation improvement project involving the demolition and replacement of the Holt Mill Bridge was completed in 2023. The bridge is three feet wider than the previous structure with increased shoulder widths on both sides. Additionally, cross pipes and culverts were replaced to improve drainage and reduce icing events. The completed bridge provides more than two feet of clearance above current 50- and 100-year storm tides.

The 2022 Town Report notes several efforts to improve transportation infrastructure.

- \$200,000 MaineDOT funding for planning a more resilient causeway
- Deer Isle and Stonington select boards are working together with MaineDOT to upgrade the Deer Isle Causeway and eventually replace the Deer Isle-Sedgwick Bridge

In 2023 Deer Isle completed a climate vulnerability assessment and an inventory of all crossroad culverts. Both are geo-referenced and available on the Deer Isle website Environment page.



i. Pedestrian and Bicycle Facility Conditions and Connections

The Maine Department of Transportation suggests two bicycle loop routes in the Deer Isle area, both of which begin south of the Deer Isle Bridge. The 25-mile Sunshine Loop circles around northern Deer Isle while the Island Loop extends further south through Stonington for a 39-mile ride.

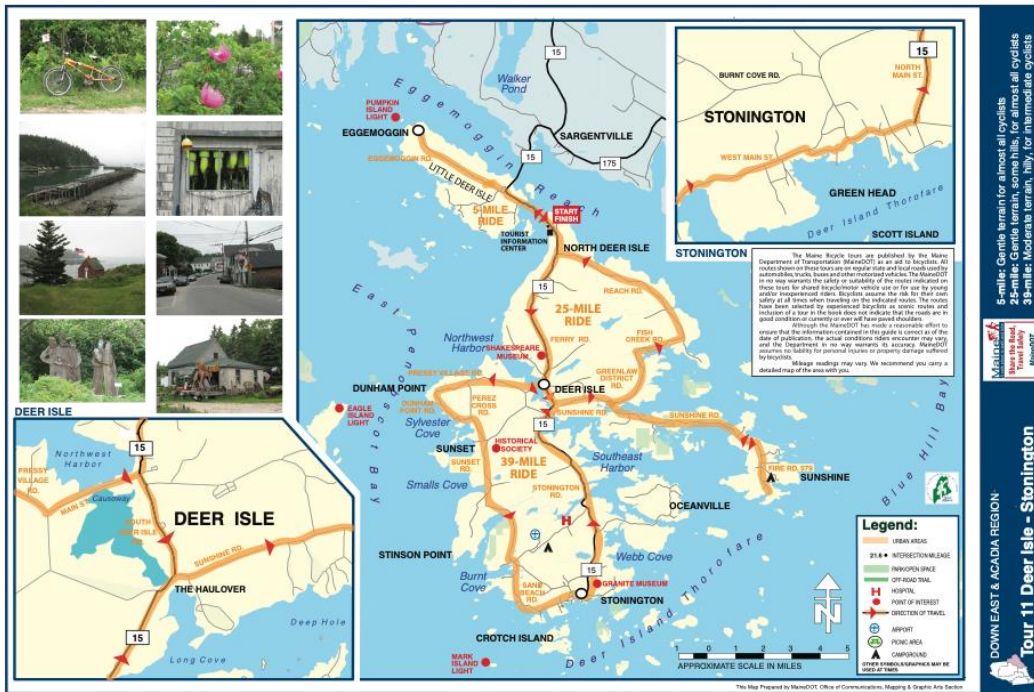
Deer Isle-Stonington Bike Tour Loops

Name	Distance	Terrain
Recommended Warm-Up Ride (Not a Loop)	5	Gentle terrain for almost all cyclists
Sunshine Loop	25	Gentle terrain, some hills, for almost all cyclists
Island Loop	39	Moderate terrain, hilly, for intermediate cyclists

Source: Explore Maine (<https://www.exploremaine.org/bike/downeast/deerisle.shtml>)

Bicycle routes offer opportunities for recreation and provide important alternative transportation options for Deer Isle residents. Neither route has signage and the included roadways do not have shoulders for riding. An investment in safety measures along these routes could improve both accessibility and safety. Routes 15 and Sunset Road, which are fixtures in one or both routes, typically see heavier vehicular traffic than local Town roads. Figure 9-? details the Sunshine and Island loops.

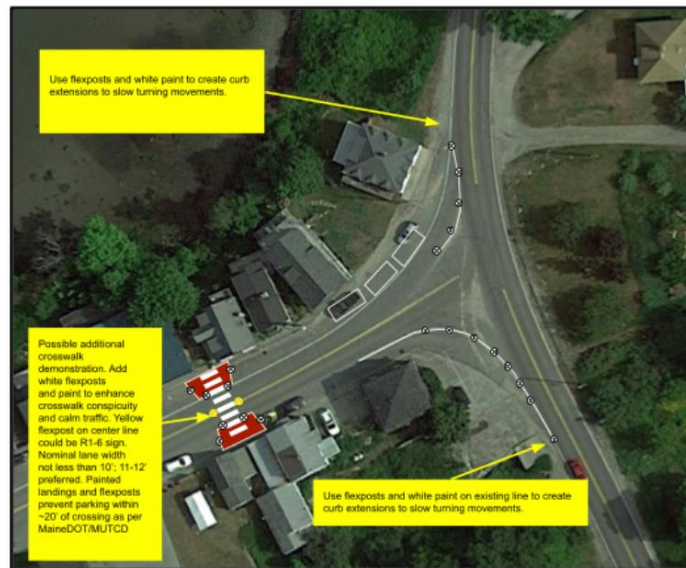
Figure J-8: Explore Maine Deer Isle-Stonington Bicycle Loops



Source: Explore Maine (<https://www.exploremaine.org/bike/downeast/deerisle.shtml>)

There is little existing infrastructure in Deer Isle to support pedestrian and bicycle travel. Route 15 and Sunset Road do not have paved shoulders. Lower volume local roads are accessible for experienced riders, but not suitable for children or inexperienced riders. Individual cyclists and bicycle tours visit Deer Isle and experience conflicts with automobiles.

Deer Isle Village has the only sidewalks in Deer Isle and presents several challenges for future growth. Traffic speeds and volumes are high for a pedestrian area and sight distance is relatively short. The Town embarked on an exploration of alternatives to calm traffic, enhance safety and retain parking for visitors. A conceptual design was submitted to MaineDOT in 2023 and is under consideration as a [Municipal Planning Initiative \(MPI\) project](#).



j. Major Traffic Generators

Deer Isle has a number of traffic generators relating to our economic base.



- Stonington - Is a destination for fishermen and tourists. The morning peak for fishermen is very early. Other travelers pass through Deer Isle later in the morning heading to Stonington. The afternoon peak for both groups is spread out across several hours.
  - School and after school activities - Increased volumes of traffic also accumulate at the elementary and high schools, more noticeably when events and activities take place at the schools and accompanying facilities.
  - Village services - Main Street, which includes the library, post office and local businesses and services is one of the primary areas of vehicle and pedestrian congregation in the Town.
  - Goose Cove - Is a popular destination with trails on Barred Island Preserve and the Aragosta Restaurant and Cabins.
  - Sunset Road - Has a series of small businesses including child care facilities, hardware and plumbing supply, museum, churches, and a post office.
  - Transfer Station - generates traffic on Route 15 and Quaco Road during hours of operation.
  - Blue Hill Peninsula - A significant number of residents living in Deer Isle and Stonington commute to work in the Blue Hill Peninsula. All traffic is funneled over the Deer Isle-Sedgwick Bridge. Tourists to the Blue Hill Peninsula also travel to Deer Isle and Stonington along with day trippers.
- k. Road Policies and Standards

Deer Isle has adopted standards for low, medium and high volume roads in its Subdivision Regulations. In other cases Deer Isle subscribes to MaineDOT standards for low volume, rural roads. Elements such as minimum right of way, minimum shoulder width, minimum and maximum grades and minimum vertical clearance are determined by average daily traffic counts or passenger car equivalents per hour and road density patterns. Deer Isle Building Permits and Entrance Permits specify standards for driveways and entrances onto Town roads as well as setbacks from property lines.

Deer Isle is drafting a Commercial Site Plan Review ordinance for consideration in 2024 that includes required traffic impact analysis.

Deer Isle has not had a large volume of subdivision development. Such subdivision roads as there are dead-end, rather than connect to other developments. Subdivisions have been built on peninsulas or waterfront parcels with no natural connectivity options. The Town's Subdivision Regulations should be reviewed to determine whether more efficient transportation alternatives can be encouraged.

**Table J-3: Deer Isle Subdivision Road Standards**

Table 10.15-3 Street Design Guidelines																		
Access Category Traffic Volume Level	Low Volume						Medium Volume									High Volume		
	1-50 ADT			50-100 ADT			100-400 ADT			400-1500 ADT			1500+ ADT			100 PCE+ (per hour)		
Density Pattern	R	V/U	C/I	R	V/U	C/I	R	V/U	C/I	R	V/U	C/I	R	V/U	C/I	R	V/U	C/I
Minimum Right of Way	40'	40'	40'	40'	40'	50	50	50	50	50	50	60	60	60	60	60	60	60
Minimum Traveled Way Width	14'	16'	16'	18'	18'	24'	18'	20'	28'	18'	20'	30'	20'	22'	30'	22'	24'	30'
Minimum Shoulder Width (each side)*	0'	0'	4'	0'	1'	2'	2'	1'	2'	2'	2'	4'	3'	4'	5'	3'	4'	5'
Clear Zone Width (each side)	7'	7'	7'	7'	7'	7'	7'	7'	7'	8'	8'	8'	8'	8'	8'	8'	8'	8'
Minimum Vertical Clearance**	14'	14'	14'	14'	14'	14'	14'	14'	14'	14'	14'	14'	14'	14'	14'	14'	14'	14'
Minimum Grade	.50%	.50%	.50%	.50%	.50%	.50%	.50%	.50%	.50%	.50%	.50%	.50%	.50%	.50%	.50%	.50%	.50%	.50%
Maximum Grade***	8%	8%	5%	8%	8%	5%	8%	8%	5%	6%	6%	5%	6%	6%	5%	5%	5%	5%
Minimum Centerline Radius****	100'	100'	350'	100'	100'	350'	100'	100'	350'	140'	140'	350'	140'	140'	350'	350'	350'	350'
Roadway Crown Asphalt Surface	.25"/ft	.25"/ft	.25"/ft	.25"/ft	.25"/ft	.25"/ft	.25"/ft	.25"/ft	.25"/ft	.25"/ft	.25"/ft	.25"/ft	.25"/ft	.25"/ft	.25"/ft	.25"/ft	.25"/ft	.25"/ft
Roadway Crown Aggregate Surface	.5"/ft	N/A	N/A	.5"/ft	N/A	N/A	.5"/ft	N/A	N/A	.5"/ft	N/A	N/A	.5"/ft	N/A	N/A	.5"/ft	N/A	N/A
Minimum Internal Sight Distance	155'	155'	230'	155'	155'	230'	155'	155'	230'	155'	155'	230'	155'	155'	230'	155'	155'	230'
Minimum Internal Spacing Standards*****	25'	25'	40'	25'	25'	40'	25'	25'	40'	25'	25'	40'	25'	25'	40'	25'	25'	40'
Minimum Internal Access to Street Corner Clearance*****	30'	30'	75'	30'	30'	75'	30'	30'	75'	30'	30'	75'	30'	30'	75'	30'	30'	75'

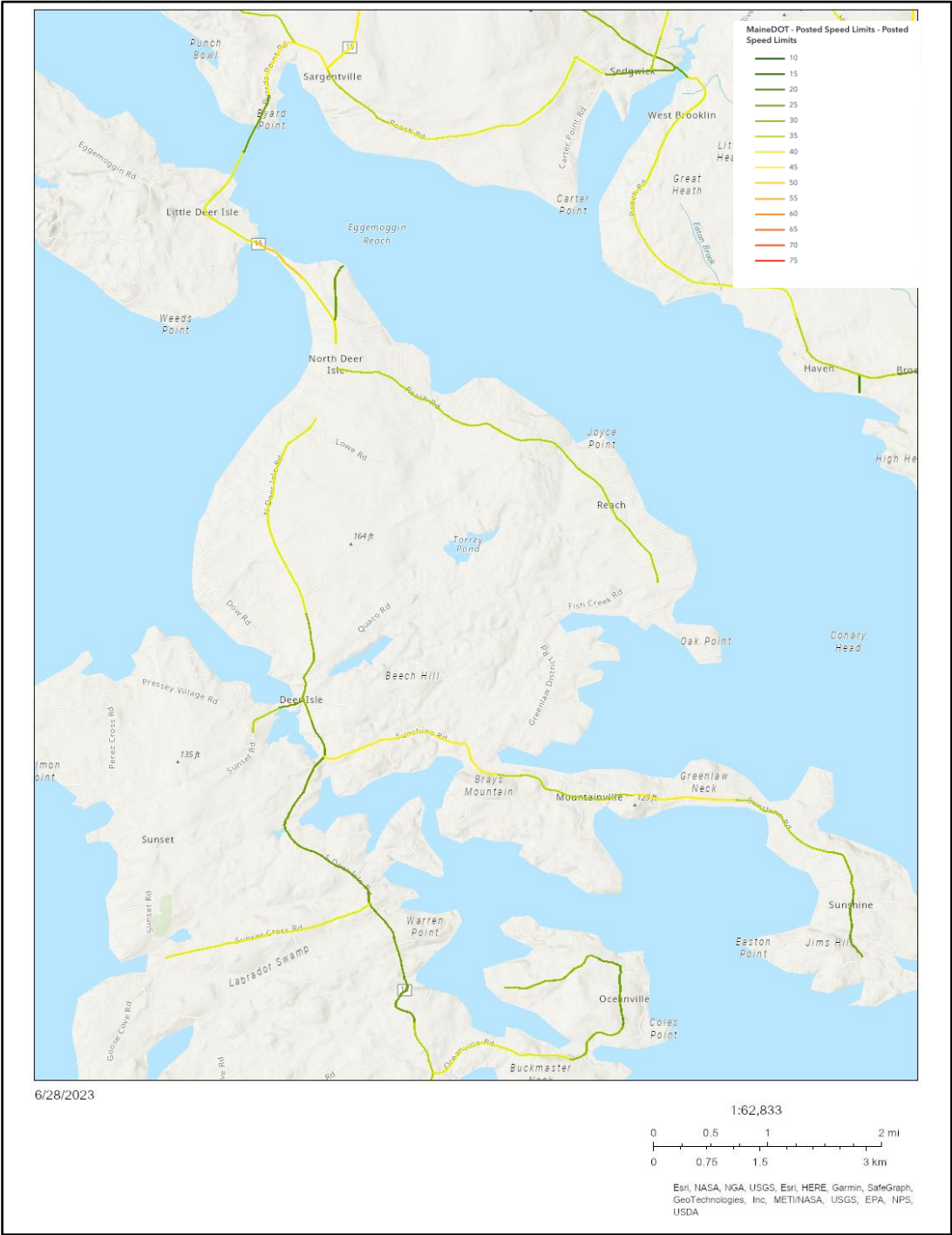
\*The Board may require an increase in shoulder width for stormwater management purposes or road stabilization.  
 \*\*The minimum vertical clearance is the vertical clearance over the entire roadway width, including any shoulders.  
 \*\*\*Maximum grade may be exceeded for a length of 100 feet or less.  
 \*\*\*\*Superelevation is not recommended for any subdivision street, unless recommended by Town engineer or Town-hired consultant. \*\*\*\*\*Internal spacing distances are measured from the edge of one internal subdivision access to another, excluding curb radii.  
 \*\*\*\*\*Internal access to street corner clearances are measured from the edge of an internal subdivision access to an intersecting public road, excluding curb radii.

2020 Roads Standard Table, Town of Deer Isle

I. Speed Limits

MaineDOT determines speed limits on Route 15 and Sunset Road. Most local roads in Deer Isle do not have posted speed limits. The map below depicts the posted limit on Route 15 and select local roads.

**Figure J-9: Speed Limits**



**m. Municipal Parking Areas**

Public parking in Deer Isle is available on both sides of Main Street in Deer Isle Village and at the Deer Isle Town Office and Old Elementary School. There is no sidewalk or path connecting the Town Office with the Village. The elementary and high schools also offer larger paved lots for school activities. The Reach Performing Arts Center over taxes the existing parking lots.



Pullouts are present along various portions of Route 15 but most other streets are not wide enough to permit roadside parking. Finding space for additional public parking in high demand areas is a challenge.

#### n. Airports, Rail, and Bus Transportation

The nearest airports are the Stonington Municipal Airport, 6 miles south of Deer Isle Village, which caters primarily to private aircraft, and the Hancock County Airport in Trenton, 40 miles from Deer Isle, which has scheduled service to Boston. The Bangor International Airport, over 50 miles from Deer Isle, is a major commercial and cargo airport with scheduled service to several major U.S. hubs. Deer Isle is not in the flight path of local airports.

Downeast Transportation offers a once- a-week bus route from Deer Isle and neighboring towns to shopping destinations in Ellsworth. The bus makes a morning stop in Deer Isle and returns in the afternoon. Ridership, in the table below, is not high and the Town may consider ways to make this service more practical for a larger number of riders. Currently, there is no public parking at any of the designated bus stops, or safe means to travel to these bus stops on foot. Additionally, limited service is provided by the Downeast Community Partners for income-eligible clients referred to it by the Maine Department of Human Services. Other organizations such as Friends in Action offer transportation to and from medical appointments as well as to other destinations; these services involve pre-arranging rides and in some cases are only available to qualified individuals. There are currently no public commuter transportation options. Concord Coach Lines in Bangor offers bus transportation to Augusta, Portland, Logan International Airport and South Station in Boston.

#### o. Marine and Rail Terminals and Boat Transportation Facilities

There are no marinas or marine or rail terminals in Deer Isle. There are public boat launch ramps into Eggemoggin Reach located at Bridge End Park, Pumpkin Island Light, Reach Beach, and Ferry Landing Road. Mariners Memorial Park, owned by the Evergreen Garden Club, provides a public boat launch ramp into Southeast Harbor. The nearest freight rail service is in Bangor.

## 6. Analyses

### a. Community and Regional Transportation Concerns

Transportation hazards include dangerous, inconsistent geometrics, failed road surfaces, signage, and poor sight distance. A more general hazard is conflicts between bicycles and motorists. There are few paved shoulders, forcing bicycles to ride in the travel lane. This slows the flow of traffic and increases the risk of crashes.

### b. Road Conflicts

Conflicts are caused by multiple road uses, such as through traffic conflicting with local traffic, bicycles, and pedestrians. Additional development on Route 15 and Sunset Road will increase friction with through traffic and will increase the crash rate. The intersection of Route 15 and Main Street is a case in point. Vehicle speeds and pedestrian safety concerns should be consistently reevaluated at this intersection to maximize overall safety.

### c. Sidewalks

Sidewalks are important for connecting residential areas with schools, neighborhood shopping areas, and other daily destinations. There are 590 feet of sidewalk in the Village. Adding sidewalks and crosswalks could enable residents of Deer Run and neighboring streets to access Village services safely and without use of their cars. Adding sidewalks could also connect Town facilities, such as the Town Office, Deer Isle playground, public parking, and public restrooms to the Village. According to Smart Growth America, there were zero pedestrian fatalities in Deer Isle from 2008-2020.

d. Relevance of State and Regional Transportation Plans

The State of Maine has a number of transportation plans that may have relevance for Deer Isle. The Long-Range Transportation Plan Update 2050 “will convey MaineDOT’s vision for a multimodal transportation system that not only provides for safe and efficient travel throughout the state, but also supports a high quality of life and economic opportunity in all of Maine’s villages and communities.”<sup>19</sup>

Also underway is an update of the Maine Strategic Transit Plan 2025. MaineDOT is particularly interested in looking at new models and approaches for providing public transportation more efficiently and effectively in Maine’s rural areas like Deer Isle.

MaineDOT is also creating a Statewide Active Transportation Plan 2050 that will include an assessment of priority 3 and 4 state highway corridors, including Route 15 and Sunset Road, for shoulder enhancements. Deer Isle will work with MaineDOT to encourage public participation and prioritization of enhancements.

A Climate to Thrive assisted the Town of Deer Isle to install two Level 2 Electric Vehicle charging stations at the Old Elementary School.

e. Budgeting for Road Maintenance and Improvements

As noted, MaineDOT has large infrastructure improvements projects in 2023 with combined estimated funding of just over \$900,000. The Town of Deer Isle budgeted \$1,011,750 in 2023 for maintenance and improvement of Town roads including equipment reserves. The Town anticipates it will continue to spend at approximately this level in the foreseeable future.

f. Parking Issues and Standards

Parking in Deer Isle Village is a problem, particularly during the summer and around the Post Office, where parking is inadequate. Some parking problems can be mitigated through land use ordinance measures. For example, site plan review standards can require that proposed land uses such as commercial operations provide adequate off-street parking. Extension of sidewalks to the Town Office and Quaco Road would provide additional parking resources.

g. Transit Services

As described previously, Deer Isle is served by one route of the Downeast Transportation fixed-route public bus service. Recent average monthly Deer Isle ridership has been less than

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<sup>19</sup> MaineDOT Long-Range Transportation Plan Update 2050, <https://www.maine.gov/mdot/longrangeplan/>, accessed June 22, 2022.

seven. Other agencies and services also provide on-demand transportation assistance for select groups and to additional areas of the county.

#### h. Land-Side and Water-Side Transportation Facilities

Deer Isle has a seasonal mail boat service to several Penobscot Bay islands. Other waterside transportation operates primarily out of Stonington. Deer Isle is interested in working with MaineDOT and the Maine Emergency Management Agency to identify landside and waterside transportation opportunities. A recent emergency management planning activity identified a particular need for ferry services in the event of a bridge closure.

#### i. Local Access Management

Access management represents an effort to increase safety and reduce congestion by limiting the number of exits and entrances onto primary roadways. It is better, for example, to have all of the stores in a small commercial retail strip center share a single entrance rather than for each one to have its own curb-cut along the road. In Deer Isle, the only roadways for which access management would be relevant are Route 15 and Sunset Road, and both of those are controlled by MaineDOT. MaineDOT can require minimum spacing between driveways and entrances.

#### j. Subdivision Roads

The Town of Deer Isle Subdivision Regulations, last amended in 1989, sets in place a number of standards for roads within subdivisions. In addition to all roads being subject to design specifications there is language regulating road crossings of watercourses, vehicle turnouts, dead-end streets, erosion prevention, culvert installation and the design of intersections and curves. The State of Maine also has minimum sight distance standards for subdivision accesses.

#### k. Impact of Climate Change and Sea Level Rise

Perhaps the greatest long-term threat to Deer Isle's transportation infrastructure is the effect of climate change and sea level rise. The State forecasts a sea level rise of 1.5 ft by 2050; a rise of 4ft is anticipated by 2100.

Roads predicted to be inundated by 2ft of sea level rise include (portions of) the Deer Isle Causeway, the Swains Cove Road & Swains End road intersection, Haskell District Road, Old Ferry Road, Oak Point Road (at Reach Beach), Freemans Run (Fire Road 512), Sunshine Rd (multiple sections), Old Place Road, Fire Rd 313, the Dunham Point Rd & Hitz Point Lane intersection and Trundy Point Lane (Fire Road 364). It has been estimated that the approximate cost to upgrade the inundated roads would be \$1,240,000. Principally because of the effect on the Deer Isle Causeway, the majority of the Town's roads would be deemed inaccessible with 2ft of sea level rise, and emergency responders would be unable to reach 1308 addresses.

The proposed upgrades to the Deer Isle Causeway would be an essential start to the hardening of the Island's transportation infrastructure against the effects of sea level rise. In addition, all future road planning and construction needs to reflect a response to this risk.

Maine Climate Impact Dashboard image of the Deer Isle Causeway:



Maine Climate Impact Dashboard image of Deer Isle Village, Bridge Street and the Mill Pond at various levels up to 8.8 feet of sea level rise. It also indicates that Bridge Street would be overwhelmed under these conditions. On the eastern end of the picture the Sunshine Carrying Place is also vulnerable to flooding.



Maine Climate Impact Dashboard image of the Sunshine Causeway shows extensive flooding.





