

# ORLEANS 2050



## **The Town of Orleans Comprehensive Plan 2025-2050**

**The Town of Orleans**  
*Planning and Community Development*

February 2, 2026

# The Town Of Orleans Comprehensive Plan 2025-2050

## The Town of Orleans *Planning and Community Development*

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## Artist Representation

Thank you to the artists who provided images inspired by Orleans for the Comprehensive Plan 2050. All of these artists are represented by a local gallery, where their work can be found.

### **Addison Art Gallery:**

Marc Hanson, Amy Sanders, Paul Schulenburg

### **Adorn Cape Cod:**

Thomas Hoffman, Katherine Nora

**Artist Cottages:** Kathlerine Nora, Molly Whalen

**Eastwind Gallery:** Alexandria Boudreau, Mary Lou Foley, CS Guidess, Eileen Smith

**Galley West Art Gallery:** Tracey Sherlock

**Kemp Pottery:** Steve Kemp

**Left Bank Gallery:** Jim Holland, Joyce Zavorskas

**Tree's Place Gallery:** Rosalie Nadeau





## Indigenous Peoples Land Acknowledgement

Orleans is situated on land that had been lived on and honored for over twelve thousand years by people of the Wampanoag Nation. At the time of colonization in the 1600s there were over sixty separate indigenous Wampanoag tribes living and prospering on Cape Cod, including the Nauset, Monomoyick, Portanimicut, Pamet, and Mashpee. All Wampanoag people shared a common language and love of the land and sea. Many still live here in their historical homelands and continue to maintain

central aspects of their culture, including hunting, fishing, agriculture, the arts, and democratic self-governance. The Town of Orleans acknowledges, with respect, that we are inhabiting the traditional lands of the Wampanoag peoples and we value their roles as past, present, and future guardians of this land. A more extensive description of the Indigenous history of Orleans can be found on the Town website at: [Searching for Orleans Native-American History](#)

# Table of Contents

- Executive Summary..... 6**
  - Town of Orleans Comprehensive Plan 2025–2050
  - Overarching Challenges and Strategic Imperatives
  - Strategic Actions and Priorities
  - A Living Document
  
- 1. Introduction..... 16**
  - Purpose of the Plan
  - Plan Basis and Background
  - Planning Process
  - How to Use the Plan
  
- 2. Vision and Growth Policy..... 28**
  - Vision Statement
  - Growth Management Policy
  
- 3. Orleans Yesterday and Today..... 34**
  - Orleans Today
  - Background
  - Population
  - Existing Land Use
  - Existing Zoning
  - Build-Out Analysis
  - Recent Actions by the Town
  - Key Issues Moving Forward

<b>4. Natural Systems</b> .....	<b>54</b>
Groundwater and the Aquifer	
Freshwater Lakes and Ponds	
Marine and Coastal Resources	
Wetland Resources	
Wildlife and Plant Habitat	
Open Space	
<b>5. Community Systems</b> .....	<b>94</b>
Economic Development	
Housing	
Community Services	
Historic Preservation and Cultural Heritage	
Arts and Culture	
Governance	
<b>6. Built Systems</b> .....	<b>148</b>
Community Design	
Community Facilities and Infrastructure	
Transportation	
Energy and Climate Mitigation	
Climate Resiliency	
<b>7. Action Plan</b> .....	<b>204</b>
Natural Systems	
Community Systems	
Built Systems	
<b>8. Capital Infrastructure and Facilities Plan</b> .....	<b>236</b>
<b>9. Supporting Plans and Policies</b> .....	<b>242</b>

# ORLEANS 2050

## Welcome to Orleans!

### Executive Summary

**We choose to live, work, and play here because we love our natural beauty, value our community character, and appreciate the active, civic-minded people who call this town home. As we look ahead to 2050, the Orleans Comprehensive Plan offers a clear roadmap for the community we are—and the one we aspire to be.**

Planning requires balancing priorities and managing the natural tensions that come with limited resources. Decisions about land use, housing, the environment, transportation, economic development, and governance all shape one another. To ground this Plan in shared values, the Planning Department and Planning Board gathered broad input from Town leaders, boards, committees, and residents.

The Plan outlines the interconnected issues that will influence Orleans' future. Each section describes key challenges and presents goals, measurable actions, and near-term priorities across our natural, community, and built systems. This roadmap is for everyone: Residents can—and should—use it to track progress and hold Town leaders accountable. Below is a brief overview of each section.



## 1. Land Use and Community Character

Orleans' growth policy aims to preserve village centers, protect neighborhood scale, and direct development away from ecologically sensitive areas. Thoughtful land-use choices support housing availability, reduce pressure on natural systems, and improve municipal efficiency.

**Recommended Actions:** Targeted zoning updates; incentives and form-based guidance to encourage mixed-use, village-focused development.

## 2. Housing and Livability

Orleans must remain affordable and livable for year-round residents—workers, families, and older adults. Housing stability supports the local economy and helps the Town manage costs for roads, utilities, and services.

**Recommended Actions:** Produce a wider range of housing types, protect long-term affordability, and link new homes to transit and services.



### **3. Natural Resources and Coastal Resilience**

Our waters, marshes, ponds, and beaches define Orleans and support our economy. Environmental strategies integrate land-use, wastewater, and infrastructure planning so ecosystem health strengthens public safety, fisheries, tourism, and property values.

**Recommended Actions:** Strong environmental safeguards, coordinated watershed management, and site-level protections that reduce pollution and increase shoreline resilience.

### **4. Infrastructure, Utilities, and Mobility**

A thriving town depends on reliable water, wastewater, energy, broadband, and mobility systems. These investments should complement housing and environmental goals by supporting compact, walkable centers.

**Recommended Actions:** Modernize utilities; expand high-speed connectivity; improve stormwater and wastewater systems; enhance walking, biking, and limited transit options.



## 5. Economic Vitality and Year-Round Prosperity

Orleans' resilient economy balances the needs of local businesses, seasonal visitors, and year-round livelihoods. Economic strategies are closely tied to land use, housing, and infrastructure so Orleans can sustain its character while strengthening year-round opportunity.

**Recommended Actions:** Support workforce housing, help small businesses thrive, and diversify the local economy—including low-carbon and remote-work opportunities.

## 6. Governance, Capacity, and Regional Partnerships

Turning this Plan into action requires clear implementation steps, transparent tracking, and collaboration with neighboring towns, state agencies, and regional partners. Strong systems make it easier to respond to emergencies, secure grants, and advance solutions that serve multiple Town goals.

**Recommended Actions:** Improve data-sharing, permit coordination, capital planning, and regular progress reviews.



## 7. Population and Demographics

Orleans' year-round population is aging, while the number of young people and families has steadily declined. This shift affects the workforce, housing market, schools, and long-term vitality of the community. By prioritizing housing diversity and a strong year-round economy, Orleans can better support younger residents and families who want to live and work here.

**Recommended actions:** Align housing policy and economic development strategies to retain and attract families and young workers.

## Connected Decisions for a Shared Future

While this Plan is organized by topic, Orleans functions as one interconnected system. Choices about where to build affect water quality and resilience; utility investments influence housing costs and economic opportunities; regional coordination amplifies local impact. The Plan intentionally links these actions so residents can see how progress in one area strengthens others—building a more resilient, fair, and vibrant Orleans for all.

# Overarching Challenges and Strategic Imperatives

## Orleans stands at a crossroads marked by a series of interconnected challenges:

- **Sustainable Future:** Decisive actions are needed to redirect future growth and consumption patterns to protect the Town's environmental, economic, and social foundations.
- **Housing and Affordability:** Escalating costs and limited housing options are displacing residents and fracturing the community fabric.
- **Environmental Realities:** Sea-level rise and intensifying storms demand proactive coastal planning and resilience strategies.
- **Ecological Preservation:** Safeguarding Orleans' rich natural ecosystems is essential to the Town's identity and long-term sustainability.
- **Economic Development:** A modernized, diversified business matrix is vital to support a dynamic, year-round population.
- **Population Growth:** The approach to growth is intended to rebalance the population and support the ability of young people and families to live in Orleans.
- **Town Character:** Orleans must harmonize its quaint, welcoming charm with evolving needs and modern opportunities.
- **Regional Interdependence:** Collaboration with neighboring Towns and regions is essential to addressing shared challenges.
- **Limits to Growth:** Physical, environmental, and infrastructure constraints must shape the Town's growth strategies.

# Vision Statement

**The vision for Orleans is a balanced, diverse, and thriving community where the Town's unique character flourishes with commitment to strategic growth and environmental stewardship. Central to this vision is the commitment to enhancing the quality of life in the Town.**

# **Growth Management Policy**

**The Town's growth management policy is to guide growth toward geographic areas within the community that are or can be adequately supported by infrastructure to advance community elements including vibrant economic centers, affordable and attainable housing, and coastal resiliency.**

# Strategic Actions and Priorities

**To effectively meet these challenges, the plan sets forth targeted goals, objectives, and action steps. Key areas of focus include:**

- **Housing:** Initiate projects that increase the supply of affordable and attainable housing for all residents.
- **Energy:** Transitioning to clean, efficient energy sources to reduce carbon emissions and promote sustainability.
- **Natural Resource Preservation:** Protecting Orleans' unique environmental assets for future generations.
- **Economic Development:** Promoting innovation, entrepreneurship, and year-round economic vitality.
- **Infrastructure:** Strategic investment in critical infrastructure to support community well-being and climate resilience.
- **Fiscal Responsibility:** Managing taxes and costs to maintain affordability without compromising service quality.
- **Open Space:** Preserving and enhancing open spaces to support ecological health and recreational needs.
- **Transportation:** Improving mobility and connectivity through sustainable and inclusive transportation options.

# A Living Document

**This plan acknowledges that not all solutions are currently known or feasible. It is designed to evolve—welcoming innovation, embracing new funding mechanisms, and integrating emerging technologies to refine strategies and actions over time.**

# INTRODUCTION →



Mudwin

# Purpose of the Plan

The Orleans 2025 Comprehensive Plan defines a long-term vision for the community by anticipating and guiding growth and other changing conditions. A comprehensive plan reflects the values of a community and strives to provide a clear picture of where additional study, regulation, and/or investment is needed to manage the complex issues and challenges Orleans is facing.

- **The plan is built on a wealth of data** about existing and expected conditions, paired with robust public outreach designed to understand the primary values, concerns, and priorities of the community.
- **It defines expectations and preferences** regarding future growth, development, and resource protection and acts as a guide for policymakers, the development community, and other stakeholders when establishing priorities for making capital investment decisions.
- **The plan provides a supporting framework and rationale** for the adoption of zoning, regulations, and other measures necessary to manage growth.
- **The plan's balanced economic development strategy and framework** for supporting affordable and attainable housing are crafted to support a sustainable economic future and additional population diversity.

# Plan Basis and Background

The Orleans Home Rule Charter, Chapter 9, Section 2, establishes the responsibility of the Planning Board to develop and periodically update the Orleans Comprehensive Plan (OCP) and directs the Board to engage Town officials, other Boards, Committees, and Commissions, and the public in the planning process. This plan is developed in keeping with regulations and guidance from the Cape Cod Commission. The plan is written to be consistent with the Regional Policy Plan, Cape Cod Commission Act, and the Commission's Comprehensive Plan regulations, adapted to meet Orleans' specific priorities, and circumstances.

The OCP is not law or regulation and does not create regulatory mandates or restrictions. Its intent is to align the efforts of those working within defined "issue areas" into a cohesive and coordinated framework supported by measurable and actionable long-term goals.

Orleans adopted its first Town-wide comprehensive plan in 1991. The first plan written under the Cape Cod Commission's guidance was adopted at a December 1999 Town Meeting, then amended to achieve a "determination of consistency" with the Regional Policy Plan and re-approved at Town Meeting in May 2001. A five-year update to the plan was completed by the Planning Board and Planning Department and adopted in October 2006.

This plan is consistent with the Cape Cod Commission's growth policy. While it does not directly address placetypes, the plan identifies areas for future development and areas to be conserved for environmental protection. The growth management policy is designed to accomplish local and regional goals of allowing appropriate growth in appropriate locations. Orleans growth is primarily planned for its sewer-downtown areas.

# Planning Process

This comprehensive plan update was launched by the Planning Board in 2023. In preparation for the OCP update, the Orleans Planning Board engaged local boards and committees to review and comment on the goals and policies of the 2006 OCP. In addition, Town Staff prepared a report on the status of implementation of the 2006 OCP.

Tighe&Bond was hired to support the Planning Board and Planning Staff in their charge to update the plan. The Town also received District Local Technical Assistance funding from the Commonwealth of Massachusetts Department of Housing and Community Development through the Cape Cod Commission to develop a community engagement strategy for the OCP

update, and to develop a draft Vision Statement and Growth Policy for the OCP. Grant funds were also used to develop illustrative Town-wide maps and posters with prompting questions that were used during visioning workshops.

The process began with two well-attended **Community Visioning Workshops** held in the fall 2023. An informal workshop designed specifically to collect feedback from younger members of the community including high school and college-aged students was held in January 2024. A **community survey** was also conducted in 2023 to obtain community input on an overall community vision and several key issue areas. **Postcards** announcing the survey were mailed to Orleans residents, with additional outreach on





Visiting workshops November and December 2023

## 2025

## 2026

### Mid 2024:

Town boards & committees meet. Town staff input collected

### Late 2025:

Goals & Objectives flyer mailed to households  
Town hosts public input sessions  
Podcast and outreach

### 2026:

Adopted by Town

the availability of the survey sent via E-newsletter and e-mail blasts. **A total of 569 responses were received. Survey and workshop results were used by the Planning Board to help develop the community vision and OCP goals.**

The Planning Board engaged other Town boards, committees, and commissions several times throughout the drafting process to gather information and ensure alignment around goals. Town staff in each department were engaged in information and data collection, along with the review of the actions and objectives to help ensure they were feasible and to establish realistic implementation timeframes.

It is intended that this plan will be used at least annually to guide budget and capital plan expenditures. The plan will be reviewed by the Cape Cod Commission every 5-years and should be updated periodically to ensure it is reflective of the needs of Orleans residents.

### ***Town meeting adoption***

After its local adoption, the plan will be submitted to the Cape Cod Commission for certification of consistency with the 2018 Regional Policy Plan. Having a certified plan allows a municipality to implement measures to manage growth provided by the Cape Cod Commission, along with expanded access to funding opportunities.



# How to Use the Plan

Similar to the format of the Cape Cod Regional Policy Plan, this plan is organized into three sections:

## Natural Systems

Represent the environment, primarily water resources and supporting habitat and landscapes.

## Community Systems

The social constructions and qualities, including the economy, housing, public health and cost of living.

## Built Systems

Human-made physical elements such as capital facilities and infrastructure, buildings and energy.

**As these systems are interconnected, so too are the goals and actions** in the OCP. This plan works to directly acknowledge the connection among goals and needed actions and strives to bring all the systems into balance in a manner that promotes equity, sustainability, and protection of what's valuable to the Orleans community.

Each section has related issue areas. Information about current and anticipated conditions is provided for every issue area; the background and “key issues” sections incorporate data-driven observations, expert insights, and public perceptions.

There are defined goals, which are followed by objectives and actions for each issue area. The terms **goal, objective, and action** as used in this plan are as follows:

## **Goal**

An ambitious and realistic statement detailing a desired future status. Goals translate the vision statement and demonstrate where the Town wants to be in the future.

## **Objective**

Objectives interpret the goal into something actionable, time-sensitive, measurable and meaningful by adding quantifiable or qualitative results. Objectives may define priorities, guide resource allocation, or influence processes.

## **Action**

Actions are specific activities used to achieve the goal within the constraints of the objective. As resources and circumstances change over time, actions should be monitored regularly and adjusted as needed to achieve the objective.

**Section 7 is a matrix of OCP actions** to guide implementation and track progress towards meeting each goal.

## The OCP defines what Orleans wants for its future.

It is a guide for the public and for decision makers, presented with the confidence that it is informed by community input. The goals, objectives, and actions were developed using a comprehensive and

balanced approach aimed at being both practical and aspirational.

The Town of Orleans is refining the economic development plan, designed to compliment this Comprehensive

Plan and is focused on implementation of the OCP action plan and smooth business-like Town operations.

There are many actions identified, and it is not realistic to expect that they can all be achieved simultaneously. There are also fiscal realities of implementation that the plan acknowledges but does not attempt to budget for or balance. Instead, Town officials, Select Board members, and voters should use this plan as a guide to inform decision-making and set strategic direction when looking to meet community needs and desired outcomes.





2

**VISION AND  
GROWTH  
POLICY**





"Rock Harbor Beach View" Marc Hanson, Addison Art Gallery

# Vision Statement

## **Orleans Vision:**

The vision for Orleans is a balanced, diverse, and thriving community where the Town's unique character flourishes alongside strategic growth and environmental stewardship. Central to this vision is the commitment to enhancing the quality of life in the Town.

In 2050, Orleans is a dynamic and diverse seaside community that celebrates its small-Town culture, maritime heritage, and environmental treasures. Development is strategic to protect the environment and historic assets that characterize the Town while meeting the needs of its residents, businesses and visitors.

Orleans uses water responsibly to ensure its availability and quality for both current and future needs, while protecting ecosystems and promoting equitable access. As such, policy and regulatory requirements associated with development will prioritize environmental protection. In addition to policy protections, the Town has taken the necessary steps to prepare for and respond to the effects of climate change.

## **What is a vision statement?**

A vision statement defines what the community wants and envisions in the future. It also serves to focus and guide decision making in a responsible, inclusive and coordinated way.

Orleans is the commercial, arts and cultural center of the Lower Cape, fostering a year-round economy with a variety of employment opportunities and accessible, attainable housing for a diverse population. The Town has a vibrant downtown village center and an active commercial area and continues to develop other economic centers which form the backbone of its economic development strategy.

Orleans is a safe, family-friendly community that encourages shared activities and recreation for children and adults. Town government is a true partner with the community, leveraging public collaboration and communication, ensuring transparency, efficiency and effectiveness.

# Growth Management Policy

The Town of Orleans Growth Management Policy guides growth toward geographic areas within the community that are or can be adequately supported by infrastructure to advance community elements including vibrant economic centers, affordable and attainable housing, and coastal resiliency.

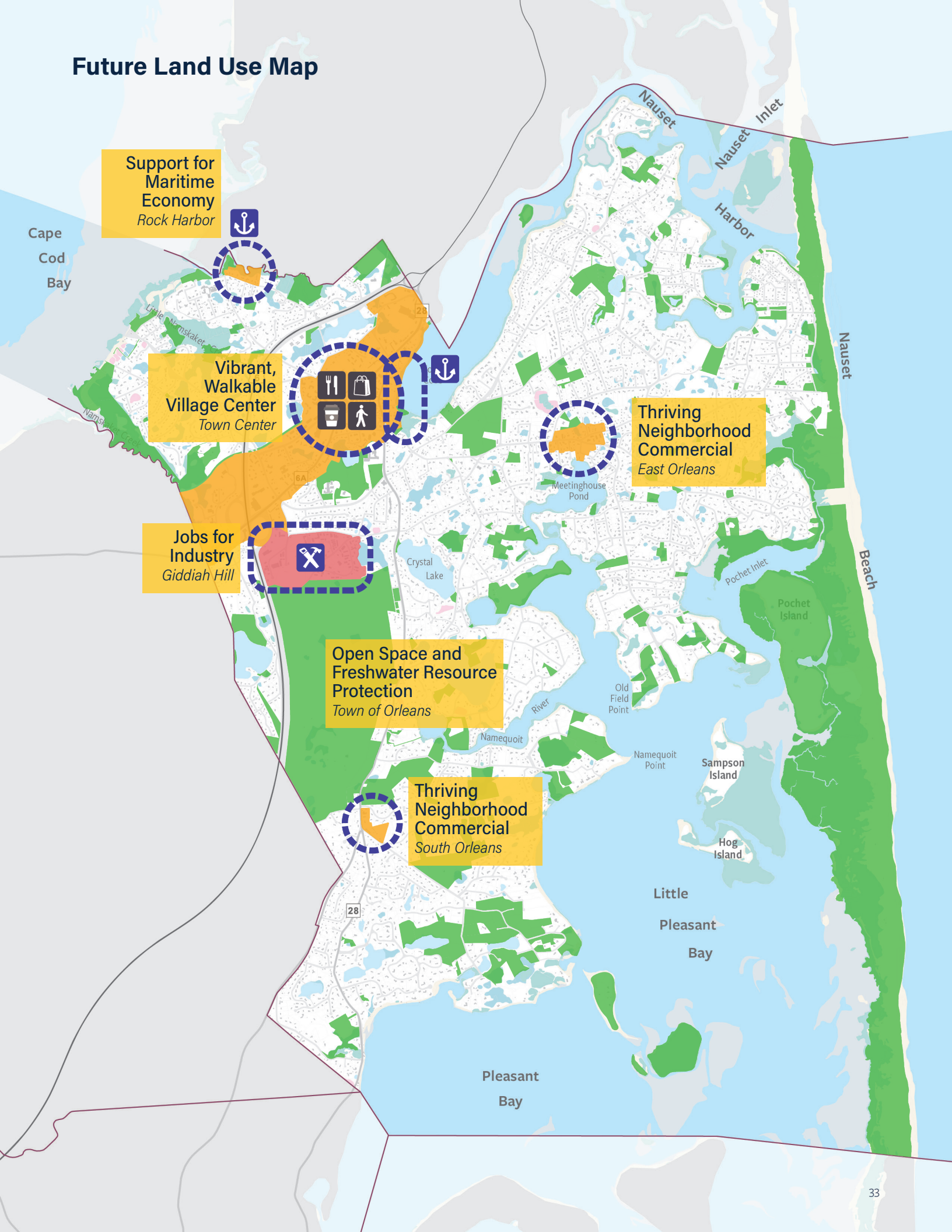
The Orleans Comprehensive Plan seeks to embrace the future of Orleans while honoring the Town's historic maritime heritage and coastal character. To do so, growth will be intentional and strategic, designed to meet the needs of a diverse community comprised of young people, families, local workers, and seniors and to ensure services and resources can adequately support their needs without sacrificing Orleans' unique community culture.

Orleans is at an inflection point in its development with regard to the demographic make-up of the community. The decline in young and working age residents must be addressed and the community must work to rebalance its population by retaining and attracting young families and workers.

The Town is committed to addressing climate change, a global challenge that has direct visible impacts within the Orleans community by reducing its contribution to carbon emissions, implementing smart growth practices and making fair, predictable, and cost-effective development decisions.

A core issue for Orleans is to achieve sustainable growth that protects the essential character of the community. Orleans seeks to preserve its ponds, beaches, natural resources, and open space areas, while simultaneously bolstering the beloved small-town character and small community feel with added elements and new opportunities to create a vibrant downtown and community center.

# Future Land Use Map



**Support for Maritime Economy**  
*Rock Harbor*



**Vibrant, Walkable Village Center**  
*Town Center*



**Thriving Neighborhood Commercial**  
*East Orleans*

**Jobs for Industry**  
*Giddiah Hill*



**Open Space and Freshwater Resource Protection**  
*Town of Orleans*

**Thriving Neighborhood Commercial**  
*South Orleans*



# 3 ORLEANS YESTERDAY AND TODAY





"Depot Square, Mural" Katherine Nora and Dan Joy, Artist Cottages

# Orleans Today



## Population

6,342

Population

3,002

Year-Round Households

2.0

Average Household Size

63.9

Median Age



## Town \$\$\$

\$5,797,512,940

Total Taxable Value (2023)

\$5,411,625,319

Residential Taxable Value (2023)

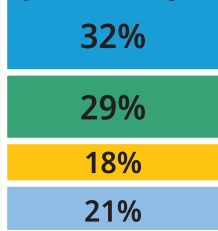
\$304,513,891

Commercial Taxable Value (2023)

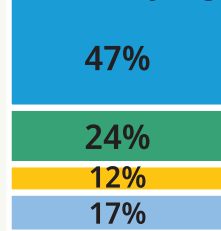
\$304,944,000

Exempt Property Value (2023)

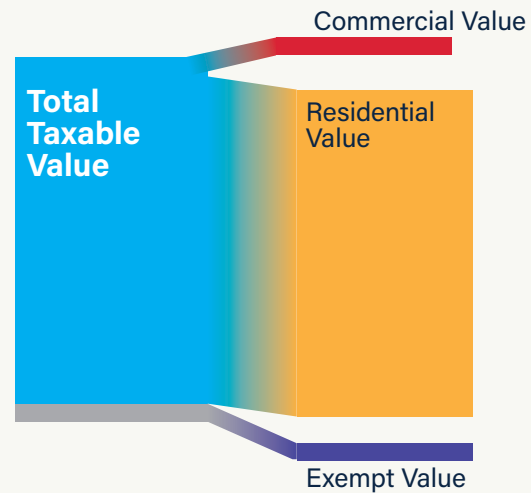
Cape Cod by Age



Orleans by Age



Under 25    25-44    45-65    Over 65



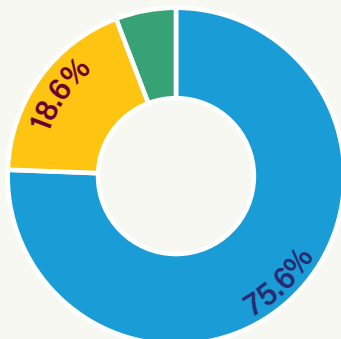
## Housing

5,749

Housing Units

46%

Seasonal Housing Units



Single-Family Homes  
Multi-Family Homes  
Other (5.8%)

## Land Area



13.94 sq mi

Total Land Area



30%

Protected Open Space



28%

Land Area in Flood Zone



*"Highland Light Train" Amy Sanders, Addison Art Gallery  
(Historically accurate image of early train passing through Orleans, Pastel)*

Cape Cod Commission Regional Housing Profiles, Town of Orleans ([https://capecodcommission.org/resource-library/file?url=/dept/commission/team/Website\\_Resources/housing/town\\_profiles/Orleans-Housing-Profile.pdf](https://capecodcommission.org/resource-library/file?url=/dept/commission/team/Website_Resources/housing/town_profiles/Orleans-Housing-Profile.pdf)), ACS 5-year estimates 2023

Cape Cod Commission Town Profiles (<https://datacapecod.org/pf/town-profiles/>), ACS 5-year estimates 2023

# Background

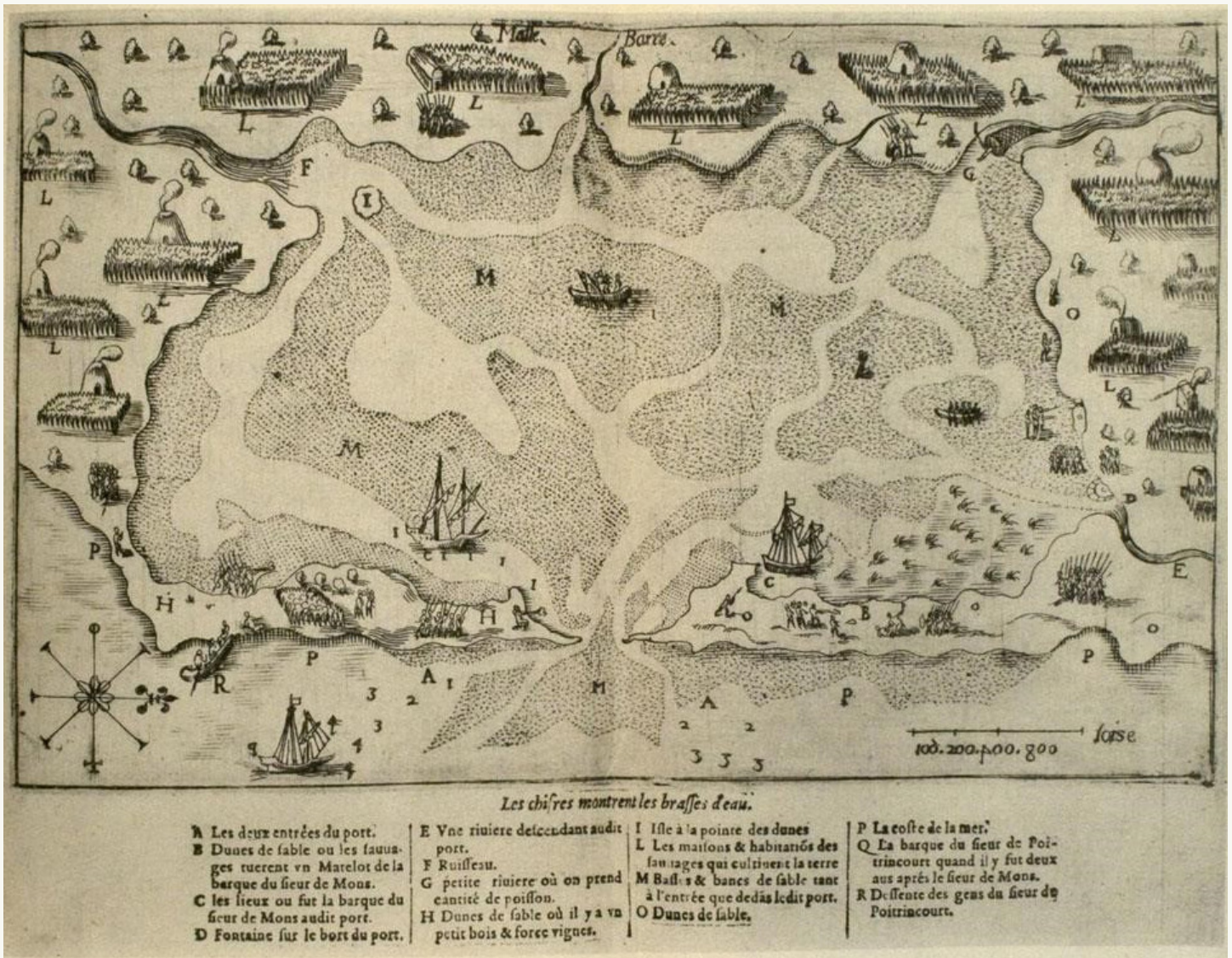
The Town's land use and development patterns have been greatly influenced by its geographic location. Uniquely situated between Cape Cod Bay to the west and the Atlantic Ocean to the east, land use in Orleans has been historically connected to the sea. From its early history as a fishing and farming community to its current role as a commercial center for the Lower and Outer Cape, the Town has retained much of its historic and maritime character, with a working harbor, walkable village center, and miles of beaches, woodlands, and other natural areas. In the 2023 OCP community survey, respondents identified the highest rated values of the community as:

- » **Access to water**
- » **Protection of the natural environment and open space**
- » **Maintenance of a small, seaside community**

Housing affordability, overdevelopment, and a decline in young families were among top concerns expressed by residents. The Town has made a commitment to provide for the housing and business needs of the community by focusing on future housing and mixed-use development in the Village Center and constructing wastewater infrastructure to support those needs.