## 7. Goals & Objectives

GOAL: Provide safe and resilient roadways to support Deer Isle and its economy			
Objective	Strategy	Responsible Party(ies)	Timeframe
Replace Deer Isle-Sedgwick Bridge	Persuade MaineDOT and other State authorities to adopt a replacement strategy and commence engineering studies	Deer Isle Select Board, Stonington Select Board, Joint Transportation Committee	2024 - 2034
Rebuild Deer Isle Causeway and causeway to Deer Isle-Sedgwick Bridge	Support engineering studies and design plans by Maine DOT	Deer Isle Select Board	2024 - 2030
	Complete environmental studies	University of Maine, Maine Center for Coastal Fisheries	2024
Rebuild Sunshine, Oak Point and Bridge Street causeways and road infrastructure susceptible to sea level rise and climate change	Identify and prioritize target road infrastructure	Deer Isle Select Board	2024
	Develop funding strategy	Deer Isle Select Board	2025

Shoulder paving Route 15 and Sunset Road	Advocate for placement of projects on MaineDOT Three Year Plan	Select Board, MaineDOT, Bicycle Coalition of Maine, Joint Transportation Committee	2030
	Review ordinances to promote transportation efficiency consistent with State and Federal standards.	Select Board, MaineDOT	Ongoing
Create and maintain a capital road investment plan	Assess current road conditions	Select Board, Town Manager, Road Foreman	2024
	Create ten year road prioritization plan	Select Board, Town Manager, MaineDOT, Road Foreman	2025

GOAL: Support alternative transportation systems for non-drivers in coordination with regional partners			
Objective	Strategy	Responsible Party(ies)	Timeframe
Increase the reach and frequency of bus services and outreach to share information about these services	Work with Downeast Transportation, Inc. to identify feasible routes	Joint Transportation Committee, DTI, Peninsula League of Towns	2025
Improve coordinated ride services with a single point of contact	Work with Friends in Action, Downeast Community Partners (DCP), ModivCare/ Logisticare, HCPC	Healthy Island Project, DCP, Friends in Action, Peninsula League of Towns	2024
Build trails and sidewalks to promote walking and biking for transportation	Identify priority routes	Town, Schools	2024
	Prepare a Deer Isle Village masterplan (See Economy Chapter)	Economic Development Committee	2025
	Identify funding for village redevelopment	MaineDOT, Department of Economic and Community Development, Town Manager	2026

# Chapter K: Public Facilities and Services

## 1. Purpose

The adequacy of a community's public facilities is important for the quality of life of its residents as well as for their safety and economic prosperity. This chapter provides an understanding and analysis of current conditions for Deer Isle and potential future needs and issues.

Specifically, the chapter aims to:

1. Identify and describe Deer Isle's public facilities and services; and
2. Assess the adequacy of these services to handle current and projected demands.

The Town of Deer Isle does not operate a municipal ambulance service or other healthcare facilities. Healthcare matters are covered in the Health and Recreation Chapter.

## 2. Key Findings & Issues

Public services and facilities in Deer Isle need to be maintained and improved to meet future demands.

**Education:** Education remains the single largest expense for Deer Isle, roughly 66% of the Town budget. The high school will require significant repairs and renovation.

**Fire Department:** The Fire Department has outgrown their current facilities and has prepared a design for a new fire station.

**Law Enforcement:** Law enforcement services do not provide consistent coverage.

**Town Administration:** Front office services are valued by Deer Isle residents, with expanded automobile registration options. Demands for code enforcement, plumbing inspection and planning services point to the need for more detailed ordinances and staff increases.

**Transportation:** Public works struggles each winter to maintain roads in snowstorms. Challenges include cost of equipment and a shortage of qualified operators. The Town needs a salt-sand storage building and continues to contribute to a reserve fund. Population aging is creating increased demand for alternative transportation systems, lift services, and other accommodations.

**Solid Waste and Recycling:** The transfer station is undergoing significant changes with added capacity and streamlined services. There remains a large ash pile that must be removed to a hazardous waste storage facility. The take-it or leave-it room was closed during COVID, but demand is high to reopen it.

**Regional Cooperation:** Deer Isle will continue to coordinate many of its services with abutting communities and area non-profit organizations.



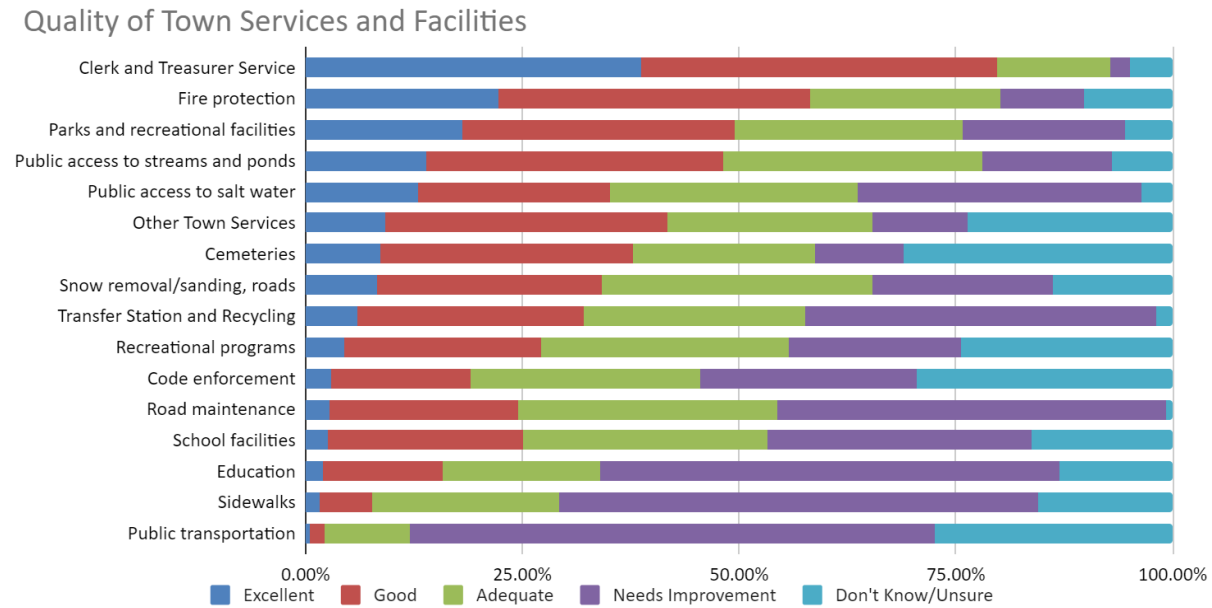
### 3. Key Findings & Issues from Draft 2006 Comprehensive Plan

The Draft 2006 Comprehensive Plan noted, “Overall, public services and facilities in Deer Isle appear adequate both for now and in the foreseeable future. The Fire Department may need to lengthen some of the truck bays to accommodate larger vehicles. Even though the high school, with a current enrollment of 164, is well below its rated capacity of 275 students, it still faces several deficiencies. These include an undersized gymnasium, library and art room. Roofing, electrical, plumbing and heating repairs are also needed. The elementary school building is also below its rated capacity. It does not presently face any deficiencies.”

### 4. 2023 Public Opinion Survey

The Public Opinion Survey reveals concerns about the adequacy of Town services in Deer Isle. Public transportation, sidewalks, and education received the least favorable results, as less than half of survey respondents deemed these services adequate or better. Road maintenance (45%) and the Transfer Station and recycling (40%) received substantial “needs improvement” ratings. On the other hand, 80% of respondents believed that Clerk and Treasurer services were good or excellent. Fire protection and parks & recreational facilities were found to be at least adequate or better by more than 75%. Cemeteries were rated as good or excellent by 37% of respondents, but a substantial 31% indicated they were unsure.

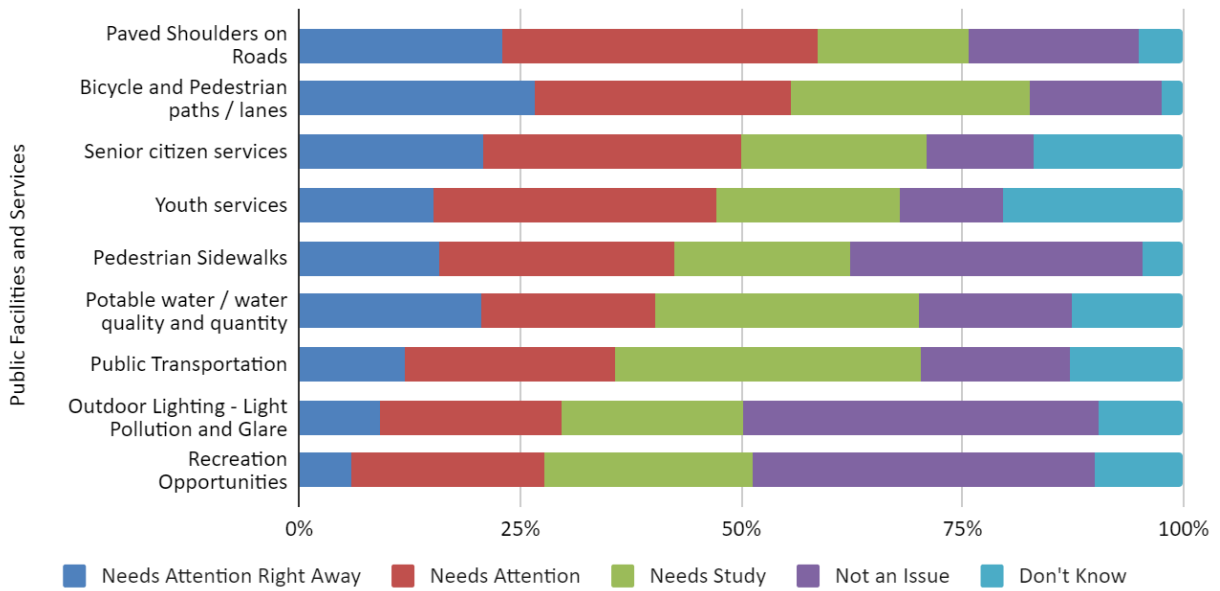
**Figure K-1: Public Opinion about the Quality of Facilities and Services**



When asked about priority Town action on improving facilities and services, respondents wanted action first on transportation related facilities including paved shoulders, bike and pedestrian paths and sidewalks. Senior citizen and youth services also received support for action. In contrast to the 2006 survey, there is less demand for additional recreational services. Concerns about light pollution also appear to be muted.

**Figure K-2: Public Opinion of the Need for Improvements in Facilities and Services**

Opinion of Public Facilities and Services



## 5. Town Administration

### A. Current Conditions

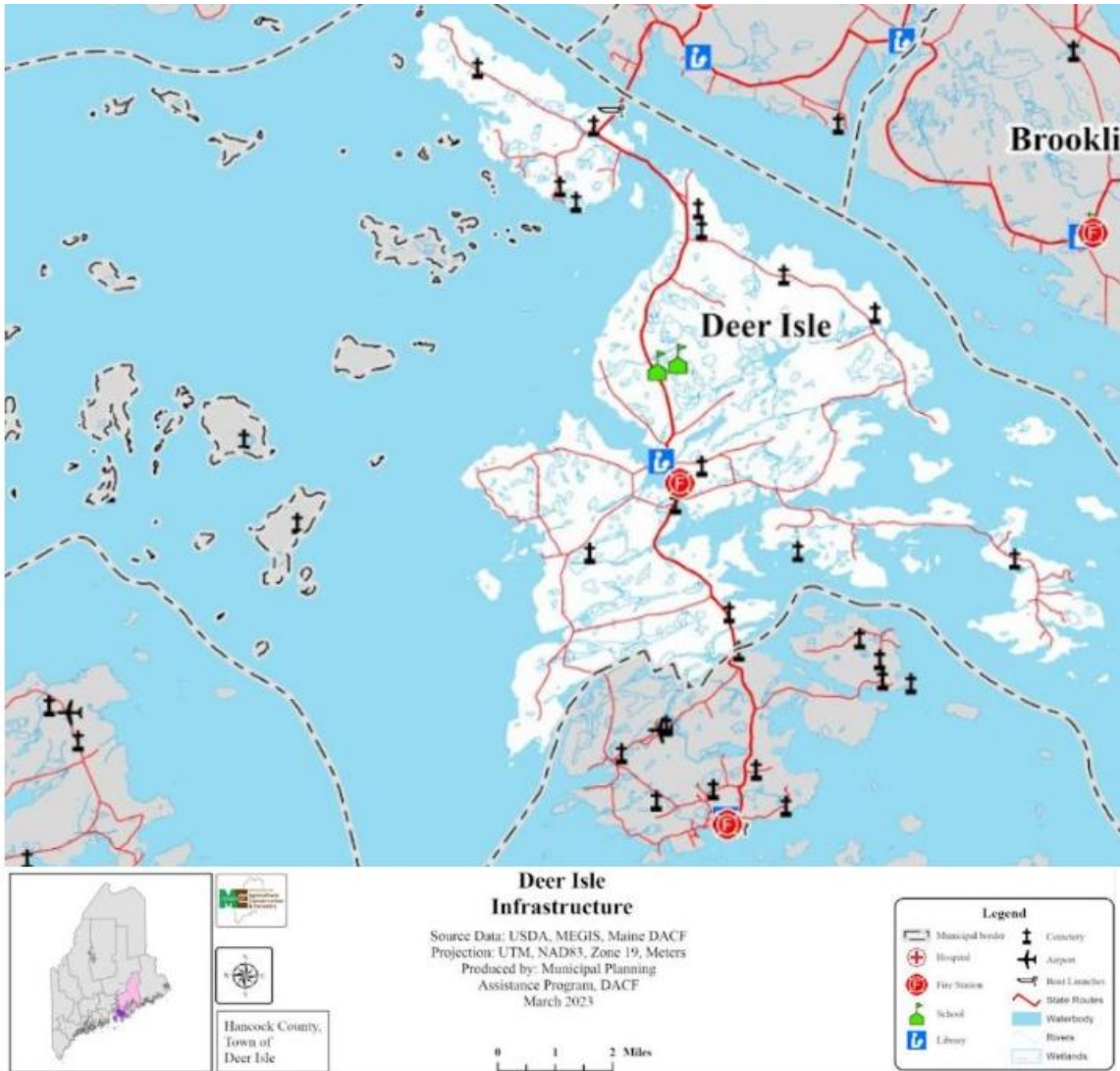
Deer Isle has a select board-manager form of government and is managed by a full-time Town Manager and a three-person Select Board. The Select Board members are elected to three year terms, expiring on a staggered basis. The Treasurer/Tax Collector and Clerk are also elected positions. Appointed staff include the Town Manager, Environmental Planner, Code Enforcement Officer, Road Foreman and Crew, Transfer Station Attendant, and Shellfish Warden. Town Staff perform multiple roles on a regular schedule listed on the Town website [www.townofdeerisle.org](http://www.townofdeerisle.org).

The following map locates some of the public services available in Deer Isle. The chapter will cover the largest departments and municipal services in Deer Isle.

### B. Current and Future Adequacy

Survey results indicate varying assessments of adequacy. High marks are given to the treasurer/tax collector/clerk “front office” services with over 80% of respondents stating the services are good or excellent. Other Town Services are rated only “adequate” or better. Demands for additional public services may require staffing increases.

**Figure K-3: Deer Isle Public Facilities**



## 6. Planning, Plumbing and Code Enforcement

### A. Current Conditions

Deer Isle building, plumbing, subdivision and shoreland zoning regulations are enforced by a combination of authorities.

- Code Enforcement Officer- the CEO handles all building permits within the Town and offers guidance on building and development compliance according to Town and state statutes, as seen in the table below. The current CEO is also the Deer Isle alternate licensed plumbing inspector.
- Plumbing Inspector- approves and inspects all plumbing permits, and remits his/her reports back to the CEO.

- Planning Board- consists of five individuals and two alternates who review and approve site plans and any subdivision projects particularly within the shoreland, wetland, or flood zone hazard areas for zoning compliance.
- Board of Appeals- consists of five individuals and meets when required to resolve any disputes regarding the CEO, Planning Board, and land owner decisions.
- Harbor Committee- the three select board members serve as the combined Deer Isle Harbor Master, resolving maritime related issues regarding moorings, pier and float permits/inspections, aquaculture permits, or boundary disputes having an effect on the aforementioned topics.
- The Shellfish Committee meets monthly with Stonington to discuss local and industry wide issues. A number of conservation efforts and projects are undertaken prior to issuance of new licenses each spring. Information on shellfish licensing is available at [www.townofdeerisle.org/shellfish](http://www.townofdeerisle.org/shellfish).

The tables below show the number of building permits (and other Code Enforcement and Planning Board permits) and plumbing permits issued in 2022:

**Table K-1: Code Enforcement and Planning Board Permits**

Permits Issued by the Deer Isle Planning Board and CEO			
Inland	#	Shoreland	#
ADA Ramp	1	Boat ramp	1
Barn	2	New Residences	5
Cell Tower Equipment	1	Pier	1
Decks/Porches	3	Ramp and floats	3
Garages	6	Residential Additions	2
Greenhouse	1	Retaining wall	1
Mobile Homes	3	Septic system	2
New Driveway/ Parking	2	Sheds	4
New Residence	8	Shore Stabilization	4
Optional Addition	1	Solar Array Panels	2
Poles for Utilities	1	Steps to Shore	1
Residential Addition	11	Stonewall addition	1
Sheds/Shops	7	Tree Removals	11
Solar Array Panels	2		
Take Out	1	Flood Hazard Permits	9
Total	50		47
Source: 2022 Town Report			

**Table K-2: Plumbing Permits**

Plumbing Permits (2022)	
External/Subsurface Wastewater	25
Internal	16
Inspections Completed	31
Source: 2022 Annual Town Report	

**B. Current and Future Adequacy**

The Code Enforcement position is currently part-time. Should the Town enact a Commercial Site Plan Review Ordinance or other land use regulations, the work may require a greater commitment of time.

## 7. Fire Protection

**A. Current Conditions**

Fire protection is provided by the Deer Isle Fire Department. Additional coverage is available through automatic mutual aid arrangements with adjoining departments. The average response time to a fire is five minutes. The response time to the most remote part of Town is fifteen minutes.

**1. Facilities**

The present fire station is located at 78 Church Street. The facility is shared with the Town Office, which is on the upper level. The approximately 2,400 square-feet of floor space on the ground floor is used by the Fire Department. It includes four heated truck bays, a radio room (45 square-feet), a storage closet/stairway (63 square-feet) and electrical and furnace rooms.

Fire Station 2 was established in the old elementary school with one bay that serves a rescue truck, rescue boat and a parade truck. Additional space is used as a training room and gear washing room, file room and chief's office.

While there are an adequate number of bays, the facility has serious deficiencies. One is that the bays are too short and too low to accommodate new trucks. Another issue is inadequate storage space.

The Fire Department has proposed a new fire station and is seeking grants and other funding. A preliminary design has been prepared using the location of the old elementary school and could house five truck bays, crew quarters, offices and more.

**2. Staffing**

The volunteer department has 20 members, constituting one chief, two assistant chiefs, one dispatcher and 16 other individuals. Membership increased by eight in 2022. The increasing demands on Fire Chiefs suggest that Deer Isle and Stonington can work together to pay for a full time Fire Chief and consolidated fire department. Volunteer staffing remains a challenge

as housing costs and busy work schedules compete with volunteer recruitment. A major staffing issue is meeting state training requirements, which may require hundreds of hours of volunteers' time.

### 3. Response

Received calls were up by 20-30 calls from the previous year with a total of 233 in 2022. 108 were mutual aid calls to Sedgwick, Stonington, Memorial Ambulance Corps and other agencies.

### 4. Equipment

The current inventory of vehicles is shown in the table below:

**Table K-3: Fire Department Vehicles, 2023**

Type of Vehicle	Year	Condition	Years of Service Left
Engine 1	2010	Good	17
Engine 2	1996	Fair	As Needed
Engine 3	2018	Excellent	25
Tanker 1	2000	Fair	7
Rescue 1	1994	Good	As Needed
Old Engine 1	1937	Good	Reserved for parades, celebrations, special events

In 2023 the Deer Isle Fireman's Association purchased a 1994 Freightliner/Excellence medium rescue vehicle to replace the department's 1996 converted ambulance. The new rescue vehicle had less than 29,000 miles when purchased. The purchase and upgrades made to the vehicle cost about \$50,000. A reserve fund receives \$40,000 annually for periodic purchase of new fire trucks. The Town may need to increase the annual contribution to keep pace with rising prices.

## 2. Current and Future Adequacy

There are not sufficient supplies of fresh water to fight major fires. The Town has relied on a small reservoir that has deteriorated significantly. The supply of water from the Lily Pond has also deteriorated. The Fire Department recommends pursuing grants to create an alternate system for fire water supply from the Lily Pond.

The water supply for fire fighting purposes is a concern in most parts of Town. The department has gradually been addressing deficiencies in water supply. It would like to take measures to improve supply through dry hydrants or fire ponds in the Goose Cove and Sunset areas.

Based on the survey, about 80% of participants are pleased with the Town's fire protection services. More than 80% supported merging the Deer Isle and Stonington Fire Departments.

## 8. Law Enforcement

### A. Current Conditions

There is no municipal police department in Deer Isle. Police protection is provided by the County Sheriff's Department and the State Police. Response times vary widely, depending on where the closest unit happens to be patrolling when a call comes in, and could exceed 30 minutes.

### B. Current and Future Adequacy

According to Maine State Police records, the crime rate in Hancock County in 2021 was 22.87 per 1,000 county residents. (Source: Crime in Maine, 2021) This was less than the State average of 32.44 per 1,000 people. Hancock County saw a total of 39 violent crimes in 2021, lower than all but six other counties in the state.

Half of the survey respondents indicated that police protection was adequate. Another 36% felt that police services need improvement. Alternatives for improving service include contracting with the County Sheriff's Department for added patrol time or forming a local constabulary. A concern for the schools is the amount of time it would take to get law enforcement here in the event of an active shooter situation, and what happens in the interim if the word gets out to parents.

## 9. Public Works and Road Maintenance

### A. Current Conditions

The Town of Deer Isle has an appointed Road Foreman. The foreman directs personnel and cares for the equipment and arranges for the upkeep of Town roads, in accordance with the Town Meeting approved budget for roads. The Select Board designates sections of Town roads each year for improvement, usually consisting of ditching, culverts and paving. The Town builds reserve accounts for new equipment purchases and maintenance by "paying" into the fund at the going rate for equipment usage. The Town contracts most roadside vegetation management; it does not have a street tree program.

The Town of Deer Isle has a municipal garage located at the Town Hall, under the Town's offices. The facility is no longer tall enough to accommodate modern plow trucks. Public works also has a yard for materials such as salt, sand, gravel, road patch and culverts located on Quaco Road next to the Transfer Station. The Town is exploring options for expanding the materials area and is contributing to a reserve fund for a Salt/Sand storage building.

Analysis of roads, sidewalks and related infrastructure is included in the Transportation Chapter.

As of 2023, there is one full time, one part-time and two seasonal part time employees in public works. Additional work is contracted such as paving and brush work. In 2023 filling positions is very challenging due to low unemployment rates and licensing requirements.



The Town has been reluctant to take on responsibility for the maintenance of local cemeteries. It is obligated by State law to maintain the graves of veterans, including in privately operated cemeteries.

The Town equipment for road maintenance and repair includes:

**Table K-4: Public Works Equipment**

Type	Year	Condition	Years of Service Left
International CV515 1 Ton (White), plow/wing	2021	Good	5
International CV515 1 Ton (Black) and plow	2021	Fair	5
International Plow HV507 6 Ton plow/sander/wing	2022	Good	10
Case Backhoe	2019	Fair	3
<b>SOURCE:</b> Deer Isle Town Office			

## 10. Current and Future Adequacy

In 2023 Deer Isle completed a first-cut [Climate Vulnerability Assessment](#) that highlights sections of local and state roads that are highly vulnerable to flooding. The analysis points to the need for stormwater management and road elevation requirements to accommodate anticipated sea level rise. The Town also completed an inventory of [cross-road culverts](#) in 2023 that will guide maintenance and replacement. A capital investment plan (CIP) is outlined in the Fiscal Capacity chapter. Climate change will force municipalities to increase spending on stormwater systems and road elevation. A more detailed examination of adequacy is addressed in the Transportation Chapter. Although burial spaces are still available in local cemeteries, their future adequacy is dependent on a range of demographic and development uncertainties.

## 11. Solid Waste Disposal and Recycling

### A. Current Conditions

The Deer Isle transfer station and recycling center is located at the end of the Quaco Road. Staff presently consists of one full-time employee. Current operating hours are 8:00 AM to 4:00 PM, but closed on Monday and Thursday.

- Municipal Solid Waste: Until recently MSW was transported to Penobscot Energy Recovery Company and burned. That facility has closed and all MSW is now transported to Juniper Ridge Landfill in Old Town.
- Mattresses & Furniture: Some furniture items are removed and re-used by Deer Isle Residents.
- SheetRock, Porcelain and Non-Combustible Waste: Generally combined with Mattresses and Furniture and sent to Juniper Ridge Landfill.
- Single Sort Recycling: cardboard and plastics: Currently transported to the Old Town transfer and recycling facility and onwards to various recycling facilities.
- Metal Recycling: AIM Recycling collects metal and pays a modest fee to the Town.

- Universal Waste Recycling - Fluorescent Lights, Rechargeable Batteries, Electronic Waste are collected by NorthCoast recycling and other contractors and transported for recycling out of state.
- Composting: Commercial crab waste is collected at the transfer station and removed by Chickadee Composting. The Town is planning to introduce other food waste composting.
- Freon Units: AIM Recycling collects Freon from refrigerators, air conditioners and dehumidifiers and then takes the remaining units as scrap metal.

**Table K-5: Transfer Station Equipment**

Type	Year	Condition	Years of Service Left
Case Backhoe	2016	Poor	3
Old Compactor	Unknown	Fair	5
Atlantic Recycling Compactor	2019	Good	15
<b>SOURCE:</b> Deer Isle Town Office			

A history of burning debris has resulted in a non-conforming ash pile that must be removed to a landfill equipped to accept lead-contaminated materials. The Town stopped accepting most demolition debris in 2022 and is no longer burning wood debris. A new entrance is planned for the transfer station with the existing entrance becoming an exit only.

#### B. Current and Future Adequacy

According to the survey, about half of the participants believe the transfer station and recycling center are adequate, while 40% agree that there are areas in need of improvement. There were several comments from community members suggesting a change in the recycling system at the transfer station. One participant stated, “A take-it-or-leave-it building would bring down disposal costs and provide a new means for recycling,” while another stated, “the transfer station has seen huge improvements, but there is a concern for methods of recycling.”

The loss of Fiberight and PERC have limited options for transfer of MSW to one landfill that is filling rapidly. Additional options are critical for long-term viability of all regional transfer stations. Efforts are underway to restart PERC and Fiberight, but the future is uncertain.

Transfer Station Staffing is not sufficient for future operations that will require additional pay-to-throw for bulky waste, mattresses, and construction/demolition debris. Additional staff are needed to comply with Maine Department of Environmental Protection requirements such as litter control and field supervision.

The current layout of the Transfer Station is inefficient and confusing for users. A new entrance is planned in 2024 allowing one-way in and one-way out. Additional repositioning of assets will also be required. Returnables are currently stored at Bridge End. The Town will purchase a storage container to reduce the logistical challenges.

Hancock County currently has no program for Household Hazardous Waste Collection, though MDI towns have a sub-regional annual collection. In past years the Hancock County Planning Commission has operated an annual collection, but participation for Deer Isle has been light. Additional options for HHW disposal should be explored.

## 12. Public Sewer and Water

The vast majority of structures in Deer Isle are served by private septic and wells. A small private water district was established in Deer Isle Village, with a capped spring serving 10 to 12 buildings.

Septic tank waste is collected and transported off-island by private companies. One septage spreading site was used for many years in Deer Isle, but has not been used in recent years.

The Village area may at some time need a sewer system to compensate for many poor septic and overboard discharge systems which currently threaten the spring and wells in the area, as well as the water quality of the Mill Pond and Northwest Harbor. A sewer project is probably many years in the future and its construction would be heavily shaped by Federal drinking water mandates and available funding. At present, soil and water and sewer infrastructure limitations in the Village should be recognized as a major obstacle to growth.

There are also a number of overboard discharge systems at the western tip of Little Deer Isle that threaten the water quality of Eggemoggin Reach. The replacement of OBDs is among the Objectives outlined in the Water Resources and Marine Resources Chapters.

## 13. Telecommunications and Energy Infrastructure

Deer Isle collaborated with neighboring towns, attracting grants to support planning, and installation of fiber-based internet for the entire region. The current telecommunications infrastructure is expected to meet all foreseeable future needs. One area of expansion will be increasing public wireless services, either by Consolidated Communications or the Town.

Electrical infrastructure in Deer Isle and Stonington is not adequate to meet current or future needs. Power is frequently interrupted, often for more than 24 hours, as the result of storms and trees on power lines. One result is the reluctance of residents to transition to electric heat pumps and electric vehicles.

The two towns recently won a grant through the Energy Transition Innovation Partnership Program (ETIP) to identify strategies to improve reliability and adequacy of the existing electrical distribution system. Microgrids, battery storage systems, smart meters and other innovations will allow households to transition from fossil fuels for heating and transportation to electrical alternatives.

## 14. Education

### A. Current Conditions

The Deer Isle-Stonington Community School District 13 is part of School Union 76, whose other members include Brooklin and Sedgwick. Students in grades K-8 attend Deer Isle-Stonington Elementary School and those in grades 9-12 attend Deer Isle-Stonington High School. The Elementary School was built in 1999-2000 and has a rated capacity of 460 students. Current (2023) enrollment is at 224 students. The Elementary School has 26

classrooms. Core facilities include a 5,940 square-foot gymnasium, a 2,500 square-foot library, a 1,768 square-foot cafeteria and an 8,200 square-foot auditorium.

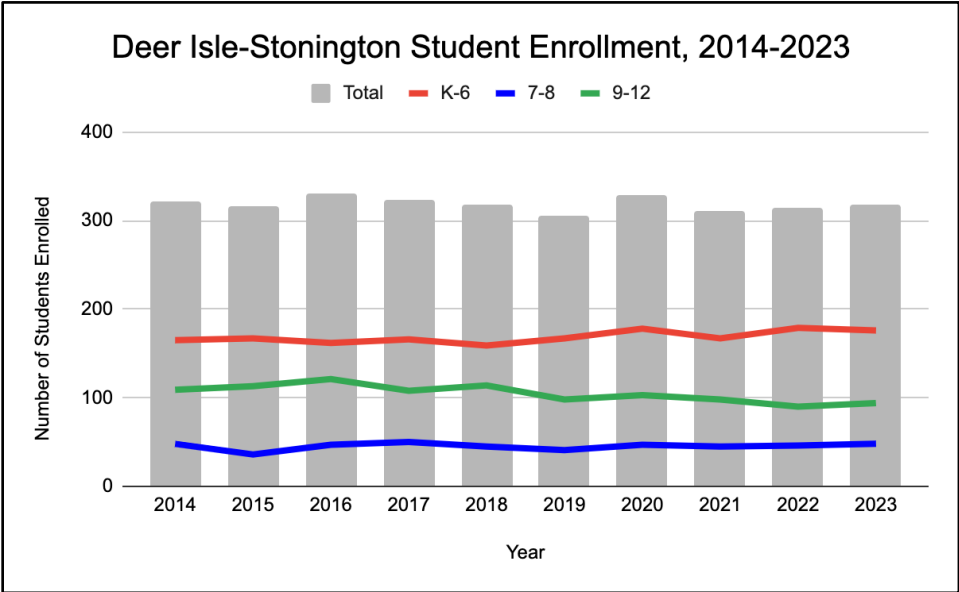
The Deer Isle-Stonington High School was built in 1976 and has a rated capacity of 275 students and a current (2023) enrollment of 94 students. There are fifteen classrooms. The school faces no current or actual state accreditation deficiencies. Enrollment figures are shown in the table and graph below. Overall, total enrollment for grades K-12 has hovered around 300 students since 1990. Using available data, the highest enrollment amount since 1990 was 330 students in 2016. Total enrollment has stayed above 300 every year in the past decade.

**Table K-6: Deer Isle-Stonington Student Enrollment**

	K-6	7-8	9-12	Total
1990	184	40	82	306
1995	189	49	78	316
2000	160	53	99	312
2014	165	48	109	322
2015	167	36	113	316
2016	162	47	121	330
2017	166	50	108	324
2018	159	45	114	318
2019	167	41	98	306
2020	178	47	103	328
2021	167	45	98	310
2022	179	46	90	315
2023	176	48	94	318

Source: Maine Department of Education

**Figure K-4: Student Enrollment, Past 10 Years**



B. Current and Future Adequacy

The elementary school facility is adequate in size for current and anticipated needs and there are no current state accreditation deficiencies. The building has several maintenance needs including the 20 year old roof, unsafe water supply, and logistical challenges meeting classroom needs.

The high school has several deficiencies related to the building's age and insufficient funding for maintenance. Future capital investments will include roof replacement, replacement of siding, soffits, plumbing, insulation, windows, doors, water system and more. The community entered into an intensive planning process to identify needs, but funding considerations were interrupted by COVID. Currently, estimates for facility repairs are under revision.

Given the relative steady enrollment at all grade levels, Deer Isle-Stonington school staffing positions are adequate in most areas. Funding for school staffing is not adequate under current circumstances. Hiring has been very challenging due to low unemployment rates, cost of housing and noncompetitive wage rates. The Island Workforce Housing Oliver's Ridge project opening in August, 2023 enabled the school to hire three individuals who needed housing in order to accept the job offer.

## 15. Library

### A. Current Conditions

The Chase Emerson Memorial Library is a private, nonprofit organization established in 1929. A \$25,000 donation in 1975 helped fund the library's needs, from heating to the purchase of books and an additional donation in 1998 resulted in the building of the library's back room and installation of a bathroom. CEML is directed by a board of directors with one library director and part time library assistant. CEML has a good track record for grants that have built the collection and improved the building. Plans are underway for a modest expansion of the outdoor deck that will require collaboration with the Town in order to meet setback requirements. Services at the library include book and audiovisual loans, computer literacy classes, afterschool activities, and other programs.

### B. Current and Future Adequacy

In 2022 the library served nearly 5,000 patrons and checked out over 7,000 items. Numerous events such as the Library Lawn Series, Saturday Story Time, the kids' summer reading challenge, student art shows and a public book group are featured throughout the year. Recent facility improvement projects included completing the first phase of a two-year roof renovation project as well as installing new shelving and purchasing furniture with a grant from the Morton-Kelly Charitable Trust. The Town provides \$13,000 in funding each year, and other private donations and grants contribute to the library's operations. Challenges noted by the library include insufficient parking; the library facilities and staffing are deemed adequate at present.

## 16. Other Services

In addition to services provided by the Town, Deer Isle relies heavily on a variety of private and voluntary services. A number of these services that receive Town appropriations are shown in the table below:

**Table K-7: Town Support for Non-profit Social Services**

	2023
American Legion	\$500
American Red Cross	\$2,600
Downeast Transportation	\$400
Downeast Community Partners	\$7,826
Eastern Area Agency on Aging	\$5,250
Hancock County Planning Commission	\$1,450
Healthy Island Project	\$5,000
Hospice Volunteers of Hancock County	\$1,500
Island Community Center	\$13,000
Island Workforce Housing	\$6,000
LifeFlight of Maine	\$549
Northern Light Homecare	\$7,900
Opiate-Free Island Partnership	\$5,000
Project Launch	\$1,500
WIC Nutrition Program	\$1,700
YMCA	\$3,000
Source: 2022 Annual Town Report	

## 17. Regional Coordination

No town is an island, not even Deer Isle. Many services are delivered through regional entities and through interlocal agreements. Additionally, Deer Isle seeks to coordinate programs that reach beyond our borders with other local and regional governments. These are examples of interlocal coordination, but are not an exhaustive list. Many programs are funded through “third-party” requests such as LifeFlight of Maine, after school programs and programs for seniors.

**Animal Control** is now a contracted service with Hancock County Government. This is the result of towns, including Deer Isle, working together to draft agreements with other towns and with the county to create a single full time position to provide this service.

**Hancock County Fire Departments** operate with Mutual Aid Agreements. Deer Isle is particularly engaged in mutual aid responses with neighboring Stonington and Sedgwick. The public opinion survey finds widespread support for the Fire Department, but also widespread interest in merging to form one island fire department.

**Memorial Ambulance Corps** is a non-profit corporation providing ambulance transport from Isle au Haut, Stonington and Deer Isle.

**Hancock County Planning Commission** is contracted by the Town of Deer Isle for consultation on planning, assistance with comprehensive planning and other planning support. HCPC serves 37 towns in Hancock County.

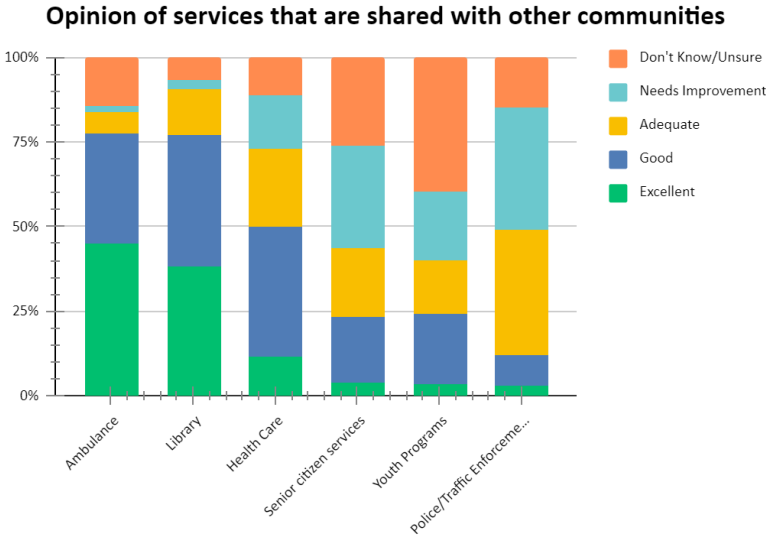
**Peninsula Area League of Town** is a coordinating group of area select boards and town staff that meets irregularly to tackle regional challenges such as transportation and solid waste.

**Peninsula Tomorrow** is a voluntary group of elected town leaders, staff and local advocates that meet regularly to coordinate our efforts to reduce greenhouse gas emissions and increase our adaptation to climate change.

**Peninsula Utility for Broadband** was organized to bring high speed internet to the region. PUB successfully attracted grants to support planning, eventually leading to participation in a grant for installation of fiber-based internet for the entire region. PUB is now working on strategies for digital inclusion and equity.

**School Union 76** services Deer Isle, Stonington, Isle au Haut, Sedgwick and Brooklin. The School District is managed by a Superintendent and staff that operate autonomously from municipal government. The cost of education is paid primarily from local property taxes and accounted for 66% of Deer Isle’s budget in 2022.

**Figure K-5: Opinion of services shared with other communities**



Resident survey results show that there is strong approval for the region’s ambulance service (Memorial Ambulance Corps) and the Chase Emerson Memorial Library, located in Deer Isle. Less than 10% of respondents identified police/traffic enforcement as excellent or good. Alternatives to improving service were mentioned earlier in this chapter.



## 18. Goals & Objectives

GOAL: Deer Isle School System will provide facilities and staffing to prepare students for citizenship, higher education and future careers in Deer Isle.			
Objective	Strategy	Responsible Party(ies)	Timeframe
Facilities will be improved and maintained in accordance with the School Capital Investment Plan.	Maintain an up to date capital investment plan aligned with the most current engineering study.	Superintendent School Board Facilities Committee	Ongoing
	Fund an ongoing maintenance plan		2028
Schools will have adequate staffing to meet student needs.	Maintain a tracking system that identifies staffing needs.	Superintendent School Board	Ongoing
	Collaborate with other organizations to recruit and house staff.	School Administration Island Workforce Housing	2025
Support funding to meet facilities and staffing needs	Schools and Town will educate the public about funding needs	Select Board School Board	Ongoing

GOAL: Deer Isle will update Fire Department facilities and maintain adequate staffing			
Objective	Strategy	Responsible Party(ies)	Timeframe
Build a new fire station	Identify a desired facility design with cost estimates	Fire Chiefs, Station Committee	2024
	Seek grant funding for a capital campaign	Fire Chiefs, Town Manager	2025
	Complete planning and construction	Fire Chiefs, Select Board	2028
Merge fire protection services with Stonington	Organize administrative and financial realignment	Select Boards, Town Managers	Ongoing
	Organize operational realignment	Fire Chiefs	Ongoing
Maintain up to date firefighting equipment	Prepare a detailed Capital Investment Plan	Fire Chief, Town Manager	2024
	Acquire equipment to meet emerging needs such as wildfires	Fire Chief, Town Manager	2025
	Insure adequate supply of firefighting water	Fire Chief, Island Heritage Trust	2025

GOAL: Deer Isle will provide solid waste and recycling services to meet the needs of residents and businesses.			
Objective	Strategy	Responsible Party(ies)	Timeframe
Reconfigure the transfer station for greater efficiency	Create a masterplan for the transfer station	Town Manager, Select Board	2024
	Seek grant funding for plan implementation	Town Manager, Select Board	2025
	Implement plan	Town Manager, Select Board	2026
Collaborate with other towns to expand waste management options.	Create a year-round program for household hazardous waste	Peninsula League of Towns, HCPC, Maine Resource Recovery Association	2026
	Support alternatives to landfills, including materials reduction, composting, recycling, reuse.	Peninsula League of Towns, HCPC, Maine Resource Recovery Association, Municipal Review Committee	Ongoing

GOAL: Deer Isle will have reliable electrical infrastructure and services			
Objective	Strategy	Responsible Party(ies)	Timeframe
Implement energy programs to assure reliable power with reduced greenhouse gas emissions	Complete Energy Transitions Initiative Partnership Project (ETIPP) planning program	Town Managers, Island Institute, Department of Energy, Versant Power	2024
	Implement ETIPP plan including microgrids, and power reliability infrastructure	Versant Power, Town Managers	2026

# Chapter L: Fiscal Capacity

## 1. Purpose

This section presents information on Deer Isle's ability to pay for the services it provides its residents and businesses. It also looks ahead to how the Town will pay for its long-term infrastructure needs. Specifically, this chapter will:

1. Examine trends in such fiscal areas as valuation, taxes, expenditures, and capital projects funding.
2. Evaluate the Town's ability to borrow to pay for capital investments.
3. Identify anticipated capital investment needs and anticipated funding mechanisms.

## 2. Key Findings & Issues

### Expenses

Major expense categories for Deer Isle include Education (66%), Roads (13%), Solid Waste Management (5%) and Administration (7%). It appears that some expenses may not have kept pace with inflation since 2006 at least, suggesting that some expenses may have been postponed, leading to a backlog of needs to be addressed.

### Revenue and funding

The primary source of local funding is real estate property taxes (80%). Deer Isle has been managed very conservatively and kept the tax rate low, comparatively lower than surrounding towns, including Stonington. The Town has avoided taking on debt, preferring to anticipate needs with special reserve funds. Past administrations may not have taken advantage of all funding opportunities offered.

Funding sources to supplement local property tax revenue include instituting new user fees, Federal and State matching funds, grants, TIF and bond issuance. How projects would be funded would depend on the size of the expenditure, the duration (one-time vs ongoing, short life vs long, etc.), availability of reserves and the urgency.

### Future

A review and compilation of future needs identified by the various chapters reveals a long list of needs to be addressed. Some are urgently needed (e.g., fire station), some are structural and would help improve the Town's economy for the future (e.g., develop infrastructure to support new fisheries) and some are desirable to improve the quality of life for everyone (e.g., bike paths). Priorities revealed in the responses to the Comprehensive Plan Survey will guide decisions. Some future needs are outlined in the Public Facilities and Services Chapter.

### 3. Key Findings from Draft 2006 Comprehensive Plan

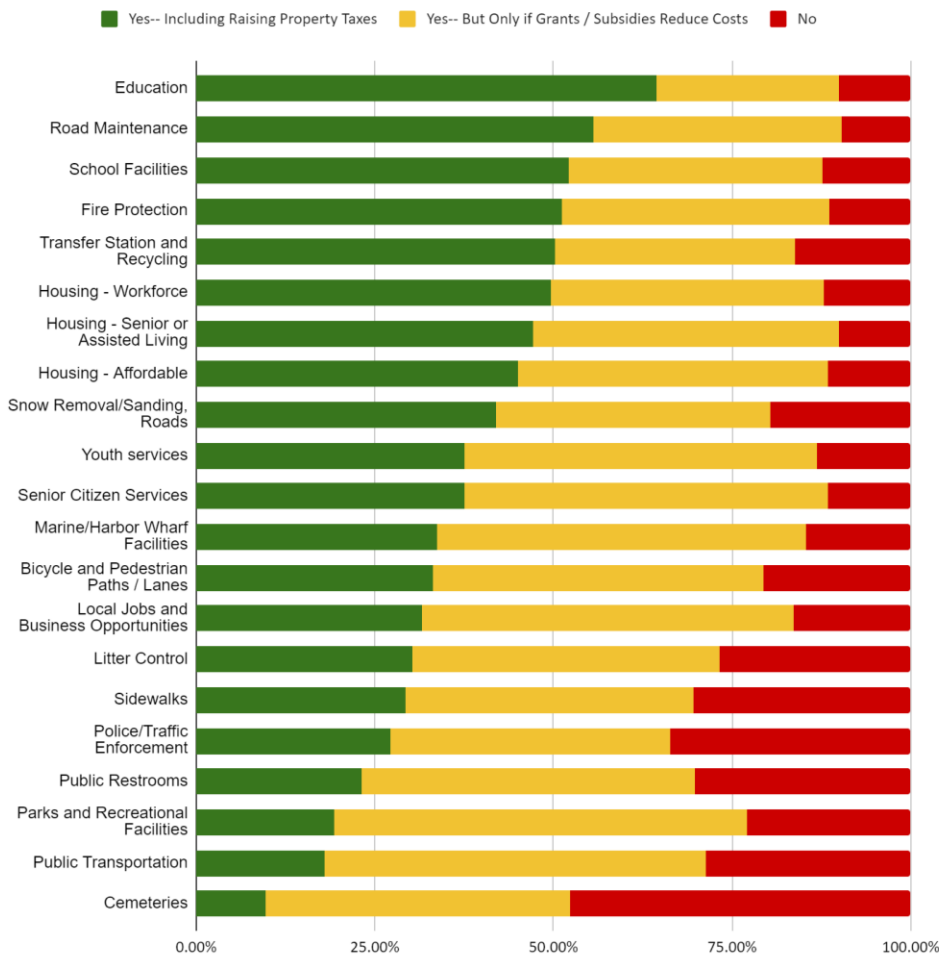
The Draft 2006 Comprehensive Plan noted, “The money raised through taxes has increased at a faster rate than the state valuation. This is due primarily to school expenditures, which have increased at a rate well over that of inflation. Over 99 percent of the tax base is from land and buildings. The town receives relatively little state financial aid for its operating costs. For example, state revenue sharing amounts to about 2.5 percent of total municipal revenues and the town received roughly \$5,700 in tree growth reimbursement.”

### 4. Public Opinion Survey Results

Almost 80% of the Survey respondents supported Capital Investment Planning for Vulnerable Municipal Assets. Over half of respondents showed strong support for increased spending of tax dollars on education, school facilities, fire protection, road maintenance and the transfer station and recycling. There was less support for functions such as cemeteries, public transportation, parks and recreational facilities and public restrooms.

**Figure L-1: Public Opinion Survey Support for Investment**

Support for Investment in Facilities and Services



Source: Deer Isle Comprehensive Plan Public Opinion Survey 2023

## 5. Conditions and Trends

Understanding fiscal capacity requires an examination of revenue sources that the Town uses to fund its operations and capital improvements as well as its debt capacity in the forms of notes, bonds or long-term loans. The analysis is historical, how Deer Isle raised funds in the past; comparative, how does Deer Isle's fund-raising compare to other similar towns in Hancock County; and forward looking to future funding opportunities.

In Maine, towns raise most operating funds through property taxes. Property taxes are calculated based on the assessed value of property times a millage rate set by each town. A town's property tax revenue capacity is simply the value of its Total Taxable Valuation as determined by the State times the Tax Rate. In 2021 the Deer Isle millage tax rate was \$7.65 per \$1,000 valuation. Deer Isle's taxable valuation for 2021 was \$606,544,200, yielding a revenue estimate of \$4,640,063. Actual property tax revenues are reduced by adjustments such as homestead exemptions, veterans exemption, tree growth and nonprofit tax exemption.

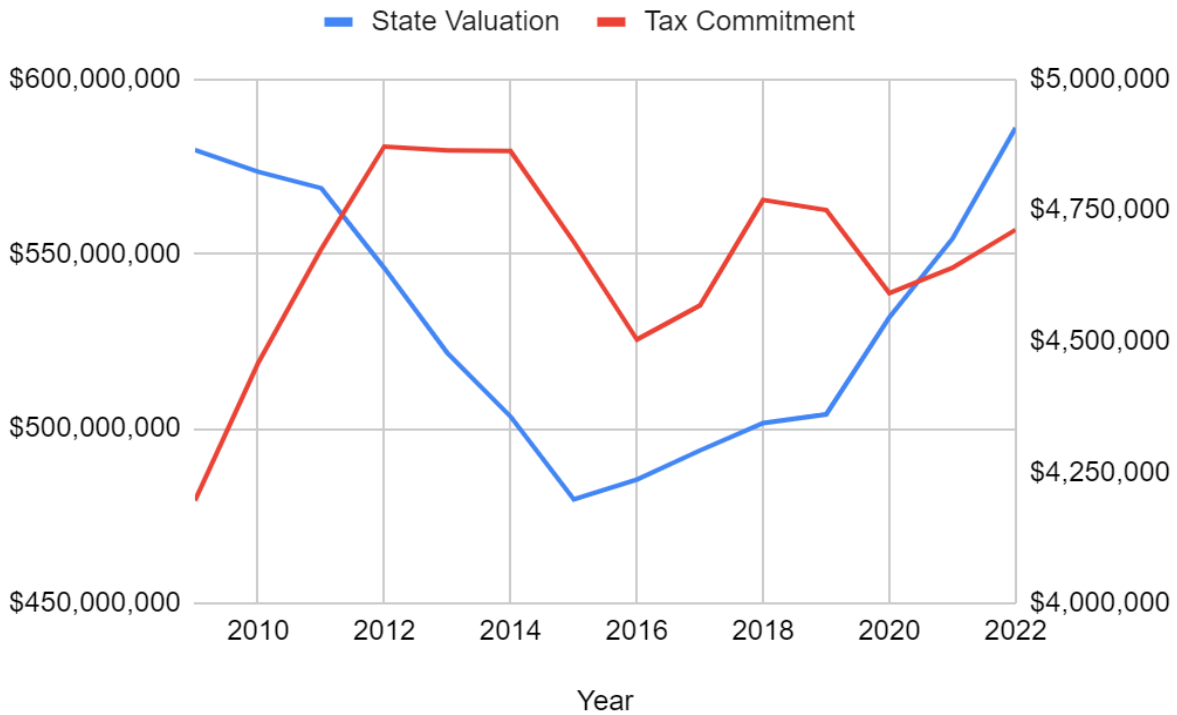
### a. Valuation and Tax Assessment

The chart below shows the Town's total valuation since 2009.