## Historic Development Patterns

The history of Orleans began with Native American peoples who inhabited the land for 10,000 – 12,000 years before European settlement. The land that became Orleans was a part of the larger area at the elbow of Cape Cod known as Nauset, inhabited by the Nauset tribe, a part of the Wampanoag Confederation. The highly productive, concentrated, and predictable natural resource base of the Nauset and Pleasant Bay estuaries provided access to a diversity of habitats and supported permanent settlement prior to the



Champlain's map of Nauset Harbor, National Park Service

development of agriculture, with only short seasonal movements.

It was estimated that the Nauset had a population of around 1,200 prior to the European-introduced epidemics of 1616-1619. The Nauset population may have been reduced to about 500 by 1621, although it is unclear how accurate either estimate is. The earliest recorded observation of the indigenous culture at Nauset was made by the French explorer

and cartographer Samuel de Champlain, whose 1605 map of the Nauset estuary depicts a sedentary village of wetus and planting fields surrounding the harbor (see image above).

The first European settlement of Orleans was by pilgrims who were dissatisfied with the poor soil quality and small land grants of "Plymouth." Governor Prence received a large land grant from the Plymouth Colony in 1644 and

# 1880 Orleans Map



## Town of ORLEANS

MASS

Scale, 135 Rods = 1 Inch

established what was first known as the “Second Pilgrim Colony” and renamed “Nosset.” This area stretched from Yarmouth through Wellfleet. Orleans was incorporated as a Town in 1797 after separating from Eastham.

A large tract of land was reserved for Native use which extended between Areys Pond and Little Pleasant Bay, along the Namequoit River and south of Pilgrim Lake. This was called Potanumicut and became home to Christianized members of the Nauset and Monomoyick tribes. In 1790, there were enough Natives living at Potanumicut for Eastham to construct a new Native American meetinghouse in what became Orleans, possibly near the intersection of Portanumicut Road and Quanset Road. However, it appears that the Native population was significantly reduced in the late 18th century. Many of the Nauset and Monomoyicks may have relocated to Mashpee. By 1800, there were only seven Natives living at Potanumicut. In 1820, the Potanumicut Reservation lands were sold by representatives of Brewster, Harwich, and Orleans for \$300 to be split evenly between the Towns. The funds were intended for the support of the remaining Natives. However, the sale funded the dredging of an unsuccessful channel south of Strong Island to construct Orleans’s first Town House in 1837.

Most of Orleans during the colonial time-period was comprised of large and dispersed farms. Because of the suitability of the soil, Orleans was the Cape’s premier grain-growing Town

during the 1800s. Settlements emerged around Rock Harbor on Cape Cod Bay, and along what is now known as Main Street. East Orleans grew up around a church built in 1718. A small business core developed at the juncture of Main Street and Route 6A, an area that remains the Town’s village center.

Fishing and whaling were a primary means of commerce in the 1800s. Shipping to Boston was conducted out of Rock Harbor, which flourished as the local port of trade through the 18th and 19th centuries. Pleasant Bay and the Nauset Marsh systems were important for local activities and resources such as finfish, shellfish, fowl and salt hay. In the 1800s Orleans saltworks became an important industry, which emerged out of the need to preserve the large quantities of fish that were caught and distributed to other markets. Saltworks sprang up in many inlets and coves around Orleans in the 1800s. By the 1860s, the salt industry was replaced by the cranberry industry.

The completion of the Old Colony Railroad in 1865 and its extension in the 1870s to the lower Cape led to a small garment industry and prompted the formation of more service-oriented businesses and growth of the tourism industry. Over the next 100 years, Orleans growth was based mostly on the tourism industry. Inns, shops, and small stores opened, and seasonal homes were built around Tonset and Nauset Heights. Development spread across the Town, geared towards seasonal visitors, retirees,

and residents attracted by Orleans' quality of life.

Creation of the Cape Cod National Seashore in 1961 resulted in a significant increase in commercial growth in the Orleans village center due to its location at the crossroads of three major roadways: Route 6, Route 6A, and Route 28. This growth led to today's identification of Orleans as the lower Cape's commercial and cultural center.

## Population

Orleans' year-round population boomed between 1970 and 1990; 2,378 new housing units were constructed during that period which represent nearly 40% of today's housing stock. Most of those homes were single-family dwellings on 40,000 square foot lots, following zoning requirements enacted in 1973.

It is estimated that the population in Orleans triples during the summer months. Approximately 47% of the Town's housing units

## Population trends

The population peaked in 2000 and has declined by 8% over the last twenty years. The UMASS Donohue Institute Population Estimates Program has projected a 5% decrease in year-round population for Orleans every five years between 2025 and 2040. This projection would result in a year-round population of 5,325 by 2040. The estimate raises concerns that Orleans needs to take affirmative steps to maintain its long-term viability as a healthy year-round community.

**Table 3.1  
Orleans Population Trends**

Year	Year-Round Population	Est. Summer Population
1970	2,579	-
1980	5,543	-
1990	6,061	-
2000	6,900	22,000
2010	6,380	19,000
2020	6,294	19,000
2025	6,431	19,000

Source: Town Reports

**Table 3.2  
Orleans Age Distribution 2023 Population**

Age Group	Qty of People	%
Under 5 years	148	2.3%
5 to 9 years	130	2.0%
10 to 14 years	240	3.8%
15 to 19 years	343	5.4%
20 to 24 years	218	3.4%
25 to 34 years	209	3.3%
35 to 44 years	528	8.3%
45 to 54 years	597	9.4%
55 to 59 years	461	7.3%
60 to 64 years	492	7.8%
65 to 74 years	1,762	27.8%
75 to 84 years	897	14.1%
85 years+	317	5.0%

Source: U.S. Census Bureau, 2023 American Community Survey (ACS) 5-Year Estimates

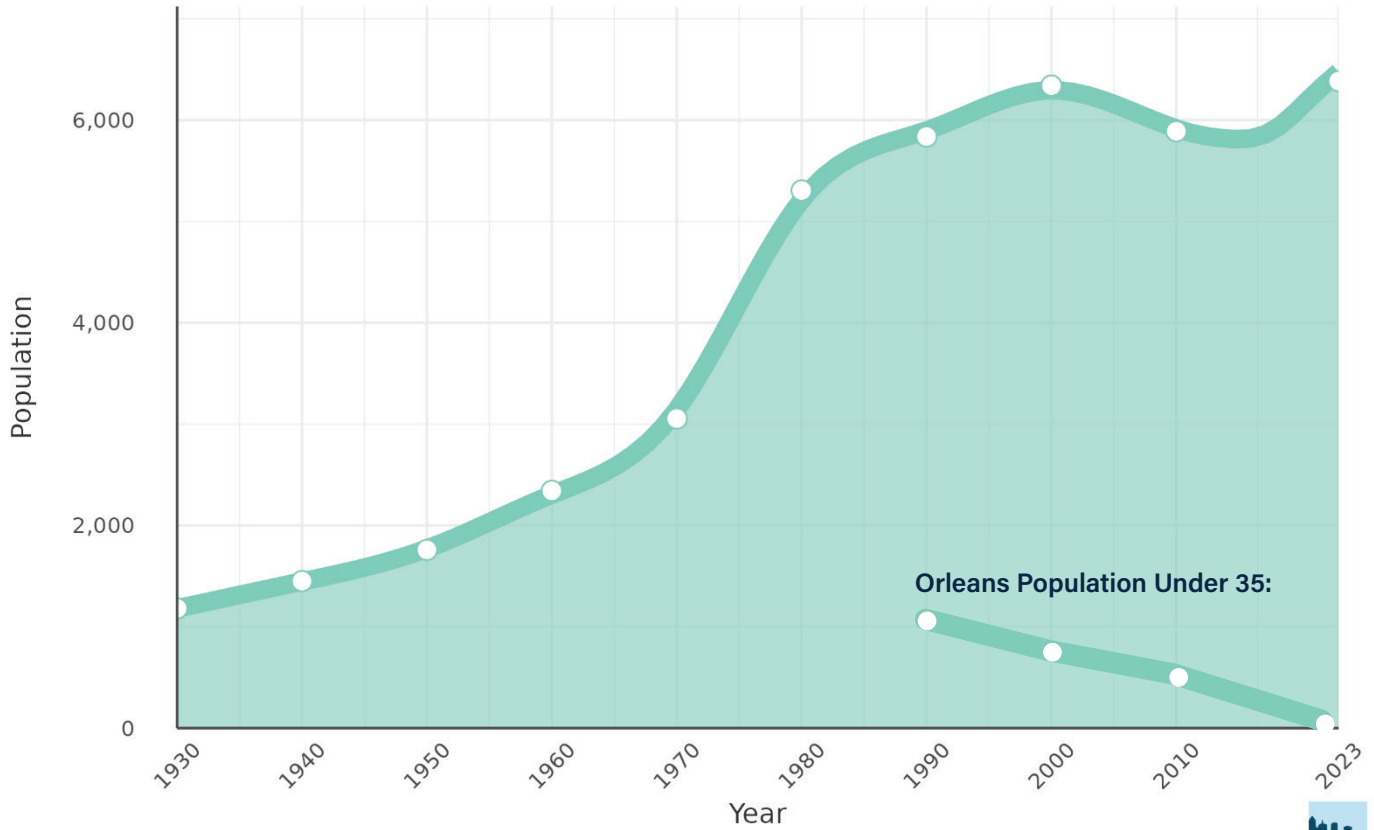


are occupied seasonally, a percentage slightly higher than Barnstable County (35.6%), but lower than neighboring Towns up and down the outer coast.

The population of Orleans is primarily White (96.8%). The Town has an older demographic than many communities: 46.7% of Orleans residents are age 65 or older as compared to 31.6% for Barnstable County overall. The percentage of residents under the age of 35 has dropped rapidly in recent years.



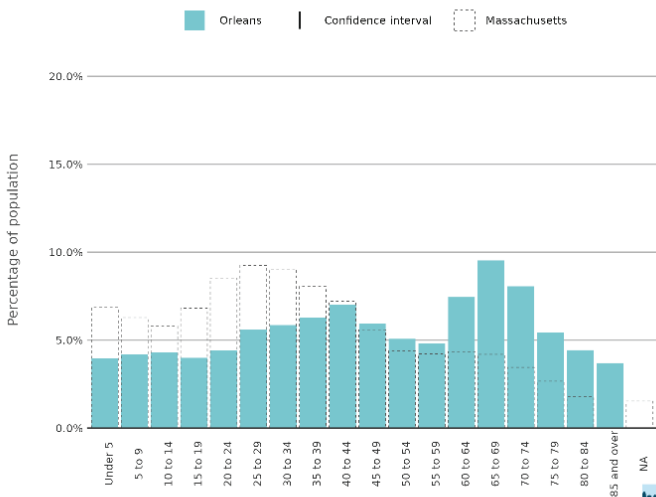
## Population Change 1930 to 2023



Source: U.S. Census Bureau Population Estimates Program

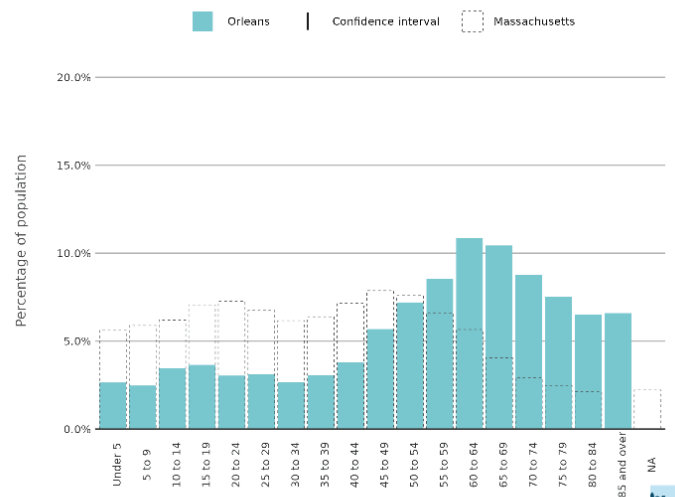


## Age Distribution Orleans v. State, 1990



Source: U.S. Census Bureau: Decennial Census 1990-2020 & American Community Survey, 2019-2023 5-year estimates. Table S0101: Age and Sex

## Age Distribution Orleans v. State, 2020



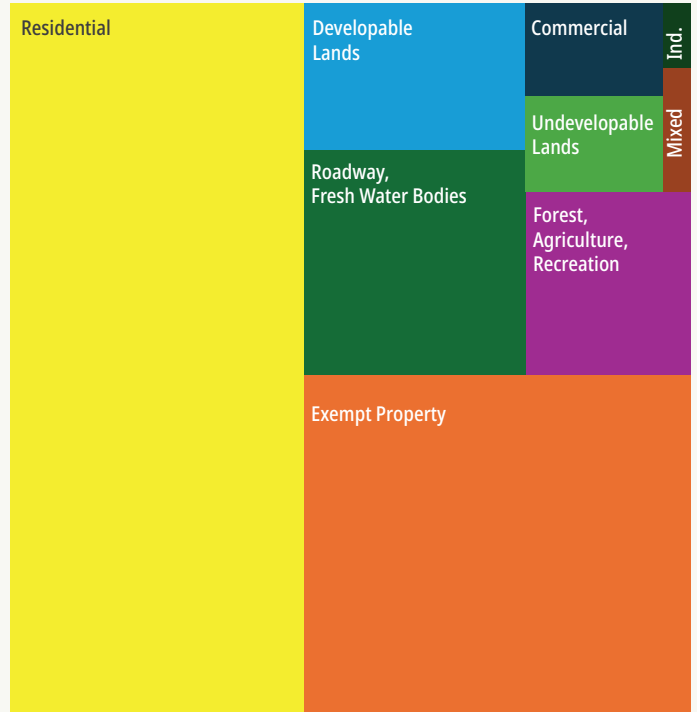
Source: U.S. Census Bureau: Decennial Census 1990-2020 & American Community Survey, 2019-2023 5-year estimates. Table S0101: Age and Sex

**Table 3.3  
Land Use**

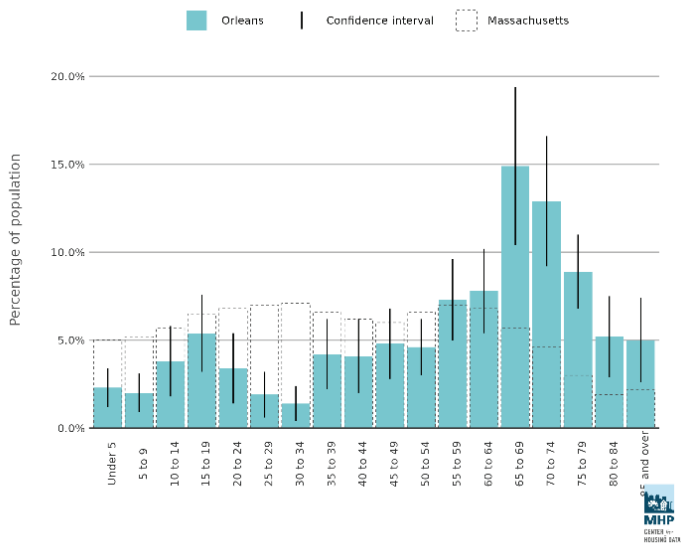
Land Use Category	Acreeage	%
Residential	3,874	43%
Exempt Property	2,437	27%
Road Layouts and Fresh Water Bodies	923	10%
Developable Lands	605	7%
Forest/Agriculture/ Recreation	558	6%
Undevelopable Lands	242	3%
Commercial	239	3%
Multiple Use	62	1%
Industrial	33	.37%
<b>Total</b>	<b>8,973</b>	<b>100%</b>

Source: Orleans Planning Department

## Land Use Treemap Diagram



## Age Distribution Orleans v. State, 2019-2023



Source: U.S. Census Bureau: Decennial Census 1990-2020 & American Community Survey, 2019-2023 5-year estimates. Table S0101: Age and Sex

## Existing Land Use

The total land area of Orleans is 13.94 square miles. Based on current Orleans Assessor’s data, almost half (43%) of the total land area in Orleans is used for residential purposes, followed by 27% or 2437 acres of land categorized as Tax Exempt. Exempt properties include permanently protected open space: 2,067 acres (23%) of land area is permanently protected from development and an additional 517 acres (5.7%) are protected by a conservation restriction. Developable lands comprise less than 7% of land area in the Town.