**Table L-1: State and Local Valuation, Tax Commitment, and Tax Rate, 2009-2023**

Year	State Valuation	Total Local Valuation	Tax Commitment	Tax Rate
2009	\$ 579,750,000	\$ 204,273,470	\$ 4,195,777	0.02054
2010	\$ 573,550,000	\$ 207,345,455	\$ 4,457,927	0.02150
2011	\$ 568,800,000	\$ 208,646,984	\$ 4,675,779	0.02241
2012	\$ 545,950,000	\$ 213,652,743	\$ 4,871,282	0.02280
2013	\$ 521,550,000	\$ 213,136,672	\$ 4,863,778	0.02282
2014	\$ 503,400,000	\$ 213,092,332	\$ 4,862,767	0.02282
2015	\$ 479,750,000	\$ 214,148,933	\$ 4,689,862	0.02190
2016	\$ 485,400,000	\$ 214,434,434	\$ 4,503,123	0.02100
2017	\$ 493,750,000	\$ 214,976,239	\$ 4,568,245	0.02125
2018	\$ 501,550,000	\$ 217,297,881	\$ 4,769,688	0.02195
2019	\$ 504,050,000	\$ 219,911,840	\$ 4,750,096	0.02160
2020	\$ 531,800,000	\$ 221,287,821	\$ 4,591,722	0.02075
2021	\$ 554,350,000	\$ 606,544,200*	\$ 4,640,063	0.00765
2022	\$ 586,100,000	\$ 608,069,000	\$ 4,712,535	0.00775
2023	\$ 647,600,000	\$ 609,816,700	\$ 4,931,640	0.00808
2024	\$ 786,150,000	Pending	Pending	Pending
Source: 2009-2023 = Municipal Valuation Return Statistical Summary, Maine Revenue Services, Property Tax Division				
*In 2021, Deer Isle completed a Town-wide property revaluation and reduced the Tax Rate accordingly.				

**Figure L-2: State Valuation and Tax Commitment, 2009-2022**  
**State Valuation and Tax Commitment**



Source: Municipal Valuation Return Statistical Summary, Maine Revenue Services, Property Tax Division

**b. Tax Base and Revenue Sources**

As shown in the table and chart below, taxable personal property is less than 1% of Deer Isle’s total local valuation—most of the valuation is in land and buildings. This is true for most of the neighboring towns as well.

Town-wide, approximately 5% of property is tax-exempt, and Deer Isle does not have any tax increment financing districts (TIFs) by which to raise funds for broad economic development and other purposes.

**Table L-2: Summary of Municipal Valuation by Type, Deer Isle Area, 2022**

Town	Land	Buildings	Land & Buildings	Total Personal Property	Total Real & Personal Property
Deer Isle	\$336,023,600	\$271,592,800	\$607,616,400	\$452,600	\$608,069,000
Stonington	\$146,321,400	\$69,521,120	\$215,842,420	\$798,900	\$216,641,420
Hancock Co.	\$7,546,299,028	\$6,579,202,641	\$14,125,501,669	\$153,606,601	\$14,279,108,270

Source: 2022 Municipal Valuation Return Statistical Summary, Maine Revenue Services

### c. Municipal Revenues and Expenditures

The table below indicates that most of Deer Isle's revenue comes from property and excise taxes (90.0%), followed by other local sources (4.3%), program revenues (2.7%), revenue sharing (2.6%) and investment income (0.4%).

**Table L-3: 2022 Revenue Sources**

Taxes	\$ 5,306,497
Program Revenues	\$ 157,364
Investment Income	\$ 23,178
Revenue Sharing	\$ 154,091
Other Local Sources	\$ 255,106
Total Revenues	\$ 5,896,235
Source: 2022 Town Audit	

The State of Maine passed P.L. 2005, Chapter 2 (effective June 29, 2005) known as LD 1 as a measure to make increases in municipal revenues transparent to voters. The State sets a limit on revenue increases each year, which can be overridden at the Annual Town Meeting. Since its enactment, the Town has voted to exceed the LD 1 spending limitations in order to meet service levels desired by the residents and businesses and to be able to make necessary capital investments and infrastructure improvements.

The table and chart below provide information on Deer Isle's revenues and expenses from 2018 to 2022. Taxes and program revenues make up the bulk of the Town's revenues. After the Schools, Highways and Bridges (road maintenance) accounts for the largest total municipal expenditures followed by spending on general government and health/sanitation. Revenues from revenue sharing and other local sources increased during this five-year period. Other than a slight rise in 2019, total expenses have gradually decreased.

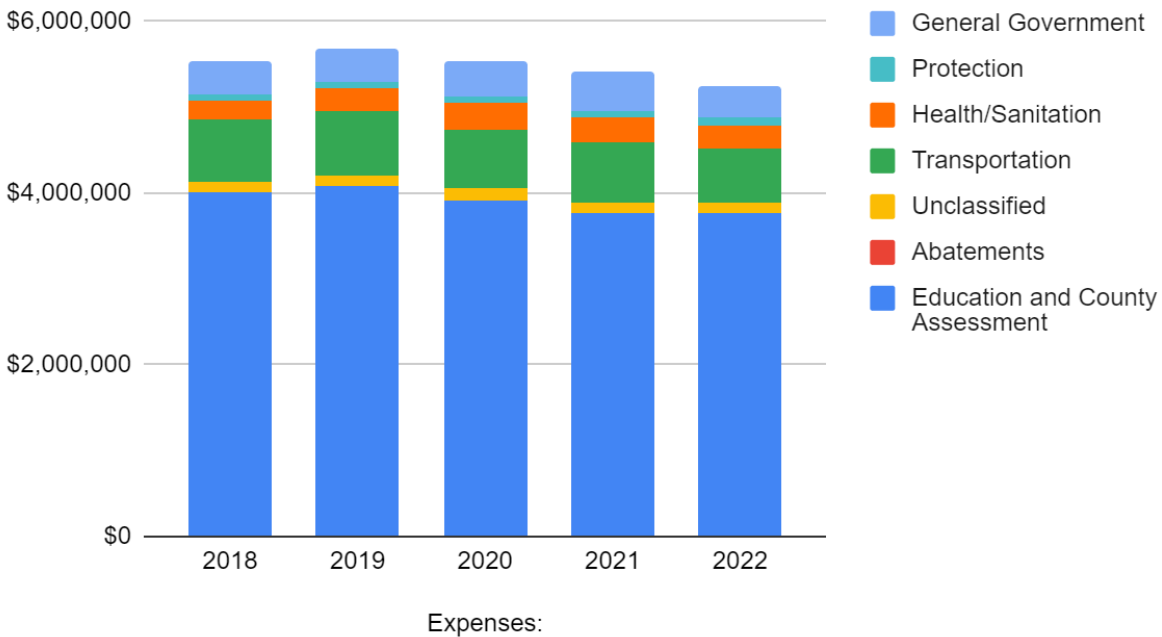
**Table L-4: Deer Isle Revenues and Expenses, 2018-2022**

Revenues:	2018	2019	2020	2021	2022
Taxes	\$ 5,407,636	\$ 5,365,450	\$5,220,999	\$5,290,181	\$5,306,497
Program Revenues	\$ 148,826	\$ 144,962	\$ 82,436	\$ 119,775	\$ 157,364
Investment Income	\$ 42,439	\$ 58,100	\$ 43,961	\$ 32,343	\$ 23,178
Revenue Sharing	\$ 44,468	\$ 57,926	\$ 81,188	\$ 121,237	\$ 154,091
Other Local Sources	\$ 5,313	\$ 23,784	\$ 103,592	\$ 105,509	\$ 255,106
Total	\$ 5,648,681	\$ 5,650,222	\$5,532,176	\$5,699,045	\$5,896,235
Expenses:					
General Government	\$ 379,207	\$ 390,568	\$ 423,264	\$ 465,841	\$ 367,577
Protection	\$ 70,286	\$ 82,226	\$ 71,440	\$ 69,862	\$ 78,218
Health/Sanitation	\$ 213,879	\$ 258,276	\$ 296,219	\$ 279,469	\$ 273,827
Highways and Bridges	\$ 740,354	\$ 744,166	\$ 694,394	\$ 723,080	\$ 626,960
Unclassified	\$ 103,330	\$ 6,788	\$ 141,898	\$ 102,178	\$ 113,172
Abatements	\$ 14,939	\$ 6,901	\$ 3,089	\$ 17,017	\$ 1,862
Assessments & Debt Service	\$ 4,005,002	\$4,086,526	\$3,907,664	\$3,758,374	\$3,777,375
Total	\$ 5,526,998	\$5,685,451	\$5,537,968	\$5,415,819	\$ 5,238,990
Note: Discrepancy in some totals due to rounding					
Source: Annual Audit Reports					



**Figure L-3: Expenses, 2018-2022**

Expenses 2018 - 2022



A comparison of expenditures from 2006 and 2022 when adjusted for inflation suggests that Deer Isle is spending 15% less overall. Funding for education and solid waste has declined, while spending on general administration, safety and roads has increased in inflation adjusted dollars.

**Table L-5: Inflation Adjusted Changes in Selected Expenditure Categories**

Item	2006 Amount	Inflation Adjusted Amount (2022 dollars)	2022 Amount	Inflation Adjusted Percent Change
General Government	\$ 164,986	\$ 243,849	\$ 369,090	51.4%
Protection	35,797	52,908	83,505	57.8%
Health, Sanitation & Welfare	206,494	305,197	280,390	-8.1%
Highways and Bridges	322,786	477,076	678,070	42.1%
Education & County Assessment	3,283,370	4,852,807	3,776,006	-22.2%
Other	184,109	272,112	77,981	-71.3%
<b>Total</b>	<b>\$ 4,197,542</b>	<b>\$ 6,203,949</b>	<b>\$ 5,265,042</b>	<b>-15.1%</b>

Source: 2006 and 2022 Town Reports

Inflation data source: Bureau of Labor Statistics ([https://www.bls.gov/data/inflation\\_calculator.htm](https://www.bls.gov/data/inflation_calculator.htm))

Deer Isle receives relatively little revenue sharing for education from the State. During the COVID pandemic special funding was available to all schools. That funding has declined significantly in 2023 and will end in 2024.

**Table L-6: State School Subsidies for Deer Isle**

Year	State Subsidy	Total Education Appropriation	State Percent of Total
2017-2018	\$ 108,878	\$ 3,772,999	2.9%
2018-2019	\$ 297,163	\$ 3,851,821	7.7%
2019-2020	\$ 422,460	\$ 3,661,084	11.5%
2020-2021	\$ 542,290	\$ 3,496,186	15.5%
2021-2022	\$ 512,824	\$ 3,499,994	14.7%
Source: Town Reports and Maine Department of Education ED 279 Report			

## d. Service Levels

The table below shows how Deer Isle's municipal budget compares with that of similar towns. The tables below indicate that Deer Isle's appropriations are commensurate with its total local valuation and population.

**Table L-7: Summary of Area Town Municipal and School Budgets**

	School	County Assessment	Town	Total
Deer Isle	\$3,499,995	\$276,012	\$1,489,035	\$5,265,042
Brooklin	\$2,229,391	\$183,522	\$944,084	\$3,356,997
Brooksville	\$2,303,422	\$205,045	\$1,423,865	\$3,932,332
Orland	\$2,340,681	\$125,124	\$1,772,354	\$4,238,159
Sedgwick	\$2,360,545	\$128,102	\$689,070	\$3,177,717
Stonington	\$1,695,866	\$142,692	\$3,413,739	\$5,252,297
Source: Audited Financial statements as of December 31, 2022				

## e. Funding for Capital Items

Deer Isle has minimized borrowing. The Town maintains a number of reserve funds to meet most capital expenses. Unanticipated or extraordinary expenses require either adding the expense to a current budget or borrowing through notes or bonds. Table 12 – 12 below shows the division of the Town's fund balances into the general fund, capital projects fund, and permanent funds.

**Table L-8: Deer Isle Fund Balances FY 2018 – FY 2022**

	FY 2018	FY 2019	FY 2020	FY 2021	FY2022
General Fund	\$2,146,820	\$2,388,272	\$ 2,603,353	\$3,100,730	\$3,515,349
Capital Projects Fund	\$ 89,274	\$ 129,652	\$ 217,561	\$ 281,670	\$ 395,802
Permanent Fund	\$ 60,020	\$ 60,434	\$ 60,105	\$ 60,113	\$ 61,176
Total Fund Balances	\$2,296,114	\$2,578,357	\$2,881,019	\$3,442,522	\$3,972,327
Note: Some discrepancies in totals due to rounding					
Source: Annual Audit Reports					

The table below shows the many reserve accounts Deer Isle maintains to fund various capital projects. Reserve accounts are a sensible tool for reducing the fiscal impact of paying for big ticket items by saving for the items over a period of years.

**Table L-9: Deer Isle Capital Projects Funds FY 2018 – FY 2022**

Accounts	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Restricted					
Playground	\$ 2,399	\$ 8,249	\$ 8,741	\$ 9,251	\$ 10,554
Bridge End Park	\$ 15,457	\$ 11,756	\$ 9,959	\$ 8,097	\$ 28,552
Committed					
Fire Department Fund	\$ 40,133	\$ 81,108	\$ 122,258	\$ 162,859	\$ 204,089
Salt/Sand Shed Fund	\$ -	\$ -	\$ 10,000	\$ 20,000	\$ 30,000
Town Building Fund	\$ -	\$ -	\$ 10,000	\$ 20,000	\$ 40,000
Assigned					
Road Equipment	\$ 28,267	\$ 25,520	\$ 53,584	\$ 58,445	\$ 79,588
Transfer Station	\$ 3,019	\$ 3,019	\$ 3,019	\$ 3,019	\$ 3,019
Total	\$ 89,274	\$ 129,652	\$ 217,561	\$ 281,670	\$ 395,802
Note: Some discrepancies in totals due to rounding					
Source: Annual Audit Reports					

f. Debt Limit

Under Maine law, the total local debt load is subject to a statutory limit of 7.5% of State property valuation, which in Deer Isle's case yields a 2023 debt load limit of more than \$50 million. This calculated "limit" is far in excess of any debt that Deer Isle might choose to incur to address infrastructure needs. At this time, Deer Isle has only \$23,216 of indebtedness as of December 31, 2022 for a backhoe that will be fully amortized in December, 2024. Deer Isle's share of Hancock County's 2022 total long-term liability would be 3.45%, but Hancock County currently has no debt.

g. Capital Investment Plan

The following table lists high value capital or environmental expenditures that are anticipated in coming years. These investments confer town wide benefits, and as such are not driving growth in any specific location. The new fire station is by far the largest investment and is necessary to accommodate town wide growth.

**Table L-10: Capital Investment Plan**

Priority	Item	Current Value	Current Reserve	Useful Life	Potential Sources
Short	Fire Truck	\$500,000	\$204,089	10	Taxes, Reserve
Med	Plow	\$150,000		10	Taxes, Reserve
Med	Compactor	\$40,000	\$79,588	20	Taxes, Reserve
Med	Backhoe	\$90,000		10	Taxes, Reserve
Med	Town Office Roof	\$100,000	\$40,000	20	Reserve, GO Bond
Long	Fire Station	\$5,000,000		40	GO Bond, Grants

Priority	Item	Current Value	Current Reserve	Useful Life	Potential Sources
Long	Fire Water Supply	\$500,000		40	Grants
Med	Salt Sand Building	\$500,000	\$30,000	40	Reserve, Grants, GO Bond
Med	Reconfigure Transfer Station	\$200,000	\$3,019	10	Reserve, Rev Bond
Short	Ash Removal	\$500,000		5	Reserve, Rev Bond
	Total	\$7,580,000	\$ 356,696		

## 6. Analyses and Policies

### a. Identification of Funding for Future Capital Investments

Funding for Deer Isle's future capital projects will be generated through a combination of general and excise taxation, matching state grants, the MaineDOT Local Roads Assistance Program (LRAP) and borrowing. The Capital Investment Plan table above shows anticipated timing and sources of funds, although the actual amount will depend on budgetary circumstances in any given year.

### b. Borrowing Capacity Sufficiency

In order to continue to address its infrastructure improvement needs, Deer Isle likely will need to take on new debt. Fortunately, as discussed in the Debt Limit section above, Deer Isle is well below the statutory limit for debt compared with the Town's state valuation. It is important to note that any recommended new debt would be subject to voter approval at the Town Meeting.

### c. Participating/Exploring Sharing Capital Investments with Neighboring Communities

Deer Isle and Stonington are working together to increase efficiency and reduce capital costs. Deer Isle and Stonington have maintained consolidated primary and secondary schools for decades. The two towns participate in all capital expenses for the shared school district. The Fire Departments have a mutual aid agreement that reduces staffing and equipment needs. The next step under consideration is consolidating fire department facilities and staffing. Discussions at the County level with the Hancock County Planning Commission include consolidating some solid waste and recycling services and equipment sharing arrangements.

### d. Fiscal Policies and Strategies

Deer Isle's fiscal policies and strategies are reflected in the Goals and Objectives section below. In general, Deer Isle subscribes to the following:

- To finance existing and future facilities and services in a cost effective manner.
- To explore grants available to assist in the funding of capital investments within the community.
- To reduce Maine's tax burden, as well as on its citizens, by seeking as much as possible to stay within LD 1 spending limitations.
- To explore opportunities to work with neighboring communities to plan for and finance shared or adjacent capital investments to increase cost savings and efficiencies.

## 7. Goals & Objectives

GOAL: Advance the health, safety, and welfare of Deer Isle by ensuring the provision of government services in a fiscally responsible manner.			
Objective	Strategy	Responsible Party(ies)	Timeframe
Establish and maintain a Capital Investment Plan	Update Plan annually to reflect changing objectives and costs	Town Manager, Select Board	Ongoing
	Hold regular budget coordination meetings with the school district	Town Manager, Superintendent	Ongoing
Maintain and fund capital reserve accounts for anticipated major expenditures referenced in the Comprehensive Plan	Annually raise and appropriate revenues for reserve accounts	Select Board Town Meeting	2024 and ongoing
	Explore bond funding options for projects	Town Manager	Ongoing
Seek grant funding whenever available for local projects and land acquisition	Identify local projects for which match funding may be appropriate	Town Manager	2024 and ongoing
	Set aside reserves as matching funds	Select Board	2024 and ongoing
Reduce residents' property tax burden	Remain within LD1 revenue limitations unless Town voters specifically approve otherwise	Select Board Town Meeting	2024 and ongoing
Explore establishing Tax Increment Financing Districts for economic development and housing	Investigate viability for anticipated Deer Isle projects	Town Manager	2025
Establish user fees for commercial Transfer Station users	Review practices of other local municipalities to establish fee levels	Town Manager Select Board	2025
Merge Deer Isle and Stonington Fire Departments to ensure cost-effective facilities and equipment funding and efficient service delivery [see Public Facilities Chapter]	Enter into negotiations with Town of Stonington to allocate costs and agree terms	Deer Isle Select Board Stonington Select Board	2026
Explore further sharing of services with nearby towns [See Regional Coordination Chapter]	Remain active in regional municipal organizations	Town Manager	2024 and ongoing
	Establish regular dialogue with Stonington Select Board and Town Manager	Town Manager Select Board	2024 and ongoing

# Chapter M: Existing Land Use

## 1. Purpose

This chapter focuses on current land use patterns in Deer Isle. An understanding of land use trends is critical to the determination of Deer Isle's ability to absorb future growth and change. Specifically, this chapter:

- a. Reviews the estimated acreage and locations of Deer Isle's developed and undeveloped land;
- b. Examines the potential for new development in the next ten years and Deer Isle's capacity to absorb the growth and lays the groundwork for the next chapter on future land use;
- c. Recommends measures that Deer Isle may want to consider for managing its residential and non-residential land use.

## 2. Key Findings & Issues

Deer Isle is a rural island community in which 39% of the land area contains no buildings and another estimated 35% is potentially developable "surplus" land on improved lots containing buildings. The actual amount of land in Deer Isle that is available for residential development is reduced by wetlands and other barriers to development. Deer Isle has approximately 1,936 residential parcels, half being seasonal, occupying 56.9% of the land. As noted, many large parcels could be divided. An estimated 50 new residential dwelling units were built in Deer Isle in the last ten years on a lot by lot basis. Other developed uses occupy a small fraction of the land area and include a K-12 school system and various commercial enterprises.

The implementation of the recently-enacted Maine State law LD 2003 may have some impact on increasing the building rate of residential dwelling units and their accessories, but Deer Isle is not required to implement its requirements until July 1, 2024. Other factors may also play a role, such as the State plumbing code, which remains in effect.

In order to balance the cumulative impacts of gradual growth and to meet the stated expectations of many residents, Deer Isle may want to explore options such as encouraging the preservation of undeveloped land through conservation easements; promoting greater use of the farm, open space, tree growth, and working waterfront current-use tax law programs; and requiring subdivisions to be clustered in order to preserve open space.

## 3. 2006 Draft Comprehensive Plan Key Findings & Issues

The 2006 Draft Comprehensive Plan states, "About 55 percent of the soils in town have a very low potential for development. Another 24 percent have a low potential. The town consists of three large islands and numerous small ones. Only about 2,300 acres of the 18,709 acres in Deer Isle has been developed."

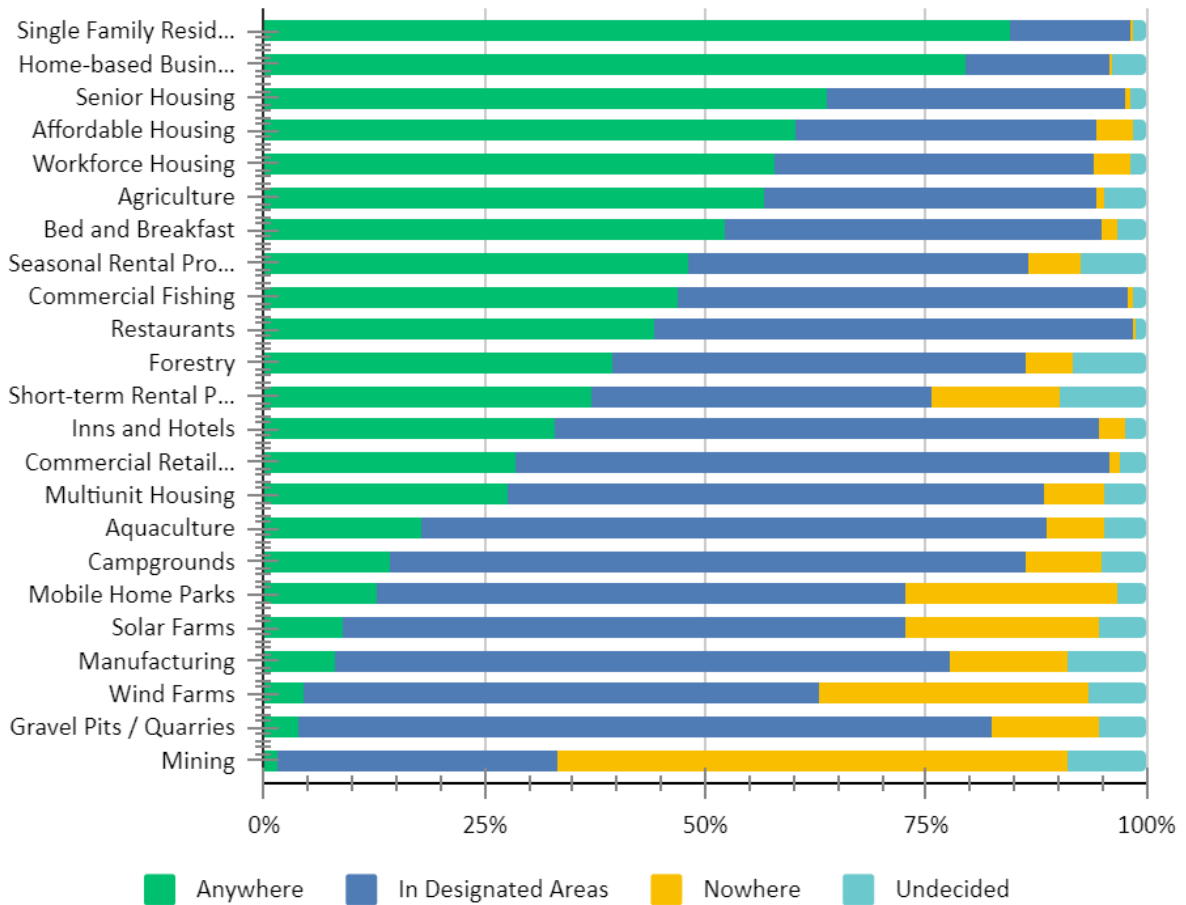
It notes, "Most new land development since 1992 has taken place along the shore. There has also been a trend of commercial development moving from the village areas to highway

locations. The rate of subdivision development has been low, the largest number of lots approved in a given year was ten and for many years no lots were approved.”

## 4. Public Opinion Survey

A common sentiment expressed in the survey is an appreciation for Deer Isle’s rural character, natural beauty, and small town culture. Respondents expressed diverse concerns including the shortage of housing, the impacts of climate change, and risk of over-development. Attitudes about the organization of land use vary with the intensity of use. Low intensity uses like single family residences, agriculture, forestry, and home-based businesses are generally accepted anywhere in Deer Isle. The most intensive uses like mining, gravel pits, wind farms, and manufacturing are either favored only in designated places or not at all.

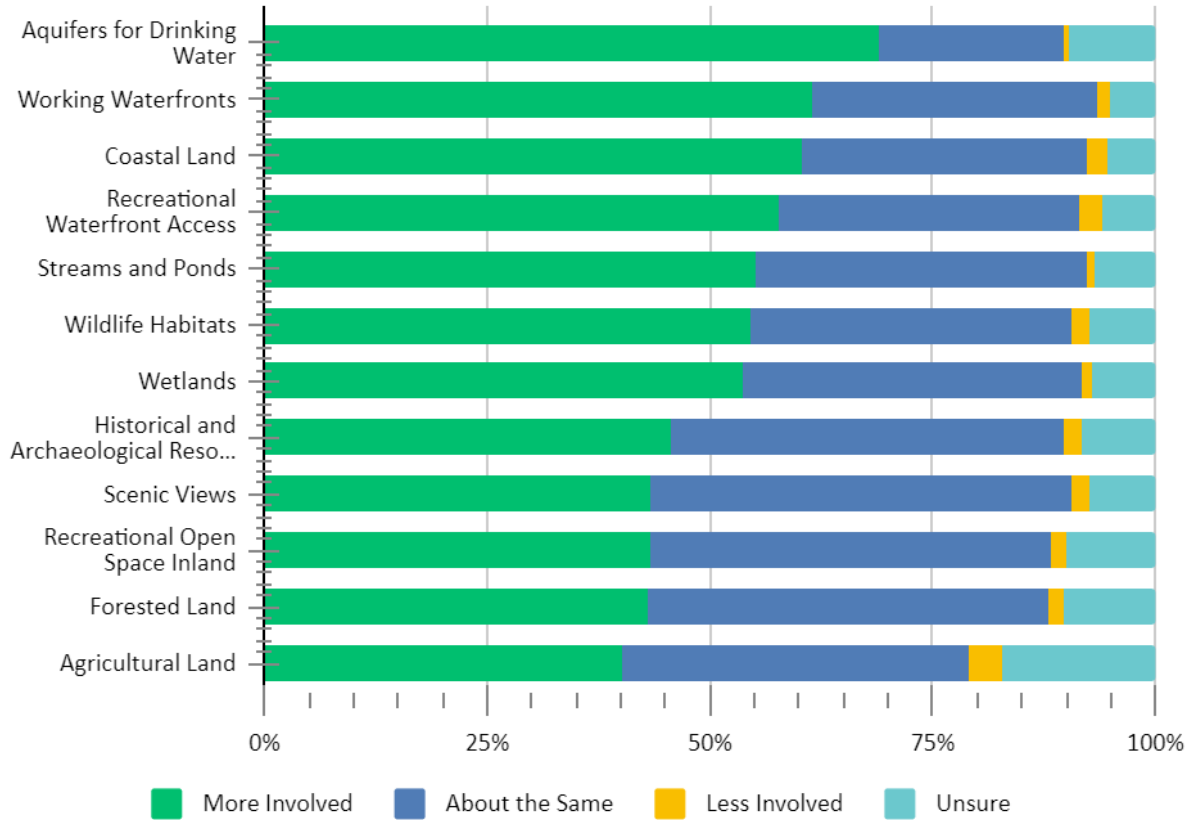
### Opinions About Future Land Use



As has been noted in the Natural Resources chapter, there is widespread support for protecting the rural character of Deer Isle. Support for protection is consistently high, but is particularly high for protecting water quality, working waterfronts, coastal land, recreational areas and natural resources.

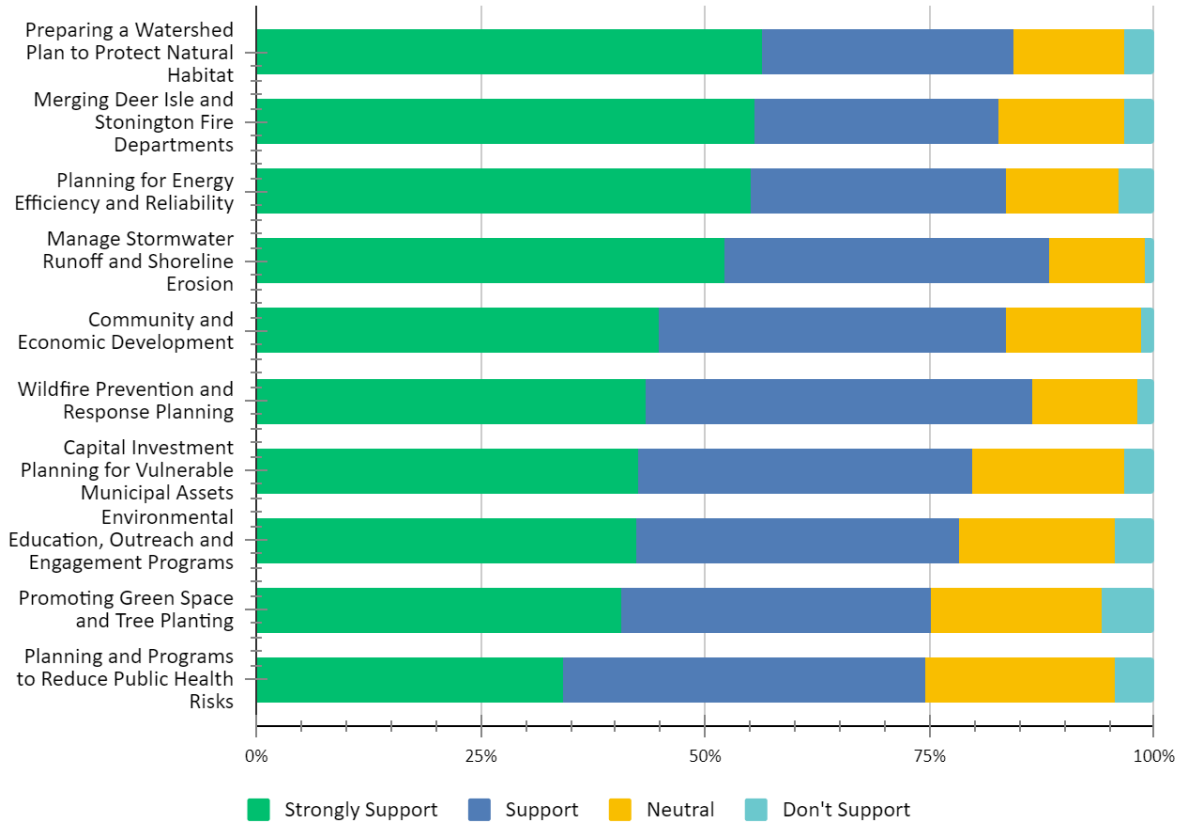


## Support for Town Protection



Initiatives to plan and protect public assets in Deer Isle also receive consistent support of 75% or more respondents. 5% or less respondents categorically opposed these initiatives.

### How would you rate your support for each?



## 5. Existing Land Use Conditions and Trends

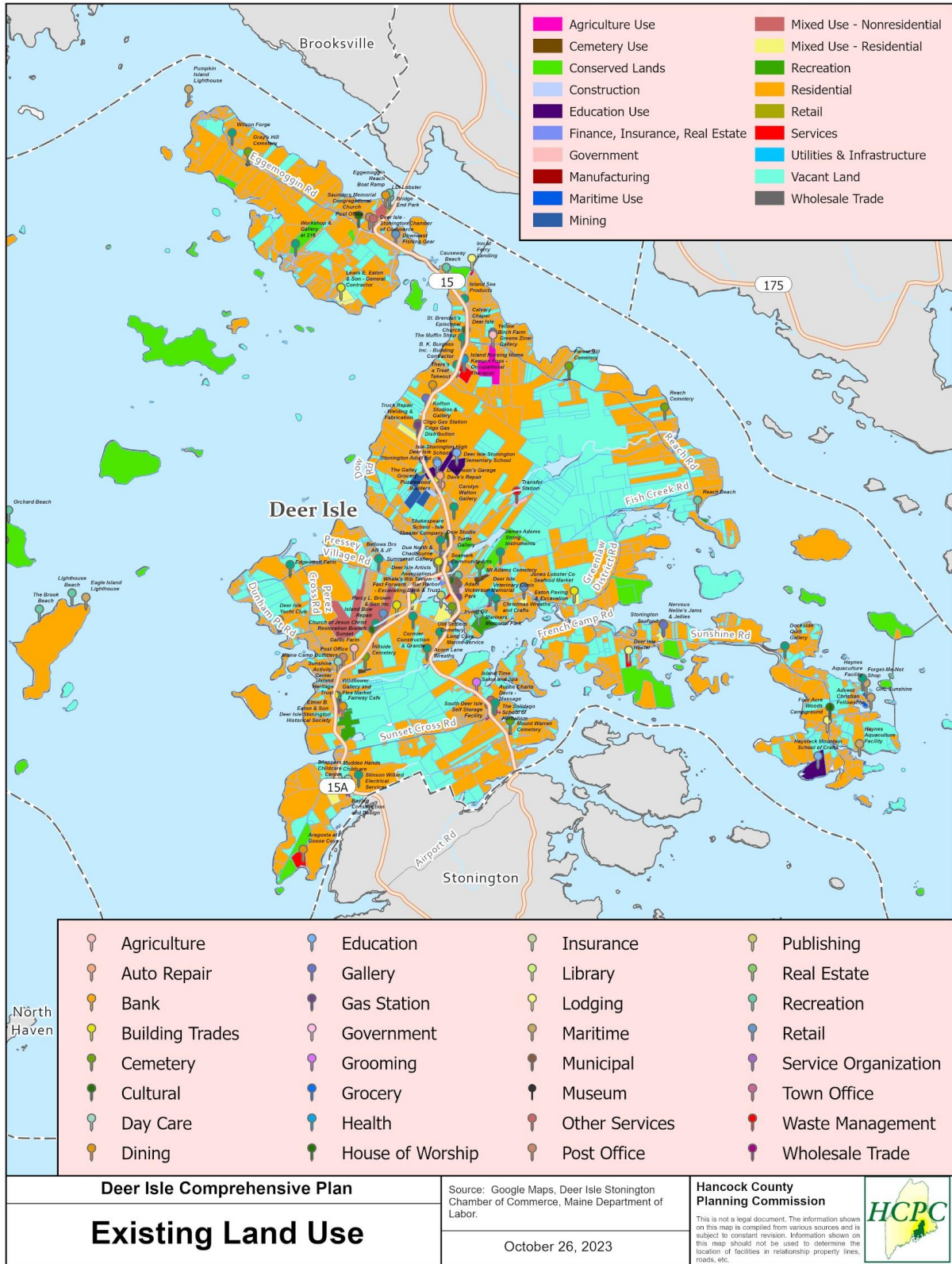
### A. Existing Land Uses and Acreage of Developed Land

The total land area of Deer Isle is approximately 29 square miles, or 18,560 acres. There are approximately 7,180 acres of vacant, undeveloped land in Deer Isle plus another 6,443 acres of additional undeveloped land on improved lots. Not all of this land may be developable due to lot configuration, road access, wetlands, and other factors, but the numbers here provide an approximation of Deer Isle’s build-out potential.

To underscore the caution needed in estimating developable land, note that the Draft 2006 Comprehensive Plan data regarding soils in Deer Isle with low or very low potential for low-density development indicated that approximately 14,762 acres, or 80% of the Town’s land area, fell into this category.

Current land uses are shown on the following map:

**Figure M-1: Existing Land Use**



Note that the map's developed use designations apply to an entire lot if any portion of the lot contains that use. Many lots designated as residential, for example, contain a single dwelling unit but are otherwise largely wooded or undeveloped.

## B. Land Use Patterns

### i. Overview

With approximately 18,560 acres of land area and 2,194 year-round residents and a population density of approximately 76 persons per square mile, according to the latest Census data, Deer Isle is a lightly-populated town. Most of Deer Isle's recent development has occurred in the shorefront areas and along Route 15. Deer Isle has the largest shoreline of any of the towns in Hancock County. Interior portions of the Town are largely undeveloped.

There is a historic "village" area near Northwest Harbor and the Mill Pond, as well as two smaller villages in Little Deer Isle and Sunset.

### ii. The Shorefront

One of the principal drivers of land value in Deer Isle has been proximity to the ocean. The choice scenic coastal properties are predominantly seasonal, recreational homes with many being rented on short-term listing services like AirBnB and VRBO. This area is already regulated through the Town's Shoreland Zoning Ordinance, which meets the State's minimum standards for such zoning. While this ordinance offers protection in terms of waterfront setbacks, timber harvesting, and other environmental standards, residents are still concerned about the impacts of additional shorefront development, including the loss of public access to the shore and working waterfront. Currently there are only minimal side or rear lot setback requirements for shorefront residences and there are no road frontage requirements. The waterfront setback requirement for new structures is 75 feet from the high water line. Shoreland zoning applies within 250 feet of the shore, leaving inland areas of the Town without zoning and minimal building permit requirements.

Issues of concern for shoreland development include sea level rise, coastal erosion, marine water quality, loss of rural character and housing affordability. These issues could be addressed by requiring greater setbacks, impervious surface coverage requirements, screening, and similar standards. Implementing standards that exceed the State minimum for shoreland areas is allowable under State law.

### iii. Deer Isle Neighborhoods

Prior to the arrival of automobiles and the construction of the Deer Isle-Sedgwick Bridge and the Deer Isle Causeway, the Town had several small villages with neighborhood churches and schools. These included Little Deer Isle, Deer Isle Village, Sunset, the Reach, Sunshine and South Deer Isle. The neighborhood schools consolidated and eventually the schools in Stonington consolidated with Deer Isle. Despite its small population, Deer Isle still has three post offices serving Little Deer Isle, Deer Isle Village and Sunset.

The villages were once major areas for year-round homes in Deer Isle. In recent years, however, more development has taken place along the shore, Route 15 and secondary roads. Still, the villages play an important role in the community and have a number of buildings of

historical value. In addition to the post office, Deer Isle Village features a coffee shop, galleries, a gift shop, an inn with restaurant and the Chase Emerson Memorial Library. Within walking distance of Deer Isle Village, there is a bank, church, antique shop and other amenities. However, there is little undeveloped land in this area and it is hemmed in by the Mill Pond and Northwest Harbor with little available parking. The principal opportunity for development of Deer Isle Village is to rehabilitate existing structures and to expand eastward along the Route 15 corridor toward the Town Office area that includes a Fire Department, playground, ballfield and community garden.

While Sunset and Little Deer Isle are less developed, they still have village character, principally around their post offices. There has been little recent development in these areas. This diffuse pattern of development will likely continue unless the Town takes measures to discourage development in the undeveloped, rural areas and encourages development in and near the villages.

#### iv. Route 15 and Sunset Road

The arrival of automobiles reoriented commercial development, much of it built on Route 15 and Sunset Road. The State and Town roads are built on some of the highest, driest ridgelines. Not surprisingly, houses dependent on wells and septic fields have also concentrated in these corridors. As development grows along the corridors, the distinction between the village centers has declined.

#### v. Remote Areas

Construction is now spreading into portions of the undeveloped interior of Deer Isle where land is high and dry enough for septic fields. It can be costly for towns to serve new homes in areas such as these, especially if school bus routes, snowplowing, and emergency vehicle services must be expanded to accommodate them. The Town's road system is limited, and those roads that do exist are commonly narrow and often rough. Remote areas are the least-suited to accommodate major development such as large-scale residential subdivisions.

### C. Current Lot Dimension Standards

Deer Isle does not have a comprehensive land use zoning ordinance, though it does have a Shoreland Zoning Ordinance and Subdivision Regulations. The Subdivision Regulations generally require a two-acre minimum lot size for individual single-family dwelling units; multi-family developments must be situated on a lot containing a minimum of two acres plus an additional half-acre for each sub-unit. These rules are being re-examined in light of Maine State law LD2003, which requires greater consideration of auxiliary dwelling units (ADUs).

The Shoreland Zoning Ordinance requires new principal and accessory structures to be set back seventy-five feet from water bodies, streams, and wetlands; with exceptions, the Harbor District requires a setback of twenty-five feet and the Maritime Activity District has no minimum setback for marine dependent uses.

### D. Development within the Last 10 Years

As indicated in the Housing chapter, development activity has fluctuated considerably from one decade to the next in Deer Isle. In the ten years from 2000 to 2010, total housing units grew by

23%, whereas growth in the succeeding decade was flat. New buildings have been scattered throughout the Town without a planned pattern.

Figure M-2 indicates the location of new residential and commercial construction permits in Deer Isle during the period from 2013 to 2023. Slightly more than one-third of the permits were for construction in the Shoreland Zone. Not all permits result in constructed buildings.

There has been no significant industrial or institutional building construction in Deer Isle in the period from 2013 to 2023.

**Table M-1: Number and Location of New Commercial Construction Permits**

Date Issued	MAP/LOT	Type of Permit	Type of Structure
6/21/2023	009-076	Shoreland	Studio/Office Building
09/20/2021	004-014	Inland	New Garage for ATV & Motor Vehicle Repair
3/18/2021	020-003	Inland	New Self Storage Building
11/30/2020	006-057	Inland	Boat House with dirt floor
10/08/2020	009-077	Inland	Dance Studio
7/1/2020	011-003B	Inland	Horse Barn
5/11/2020	035-001	Inland	Beauty Salon with Bathroom
5/5/2020	033-049	Inland	Jamaica Cottage Shop
3/23/2018	035-025	shoreland	Take-out Restaurant, Fuel Tank, Shipping Containers
9/25/2017	003-059-10	inland	New Boat Shop
8/3/2016	041-010-02	shoreland	Refrigerated Bait Storage
Total: 11	Shoreland: 3	Inland: 8	

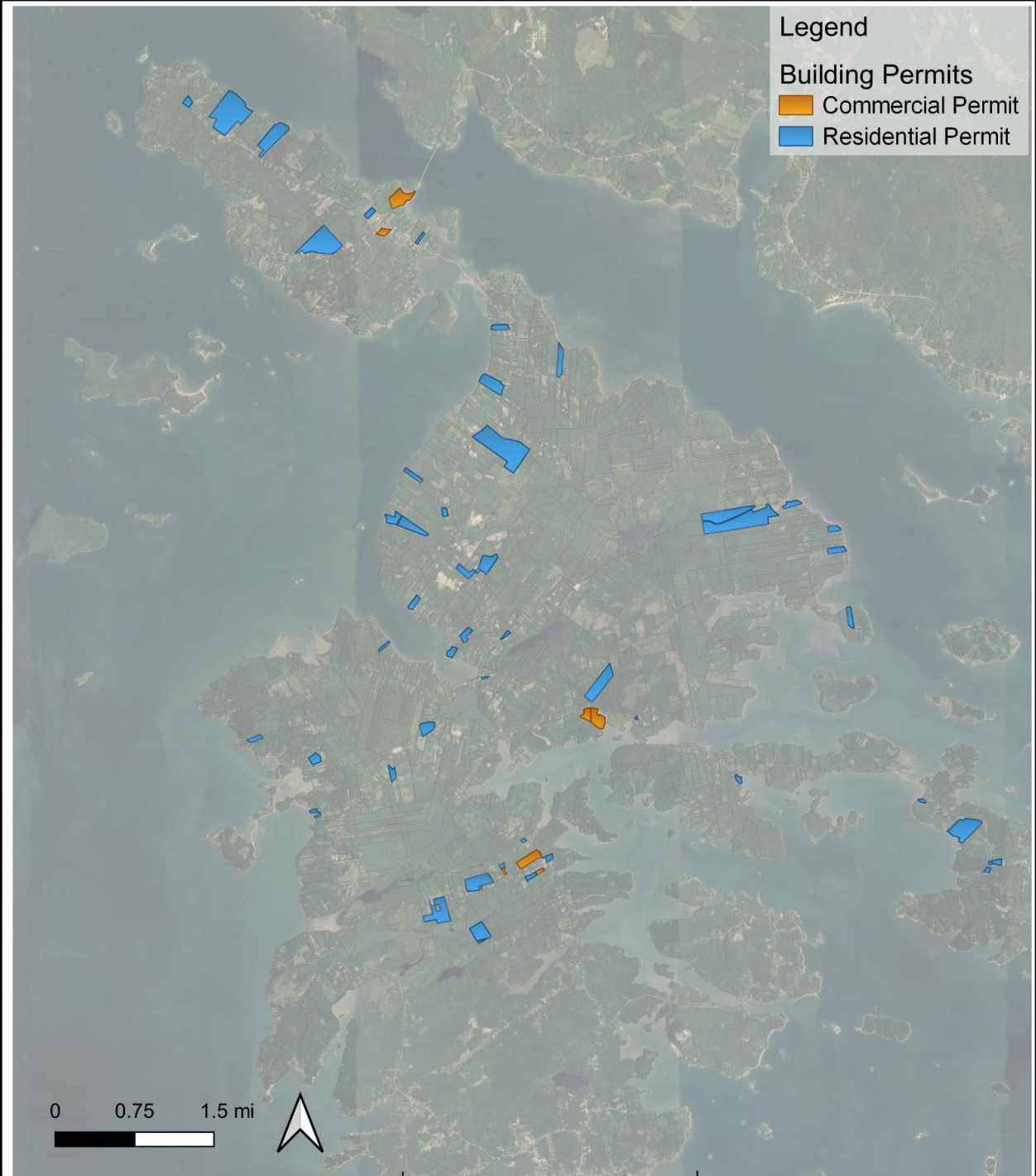
In 2023, the Oliver’s Ridge development of five duplex rental units opened on the Sunset Crossroad. Sponsored by Island Workforce Housing, this development is designed for families and individuals working on the Island. This is consistent with the Comprehensive Plan Vision Statement and Survey focus on workforce housing and young families.

#### E. Existing Land Use Regulations and Land Use Management Tools

There is no town-wide zoning in Deer Isle and no local building permit ordinance. Individual residences may be built outside of the Shoreland Zone with minimal Town review.



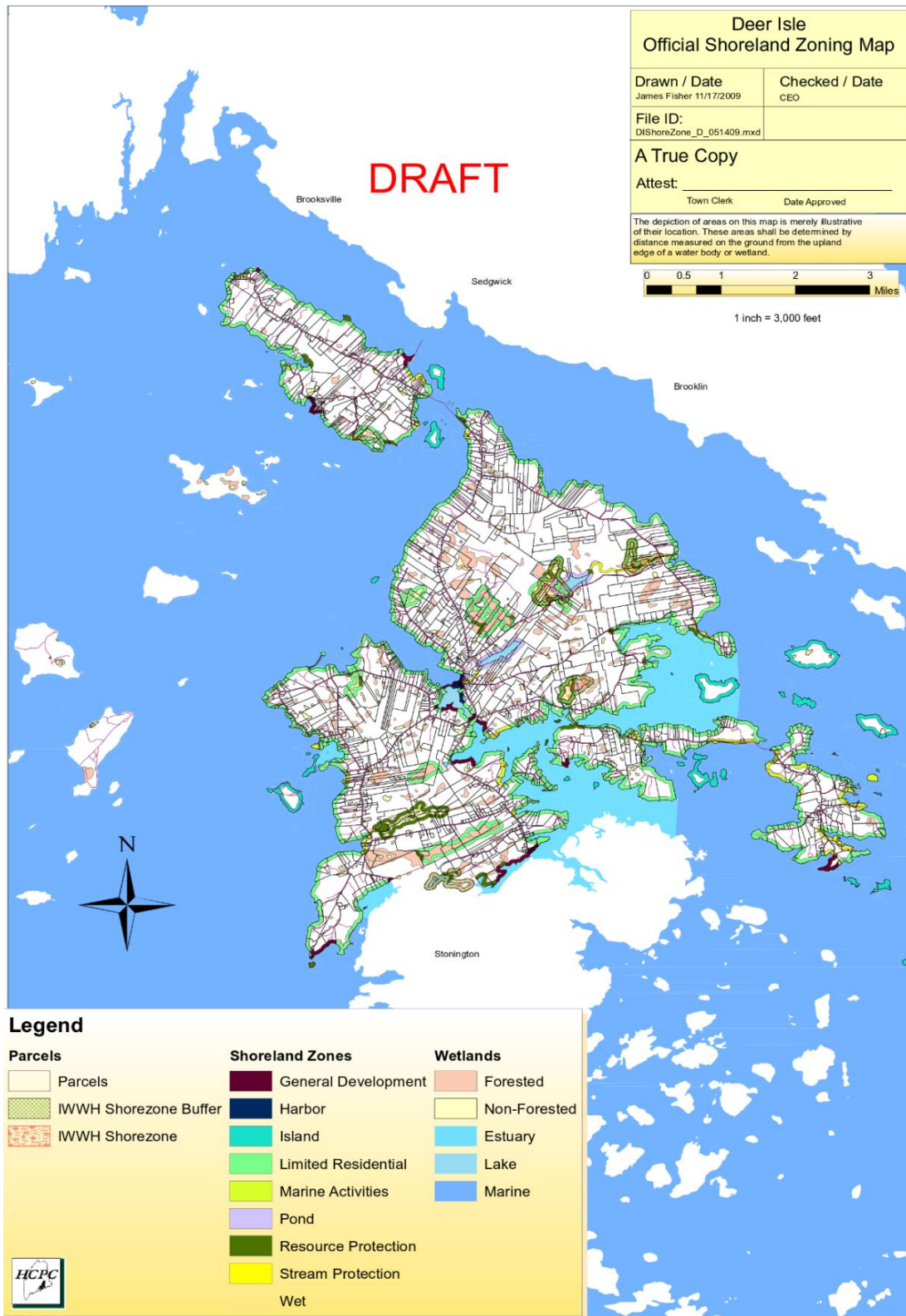
**Figure M-2: Deer Isle Building Permits**



Deer Isle Comprehensive Plan	Source: Deer Isle Planning and Code Enforcement	Town of Deer Isle This is not a legal document. The information shown on this map is compiled from various sources and is the subject of constant revision. Information shown on this map should not be used to determine the location of facilities in relationship to roads, property lines, etc.
Building Permits 2015-2023	November 26, 2023	



**Figure M-3: Deer Isle Shoreland Zoning Map**





The Shoreland Zoning Ordinance standards are consistent with the State minimum guidelines and are even more protective in some respects. Under State law, the Town would be permitted to increase those protections further. Much residential development has been in or near to the shoreland zone.