## Existing Zoning

The Orleans Zoning Bylaw includes a total of nine zoning districts and four overlay districts. These zoning districts are located and bounded as shown on the Orleans Zoning Map. Zoning was adopted in 1963, and subsequent Town Meetings have approved periodic amendments. Zoning districts include the following:

- Residence (R)
- Rural Business (RB)
- General Business (GB)
- Limited Business (LB)
- Industrial District (I)
- Marine Business (MB)
- Village Center (VC)
- Conservancy (CD)
- Seashore Conservancy (SC)

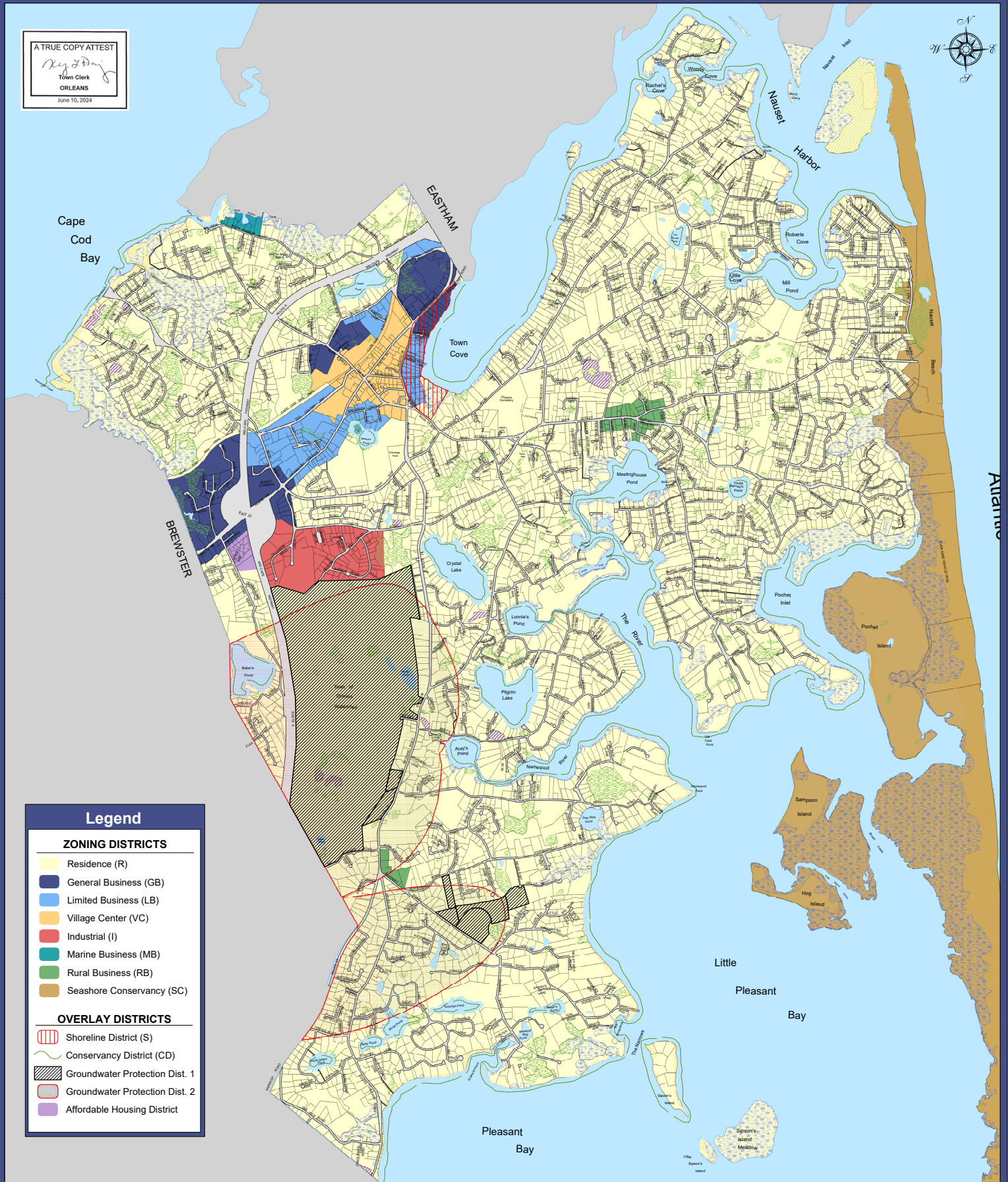
Overlay districts include the following:

- Groundwater Protection Districts (GW)
- Shoreline (S)
- Floodplain (F)
- Residential Affordable Housing (RAH)



# Orleans Zoning and Groundwater Protection Map

A TRUE COPY ATTEST  
*Rachel Clark*  
 Town Clerk  
 ORLEANS  
 June 10, 2024



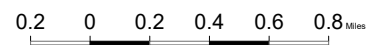
## Legend

### ZONING DISTRICTS

- Residence (R)
- General Business (GB)
- Limited Business (LB)
- Village Center (VC)
- Industrial (I)
- Marine Business (MB)
- Rural Business (RB)
- Seashore Conservancy (SC)

### OVERLAY DISTRICTS

- Shoreline District (S)
- Conservancy District (CD)
- Groundwater Protection Dist. 1
- Groundwater Protection Dist. 2
- Affordable Housing District



## Build-Out Analysis

The 2023 build-out analysis conducted by the Town showed the potential for 600 additional dwellings in the residential zoning districts, and the potential for 1,259 additional dwellings in the downtown districts, for a total of 1,860 potential new dwellings overall or a 35% overall increase. Estimated population at build-out is 8,518 year-round residents, an increase of 2,160 residents. The build-out analysis further breaks down potential build-out types, identifying 276 additional dwellings on vacant lots, 325 dwellings in subdivisions, and 1,259 dwellings in the downtown area. An additional 600,000 square feet of commercial space is possible under existing zoning. Table 3.4 below summarizes additional findings from the build-out analysis.

## Housing Occupancy

In Orleans, 47% of the housing units are occupied only seasonally; in Barnstable County 36.3% of housing units are used seasonally; in Massachusetts 4.1% of housing units are used seasonally. Of the remaining units in Orleans, 40% are owner-occupied and 11% are occupied by renters.

The average household size in Orleans is 2.06 persons per unit. Non-family households in Orleans represent 41.5% of the population compared to 37.9% for Barnstable County: these could be households with a single person living alone, or two or more people who share a home who are not related. As a community with a high percentage of older residents, there are many single-person households.

## What is Build-Out Analysis?

A build-out analysis evaluates the level of development that could occur if property is developed to its full potential under the development regulations in effect at a given time. It does not provide information on anticipated rate of growth, but helps provide information on the upper limits of development potential under current conditions.

**TABLE 3.4**  
**Residential Build-Out**

Year-round Population (2022)	6,358
Number of Homes Occupied Year-round	3,087
Average # Residents Per Year-round Home	2.06
Percent of Homes Occupied Year-round	54%
Total Potential New Dwellings	1,860
New Year-round Occupied Dwellings	1,005
Potential Number of New Residents	2,160
Potential Year-round Population at Build-out	8,518

Source: Orleans Planning Department



"House on the Corner" Paul Schulenburg, Addison Art Gallery

## Development Trends

Orleans faces a challenge to ensure that future development contributes to community needs and is compatible with the scale and character of the built environment. The Town is constructing sewers in several phases, beginning with the Downtown Area, which allows for future compact development. New affordable housing units are under construction in and near the village center, setting the stage for the establishment of a year-round, economically vibrant village core. Other trends include larger new houses, replacement of historic structures with larger buildings, and maximizing building coverage on small lots, often impacting sensitive natural resources. There has also been a trend away from hotel/motel use in favor of short-term rentals of private homes.

## Recent Actions by the Town

### Residential Development

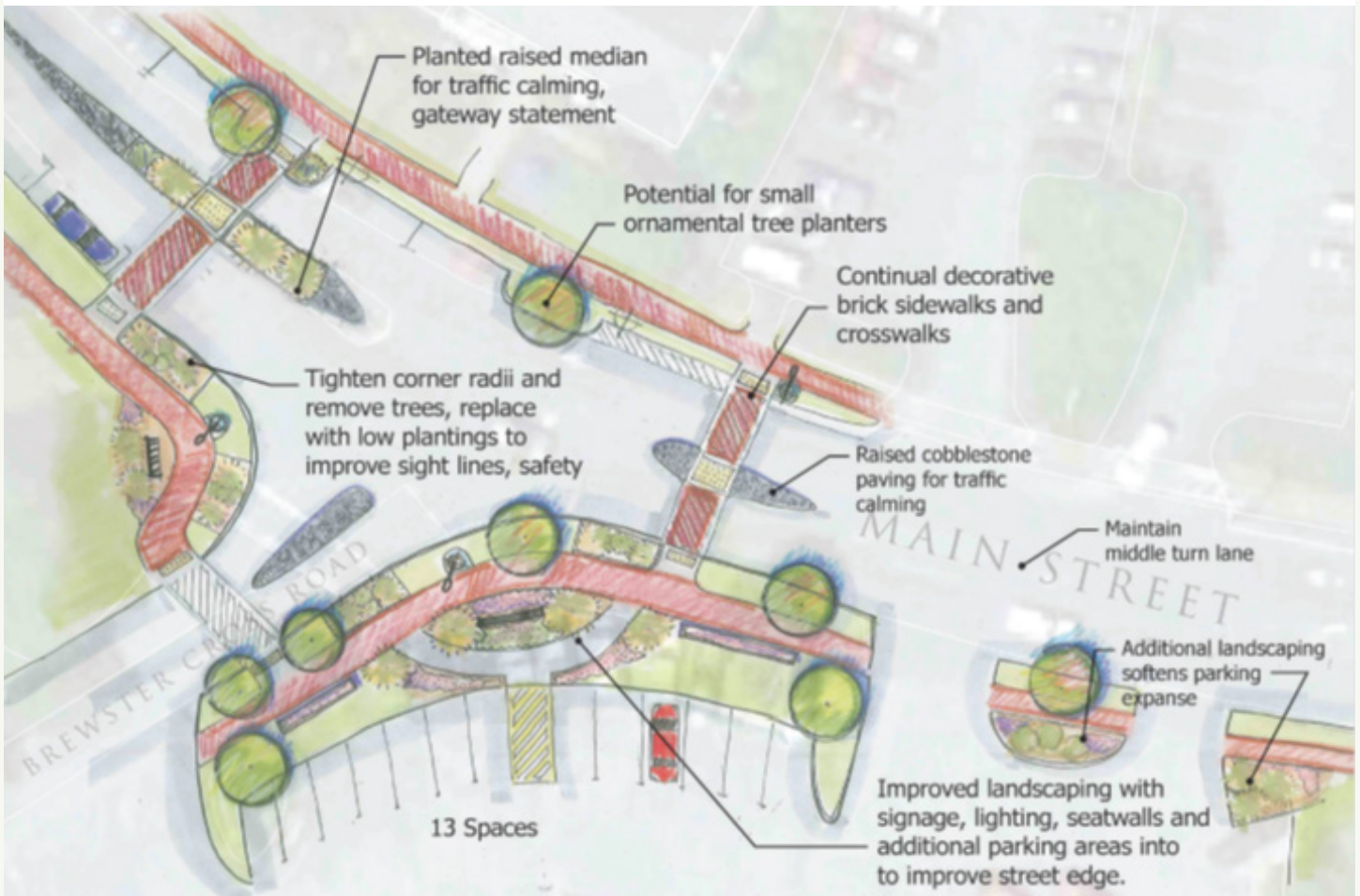
Town growth policy includes zoning, health regulations, and other land use controls. For the past 20 years, zoning has been crafted to carefully manage growth and require an ample public review process for any significant development proposal. The Town is also part of the Cape Cod Commission, meaning that new development meeting certain thresholds (i.e., 10,000 s.f. of commercial space or 30 dwelling units) is subject to a Development of Regional Impact (DRI) review. In 2017, the Town adopted zoning that significantly increased allowable density for apartments and condominiums. For various reasons, this change has not resulted in many new multifamily development projects. In 2024, the Town adopted a suite of zoning amendments aimed at addressing housing needs. Those bylaw changes increased flexibility for apartment development, accessory

**Table 3.5**  
**Prior Planning Efforts**

2011 Orleans Village Center Streetscape Plan
2015 Route 6A Corridor RESET Project
2017-2024 Earlier Village Center Zoning Ammendments
2018 Community Resiliency by Design Study
2018 Parking and Circulation Study
2020 Orleans Complete Streets Prioritization Plan
2021 Orleans Wayfinding Plan
2022 Economic Development Plan



## Village Center Traffic Calming Design for Main Street and Brewster Cross Road Intersection



Source: 2011 Orleans Village Center Streetscape Plan

dwellings, duplexes, and dwellings in commercial structures.

Over the past 15 years, Orleans has undertaken a number of strategic planning initiatives focused on its village and commercial center. These efforts paired outside technical assistance with extensive community engagement to identify priorities for public infrastructure improvements, including streetscape, wayfinding, pedestrian and bikeway improvements, and parking and circulation. Additional studies have begun to look at the connection between the public realm and private development, and how to encourage compact, mixed-use and residential development with a

scale and design compatible with the Orleans built landscape.

More changes are being considered to address the critical need for “missing middle” housing, or a type of housing with multiple units that fit within existing neighborhoods and offer diverse housing options. The planning efforts noted above led to the adoption of several zoning amendments in May 2024 aimed at addressing local housing needs affecting residents, businesses, and the overall community. In late 2024, the Town commenced work modernizing its zoning to promote mixed-use and multifamily development without the requirements of lengthy regulatory review. A “design-based” approach to land use is under consideration.

## Key Issues Moving Forward

The installation of wastewater infrastructure in the village center has allowed the Town to make significant progress toward its goals of providing additional opportunities for housing and mixed-use development. The Town continues to work with non-profit partners and private landowners to protect open spaces and natural resources for both protection of the environment and the enjoyment of the community.



## Key land use issues include:

- » Balancing the need for economic reinvestment and additional housing supply with a strong community desire to maintain the Town's historic and community character.
- » Evaluating the demand for public services, including wastewater, police and fire, and education coming from additional development and ensuring these services can support Town growth.
- » Prioritizing the protection of natural resources while accommodating public needs for access to the water and open spaces.
- » Dedicating resources to realize a climate-resilient and healthy environment, including integrating clean technologies into public and private property.
- » Addressing the Town's significant capital needs and establishing priorities and funding strategies that will create a sustainable fiscal, social, and environmental future.