The Deer Isle Subdivision Regulation ordinance was adopted in 1987, and it currently mirrors the State's 1989 subdivision law. This ordinance should be reviewed to ensure that, at a minimum, it contains the amendments to the State statute enacted after its adoption.

Deer Isle has a Floodplain Management Ordinance consistent with the State's minimum guidelines for ordinances at the time it was enacted in 2016. Few, if any, claims have been filed from Deer Isle under Federal flood insurance policies since the program began in 1978. This inactivity indicates that there is little threat from flood damage in Deer Isle. However, as development pressures increase and climate change impacts the Town, it will be important to ensure that construction does not occur in a manner that may risk flood-related damage.

Some communities in Maine regulate short-term rentals due to concerns about noise, traffic, and loss of affordable housing. Stonington adopted new short term rental regulations in 2023. Deer Isle does not have such an ordinance, but, if the 2023 survey results are representative, there may be public support for one.

It may be advisable to consider increasing the protections of the Shoreland Zoning Ordinance. The Shoreland Zoning standards could be revised to allow more effective management of development which would mitigate the impact on wildlife habitat and scenic views when development occurs adjacent to the shore and other water bodies. Consideration should also be given to adopting a Commercial Site Plan Review Ordinance with specific development review standards.

Deer Isle may want to consider requiring larger subdivisions to cluster the homes so that more green/open space can be preserved. The goal would be to configure adjacent subdivisions so that common, open spaces are created next to each other, thereby preserving habitat corridors and enabling more viable woodlots and farm fields, among other potential benefits.

#### F. Projected Land Acreage Needed for Development

An estimate of the land needed to accommodate projected residential development for the next ten years (2024 – 2033) can be made using the dwelling unit projections presented in the Housing chapter. As noted above there has been a substantial amount of fluctuation in the amount of housing growth over time. New residential building permits climbed to six and eight in the COVID-19 pandemic years of 2021 and 2022, respectively, but not all permitted structures have been constructed.

Given the fluctuations in historical development rates and the unreliability of population forecasts, it may be reasonable to predict a range of new housing units of 50 - 200 by the year 2033. This would require a minimum of 50-200 acres of land under current standards. While the actual growth rate may turn out to be less than this projection, it is better to plan for a higher rate of growth than to be left unprepared for a faster-than-expected growth rate.

Commercial development is likely to be sporadic. Given past trends, there may be another twenty to forty acres of commercial development by 2033. Most development in Deer Isle is expected to be on a small scale (such as owner-operated businesses catering to tourists) or

expansions of existing uses (such as inns and boat yards). Some forms of commercial development, such as campgrounds, occupy larger tracts of land, but do not impose a high intensity of use. The recent improvements to Deer Isle's Internet capabilities will likely increase interest in the area by at-home workers and computer-dependent enterprises.

There may be an increase in conservation land if more properties are placed under conservation easements or other environmental restrictions. This is more likely if the Town actively promotes such measures. There is no way to estimate how many acres would be protected by such easements.

There are approximately 7,180 acres of vacant, undeveloped land in Deer Isle plus another 6,443 acres of additional undeveloped land on improved lots; therefore, it is reasonable to assume that there is ample land to accommodate anticipated development. The challenge lies in the Town growing in a way that minimizes sprawl while not overly restricting how owners might choose to use their land.

### G. LD 2003

"An Act to Implement the Recommendations of the Commission to Increase Housing Opportunities in Maine by Studying Zoning and Land Use Restrictions," generally referred to by its legislative tracking name of LD 2003, became law on April 27, 2022. This law is designed to remove unnecessary regulatory barriers to housing development in Maine, while preserving local ability to create land use plans and protect sensitive environmental resources.

Among other things, the law provides for the following:

- The creation of a density bonus for certain affordable housing developments in a "locally-designated growth area" under section 4349-A of the Growth Management Act or in an area served by public water;
- A requirement that municipalities allow between two and four housing units per lot where housing is permitted, and
- A requirement that municipalities allow accessory dwelling units to be located on the same lot as a single-family home, under certain conditions.

It is unclear how much of an impact this law will have on Deer Isle. Because Deer Isle does not have public water or sewer, any increase in the number of units per lot will still have to meet the State plumbing code requirements—having a minimum lot size of 20,000 square feet for dwelling units with septic systems and for maintaining one hundred feet of separation between septic fields and private wells.

Under the law, many of the improved parcels in Deer Isle could add one additional attached unit, one additional detached unit, or one of each, provided that plumbing code requirements are met; this is not dependent on their location being in a growth area or an area with public water and sewer. In fact a number of parcels in Deer Isle already have more than one dwelling unit. Additional units are also possible under the new law for vacant parcels that are designated to be in a growth area under this Plan.

LD 2003 is intended to increase the production of housing in Maine. It has the potential to accelerate residential development in the Town. It also has the potential to spur the development of attainable housing in the Town's growth areas. The Town will be required to revise its land use ordinances to reflect the law's requirements before its effective date of July

1, 2024. It will be important that the Town monitor the implementation of the law and any changes in the years ahead.

## 6. Analyses

### A. Consistency with Community Expectations

Most of the land development in Deer Isle is occurring lot-by-lot and not in new subdivisions or planned developments. Based on the Public Opinion Survey results, the Town's residents are divided as to the need for growth limits or other restrictions. There were also calls for more Town services and a desire for more affordable housing.

### B. Measures to Ensure Development Fits with Community Expectations

One factor for Deer Isle to consider is the cumulative impact of development over time. By its nature, gradual growth does not trigger alarm bells from one year to the next. At some point, though, thresholds are exceeded and the Town has to expand by adding on to the school, rebuilding a subdivision road, or making other expenditures. Deer Isle has a limited freshwater aquifer that may also be compromised by over-development. It may be desirable to explore options such as encouraging additional voluntary grants of conservation easements; promoting greater use of the farm, open space, tree growth, and working waterfront current-use tax law programs; and/or requiring subdivisions to be clustered in order to preserve open space.

### C. Administrative Capacity for Managing Deer Isle's Land Regulation Program

Deer Isle has a Planning Board, Board of Appeals, Code Enforcement Officer, and Plumbing Inspector who have duties relating to land use. These positions appear to be generally sufficient for the foreseeable future, and sharing options with nearby towns may be possible incrementally as needed. Should the Town adopt a Commercial Site Plan Review Ordinance, the workload of the Planning Board and the Code Enforcement Officer would likely increase substantially.

### D. Floodplain Regulations

Deer Isle adopted a comprehensive Floodplain Management Ordinance in 2016 that is consistent with State and Federal standards. The Town participates in the National Flood Insurance Program (NFIP). Deer Isle does not have significant streams susceptible to flooding, but sea level rise and increasing storm events have been threatening its causeways, low-lying roadways and culverts in recent years. Coastal properties are also seeing more shoreline erosion.

## 7. Goals & Objectives

GOAL: Regularly review and, where needed, modify Deer Isle’s land use requirements and practices to assure that they meet the changing needs and reasonable expectations of residents, while also complying with evolving Federal, State and County mandates and options.			
Objective	Strategy	Responsible Party(ies)	Timeframe
Ensure that there is a continued awareness of Deer Isle’s land usage at all times.	Prioritize monitoring of significantly changed land uses as an integral part of the Town’s procedures.	Select Board, Planning Board, Code Enforcement Officer	2024
Examine the advisability of creating a written Enforcement Policy that specifies the penalties or other consequences of land usage in Deer Isle that is not in compliance with Town, County, State, and/or Federal requirements.	Regularly inspect land in the Town for significant usage changes.	Select Board, Treasurer/Tax Collector, Code Enforcement Officer	2024 and Ongoing/ Every two to four years
Provide an up-to-date, factual foundation for the Town to propose beneficial future land usages.	Ensure that the Town’s compliance with LD 2003 and other State laws and regulations maximizes benefits to the Town.	Select Board, Planning Board	2024
	Enable the Town to determine the benefits, if any, of designating residential, commercial, industrial and resource protection areas on land within the Town.	Select Board, Planning Board	2024-2025

# Chapter N: Future Land Use

## 1. Purpose

This chapter addresses the future use of land in Deer Isle, based on its location, condition, and present use, as well as current trends that will likely affect the land's future. Land use is an important factor in determining a community's stability, growth, and/or decline. Understanding land use can be critical to a community's planning as it addresses and tries to influence likely and inevitable change. Specifically, this chapter:

- a. Identifies land areas that are considered suitable and unsuitable for development into residential and commercial properties;
- b. Estimates potential growth in land development; and
- c. Proposes policies and practices designed to positively influence the development of land in the manner desired by the community.

## 2. Key Findings and Issues

Deer Isle's population and land use have been growing for decades, largely as a result of immigration of retirees. This has led to a 23% increase in the number of dwelling units in Town over the period 2000-2020. However, this increase has not addressed the need for affordable housing for young families.

Migration pressures are changing due to factors such as climate warming, floods, wildfires, droughts, disease, civil unrest, and increasing numbers of people working from home, second-homes, and travel lodgings. These factors increase the likelihood of migration to Deer Isle and additional demand for housing. In recent years the growth of year round and seasonal housing have been roughly equal, with seasonal housing more likely to be located in more remote coastal locations. (See Housing chapter for more discussion.)

Technological change is enabling new land uses and land use patterns. Deer Isle recently received universal access to fiber optic Internet service. Access to high speed Internet enables remote work ranging from professional to small scale manufacturing employment to be located anywhere. The Town's population is aging, but school enrolments have been stable and young families are poised to move to Deer Isle if housing is attainable.

Future land use in Deer Isle may be driven by several factors. For seasonal residents, proximity to the ocean and scenic views are important. Year round growth is likely to include consideration of winter road access, electrical power reliability, land prices, and proximity to services. Constraints to development include large tracts of wetlands, hydric soils, lack of road access, high land prices, and conserved lands. Future growth areas need to accommodate year round, attainable housing and services.

## 3. 2006 Draft Comprehensive Plan Key Findings & Issues

The draft 2006 Comprehensive Plan proposed that the entire inland area of the Town be designated as a growth area. This proposal was not accepted by the State reviewers. Inability



## 5. Principal Future Land Use Recommendations

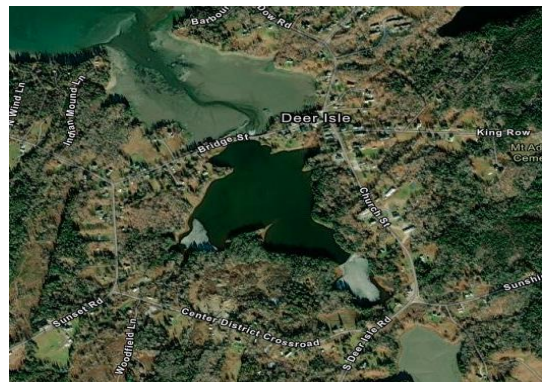
The prior chapters of this Plan contain specific goals, objectives, and strategies to achieve those goals and objectives. Many of these might affect Deer Isle's future land use, if implemented. This section discusses and focuses on the principal recommendations that are relevant to future land use.

### A. Most Suitable Growth Areas

One of the major goals of Deer Isle's residents who responded to the Public Opinion Survey was to maintain Deer Isle's rural character and quality of life as much as possible. Given this goal, this Chapter recommends that the most suitable areas for development of residential and business properties in Deer Isle would be adjacent to four locations: Deer Isle Village, Route 15 in the area of the schools, the Sunset village area and the area around the intersection of Eggmoggin Road and Route 15 on Little Deer Isle. These areas should be adequate to accommodate year-round residential and commercial land use growth over the next ten years. It should be noted that defining growth areas does not require development to happen in these areas or prohibit development elsewhere. Rather, the designation of growth areas enables the Town to incentivize development consistent with the Comprehensive Plan.

#### Deer Isle Village

Deer Isle Village is a mixed use area with senior residential (Deer Run Apartments), commercial, and public properties, including the Town offices, a church, library, stores, and a seasonal restaurant. Early in the Twentieth Century Deer Isle Village hosted as many as 50 small businesses. Designating this area as a future growth area would be consistent with historic development and would take advantage of existing roads and other infrastructure. Nonetheless, as pointed out in the Transportation chapter, present and future pedestrian and cyclist safety in this area should be addressed, including consideration of municipal growth-related capital investment in this area for sidewalks and other road safety upgrades.



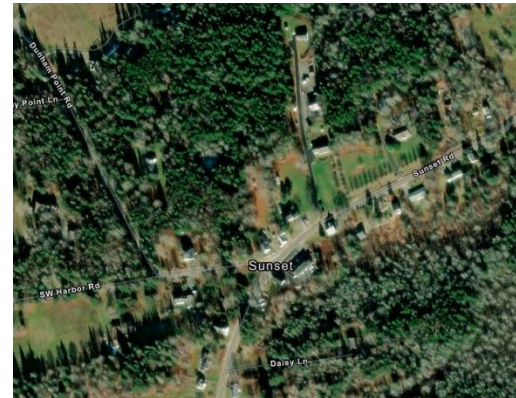


## Sunset Village

The center of the Sunset Historic area includes a post office, public garden, non-profit office and several small businesses. It could be expanded to include the Deer Isle-Stonington Historical Society, Island Heritage Trust and the Island Country Club with appropriate planning. Potential road improvements to enhance pedestrian/bicycle safety might be included among the Town's capital investments over the next decade.

## Deer Isle Campus

The area in the vicinity of the Deer Isle-Stonington High School and Elementary School, including Gravel Pit Drive and extending to the Dow Road, could provide a natural venue for attainable residential and limited commercial development. Improvements to Route 15 traffic patterns and the addition of sidewalks could enable new residents and children to walk safely to school and to Deer Isle's only grocery store. Expansion of the current commercial offerings might meet many of the needs of new residents without increasing vehicle traffic.



## Bridge End

The Bridge End Area includes a post office, church, small businesses, Chamber of Commerce Information Center, nature trails, a seasonal restaurant and Bridge End Park. This area provides ready access to the Blue Hill Peninsula and high quality electrical service. This area offers additional potential for small business and residential growth.



## B. Growth Area Consistency

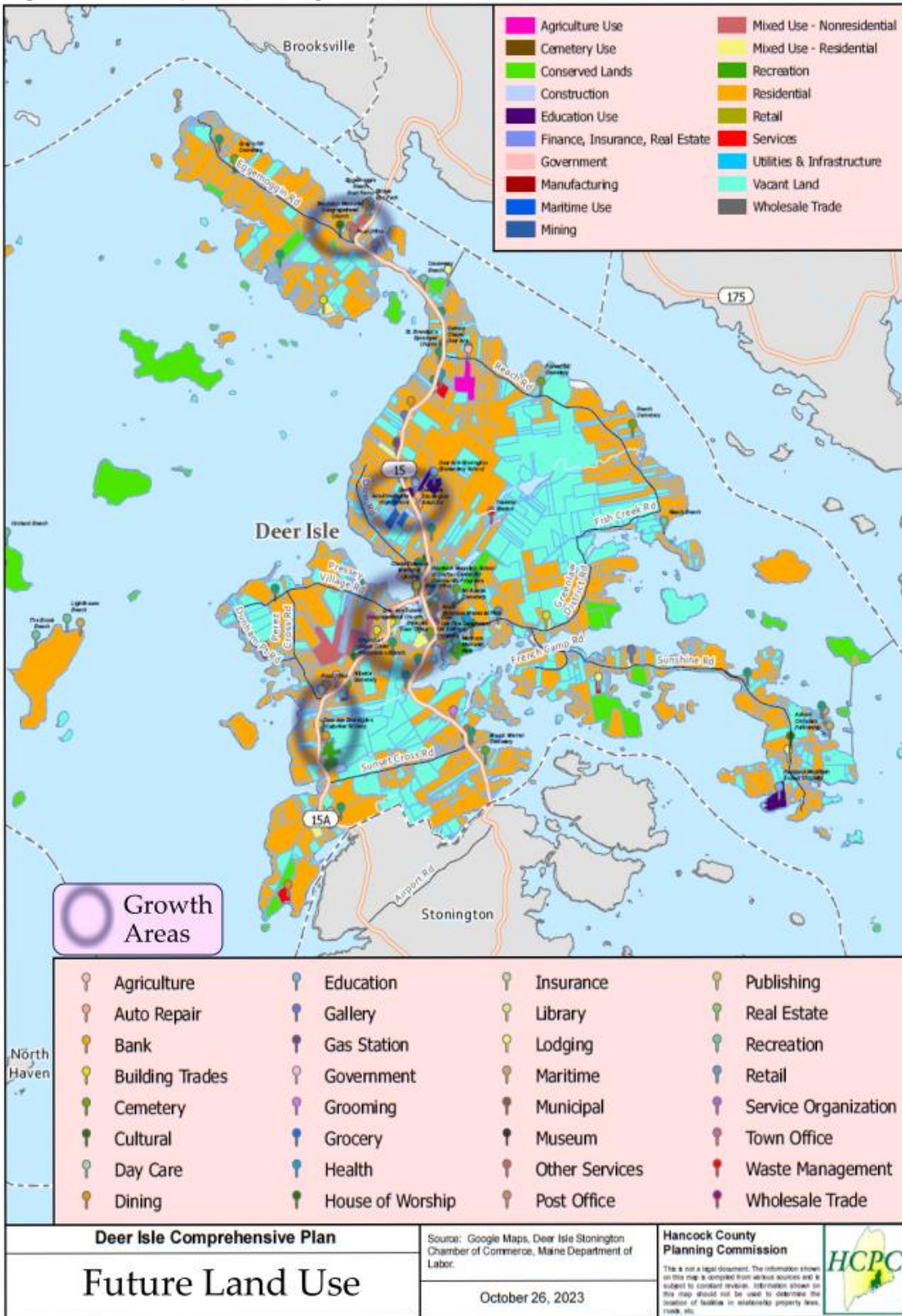
These four growth areas are consistent with the Vision Statement's emphasis on the housing needs of young families and the revitalization of Deer Isle Village and other centers. Recent development has been spread out and not concentrated in particular areas of the Town. Deer Isle does not have any existing densely-populated areas.

Each of the growth areas contains soils that are suitable for development and are compact in extent. Incidental unsuitable land would be protected by existing land use ordinances or proposed amendments. Each is located adjacent to existing roads because those roads have developed along ridgelines with the most suitable soils in Town. Development in

neighborhoods and centers will enhance efficiency of the State highways and encourage alternatives to sprawl.

The Town of Deer Isle proposes two major capital investments: the Fire Station in the Deer Isle Village growth area, and the Salt-Sand Storage Shed at the Transfer Station. No other public or institutional investments are anticipated over the next ten years. Industrial activity is limited primarily to small businesses. Future marine-related growth is likely to be in the Harbor and Maritime Activities Districts under the Shoreland Zoning Ordinance.

**Figure N-2: Proposed Designated Growth Areas:**

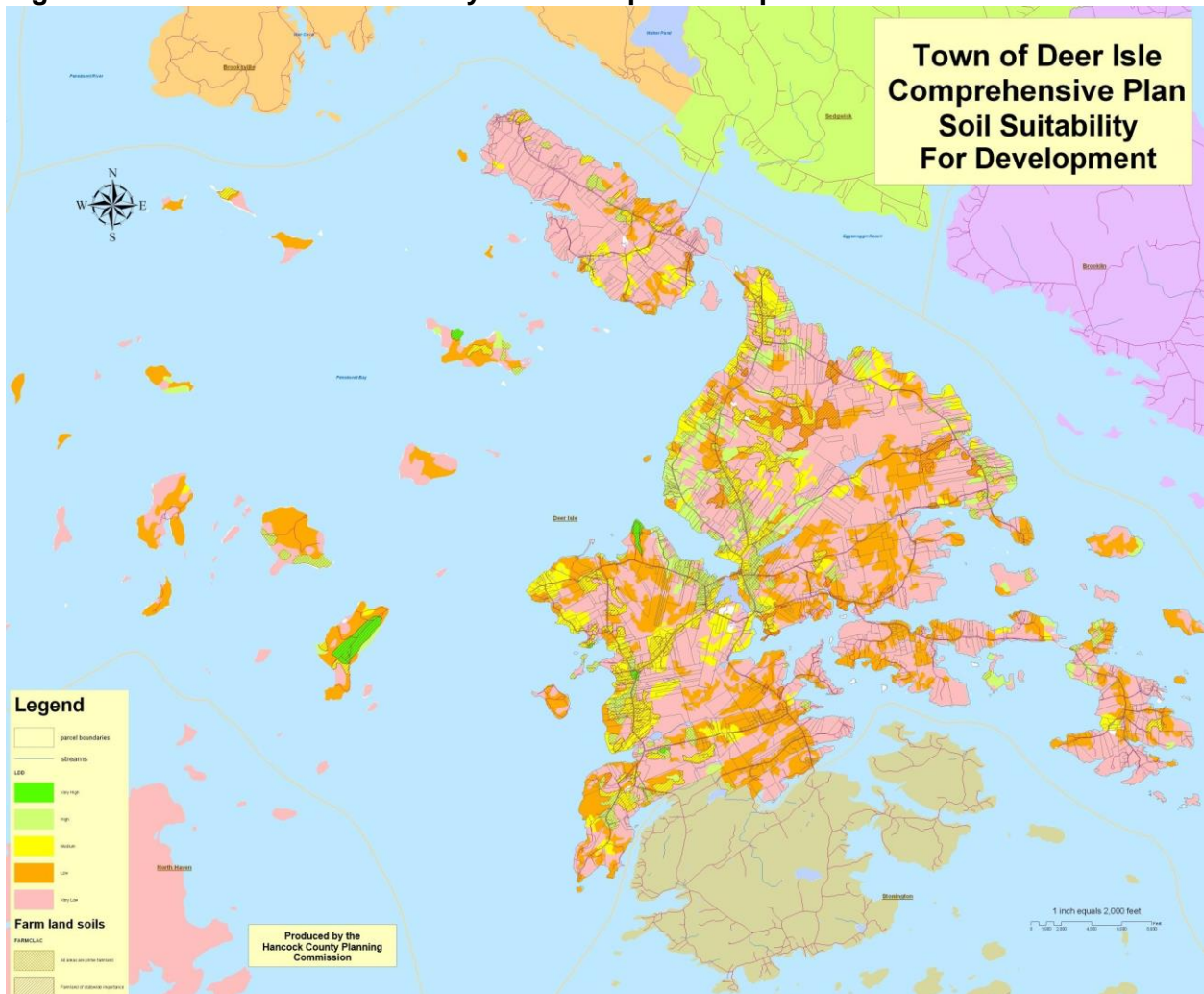




### C. Unsuitable Growth Areas

Soil conditions and other constraints must be taken into consideration in permitting development in the above-referenced areas. For example, Deer Isle has a significant number of very wet (“hydric”) soil areas (See Figure C-1 [Natural Resources Chapter]), flood hazard areas along its coasts, and environmentally-conserved areas in which development is prohibited or limited.

**Figure N-3: Deer Isle Soil Suitability for Development Map:**



As the Soil Suitability for Development Map indicates, Deer Isle has a relatively small portion of its land area that is suitable for residential or commercial development.

**Figure N-4: Deer Isle Co-Occurrence Map**



The Co-Occurrence Map takes a number of factors into account to identify areas most suitable (light brown) to areas least suitable (dark green) for development. The four proposed growth areas have significant developable land. Additional development would be possible with additional investment for septic systems.

According to the United States Department of Agriculture Web Soil Survey, approximately 4,523 acres of Deer Isle's total land area of 18,560 acres (24%) is either not limited or only somewhat limited in its suitability for Dwellings without Basements. For Dwellings with Basements, that percentage falls to 7%. The soil suitability map highlights the challenge for building septic systems without significant mitigation such as building mounds with imported soils.

## D. Coastline Areas

One of Deer Isle's most valuable land assets is its beautiful and working coastline. How to protect that asset from new and increasing threats such as climate change (rising seas, unprecedented storm surges, etc.), erosion, pollution, and over development, is becoming an increasingly important challenge.

This is not a new problem. Maine first enacted a Mandatory Shoreland Zoning Law in 1971 and has amended it on several occasions since then. It requires Deer Isle and other municipalities to adopt, administer, and enforce local ordinances that regulate land use activities within a "shoreland zone" that acts as a buffer to protect tidal waters, ponds, streams, rivers, marshlands, and wetlands.

Deer Isle's Shoreland Zoning Ordinance (last amended in 2016) regulates the development of all land within 250 horizontal feet of the normal high-water line. Deer Isle's coastal shoreland zoning requirements are the minimum protective requirements that may be imposed under State law. Deer Isle and other municipalities are empowered and encouraged to increase those protections if and when it is appropriate.

## E. Housing

The Town's viability and economy depend upon the availability of housing that is safe, energy-efficient, and affordable for a multi-occupational and multi-generational community. Estimates of new housing over the next ten years could be accommodated in the four recommended growth areas. The 50-200 housing units predicted in the Existing Land Use chapter are a very prudent estimate. A population increase was shown in 2020 census data and the number of building permits granted by the Town's Planning Board since 2020 has been consistent with an increase. The Committee is taking into account all of these indicators as well as the subsequent, unpredicted uptick in migration into the State due to the Covid-19 pandemic and other factors already mentioned.

## F. Transportation and Public Facilities

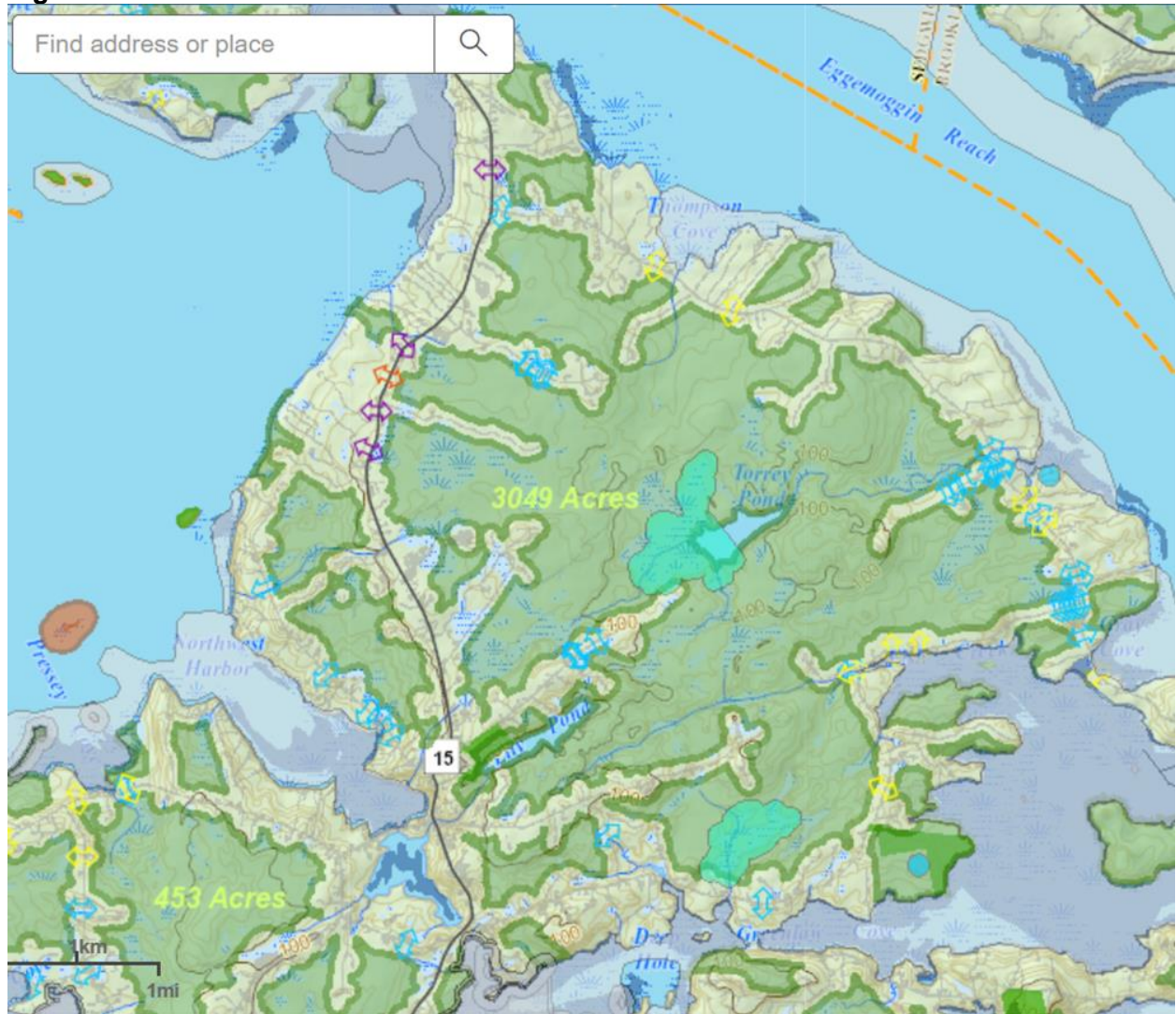
Development in areas not currently served by roads can incur additional costs to taxpayers. For example, the haphazard creation of driveways onto major public roads increases the risk of crashes and can require lower speed limits. Building residences in poorly accessible areas creates longer and slower emergency response times, and longer inefficient school bus routes on which children spend more time in transit.

## G. Rural Areas and Critical Natural Resources

This Plan proposes to designate Deer Isle's Shoreland Zoning Limited Residential, Resource Protection, Pond, Stream Protection and Island Districts as well as two interior areas of Town as both rural areas and areas where critical natural resources are located. Interior Area 1 comprises the 3,049 acre Undeveloped Habitat Block in North Deer Isle depicted on the Beginning with Habitat website:



**Figure N-5: Interior Area 1**

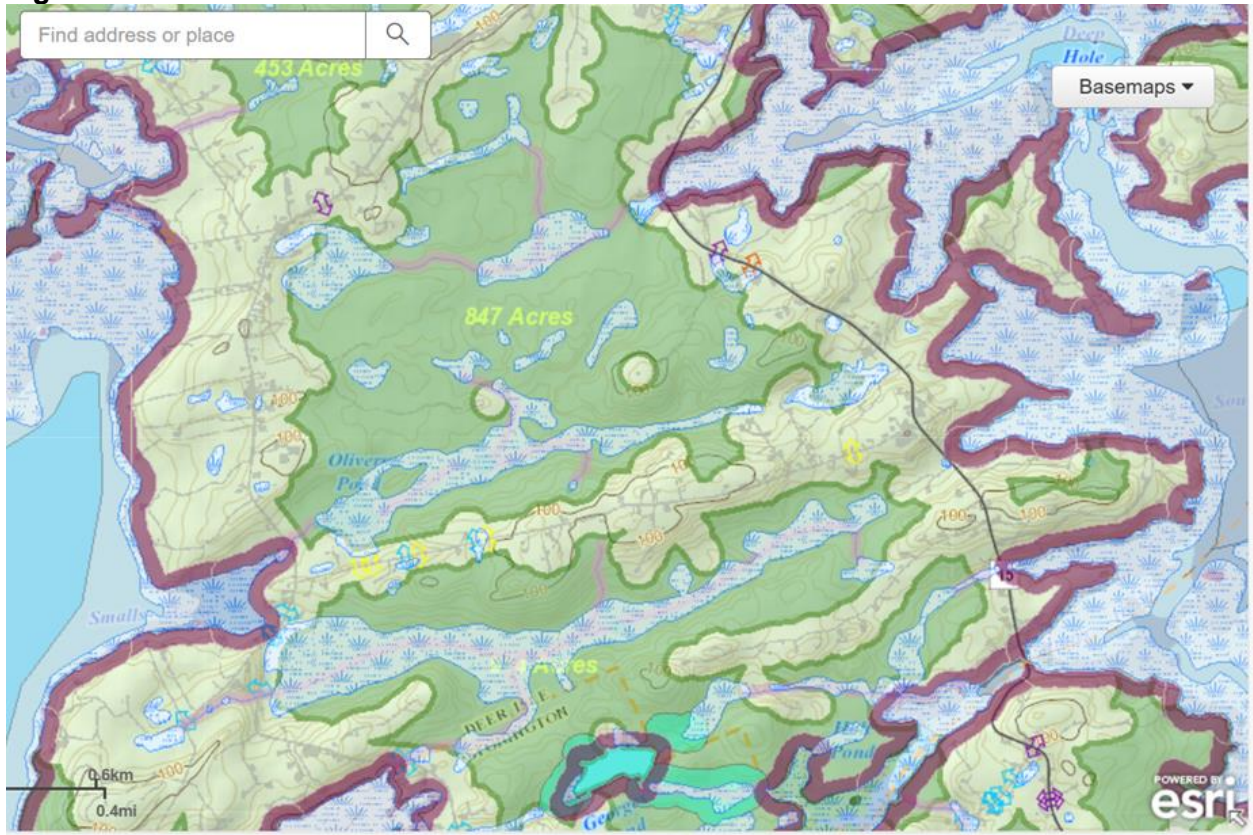


Interior Area 2 comprises the 847 acre Undeveloped Habitat Block in central Deer Isle, along with the portion of the adjacent 914 acre Undeveloped Habitat Block extending southward to the Deer Isle-Stonington town boundary:

These areas support agriculture, forestry, open space, wildlife habitat, fisheries habitat and scenic lands. They include working farms, woodlots, properties enrolled in current-use tax programs, areas of prime agricultural soils, critical natural resources, important natural resources, great ponds and significant freshwater and saltwater wetlands. Except for segments of the shore of the Mill Pond in Deer Isle Village, they do not include designated growth areas or areas where the community otherwise actively encourages new residential, institutional or commercial development.



**Figure N-6: Interior Area 2**



As noted in the Agricultural and Forest Resources Chapter, Deer Isle has approximately 768 acres of prime agricultural soils and 1,567 acres of farmland soils of statewide importance, but they are neither concentrated nor extensive enough to support large-scale agriculture or make their complete inclusion in designated rural areas practicable. Interior Area 2 borders on Stonington, which has designated most of the border with Deer Isle as a rural area in its 2018 Comprehensive Plan and the Georges Pond/upper Holt Mill Pond watershed as a Resource Protection District under its Shoreland Zoning Ordinance. Development in the Rural/Critical Natural Resources areas would be limited by existing constraints in Deer Isle's Shoreland Zoning Ordinance, Floodplain Management Ordinance and Subdivision Regulations, as well as proposed amendments thereto. Strip development along roads will be discouraged.

## H. Critical Waterfront Areas

This Plan proposes to designate as Critical Waterfront Areas those portions of the Town's coastline that are regulated as a Harbor District or Marine Activities District under the Deer Isle Shoreland Zoning Ordinance. (See Figure M-3 [Existing Land Use]) As noted in the Marine Resources Chapter, Deer Isle has a significant maritime history and marine-based economy, yet faces loss of fishing habitat, commercial marine facilities and water access resulting from residential and other development pressures. Measures to protect critical waterfront include working waterfront acquisitions or easements, incentivizing owner-operated aquaculture and eliminating overboard discharges and other sources of marine pollution.

## 7. Goals & Objectives

GOAL: New development shall be encouraged in areas designated for growth and where environmental conditions are suitable.			
Objective	Strategy	Responsible Party(ies)	Timeframe
Support development in the best suited areas of Town	Direct at least 75% of new municipal growth-related capital investments into designated growth areas identified in the Future Land Use Plan	Select Board Planning Board Economic Development Committee	2024 and ongoing
	Adopt Commercial Site Plan Review ordinance	Select Board Planning Board Town Meeting	2024
	Revise Subdivision Regulation and Shoreland Zoning Ordinance to comply with the requirements of LD2003 and the goals of this Comprehensive Plan	Select Board Planning Board Town Meeting	2024
	Create rural subdivision design guidelines to inform developers and the public of alternative development models	Planning Board HCPC	2025
	Provide the Code Enforcement Officer with tools, training and support necessary to enforce land use regulations and ensure they are certified in accordance with Maine law.	Select Board, Planning Board, MMA, HCPC, Office of the Fire Marshall	Ongoing
	Ensure an efficient permitting process for residential and commercial proposals.	Select Board, Planning Board	2024 and ongoing
Protect the rural character and historic land use patterns of Deer Isle	Encourage coordination between conservation groups, conservation easement properties and landowners on outreach and educational materials	Planning Board IHT, DIS Historical Society	2024 and ongoing
	Track new development by type and location [See Existing Land Use Chapter]		
	Periodically evaluate the implementation of the plan [See Implementation and Evaluation Program]		
Foster engagement and dialogue to keep the public well informed and to help develop community consensus on future development and land use directions	Organize community dialogue sessions to gather public input on development concerns or methods, including with neighboring communities	Select Board Housing Committee Economic Development Committee HCPC	2025 and ongoing

# Chapter O: Regional Coordination Summary

Each chapter in Deer Isle’s Comprehensive Plan identifies regional coordination challenges and opportunities pertinent to the chapter topic. These are either located within a subsection labeled Regional Issues or embedded within the Goals and Objectives subsection. This section summarizes the most important areas of ongoing and recommended regional cooperation.

## Relationship with Town of Stonington

The overriding local coordination issue for the Town of Deer Isle is its relationship with its Island neighbor Town of Stonington. Although the two Towns have been separate municipalities for over 125 years, they share a long history, an economy, natural resources and family ties. They have successfully collaborated on the Island schools, the Shellfish Committee and other Island-wide matters of concern. Both Fire Departments respond to all Island fire emergencies pursuant to a mutual aid agreement (which also includes the Town of Sedgwick Fire Department). The Select Boards have commenced meeting periodically to address common issues such as the Deer Isle-Sedgwick Bridge and the Deer Isle Causeway. Numerous nongovernmental organizations serve the entire Island community, including Northern Light Primary Care Stonington, the Island Community Center, Island Workforce Housing, Healthy Island Project and Memorial Ambulance Corps.

Despite these common interests, each Town has a natural tendency to focus first on the interests of its own residents and businesses, sometimes leading to a lack of coordination or inconsistent outcomes. Challenges for the future of the relationship include the needs of the schools, housing, transportation infrastructure, climate change, solid waste disposal and sharing emergency response facilities. There are significant opportunities to increase efficiencies through the use of shared facilities and resources in the future.

## Coordination with Other Nearby Municipalities and Organizations

Deer Isle also shares interests and services with towns located on the contiguous Blue Hill Peninsula, including Sedgwick, Brooksville, Brooklin and Blue Hill, and with the island Town of Isle au Haut. In addition to the Town of Stonington, educational services are closely coordinated with the other School Union 76 member towns of Isle au Haut, Brooklin and Sedgwick. Deer Isle pays the tuition for certain high school aged students to attend George Stevens Academy in Blue Hill or other regional technical or high schools. Deer Isle closely coordinates with Sedgwick, Blue Hill and Ellsworth on various issues such as mutual aid for Fire and Emergency Response, solid waste management, watershed management, recreational programming, broadband development and other important economic activities. Other recent programs include the Blue Hill Peninsula coalition of select boards to address important topics including housing and road maintenance. Deer Isle also participates in Peninsula Tomorrow to address climate change at a regional scale. Friends in Action, based in Ellsworth, and Healthy Peninsula and AtHome, based in Blue Hill, provide services to Deer Isle’s seniors and persons dealing with mobility issues and chronic illnesses.

## County Government and Organizations

Hancock County provides essential services to Deer Isle through the Sheriff's Office and the Hancock County Emergency Management Agency, along with support on certain economic development issues. Deer Isle is a member of Hancock County Planning Commission (HCPC) and works with HCPC to address issues related to Household Hazardous Waste Collection, economic development via Community Development Block Grant technical assistance, climate change resiliency technical assistance and various planning assistance. This provides the Town with a central location for regional coordination and integration with planning efforts by other towns in Hancock County, the Downeast Region and throughout the State of Maine. Tourism is an increasingly important component of the local and regional economy. It is supported through regional cooperation efforts through Downeast Acadia Regional Tourism (DART) and the Maine Office of Tourism.

#### Federal & State Government

Deer Isle interacts with federal and state governments and agencies in a variety of ways in the daily operations of the Town. These include statutory requirements, grants, programs and services. The Town maintains a relationship with the State on fisheries, coastal and water quality issues, consulting with the Department of Marine Resources (DMR) and the Maine Department of Environmental Protection (DEP). On transportation issues, Deer Isle consults with Maine Department of Transportation (MEDOT). The State Police provide policing and protection to the Town as well. The Department of Economic and Community Development (DECD) is a resource to help Deer Isle advance economic goals set out in this Plan. The Maine Climate Council's *Maine Won't Wait* and the Governor's Office of Policy Innovation & the Future (GOPIF) provide guidance for climate change planning.

# Chapter P: Climate Change

## 1. Purpose

Climate change and its associated impacts will negatively affect Deer Isle in many ways. This chapter assesses projected impacts on the community, including: coastal infrastructure, human habitation, coastal habitats, inland habitats, food security and loss of historical and archeological assets. Climate change is a key cross-cutting theme in all of the chapters, but we are highlighting key findings and strategies here given its critical importance. Specifically, this chapter:

1. notes that climate change will impact coastal habitats and infrastructure and the occupations that rely upon them;
1. notes that current municipal operations depend upon use of fossil-fuels, and
2. looks at ways the Town of Deer Isle can mitigate and adapt to projected future impacts.

## 2. Key Findings & Issues

As noted below in Section 6, sea level rise, shoreline erosion, increased ocean and air temperatures, and increased pest infestation are likely to impact Deer Isle during the coming decade.

## 3. Key Findings & Issues from the Draft 2006 Plan

In 2006, climate change and sea level rise were just gaining attention. The draft 2006 Comprehensive Plan did not mention climate change and referenced sea level rise just once.

## 4. Public Opinion Survey Results

The Public Opinion Survey did not ask specific questions about climate change or sea level rise, but numerous residents volunteered their opinions. Forty-eight respondents cited climate change as among the matters that concerned them most about the Town's future; sea level rise was cited 26 times. Those concerns were often linked with the potential effects on the fishing industry or the Deer Isle Causeway and other Town infrastructure.

## 5. Current Infrastructure and Habitats

Municipal Services:

Currently all municipal operations in Deer Isle rely on fossil fuels for running municipal vehicles and for heating and hot water. There is a plan to install solar panels on the roof of the Town Office, but cost considerations have delayed its implementation. The Town is encouraging the use of electric vehicles and has installed two vehicle charging stations at the Town Office.

Floodplain Mapping:

Between 2006 and 2011, the Hancock County Planning Commission shared updated FEMA floodplain maps for all municipalities and the Unorganized Territories within the county. These maps were based upon data provided by NOAA and the Maine Geological Survey. These maps are still current and provide valuable information to Deer Isle concerning projected coastal flooding associated with sea level rise and extreme tidal flooding events. Recent efforts on coastal floodplain mapping include those of “Peninsula Tomorrow”, a regional coalition of towns on the Blue Hill Peninsula. More information on this effort is on the HCPC website under Peninsula Tomorrow.

#### Stormwater Management and Coastal Road Infrastructure:

The Town of Deer Isle has been active in identifying climate change risks. It recently surveyed its road crossing culverts and found many failing and underperforming culverts and stormwater drainage systems. Many coastal culverts throughout Deer Isle face either partial or complete failure during major tidal inundation events. The Deer Isle Causeway, other causeways and several important road segments face damage from the combination of rising sea levels and increasing storm events. The Deer Isle-Sedgwick Bridge is past its life expectancy and is vulnerable to high wind events and erosion of the abutments and causeway. Details are available on the Town’s Environment webpage: <https://www.townofdeerisle.org/environment> For more information see the interactive web-app produced for Peninsula Tomorrow, located on the Hancock County Planning Commission’s website: <http://www.hcpcme.org/environment.html>. This interactive web app will show coastal inundation areas such as road segments, culverts in peril, and marsh migration scenarios.

#### Future Development and Climate Change:

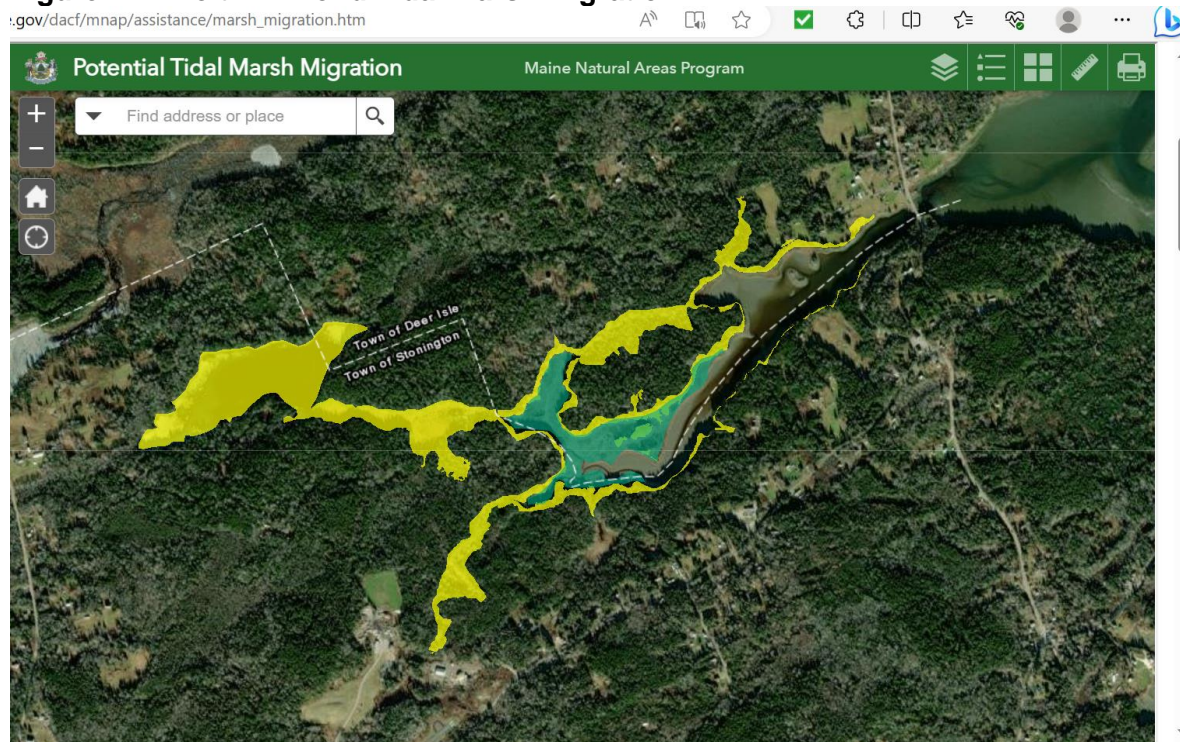
Deer Isle’s subdivision ordinance guides large-scale residential development. Its shoreland zoning ordinance regulates land uses in the shoreland zone. Other than these ordinances, there are no land-use development controls that would mitigate climate change impacts upon any future developments, residential, commercial or industrial. Deer Isle could consider revising the subdivision and shoreland zoning ordinances to account for current climate change projections and adopting a commercial site plan review ordinance that integrates those projections. Deer Isle also does not have adequate stormwater management plans, capital improvement plans or economic development plans that fully account for climate change projections.

#### Barriers to Marsh Migration:

Deer Isle has only one designated tidal marsh—the Holt Mill Pond area on the border with Stonington. This area is listed as a Salt-Hay Saltmarsh Exemplary Natural Community in the Maine Natural Areas Program Natural Communities and Ecosystems listing.



## Figure P-1: Holt Mill Pond Tidal Marsh Migration



Source: [https://www.maine.gov/dacf/mnap/assistance/marsh\\_migration.htm](https://www.maine.gov/dacf/mnap/assistance/marsh_migration.htm)

There are no current barriers to the migration of this marsh in Deer Isle. The light green section is the current extent of the marsh; the yellow sections are potential marsh migrations based upon a projected 6-foot tidal inundation. Marsh migration can help counteract the loss of marsh habitat that is drowning with higher sea levels. Because of its topography as a fairly hilly area due to volcanic activity about 500 million years ago, Deer Isle is predicted to incur less marsh migration than more low-lying towns. However, development in the interior of the Town could jeopardize the continuation of this Exemplary Natural Community.

### Marine Habitat:

Climate change will continue to have significant impacts on marine resources. The lobster fishery has been a “climate winner” in the Gulf of Maine to date, as juvenile habitats have expanded to include deeper water and less structured bottom. However, warming water has also led to an increase in invasive species, like green crabs, and the colonization of lobster gear and sea scallop habitat by native sea squirts. Northward shifts in mid-Atlantic species are likely to result in established local populations in the future. In the short term, species interactions and/or competition may threaten inshore lobster populations. In the longer term, these shifts will likely result in fishery diversification opportunities, but only if we are able to protect critical nursery habitats, maintain working waterfront, and engage proactively in fishery management and ecosystem monitoring. Indirect effects of climate change on traditional commercial fisheries and recreational boating economies include pressure to expand shared uses of marine space to accommodate offshore renewable energy, aquaculture, and other forms of blue economy diversification.