# 4 NATURAL SYSTEMS



*"Namskaket Marsh" Eileen Smith, Eastwind Gallery*



*"Lonnie's Pond" Thomas Hoffman, Adorn Cape Cod*

# NATURAL SYSTEMS

**Groundwater and the Aquifer**

**Freshwater Lakes and Ponds**

**Marine and Coastal Resources**

**Wetland Resources**

**Wildlife and Plant Habitat**

**Open Space**

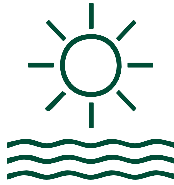
Orleans has an abundance of natural resources that define its character. Access to water, both freshwater and saltwater, was the highest ranked value among respondents to the 2023 community survey, followed closely by protection of natural resources and open space. As noted in the 2018 Regional Policy Plan, high quality natural systems are part of Cape Cod's attraction for residents and visitors, but they are also susceptible to contamination from various land uses and activities and are increasingly vulnerable to changes in climate. In the future, it is anticipated that the natural functions of these systems will be affected by increases in storm severity, intensity, and rainfall, as well as changes in temperature and periods of drought.



**57**  
Miles of Coastline



**1,811**  
Acres of Publicly  
Protected Open  
Space



**49**  
Ponds  
**4** Great Ponds  
**2** Fish Stocked  
**220** Acres Total



**565**  
Acres of Privately  
Held Open Space



**1,377**  
Acres of Salt Marsh



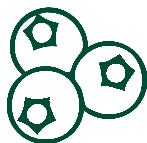
**102**  
Miles of  
Water Main



**151**  
Acres Freshwater  
Wetland



**929**  
Hydrants



**15**  
Acres of  
Cranberry Bogs



**5,000**  
Water Accounts



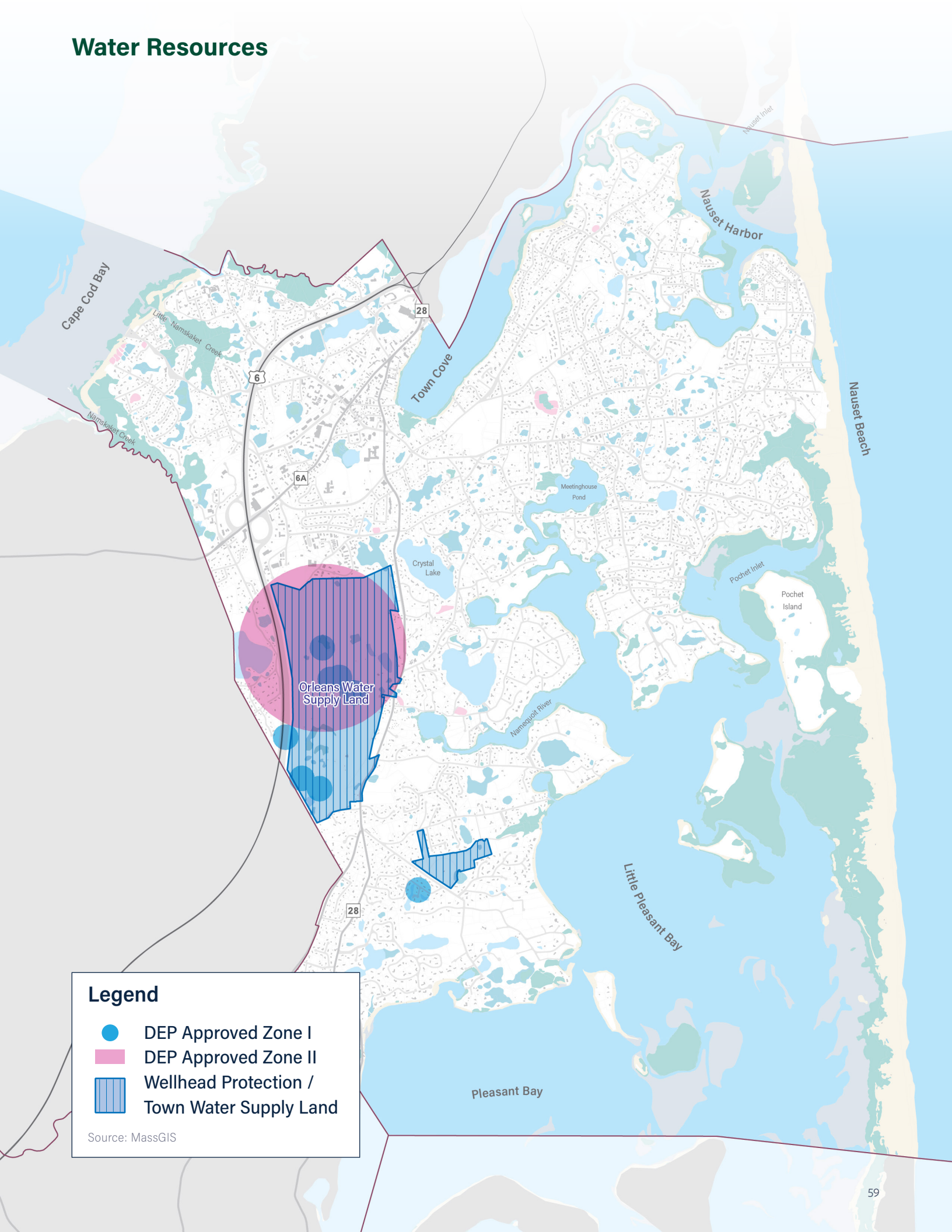
# Groundwater and the Aquifer

## Background

Drinking water in Orleans is supplied by wells which draw from the Monomoy lens of the Cape Cod Aquifer, an EPA-designated sole source aquifer. The Monomoy lens is one of 6 distinct lenses on Cape Cod. Drinking water is supplied through eight wells and a membrane filtration plant. The distribution network includes 102 miles of water mains and 929 hydrants, servicing over 5,000 accounts. Wells 1 through 6 and 8 are located on approximately 500 acres of Town-owned land off Route 28, and Well 7 is located on approximately 38 acres of Town-owned land off Quanset Road. The water supply is protected through permanent conservation of watershed land, as well as the Groundwater Protection Overlay

Districts. The Town, through these zoning districts and other regulations, and the Massachusetts Department of Environmental Protection, restrict activities on these properties that could adversely affect the wells. The Town's water supply is considered adequate for current demand and the aquifer has the potential to supply additional volume to sustain projected future growth.

# Water Resources



**Legend**

- DEP Approved Zone I
- DEP Approved Zone II
- ▨ Wellhead Protection / Town Water Supply Land

Source: MassGIS

## Recent Actions by the Town

The Orleans Water Department has been consistently identified by the MADEP Drinking Water Program as an outstanding public water system. The Department has received numerous Public Water System Awards for its operations.

Future planning to maintain and improve the water system is guided by an Asset Management Plan. The 2020 plan is being updated.

The Town has continued to acquire properties located within the Zone 2 Area of Contribution to public wells. In 2000, the Town acquired 10.9 acres of vacant land along Route 28 near Namequoit Road. In 2001, the Town acquired 2 parcels totaling 7.7 acres of land upgradient of Well 7 in South Orleans.

In 2009, the Town purchased 5-acres in Zone 2. Private efforts of the OCT to protect land within the Zone 2 include:

- 33 Eli Rogers Road
- 5 Morgan's Way
- 22 Richwood Farm Lane
- 20 Crescent Ridge

## Key Issues Moving Forward

- » Protecting the aquifer from the impacts of development and climate change.
- » Addressing contaminants of emerging concern in the drinking water (such as PFAS), including meeting new regulatory requirements to test and treat for these pollutants.

## Groundwater and the Aquifer Goals

- Maintain the Town's ability to rely on its natural water resources for high-quality drinking water.
- Protect public groundwater supply wells to maintain high-quality drinking water free from biological or chemical contamination.

## Objectives and Actions

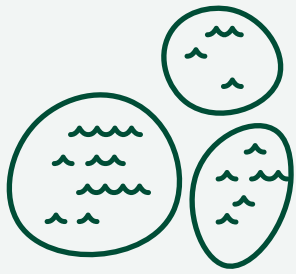
### 1. Monitor and Protect public water supply wells and zones of contribution.

- Prepare and regularly update the Town's water supply management plan.
- Maintain town's MS4 stormwater compliance by implementing green infrastructure improvement to provide stormwater treatment and storage.
- Purchase and protect land within the zone of contribution to public drinking water wells.

### 2. Propose and implement materials use restrictions and mitigation methods to reduce impacts to groundwater and inflow into water bodies.

- Identify and monitor contaminants of emerging concern, currently including PFAS, plastics and other physical and chemical contaminants.





# Freshwater Lakes and Ponds

## Background

The Town has 63 freshwater ponds, covering a total area of 220 acres that provide recreational, aesthetic, and cultural experiences valued by residents and visitors. Of these ponds, 25 are greater than one acre. Four (Pilgrim Lake, Crystal Lake, Bakers Pond, and Cedar Pond) are greater than ten acres in size, and therefore are classified as Great Ponds of the Commonwealth. Pilgrim Lake is the largest freshwater pond at 43 acres and 34 feet to the bottom at its deepest point. Town landings and public beaches are located at Pilgrim and Crystal Lakes. A recently improved herring run is located between Kescayogansett Pond (salt) and Pilgrim Lake. While the

Town's surface water bodies act as lenses to the groundwater system, they are not directly tied to the Town's drinking water resources.

The Town has developed management plans for Cedar Pond, Crystal Lake, Pilgrim Lake, Uncle Harvey's Pond and Bakers Pond. A management plan for Boland Pond was initially funded in 2024 and is under development. The Town's sewerage master plan will protect many freshwater ponds from phosphorus loading in addition to nitrogen.

Review of water quality data collected through the Pond and Lake Stewardship (PALS) program indicates water quality impairments from nutrient enrichment,



frequently associated with high phytoplankton levels, low water clarity, and bottom water hypoxia (a dead zone where oxygen levels within a body of water are too low to support marine life). Impairment-level load and their sources differ for each water body.

APCC and Orleans Pond Coalition coordinate sampling of 6 ponds from May to October.

## Recent Actions by the Town

The Ponds and Lake Stewards (PALS) program, which organizes citizen water quality monitoring, initiated in 2000 for routine testing of 18 freshwater ponds, has provided crucial insights into the status of pond ecosystems, revealing concerns about algal blooms, fish kills, and the impacts of changing land uses.



Orleans continues to be an active PALS participant and has expanded the number of tested ponds to 22. Orleans volunteers have collected data at least twice each year since the program was initiated using the PALS sampling protocol as guidance. Countless volunteer hours have resulted in the success of this water quality

monitoring program through sampling, education, advocacy and partnerships.

In 2012, the Select Board adopted best management practices for Town-owned property aimed at reducing or eliminating excessing nutrient loading from the application of fertilizers and at reducing or eliminating the use of pesticides and herbicides. In 2013, the Town adopted a bylaw to limit private applications of fertilizer based on time of year and proximity to natural resources.

Management plans for freshwater ponds have identified the presence of excess phosphorus as a key contributor to water

quality degradation. Recommended actions have included short-term treatments of alum or aeration, and long-term actions to eliminate septic system input upgradient of the water body. Since 2021, the Town has successfully completed alum treatments on Uncle Harvey's Pond, Pilgrim Lake, and Crystal Lake. These treatments have improved water quality and allowed time for the Town to develop long-term solutions.

The Cape Cod Commission Regional Pond Monitoring Program supports public understanding of pond conditions across Cape Cod.

## Key Issues Moving Forward

- » Protecting freshwater lakes and ponds through the development and timely implementation of management plans.
- » Adapting management plans in anticipation of an increased frequency and intensity of storms that are anticipated to diminish the natural nitrogen attenuation capacity of freshwater ponds.
- » Working to reduce the use of fertilizers and other harmful chemicals on private property through education and partnership with lakes and ponds groups as well as residents.
- » Monitoring the water quality in ponds and the presence of algal blooms to protect public health.

## Freshwater Lakes and Ponds Goal

- Maintain and preserve high-quality lakes and ponds for their environmental, economic and enjoyment benefits.

## Objectives and Actions

### 1. Complete and implement management plans for ponds with public access so that they meet state, federal and regional standards, and implement recommendations.

- On a regular cycle, monitor water quality trends and determine priorities for action.
- Limit impact of phosphorous and other nutrients through subsurface disposal system buffer zones.
- Regulate septic system leach field locations for new systems, and relocate upgradient septic systems to at least 300 feet from ponds.
- Research alternatives to reduce phosphorus from upgradient groundwater in proximity to fresh ponds.
- Develop plans to protect and enhance anadromous fish passage locations.

- Coordinate with the Town of Brewster on plans for Baker's Pond.

### 2. Develop and implement a general management strategy for smaller ponds.

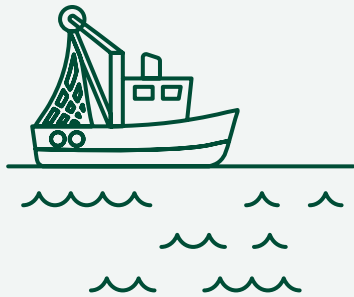
### 3. Enhance public alert and mitigation measures to address the occurrence of cyanobacteria.

- Refine protocols for evaluating information and informing the public.

### 4. Educate the public about responsible landscape management and the need to reduce or eliminate fertilizer and pesticide application.

### 5. Review and revise regulations that impact water resources as necessary to align with water quality goals.





# Marine and Coastal Resources

## Background

As a coastal community, Orleans benefits from abundant marine resources. The Town has three productive estuaries within its borders: Cape Cod Bay, Nauset Harbor/Town Cove, and Pleasant Bay, as well as frontage on the Atlantic Ocean. The 9 square miles of Cape Cod Bay include 3 separate salt marsh systems (Namskaket, Little Namskaket, and Rock Harbor Creek) which serve as nurseries for a variety of marine creatures.

Nauset Harbor/Town Cove, which includes Nauset Marsh, is approximately 3.2 square miles in size and is shared with the Town of Eastham. To the north is the Cape Cod National Seashore and portions of the estuary are included within the National Seashore boundary. The estuary is widely used for many types of fishing and provides habitat for 59 species of fish and shellfish and more than 90 species of invertebrates. The Atlantic Ocean is accessible from Nauset Harbor through an unstable inlet. Nauset Spit serves as a barrier beach protecting the estuary and

is a breeding ground for birds such as terns and piping plovers.

Nauset Beach, a barrier beach which is included in the Cape Cod National Seashore, separates Pleasant Bay from the Atlantic Ocean. The Orleans portion of Pleasant Bay is 5.4 square miles in size and extends through Harwich and Chatham. The Bay is home to many fish and shellfish species. In total, Orleans has 1,377 acres of salt marsh that help to protect the shoreline and provide habitat for rare species.

Shellfishing remains an economically important industry in Orleans. The Town is fortunate to have four major commercial species within its waters: soft-shell clams, quahogs, scallops and mussels. Stock abundance fluctuates depending on natural conditions and harvest levels. Good water quality is required for an area to be open for shellfishing.



*"Outgoing Tide, Nauset Beach" Joyce Zavorskas, Left Bank Gallery*



*"Accumulated Drift of Stones" (at Nauset, Pastel) Amy Sanders, Addison Art Gallery*

The Natural Resources Department adds purchased seed to boost local resources; however, they lack the staff to expand the existing program or to monitor survival rates necessary to evaluate the success of the program. The Department has a staff of three, which also provides harbor management, safety and enforcement services.

Shellfish grants have been demonstrated to be economically viable in Pleasant Bay and Nauset Harbor. Oysters are presently the dominant species that is cultivated. While there are currently no plans to expand the number of grants, the Pleasant Bay Alliance has begun surveying Pleasant Bay to determine which areas, if any, may be suitable for future grants. Due to present and historic productivity of wild shellfish in the Nauset Estuary, expansion of shellfish farming is not being considered at the moment.



## Recent Actions by the Town

### *Marine Water Quality: Implementation of the Comprehensive Wastewater Management Plan*

Contaminants in groundwater and stormwater runoff contribute to degradation of marine waters. The Massachusetts Department of Environmental Protection (DEP) has set specific water quality goals, particularly targeting nitrogen from septic systems, a primary contributor to degraded water quality in bays and estuaries.

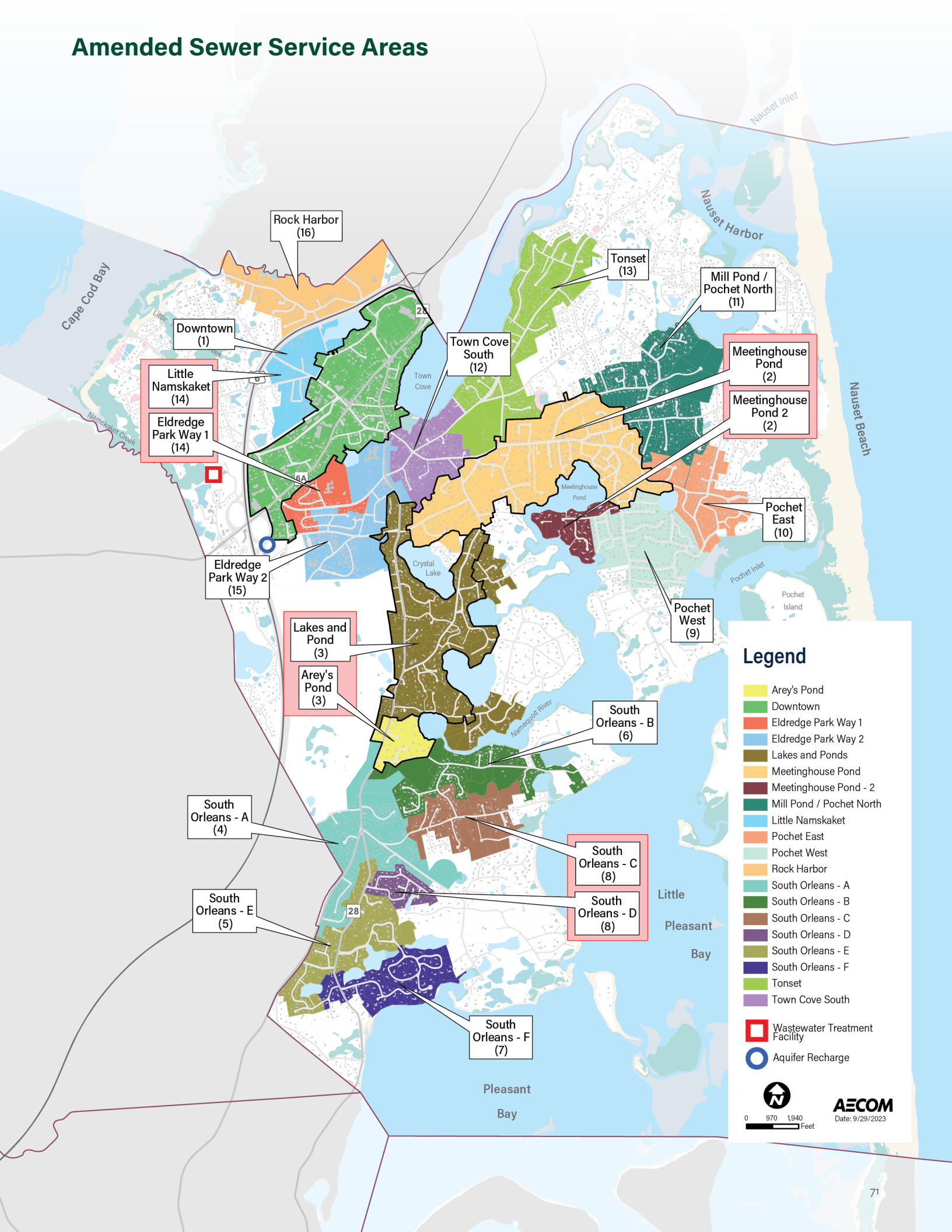
According to a Needs Assessment prepared prior to the Town's 2010 Comprehensive Wastewater Management Plan, elimination of 52% of the individual septic systems in Orleans, and construction of a municipal wastewater system, was needed to control these nutrients to meet state and federal requirements and to help protect 8 priority ponds.

To address these challenges, the Town began development of a Comprehensive Wastewater Management Plan (CWMP) in 2001. The 2010 CWMP proposed construction of a 0.64 million gallons per day (mgd) wastewater treatment facility (WWTF) at 29 Overland Way, including installation of 74 miles of sewer pipes and 63 pump stations in six construction phases to treat wastewater from 2,800 properties along Pleasant Bay, Town Cove, and the Nauset and Rock Harbor watersheds.

The Town's wastewater management strategy was the purview of the Orleans Water Quality Advisory Panel (OWQAP). The panel convened in 2014, recognizing the need for community support for a customized water quality management plan. The OWQAP explored both traditional and non-traditional approaches, with permeable reactive barriers (PRBs) and shellfish aquaculture advancing to the demonstration project stage. After significant evaluation of lower cost alternatives, a decision was reached in 2015 to begin installing public sewer infrastructure along with exploration of non-traditional alternatives. A permeable reactive barrier (PRB) at Eldredge Park and oyster aquaculture in Lonnie's Pond were installed as demonstration projects through the Pleasant Bay Targeted Watershed Management Plan (2018). The Town has explored implementation of non-traditional nitrogen removal technologies, employing an adaptive management plan, monitoring for nitrogen loading reductions, and evaluating opportunities to accommodate additional wastewater flows from Eastham and/or Brewster as part of that planning process. The Town has monitored these projects to evaluate their effectiveness in removing nitrogen before full-scale implementation. The DEP Watershed Permit for Pleasant Bay monitors the effectiveness of these nitrogen reduction strategies.


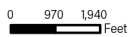
A comprehensive water quality testing program was initiated for all marine waters of the Town and continues to the

# Amended Sewer Service Areas



## Legend

- Arey's Pond
- Downtown
- Eldredge Park Way 1
- Eldredge Park Way 2
- Lakes and Ponds
- Meetinghouse Pond
- Meetinghouse Pond - 2
- Mill Pond / Pochet North
- Little Namskaket
- Pochet East
- Pochet West
- Rock Harbor
- South Orleans - A
- South Orleans - B
- South Orleans - C
- South Orleans - D
- South Orleans - E
- South Orleans - F
- Tonset
- Town Cove South
- Wastewater Treatment Facility
- Aquifer Recharge


  

  
**AECOM**
  
 Date: 9/29/2023

present day. Twenty-six locations are sampled five times each summer under a DEP-approved protocol.

### **Amended CWMP Sewer Service Areas**

In 2022, a Wastewater Management Advisory Committee was created to coordinate sewer planning and recommend implementation actions. In the same year, the Town installed updated modern water meters, which allow for accurate water use tracking and projecting future wastewater flows and began collecting Town-wide data in Fiscal Year 2022.

As a part of its ongoing wastewater master planning efforts, in 2023 the Town updated the sewer service areas specified in the 2010 CWMP through an "Amended CWMP" (ACWMP). The 2023 updated service areas build off of a "Core

Area" established in the 2010 CWMP. The amended service areas include fewer miles of sewer pipes and pump stations and slightly more properties, primarily due to greater use of gravity sewers as compared to the large number of low-pressure sewers proposed in the 2010 CWMP. The timeframe to sewer the Core Area is expected to occur through 2067. This was based on multiple considerations, including the Town's need to address other financial needs and the continuing studies on PRBs and nitrogen attenuation. The ACWMP outlined the construction of a WWTF and a wastewater collection system to be completed over 16 phases to mitigate nitrogen loadings into the coastal bays and estuaries of Orleans. The Town permitted a wick well discharge location at 32 Lots Hollow Road. An alternative site within the Exit 89 "cloverleaf" was pursued and may be used in the future if required.



The Town completed construction of the new wastewater collection and treatment facility, which began operation in 2023. The first phase of sewer implementation has been completed in the Downtown Area, which includes the business district and some residential properties along the Route 6A and Old Colony Road corridors. Approximately 5,000 kilograms of nitrogen per year (kg N/year) are projected to be removed by Phase 1. Construction of Phase 2 around the majority of Meetinghouse Pond is also underway. Approximately 2,000 kg N/year

are projected to be removed as a result of Phase 2.

Non-traditional, green infrastructure strategies including Permeable Reactive Barrier (PRB) technology and aquaculture are part of the Town's nutrient control strategy. PRB implementation is being considered for three locations: Pleasant Bay, Nauset Harbor, and Rock Harbor.

The Phase 3 Lakes and Ponds sewer area was approved for final design in May 2024. Construction is expected to begin in fall 2026, subject to funding availability.



"Old Timer Rock Harbor" Paul Schulenburg, Addison Art Gallery

## Key Issues Moving Forward

- » Implementation of the sewer master plan needs to continue in order to protect surface waters from the impacts of nitrogen and phosphorus, which travel in groundwater. Phase 3 of a 16-phase program phase was funded in 2025 and will begin construction in 2026.
- » Expansion of the Wastewater Treatment Facility will be needed around Phase 6, to accommodate future sewer phases. Timing is dependent on design capacity and system flow.
- » Shellfish have ecological, economic, and recreational value to the Town. Going forward, a comprehensive approach to shellfish management should be developed to both ensure continued viability of shellfish resources and the benefits and impacts of expanded aquaculture.





"Tide Pool" Marc Hanson,  
Addison Art Gallery



"Jellyfish Bowl" Steve Kemp, Kemp Pottery

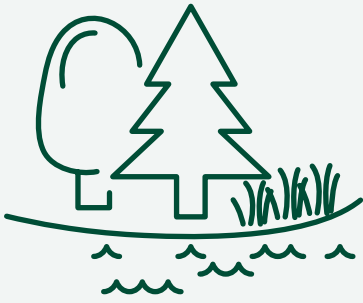
## Marine and Coastal Resources Goals

- Protect, preserve, or restore the quality, biodiversity, and natural values and functions of marine resources to support traditional maritime occupations and recreational enjoyment.
- Protect and preserve coastal waters including all estuaries to support healthy shellfish and aquaculture.



## Objectives and Actions

- 1. Implement the Amended Comprehensive Wastewater Management Plan to achieve threshold load reduction and restore marine water quality.**
- 2. Design, fund and implement plans to mitigate nitrogen loading in coastal waters through non-structural (aquaculture, natural attenuation) and structural (collection and treatment facilities, stormwater) infrastructure improvements that meet state, federal and regional standards.**
  - Continue to monitor water quality conditions and track data for estuaries and develop and implement plans to improve water quality.
  - Engage with Chatham, Harwich, and Brewster on the Pleasant Bay Watershed Permit and take agreed-upon actions as required.
  - Engage with Eastham to develop and implement plans to address nitrogen loading for areas with inter-municipal watersheds (i.e., Nauset Estuary and Rock Harbor).
- 3. Implement best practices to make Orleans more resilient to coastal erosion and other effects of climate change.**
  - Develop successive 5-year action plans to make Orleans more resilient to projected 25-year coastal erosion and climate change impacts.
  - Maintain public access locations and respond to sea level rise and erosion.
  - Adopt regulations that conserve salt marsh systems and allow for their migration.
  - Review required setbacks for buildings in the coastal buffer zone.
  - Preserve natural systems function in permitting development.
- 4. Develop an education campaign and alert system to notify the public in the event of outbreaks of harmful algae and bacteria in coastal water bodies.**
  - Coordinate with other Town Departments on shellfish closures and red tide occurrences.
- 5. Develop a shellfish management plan and update on a routine cycle.**



# Wetland Resources

## Background

According to the Town's Geographic Information Systems mapping, Orleans has 151 acres of freshwater wetlands, 15 acres of cranberry bogs and 994 acres of saltwater wetlands. A 1985 Massachusetts Coastal Zone Management Study identified 1,377 acres of salt marsh in Orleans.

Orleans has more salt marsh than any other Cape Cod Town except Barnstable, a Town four times its size. Additionally, the Town and the Orleans Conservation Trust have worked diligently to protect marine and freshwater wetlands of regional importance, including several globally rare Atlantic White Cedar Swamps.

Any activity in a wetland buffer zone is subject to approval by the Conservation Commission. In addition to the Wetlands Protection Act, Orleans has a local bylaw that provides additional protection for wetland resources.

## Recent Actions by the Town

To protect sensitive wetlands and improve surface water quality, the Town adopted a bylaw to reduce the overall amount of excess nitrogen and phosphorus entering resource areas protected by the Wetland Protection Act. The bylaw includes performance standards to limit the time, location, and frequency of fertilizer applications and makes recommendations for limited application



*"Renewal (Pochet Walkway)" Joyce Zavorskas, Left Bank Gallery*

of nitrogen. Further, in 2023 the Town Meeting authorized a home rule petition to the legislature to reduce pesticide use in Town. Further, in 2023 the Town Meeting authorized a home rule petition to the legislature to reduce pesticide use in Town.

The Cape Cod National Seashore (CCNS) conducted a study on salt marsh vegetation changes between 2003 and 2018 that included the Nauset and Pleasant Bay salt marsh systems. The report describes the Seashore's ground-level monitoring of salt marsh vegetation and suggests it is tracking the kinds of

plant community shifts that are expected to occur in response to sea level rise. The study concludes that continued monitoring is necessary as salt marsh migration is not keeping up with resource loss. Pleasant Bay and Cape Cod Bay are state-designated Areas of Critical Environmental Concern (ACEC) and have been the focus of research and monitoring of water quality and natural resource vitality. These Pleasant Bay study efforts, primarily facilitated by the Pleasant Bay Alliance, will inform upland land use management strategies by the Town.



"A Perfect Day at Nauset" Amy Sanders  
Addison Art Gallery

## Key Issues Moving Forward

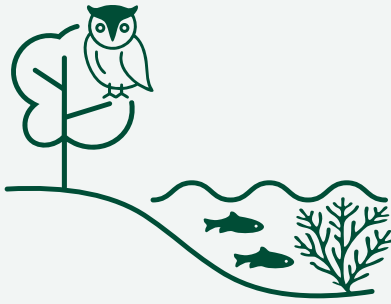
- » Protect wetlands and wetland buffers from the impacts of development through the enforcement of the Wetland Protection Act and Orleans Wetlands Bylaw.
- » Educate the public about responsible landscape management and the Fertilizer Nitrogen and Phosphorus Control Bylaw.
- » Address increased stormwater runoff into wetlands resulting from more frequent and more intense storms.

## Wetland Resources Goal

- To protect, preserve or restore the quality and natural value of inland and coastal wetlands and their buffers to preserve the important functions they provide for the environment and community.

## Objectives and Actions

- 1. Protect wetlands to preserve their ecological integrity for current and future generations.**
  - Protect all wetlands through responsible development practices, including the establishment of buffer zones and prohibitions on development within sensitive areas and developing restoration strategies and monitoring programs.
  - Identify opportunities and develop strategies to allow the natural migration of salt marshes.
- 2. Prevent the loss or degradation of wetlands.**
  - Strengthen floodplain (land subject to coastal storm flowage) management by adopting regulations targeted at increasing resilience.
  - Continue to educate the community about wetlands and the vital role of wetlands in protecting human health and the environment.