## 6. Conditions and Trends

*Maine's Climate Future: 2020 Update*, prepared by the University of Maine Climate Change Institute, provides a range of projections for Maine towns and cities. These include changes to precipitation, increased drought periods, less snowpack and warmer winters, and increases in water temperature in the Gulf of Maine and associated impacts on coastal communities and working waterfronts. Deer Isle will face all of these scenarios, as will neighboring towns and the entire State of Maine. The most pressing economic impact to Deer Isle from climate change is the result of changing water temperatures and ocean chemistry. As the Gulf of Maine warms, so will the waters around Deer Isle. The warming water temperatures result in decreased populations of *Calanus finmarchicus*, a species of zooplankton and an essential food source for larval lobster. Other events include “seawater heat waves” that cause shellfish closures, and also could result in local species extinction as lobsters would not survive in the warmer water temperatures.

Other projections include increased flooding and tidal inundation associated with increased frequency of extreme weather events. As Deer Isle is coastal, public infrastructure such as the Deer Isle Causeway, the other causeways and coastal roads could be damaged in said events. Many coastal properties in low-lying areas could also be inundated in such an event, with attendant erosion and saltwater intrusion into wells and existing septic systems. An increase in drought conditions could also lead to greater risk of forest fires in Deer Isle and throughout the state, a concern that most communities have not yet addressed in climate adaptation planning. An additional climate change risk is associated with infestation of new insect species, which can severely affect trees and other plant species. Tick and other insect-borne diseases are accelerating as a result of higher temperatures, particularly in the winter.

The Maine Historic Preservation Commission’s 2021 report on climate change and historic and archeological assets also describes threats from climate change and sea level rise. Many historic indigenous sites associated with pre-contact and pre-colonial Wabanaki could be damaged or fully lost to sea level rise. Historical buildings also face threats from increased frequency of severe weather. Deer Isle should consider assessing potential impacts to the current and known historic and archeological inventory. (See Chapter A, Historical and Archaeological Resources.) Although it may not be possible to hold back the sea and prevent damage to coastal shell middens and other sites, accurate documentation of their presence and extent could be a valuable exercise.

Deer Isle takes note of two important developments: publication of *Maine Won't Wait: A Four-Year Plan for Climate Action*, produced by the Maine Climate Council, and guidance to municipalities from the State Planning Office on how to address climate change in the preparation of comprehensive plans. This guidance could constitute a good “action plan” for Deer Isle’s Select Board and Conservation Commission to address.

## 7. Goals & Objectives

In addition to the Goals and Objectives relating to climate change set out in other chapters of this Comprehensive Plan, Deer Isle will pursue the following Goals and Objectives:

<b>GOAL: Adapt to climate change and seek to reduce its negative effects on Deer Isle</b>			
Objective	Strategy	Responsible Party(ies)	Timeframe
Reduce Deer Isle's contributions to climate change	Reduce reliance on fossil fuels for Town facilities and equipment	Select Board	2024 and ongoing
	Implement planned solar panel installation on Town Office roof and heat pumps on Town properties		
	Increase the use of electric vehicles by encouraging public and/or philanthropic funding for EV charging stations		
	Participate in interlocal mitigation efforts, e.g., Peninsula Tomorrow		
Identify and reduce local climate change risks	Commission vulnerability and risk assessment of all tidal areas, including plans for addressing those risks	Select Board Conservation Commission	2024 and ongoing
	Consider need for other adaptation efforts related to drought, water supply, forest fires or other emerging climate change vulnerabilities		
	Inform the community about climate risks and how to prepare for them (e.g., emergency evacuation procedures and warning systems; avoiding flood risks; reducing fire risks)		
	Monitor evolving recommendations of Maine Climate Council		
Recognize transportation impact on climate change	Support increased electrification of vehicles	Select Board	2024 and ongoing
	Offer Deer Isle as a pilot project for climate-mitigating transportation policies and programs		
Adapt to climate change	Explore programs to help transition workers in the most affected livelihoods, e.g., those working with fossil fuels or in affected fisheries	Select Board Planning Board Town Manager	2024 and ongoing
	Revise land use ordinances to recognize and prepare for climate change risks		
	Prepare local services such as fire volunteers to deal with emerging climate change risks (e.g., heat waves, droughts, flooding), including improved communication systems as needed		
	Repair/rebuild vulnerable infrastructure such as causeways, culverts and low-lying roadways		
	Participate in inter-local adaptation efforts, e.g., Peninsula Tomorrow		



Question 3. Please provide your opinion of the quality of these town services and facilities.

	Excellent		Good		Adequate		Needs Improvement		Don't Know/Unsure		Total
Clerk and Treasurer Service	38.63%	141	41.10%	150	13.15%	48	2.19%	8	4.93%	18	365
Fire protection	22.25%	81	35.99%	131	21.98%	80	9.62%	35	10.16%	37	364
Parks and recreational facilities	18.06%	65	31.39%	113	26.39%	95	18.61%	67	5.56%	20	360
Public access to streams and ponds	13.85%	50	34.35%	124	29.92%	108	14.96%	54	6.93%	25	361
Public access to salt water	12.91%	47	22.25%	81	28.57%	104	32.69%	119	3.57%	13	364
Other Town Services	9.22%	32	32.56%	113	23.63%	82	10.95%	38	23.63%	82	347
Cemeteries	8.59%	31	29.09%	105	21.05%	76	10.25%	37	31.02%	112	361
Snow removal/sanding, roads	8.26%	30	25.90%	94	31.13%	113	20.94%	76	13.77%	50	363
Transfer Station and Recycling	6.04%	22	26.10%	95	25.55%	93	40.38%	147	1.92%	7	364
Recreational programs	4.48%	16	22.69%	81	28.57%	102	19.89%	71	24.37%	87	357
Code enforcement	3.04%	11	16.02%	58	26.52%	96	24.86%	90	29.56%	107	362
Road maintenance	2.76%	10	21.82%	79	29.83%	108	44.75%	162	0.83%	3	362
School facilities	2.49%	9	22.65%	82	28.18%	102	30.39%	110	16.30%	59	362
Education	1.94%	7	13.85%	50	18.28%	66	52.91%	191	13.02%	47	361
Sidewalks	1.69%	6	5.90%	21	21.63%	77	55.34%	197	15.45%	55	356
Public transportation	0.56%	2	1.68%	6	9.78%	35	60.61%	217	27.37%	98	358

Question 4. Please provide your opinion of the following services that are shared by the Town of Deer Isle with other communities:

Please provide your opinion of the quality of the following services that are shared by the Town of Deer Isle with other communities:											
	Excellent		Good		Adequate		Needs Improvement		Don't Know/Unsure		Total
Ambulance	44.93%	164	32.60%	119	6.30%	23	1.64%	6	14.52%	53	365
Library	38.19%	139	38.74%	141	13.46%	49	3.02%	11	6.59%	24	364
Health Care	11.60%	42	38.40%	139	22.93%	83	16.02%	58	11.05%	40	362
Senior citizen services	3.86%	14	19.28%	70	20.66%	75	30.03%	109	26.17%	95	363
Youth Programs	3.32%	12	20.78%	75	15.79%	57	20.22%	73	39.89%	144	361
Police/Traffic Enforcement	2.76%	10	9.12%	33	37.29%	135	36.19%	131	14.64%	53	362

Question 5: Please check where you feel it is most appropriate for the following land uses to occur in the future:

	Anywhere		In Designated Areas		Nowhere		Undecided		Total
Single Family Residential	84.59%	302	13.45%	48	0.56%	2	1.40%	5	357
Home-based Businesses	79.50%	287	16.34%	59	0.28%	1	3.88%	14	361
Senior Housing	63.71%	230	33.80%	122	0.55%	2	1.94%	7	361
Affordable Housing	60.33%	219	33.88%	123	4.13%	15	1.65%	6	363
Workforce Housing	57.85%	210	36.09%	131	4.13%	15	1.93%	7	363
Agriculture	56.63%	205	37.57%	136	1.10%	4	4.70%	17	362
Bed and Breakfast	52.21%	189	42.54%	154	1.93%	7	3.31%	12	362
Seasonal Rental Properties	47.93%	174	38.57%	140	6.06%	22	7.44%	27	363
Commercial Fishing	46.83%	170	50.96%	185	0.55%	2	1.65%	6	363
Restaurants	44.32%	160	54.02%	195	0.55%	2	1.11%	4	361
Forestry	39.55%	140	46.89%	166	5.08%	18	8.47%	30	354
Short-term Rental Properties	37.19%	135	38.57%	140	14.33%	52	9.92%	36	363
Inns and Hotels	33.06%	120	61.43%	223	3.03%	11	2.48%	9	363

	Anywhere		In Designated Areas		Nowhere		Undecided		Total
	%	Count	%	Count	%	Count	%	Count	
Commercial Retail Trade and Services	28.53%	103	67.31%	243	1.11%	4	3.05%	11	361
Multiunit Housing	27.75%	101	60.71%	221	6.87%	25	4.67%	17	364
Aquaculture	17.86%	65	70.88%	258	6.32%	23	4.95%	18	364
Campgrounds	14.36%	52	71.82%	260	8.84%	32	4.97%	18	362
Mobile Home Parks	12.67%	46	60.06%	218	23.97%	87	3.31%	12	363
Solar Farms	8.82%	32	63.91%	232	21.76%	79	5.51%	20	363
Manufacturing	8.10%	29	69.55%	249	13.41%	48	8.94%	32	358
Wind Farms	4.43%	16	58.45%	211	30.47%	110	6.65%	24	361
Gravel Pits / Quarries	3.87%	14	78.45%	284	12.43%	45	5.25%	19	362
Mining	1.39%	5	31.86%	115	57.89%	209	8.86%	32	361

Question 6: How involved should the Town be in protecting the following?

	More Involved		About the Same		Less Involved		Unsure		Total
	%	Count	%	Count	%	Count	%	Count	
Aquifers for Drinking Water	69.08%	248	20.61%	74	0.56%	2	9.75%	35	359
Working Waterfronts	61.33%	222	32.04%	116	1.66%	6	4.97%	18	362
Coastal Land	60.22%	218	32.04%	116	2.21%	8	5.52%	20	362
Recreational Waterfront Access	57.85%	210	33.61%	122	2.48%	9	6.06%	22	363
Streams and Ponds	55.12%	199	37.12%	134	0.83%	3	6.93%	25	361
Wildlife Habitats	54.44%	196	36.11%	130	1.94%	7	7.50%	27	360
Wetlands	53.72%	195	38.02%	138	1.10%	4	7.16%	26	363
Historical and Archaeological Resources	45.71%	165	44.04%	159	1.94%	7	8.31%	30	361
Scenic Views	43.37%	157	47.24%	171	1.93%	7	7.46%	27	362
Recreational Open Space Inland	43.25%	157	44.90%	163	1.93%	7	9.92%	36	363
Forested Land	42.94%	155	45.15%	163	1.66%	6	10.25%	37	361
Agricultural Land	40.22%	144	38.83%	139	3.63%	13	17.32%	62	358

Question 7: Please provide your opinion of the following aspects of community life:

Please provide your opinion of the following aspects of community life:											
	Needs Attention Right Away		Needs Attention		Needs Study		Not an Issue		Don't Know		Total
Housing Affordability	53.99%	196	23.97%	87	13.77%	50	5.79%	21	2.48%	9	363
Local Job Opportunities	34.63%	125	30.75%	111	16.07%	58	12.47%	45	6.09%	22	361
Bicycle and Pedestrian paths / lanes	26.59%	96	29.09%	105	26.87%	97	14.96%	54	2.49%	9	361
Paved Shoulders on Roads	22.93%	83	35.64%	129	17.13%	62	19.34%	70	4.97%	18	362
Senior citizen services	20.83%	75	29.17%	105	20.83%	75	12.22%	44	16.94%	61	360
Potable water / water quality and quantity	20.56%	73	19.72%	70	29.86%	106	17.18%	61	12.68%	45	355
Pedestrian Sidewalks	15.79%	57	26.59%	96	19.94%	72	32.96%	119	4.71%	17	361
Youth services	15.24%	55	31.86%	115	20.78%	75	11.63%	42	20.50%	74	361
Public Transportation	12.01%	43	23.74%	85	34.64%	124	16.76%	60	12.85%	46	358
Outdoor Lighting - Light Pollution and Glare	9.07%	33	20.60%	75	20.60%	75	40.11%	146	9.62%	35	364
Recreation Opportunities	5.82%	21	21.88%	79	23.55%	85	38.78%	140	9.97%	36	361
Air quality	0.84%	3	5.01%	18	17.55%	63	67.69%	243	8.91%	32	359



Question 8: I would like the Town to invest more in:

I would like the Town to invest more in:							
	Yes-- Including Raising Property Taxes		Yes-- But Only if Grants / Subsidies Reduce Costs		No		Total
Education	64.43%	230	25.49%	91	10.08%	36	357
Road Maintenance	55.65%	197	34.75%	123	9.60%	34	354
School Facilities	52.11%	185	35.49%	126	12.39%	44	355
Fire Protection	51.15%	178	37.36%	130	11.49%	40	348
Transfer Station and Recycling	50.14%	180	33.70%	121	16.16%	58	359
Housing - Workforce	49.72%	177	38.20%	136	12.08%	43	356
Housing - Senior or Assisted Living	47.19%	168	42.70%	152	10.11%	36	356
Housing - Affordable	45.07%	160	43.38%	154	11.55%	41	355
Snow Removal/Sanding, Roads	41.91%	145	38.44%	133	19.65%	68	346
Youth services	37.54%	131	49.28%	172	13.18%	46	349
Senior Citizen Services	37.50%	132	50.85%	179	11.65%	41	352
Marine/Harbor Wharf Facilities	33.71%	118	51.71%	181	14.57%	51	350
Bicycle and Pedestrian Paths / Lanes	33.15%	119	46.24%	166	20.61%	74	359
Local Jobs and Business Opportunities	31.56%	113	51.96%	186	16.48%	59	358
Litter Control	30.29%	106	42.86%	150	26.86%	94	350
Sidewalks	29.30%	104	40.28%	143	30.42%	108	355
Police/Traffic Enforcement	27.12%	96	39.27%	139	33.62%	119	354
Public Restrooms	23.10%	82	46.76%	166	30.14%	107	355
Parks and Recreational Facilities	19.26%	68	57.79%	204	22.95%	81	353
Public Transportation	18.03%	64	53.24%	189	28.73%	102	355
Cemeteries	9.77%	34	42.53%	148	47.70%	166	348

Question 9: How would you rate your support for each?

How would you rate your support for each?									
	Strongly Support		Support		Neutral		Don't Support		Total
Planning and Programs to Reduce Public Health Risks	34.08%	122	40.50%	145	20.95%	75	4.47%	16	358
Promoting Green Space and Tree Planting	40.67%	146	34.54%	124	18.94%	68	5.85%	21	359
Environmental Education, Outreach and Engagement Programs	42.22%	152	36.11%	130	17.22%	62	4.44%	16	360
Capital Investment Planning for Vulnerable Municipal Assets	42.58%	152	37.25%	133	16.81%	60	3.36%	12	357
Wildfire Prevention and Response Planning	43.45%	156	42.90%	154	11.70%	42	1.95%	7	359
Community and Economic Development	44.85%	161	38.72%	139	15.04%	54	1.39%	5	359
Manage Stormwater Runoff and Shoreline Erosion	52.23%	187	36.03%	129	10.61%	38	1.12%	4	358
Planning for Energy Efficiency and Reliability	55.03%	197	28.49%	102	12.57%	45	3.91%	14	358
Merging Deer Isle and Stonington Fire Departments	55.49%	202	27.20%	99	14.01%	51	3.30%	12	364
Preparing a Watershed Plan to Protect Natural Habitat	56.35%	204	27.90%	101	12.43%	45	3.31%	12	362

Question 13: What type of Deer Isle resident are you?

What type of Deer Isle resident are you?		
Answer Choices	Responses	
Seasonal, own property	26.65%	97
Seasonal, rent or live with family / others	1.65%	6
Year-round, own property	64.01%	233
Year-round, rent or live with family / others	6.32%	23
Not a resident	1.37%	5

Question 17: In what year were you born?

The 352 respondents to this question had an average age of 62 and a median age of 65.

Question 18: What is your annual household income?

What is your annual household income?			
Answer Choices	Responses		Cum %
Less than \$10,000	1.15%	4	1.15%
\$10,000 to \$14,999	0.57%	2	1.72%
\$15,000 to \$24,999	4.30%	15	6.02%
\$25,000 to \$34,999	5.16%	18	11.18%
\$35,000 to \$49,999	9.17%	32	20.35%
\$50,000 to \$74,999	16.62%	58	36.97%
\$75,000 to \$99,999	17.48%	61	54.45%
\$100,000 to \$149,999	18.05%	63	72.50%
\$150,000 to \$199,999	10.32%	36	82.82%
\$200,000 or more	17.19%	60	100.01%

Question 21: What is your employment status?

What is your employment status?		
Answer Choices	Responses	
Employed full time	29.83%	108
Employed part time	9.12%	33
Retired	37.57%	136
Self-employed	20.17%	73
Other	3.31%	12

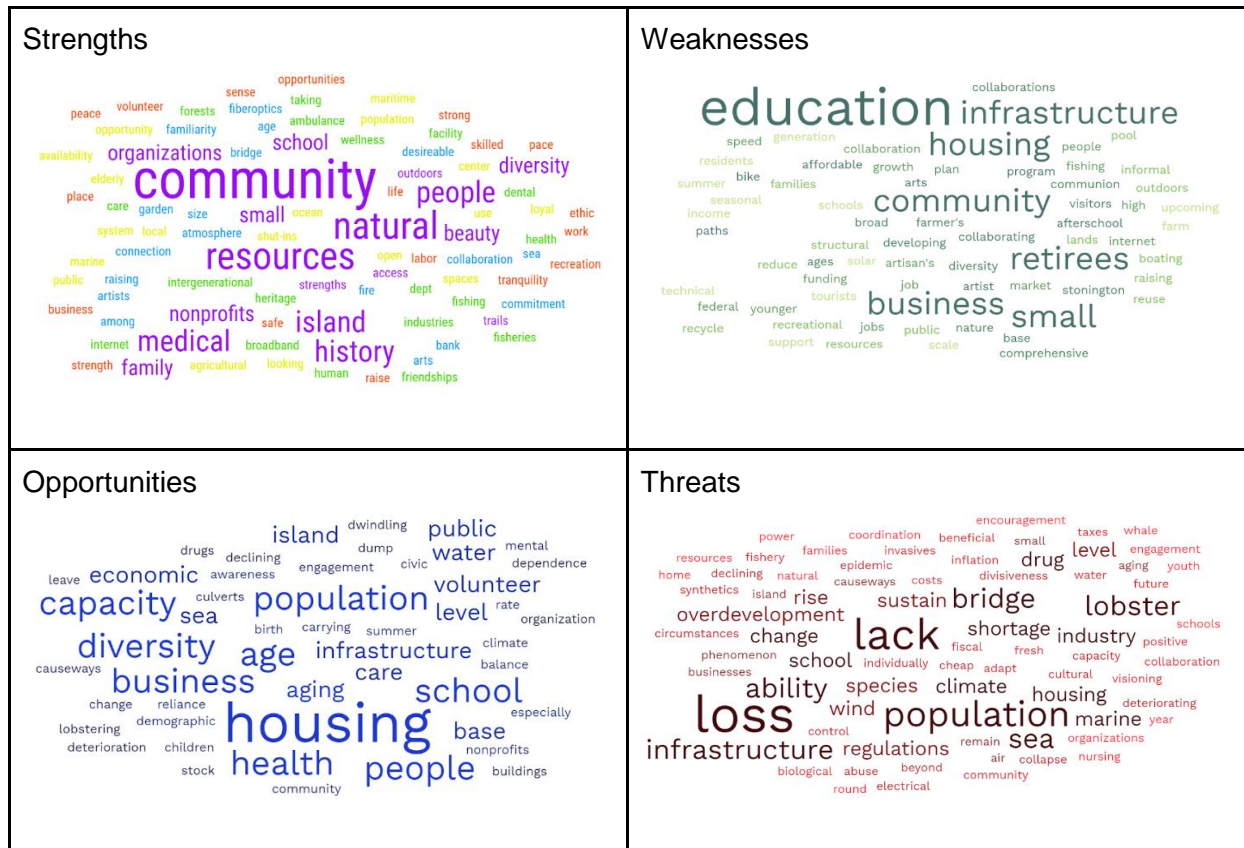
Question 25: What other concerns and observations do you wish to share with the Comprehensive Plan Committee? Numerous and varied responses were received. Here is a word cloud depiction:



# Chapter R: Summary of Community Engagement

The Comprehensive Plan has been years in the making. Beginning in 2018, the Town Manager held a series of public meetings focusing on the future of the Town and the benefits of planning. Deer Isle voters approved articles to fund the Comprehensive Plan in 2022 and 2023. A call for volunteers was put out at the Annual Town Meeting on March 6, 2023, and the process was announced on the Town Futures webpage and in the Island Ad-Vantages newspaper. An initial organizational meeting of invited Steering Committee members was held on March 28, 2023. All Steering Committee and other meeting schedules were posted on the Town website calendar. Approximately 70 Town residents volunteered to work on the Plan.

On April 11, 2023 the Town held a Comprehensive Plan visioning session attended by Town representatives, members of the Steering Committee and approximately 50 Town residents in person and on Zoom. The attendees were informed about the Comprehensive Plan purpose and process and invited to identify the Town’s strengths, weaknesses, opportunities and threats (SWOT) in separate breakout sessions.



On May 1, 2023 the Town released its Comprehensive Plan Public Opinion Survey seeking to elicit residents’ views on the Town’s values and preferences regarding future development. The Survey was announced on the Town Office sign, the Town’s Futures webpage, on Facebook and other social media sites, in the Island Ad-Vantages and by email to as many residents as possible. A link to the Survey and a QR Code were placed on the Town Futures

webpage, and paper copies were made available at the Town Offices and numerous locations in Deer Isle. Information about the Survey and a QR Code was included in all 2023 tax bills mailed to property owners. 370 residents completed the Survey before responses closed on August 31, 2023. The relevant responses are summarized in each of the chapters of the Comprehensive Plan and in the Public Opinion Survey chapter.

On August 27, 2023 a Comprehensive Plan Open House was held at the Town Offices attended by approximately 50 residents. Attendees were invited to provide feedback on each of the Comprehensive Plan chapters. Responses were recorded and circulated to the Steering Committee and other Plan volunteers to guide the drafting of the Plan chapters.

On Election Day November 7, 2023 representatives of the Steering Committee met with individual voters at the Town Offices to advise them of progress on the Plan and to solicit further views on issues concerning them, including the location of growth areas for the Future Land Use Plan. Over 200 Comprehensive Plan informational flyers were handed out, and numerous in-depth conversations were had with residents about current conditions and the future development of the Town.

Throughout this period the Steering Committee held regular meetings every two weeks on average to coordinate completion of the Plan. All meetings were announced to Plan volunteers and posted on the Town website calendar. Public participation was invited, and numerous residents contributed to the meetings.

The first draft of each Comprehensive Plan chapter was prepared by a consultant based on the data package supplied by the State. Each chapter was reviewed and revised by a committee of resident volunteers to incorporate local knowledge and perspectives. Goals, Objectives and Strategies for each chapter were formulated by the chapter committee and reviewed by the Steering Committee for consistency. In each case the public input gathered from the Survey and other public meetings was factored into the final recommendations.

# Chapter S: Implementation and Evaluation Program

Deer Isle's 2024 Comprehensive Plan addresses local, regional, national and global issues that the Town will face in the coming ten years. Each chapter contains broad goals (desired outcomes), specific objectives (measurable milestones on the way to those goals), strategies (methods for achieving those objectives), a responsible party (who will implement the strategy), and a time-frame (when it will start and when it will be completed).

The Plan is a tool for supporting decision making by elected and municipal officials. It is a guide to assist the Select Board, Town Manager and various committees to establish annual work plans for Town departments and to prioritize capital expenditures, investments and improvements to the Town's public facilities. The success of the Plan is contingent upon it being actively used in day-to-day Town operations.

In order to monitor implementation of the Plan, an annual meeting will be held that includes members of the Select Board, the Planning Board, various committees, and the community. The findings will be published in the Annual Town Report.

The Growth Management Act, Title 30-A, Chapter 187 of the Maine State Statutes, requires that progress on the Plan be evaluated, at a minimum, every five years to determine the following:

1. The degree of implementation of Future Land Use strategies;
2. The percent of capital investments dedicated to the growth areas defined in the Future Land Use Plan;
3. The location of new development relative to the established growth areas; and
4. The amount of critical natural resources, waterfront and recreation and open spaces protected through the acquisition of property, conservation easements and other methods available to Deer Isle.

These four mandated requirements will serve as guidance for the annual meeting and metrics to measure implementation.