# Wildlife and Plant Habitat

## Background

Orleans is situated at the juncture of two major wildlife zones: the Virginian and Acadian biogeographic regions. Cape Cod separates the warm Gulf Stream waters of Nantucket Sound (northern edge of the Virginian zone) from the cold Labrador Current waters of Cape Cod Bay (southern edge of the Acadian zone). Marine species composition, from seaweed to squid to whales, are different between these two sides of Orleans. Orleans Cape Cod Bay shoreline is also the innermost area listed as critical foraging habitat for the endangered North Atlantic Right Whale.

The growing conditions, temperature, rainfall, and soil type in Orleans support many plant communities, some common only to sandplains, such as kettle pond shore vegetation with many rare species, sandplain grasslands, white cedar swamps, dunes, and pine-oak forests. The habitats also support plant communities associated only with salt water, salt marshes and eel grass communities vital to shellfish and finfish.

Orleans and Cape Cod are part of the Coastal Pine Barrens ecoregion, which are exceptionally important and rare wildlife habitats. This plan is aligned with the biodiversity goals of Massachusetts, which extends to 2050.



*"Kents Point Shore" Katherine Nora, Adorn*

The Town is surrounded by vital habitat areas that support diverse wildlife populations. Among these areas, Pleasant Bay and Nauset Marsh stand out as essential wintering grounds for black ducks, recognized by the U.S. Fish and Wildlife Service as a National Species of Special Emphasis. These habitats also serve as a pivotal stopover point along the Atlantic Flyway for numerous shorebirds, including piping plovers, during their migratory journeys north and south. Piping plovers and terns use the barrier beaches along Nauset for nesting habitat, giving the Town a key role in efforts to conserve them. These natural resources not only sustain local biodiversity but also play a vital role in supporting the broader ecosystem health of Cape Cod, serving as critical refuges for a multitude of these and other bird species throughout their life cycles.

Additionally, Orleans boasts a rich variety of upland mammals, from red squirrels to white-tailed deer. Eastern coyotes and the larger coywolves (a term used for a canid hybrid descended from coyotes and one of three other North American *Canis* species, the gray, eastern, or red wolf) have become prominent, competing with red foxes for territory. Wildlife corridors, essential for animals to migrate in search of food or breeding grounds, are disrupted due to residential development. However, natural pathways like Nauset Spit and wetland systems persist, though fragmented by obstacles. Despite these challenges, Orleans remains a vibrant habitat for diverse mammalian species.

## Recent Actions by the Town

In 2025, the Select Board adopted a native plant policy for plantings on Town property.

Public and private acquisitions of open space, detailed in the Open Space section below, have significantly contributed to the protection of wildlife and plant habitat.

## Key Issues Moving Forward

- » Identifying the protection of critical habitat areas from development as a priority for Town open space acquisitions.
- » Identifying and adopting management strategies to address the presence and spread of invasive species on Town-owned property that may be intensified by increasing temperatures and severe weather conditions.



"Misty Morning Walk" Mary Lou Foley, Eastwind Gallery

## Wildlife and Plant Habitat Goal

- To prevent loss or degradation of natural communities that support native and biodiverse plants, animals and landscape.

## Objectives and Actions

### 1. Protect natural communities from human and environmental degradation through responsible regulation and management.

- Continue to identify endangered or threatened natural communities that require protection or intervention.
- Minimize fragmentation of wildlife and plant habitats by creating protected greenways and wildlife corridors as well as by protection of large unfragmented areas and the use of prioritized open space planning.
- Adopt additional enforceable provisions in the zoning bylaws to regulate how lots are prepared for development to prevent clear cutting of upland areas and removal of significant native trees, and to establish protections for undisturbed natural areas within required building setback areas.
- Follow Management Plans for Cedar Pond, Pilgrim Lake, Crystal Lake, Baker's Pond, and Uncle Harvey's Pond and others as developed.
- Maintain, monitor and improve the Town's anadromous fish runs and their spawning areas.
- Follow and regularly update habitat management plans to protect nesting areas of species of concern.



"Forest Fawn" Molly Whalen, Artist Cottages



"Red Fox" Mary Loy Foley, Eastwind Gallery



# Open Space

## Background

The Town of Orleans acquired 250+ acres of open space from 1982 to 2021. In addition, the Orleans Conservation Trust (OCT) owns 536 acres in fee and holds conservation restrictions on an additional 167 acres. When combined with private land trust holdings, such as the Sipson Island Trust and the Orenda Wildlife Trust, there are approximately 541 acres of land privately held as open space.

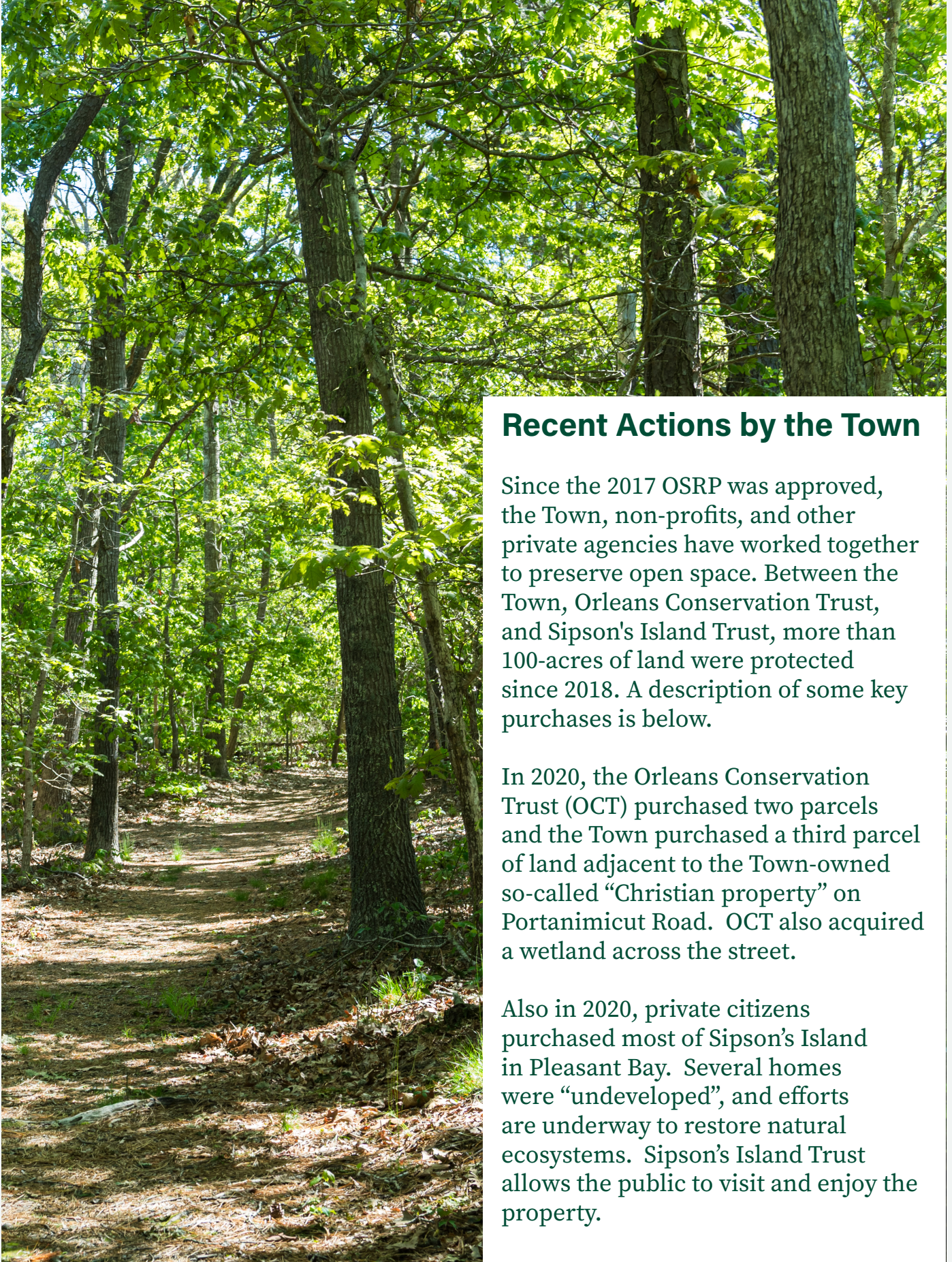
The 2006 Comprehensive Plan contained a recommendation to preserve 400 acres of land from future development. This lofty

goal was achieved through a combination of public and private efforts. However, as the community continues to develop and increase in population, it will be vitally important to preserve additional lands as open space. Future acquisitions by the Town will be opportunistic as properties become available. The Priority Parcels Map in the Town’s Open Space and Recreation Plan (OSRP) identifies properties that meet several acquisition criteria, including environmental sensitivity, critical habitat areas, and parcels that are adjacent to existing open space.

**Table 4.1**  
**Open Space Categories**

Open Space Category	Open Space %	Acreage	Entity
Publicly Protected	56%	1881 acres	Federal, State, Town
Privately Held	15%	565 acres	95% Orleans Conservation Trust, 2% Other
Farmland, Forest, Recreation (MGL Ch. 61 etc.)	13%	424 acres	Town, and Private
Conservation Restrictions	16%	517 acres	Federal, Town, and Private

Source: Orleans Assessing Data, 2024. Conservation Restrictions per 2017 OSRP.



## Recent Actions by the Town

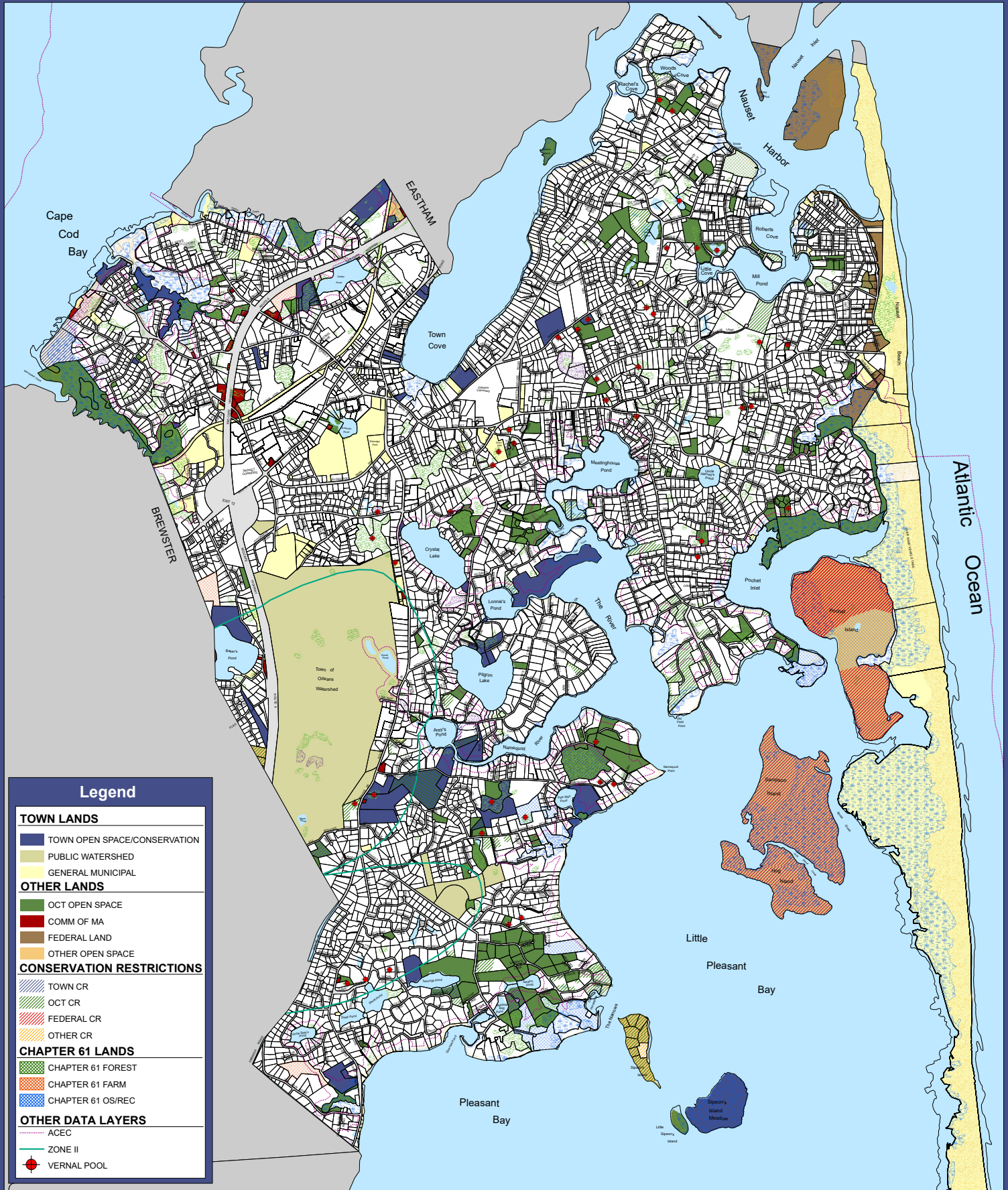
Since the 2017 OSRP was approved, the Town, non-profits, and other private agencies have worked together to preserve open space. Between the Town, Orleans Conservation Trust, and Sipson's Island Trust, more than 100-acres of land were protected since 2018. A description of some key purchases is below.

In 2020, the Orleans Conservation Trust (OCT) purchased two parcels and the Town purchased a third parcel of land adjacent to the Town-owned so-called “Christian property” on Portanimicut Road. OCT also acquired a wetland across the street.

Also in 2020, private citizens purchased most of Sipson’s Island in Pleasant Bay. Several homes were “undeveloped”, and efforts are underway to restore natural ecosystems. Sipson’s Island Trust allows the public to visit and enjoy the property.



# Town of Orleans: 2025 Open Space Inventory



**Legend**

**TOWN LANDS**

- TOWN OPEN SPACE/CONSERVATION
- PUBLIC WATERSHED
- GENERAL MUNICIPAL

**OTHER LANDS**

- OCT OPEN SPACE
- COMM OF MA
- FEDERAL LAND
- OTHER OPEN SPACE

**CONSERVATION RESTRICTIONS**

- TOWN CR
- OCT CR
- FEDERAL CR
- OTHER CR

**CHAPTER 61 LANDS**

- CHAPTER 61 FOREST
- CHAPTER 61 FARM
- CHAPTER 61 OS/REC

**OTHER DATA LAYERS**

- ACEC
- ZONE II
- VERNAL POOL



This map is illustrative and intended for planning purposes only  
Map created by the Town of Orleans, 3/2025





*"Sunset Boat House" Paul Schulenburg, Addison Art Gallery*

The former Peck property on Arey's Lane was the subject of a phased acquisition of parcels to prevent development along the shore of Arey's Pond and Namequoit River. Three parcels were purchased, totaling 10.2 acres of land.

In 2021, the Orleans Conservation Trust completed a series of purchases of land off Henson's Way along The River.

In 2024, the OCT announced the acquisition of 26 acres of waterfront property at the end of Viking Drive. This acquisition will prevent the development of approximately 20 homes and provide long-term protection of the shoreline and inland habitat.

At the Special Fall Town meeting in 2024, the voters approved a \$2.5 million purchase of 2.21 acres property at 72 Tonset Road for general municipal purposes. This property, adjacent to the Town-owned Sea Call Farm, will be used to expand public access to Town Cove.

## Key Issues Moving Forward

- » Strategically prioritizing open space acquisitions. The cost per acre to protect land is rising and the protection of open space must compete with other Town spending and land use priorities, including housing development.
- » The Town must be responsible for stewardship and maintenance of land beyond the initial purchase.
- » Inventories of public and private land should be maintained, and the Town's OSRP should be regularly updated and implemented.

## Open Space Goal

- **Preserve, protect and restore a healthy natural environment that safeguards water quality, provides habitat for wildlife, increases opportunities for recreation and enhances the character of Orleans through the conservation and appropriate use of land.**

## Objectives and Actions

- 1. Preserve, expand and manage open spaces to mitigate the impacts of climate change, provide crucial habitats and wildlife corridors, protect water quality, implement carbon sequestration practices, provide recreational and health activities for citizens and ensure resilient landscapes for future generations.**
  - Utilize the 2025 Open Space and Recreation Plan to prioritize land protection efforts and maximize State matching grants.
  - Actively identify additional parcels to enhance open space and work with owners and other partners to purchase or preserve open space.
  - Evaluate opportunities for small-scale neighborhood pocket-parks and recreational amenities.
  - Create land use and permitting policies that promote interconnectivity and compatibility of adjacent open space.
  - Develop and implement best management practices for maintaining and enhancing public access to open space.
  - Ensure ongoing beach management of natural resources of Nauset Beach, Skaket Beach, Town Cove and Pleasant Bay and work in cooperation with neighboring Towns and the Cape Cod National Seashore, when possible.
  - Identify and apply for or secure funding for enhanced ADA access across Town-owned open space and recreation areas.
  - Provide uniform Orleans-branded public information on open space, including signs, interpretive displays, and brochures to increase appreciation of open space assets.



# COMMUNITY 5 SYSTEMS

*"Spring" Cassandra Guidess,  
Eastwind Gallery*





© 2014

# COMMUNITY SYSTEMS

## Economic Development

## Housing

## Community Services

## Historic Preservation and Cultural Heritage

## Arts and Culture

## Governance

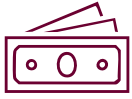
Community systems are the social activities and qualities, including the economy and culture, that make Orleans a desirable place to live, work, and visit. Orleans is recognized for its rich heritage, commitment to historic preservation, and long tradition of fostering arts and culture. As noted in the 2018 Regional Policy Plan, the Cape's community systems are critical to fostering and maintaining vibrant communities and social networks that serve and support the people who live, work, and play in the region.

Housing affordability was the highest ranked concern for the future of Orleans identified by respondents to the 2023 community survey, followed closely by a decline in young families. Providing more affordable housing, preserving town culture, and managing growth were among the highest priorities identified by survey respondents. Balancing the need to provide more affordable housing and year-round employment opportunities while maintaining town character are critical elements for the future of Orleans.



**\$98,798**

Median Household Income (2023)



**\$900,000**

Median Home Sales Price (2023)



**4X median**

Income needed to afford a single-family house in Orleans



**6.4%**

Houses Built before 1900



**4**

National Historic Register Listings



**11%**

% of Housing Units on the Subsidized Housing Inventory (SHI) (2025)

**7.0% ↓ 3.7%**

February to August Unemployment Rate (2024)

**1,400**

Cultural Resources Inventoried Properties

**47%**

Seasonal Housing Units (2023)



**\$1,726,520**

Rooms Tax Revenue (FY24)



**\$430,864**

Meals Tax (FY24)



**92,282**

Snow Library Attendance (2024)



**171,010**

Items borrowed at Snow Library (2024)



**149**

Orleans Elementary School Enrollment (2024-2025)

**40%**

% of Low-Income Students (2024-2025)

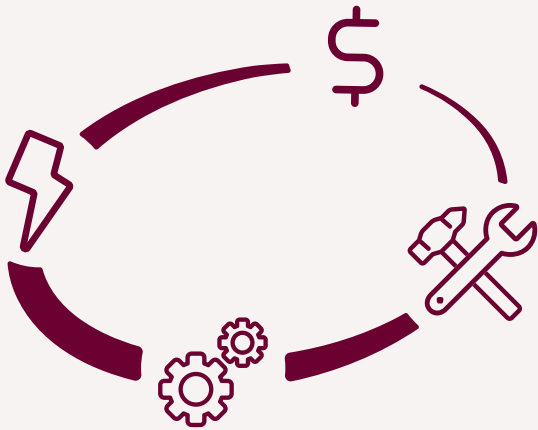
Cape Cod Commission Regional Housing Profiles, Town of Orleans ([https://capecodcommission.org/resource-library/file/?url=/dept/commission/team/Website\\_Resources/housing/town\\_profiles/Orleans-Housing-Profile.pdf](https://capecodcommission.org/resource-library/file/?url=/dept/commission/team/Website_Resources/housing/town_profiles/Orleans-Housing-Profile.pdf)) ACS 5-year Estimates 2023

Town of Orleans 2024 Annual Report <https://www.town.orleans.ma.us/ArchiveCenter/ViewFile/Item/436>

Massachusetts Department of Economic Research Labor Force and Unemployment Data <https://lmi.dua.eol.mass.gov/lmi/LaborForceAndUnemployment#>

Massachusetts Department of Elementary and Secondary Education School and District Profiles <https://profiles.doe.mass.edu/profiles/student.aspx?orgcode=02240005&orgtypecode=6&>

Town of Orleans Planning and Development Department; Town of Orleans Finance Department

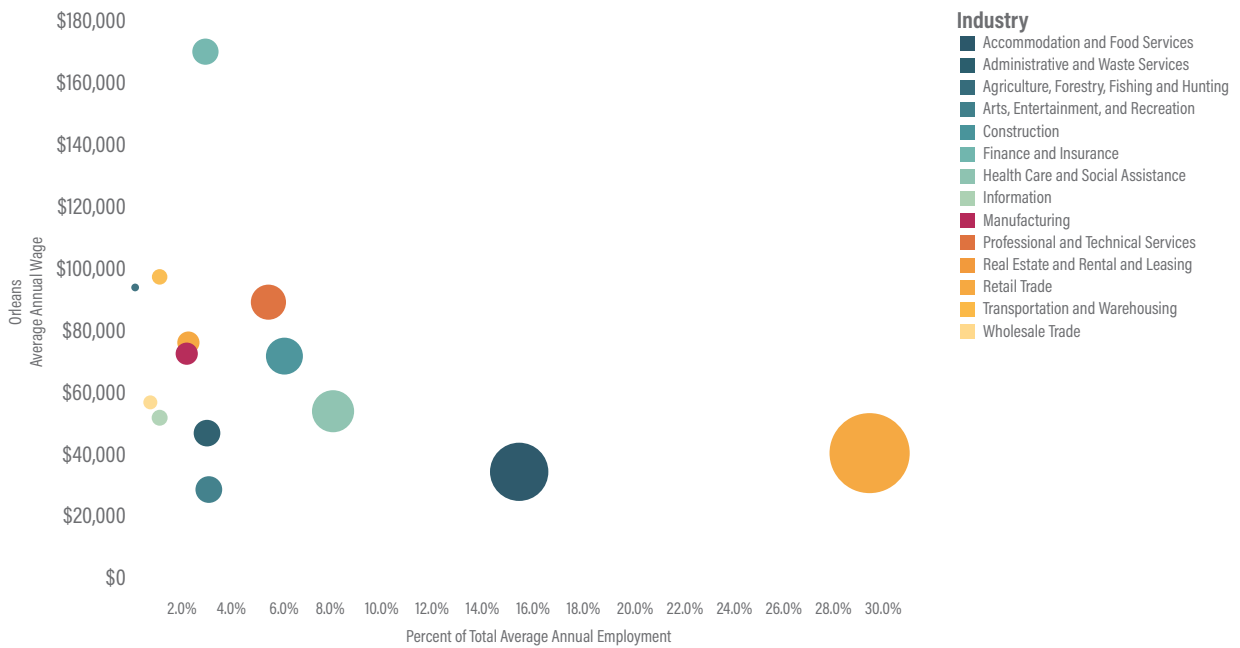


# Economic Development

## Background

Economic development programs, policies and activities seek to improve the economic well-being and quality of life for a community. The Town has established an economic development vision that builds on its natural environment, water access, walkable village center, and high quality of life. Primarily, efforts are centered around promoting a concentration of business and residential activity in the village center through more productive use of property. These efforts are supported by a vision of improved public infrastructure and public spaces, modern technologies, and curated special events, all establishing downtown Orleans as the commercial and cultural hub of the Lower Cape. Aligned with this is a focus on actively supporting existing local businesses and recruiting new ones through support with permitting, streamlined regulations, and fostering community connections.

## Employment and Wages by Industry



Data Source: Massachusetts Department of Economic Research, Labor Market Information ES-202 2023 Annual Data, not seasonally adjusted

Participants in community visioning events held as part of this OCP update initiative highly valued Orleans’ natural assets including beaches, ponds and other waterways as well as Orleans’ small-town community character, and connection to history. When asked “What do you think the economic development priorities of the Town should be,” approximately 38% of respondents to the OCP community survey indicated the highest rating for protecting and preserving natural assets, while approximately 32% of respondents rated creating an attainable year-round Lower Cape downtown living environment as their second priority.

### Prior Town Planning Efforts

2011 - Orleans Village Center Streetscape Plan

2015 - Route 6A Corridor RESET Project

2018 - Parking and Circulation Study

2021 - Orleans Wayfinding Plan

2022 - Economic Development Plan

2023 - Community Resiliency by Design

2024 - Village Center Zoning Amendments



## The Blue Economy

The economy of Cape Cod has been historically linked to its environment and all its ecosystem services, particularly its relationship with the water. The Blue Economy project was launched in 2015 by the Cape Cod Chamber of Commerce as a regional initiative to promote and sustain a maritime-focused economy. This effort recognizes and builds on assets at the core of the Cape's economy: existing tourism industries, a world-class marine research and technology cluster, and sustainable planning dedicated to preserving our environment and quality of life. The project is focused on three thematic areas: 1) a vibrant maritime and technology economy, 2) healthy water, healthy communities, and 3) a prepared and

educated workforce for the future. The project seeks to elevate the idea that the environment is our economy and that the two are inextricably linked.

Blue Economy areas are separated into two general categories: "dark" blue industries and "light" blue industries, both of which are relevant in Orleans. "Dark blue" industries include commercial fishing and aquaculture, seafood processing, port and harbor businesses, boat dealers, navigation and nautical systems manufacturing, fish markets, marinas, water-based transportation, and national security such as the US Navy and Coast Guard. "Light blue" industries include artists and writers, museums and historical sites, and hotels, restaurants, manufacturing that relies on water access, and other tourism-related accommodations located near coastlines. Given the breadth of the blue economy, and the concentration of important blue assets on the Cape

and in Orleans, the Blue Economy is an important economic sector to focus on in the years to come.

13% of Orleans' total business revenue is in Blue Economy industries active across its seven main harbors. Commercial fishing permits are active in Orleans for lobster, shellfish (by hand), clam dredge, scallop dredge, rod and reel, aquaculture, and for hire/charter. In 2018, Orleans ranked 21<sup>st</sup> in the state in overall value of commercial seafood brought in (or "landed"), and it was in the top 10 for eastern oysters and top 5 for northern quahogs.<sup>1</sup> Over the last 10 years, the number of non-trailerred commercial fishing vessels has increased, but the number of trailerred vessels has decreased because of shoaling, resulting in a decline in the lobster and quahog industries.<sup>2</sup>

Orleans has been proactive in implementing strategies to expand and enhance existing landings and commercial

1. PORT BY PORT: Profiles and Analysis of the Massachusetts Commercial Fishery, Mass Division of Marine Fisheries, Urban Harbors Institute, CC Commercial Fishermen's Alliance <https://www.mass.gov/doc/port-by-port-profiles-and-analysis-of-the-massachusetts-commercial-fishery/download>

2. Orleans Commercial Fishing Port Profile <https://www.mass.gov/doc/orleans-port-profile-2021/download>

fishing infrastructure. Improvements such as bulkhead repairs, hoisting booms, fuel service upgrades, dredging, parking, aquaculture support, and more dock space are important to support fishing and charter boat industries. Orleans' support for these improvements was recently evidenced by \$9M approved at the 2024 Town Meeting for Rock Harbor improvements that leveraged a \$3M grant from the Seaport Economic Council.





"Rock Harbor" Marc Hanson, Addison Art Gallery



"Harvester" Rosalie Nadeau, Tree's Place Gallery

## Land Use

The primary commercial area in Orleans falls along a mile-and-a-half long corridor between Exit 89 and the Orleans Rotary at the Eastham end. This stretch of developed property is locally identified as the commercial, cultural and economic hub of the Lower and Outer Cape. The area features a historic village center, frontage on scenic Town Cove, access to the Cape Cod Rail Trail, a collection of key Town properties including 44 Main Street, Depot Square, Snow Library and several waterfront properties, along with a mix of local businesses. The Snow Library itself has more than 100,000 annual visitors and is an economic anchor on Main Street. Recent streetscape investments including improved sidewalks and crosswalks on Main Street in the village center have strengthened its visual character and economic appeal. Town investment in a public sewer system will allow for compact development and incentivize owners to think long-term about their investment in property downtown.

Orleans has two “rural business districts” – East Orleans and South Orleans. East Orleans is a small area along Main Street containing several historic properties that capitalizes on being a gateway to popular Nauset Beach and hosts small businesses and restaurants. South Orleans is a business area located at the intersection of Route 28 and Route 39 consisting primarily of daily convenience and personal service businesses. A Marine Business District is located on the

north side of Rock Harbor Road with uses ancillary to the harbor, including a fish market and charter boat companies.

The Industrial District is located south of Finlay Road, to the east of Route 6. The area is a mixture of wholesale, warehousing and light manufacturing businesses and provides potential for increasing non-residential land uses that could contribute to the tax base and provide employment opportunities.

## Demographics and Economic Data

The median annual household income in Orleans is \$89,375, lower than both the Barnstable County figure (\$90,447) and the state-wide figure (\$96,505). Orleans has one census block group identified by the Commonwealth as having an environmental justice (EJ) population (a neighborhood meeting state-defined criteria for a concentration of low-income, minority, or non-English speaking households). The EJ population in Orleans meets the criteria for income: 2022 median annual household income of people living in that neighborhood is \$40,883; the neighborhood is comprised of 872 people (428 households) with a 12% minority population.<sup>1</sup>

The Town’s industry mix reflects its identity as a tourist, second home, and retiree destination. The primary

1. These data were obtained from <https://www.mass.gov/info-details/massgis-data-2020-environmental-justice-populations>

employment sectors in Orleans are retail trade (86 establishments) and accommodation and food service (44 establishments). These two sectors, together with the arts, entertainment, and recreation sector, are paying the lowest annual wages. The 2022 Orleans average annual wage in the accommodation and food-service sector was \$36,348; the retail trade sector was \$42,224, and the arts, entertainment, and recreation sector was \$30,732.<sup>2</sup> The highest paying industry is finance and insurance, with an average annual wage of \$168,220; however, that sector represents only 2.9% of overall employment. Orleans' economy, much like the rest of the region, is influenced by Cape Cod's seasonal nature and retiree population. The single largest contributor to the region's GDP is real estate, rentals and leasing, which accounts for more than one-fourth of the GDP but less than 2% of employment.

Over the last few years, the difference in employment levels between February and July has been between 400-500 jobs, with most of the increase in the retail trade, accommodation and food service sectors. Accordingly, in 2023, the local unemployment rate in August was 2.6%, while the unemployment rate in February was 6.4%.<sup>3</sup>

2. Massachusetts Dept. of Economic Research, Labor Market Information ES-202 2023, not seasonally adjusted

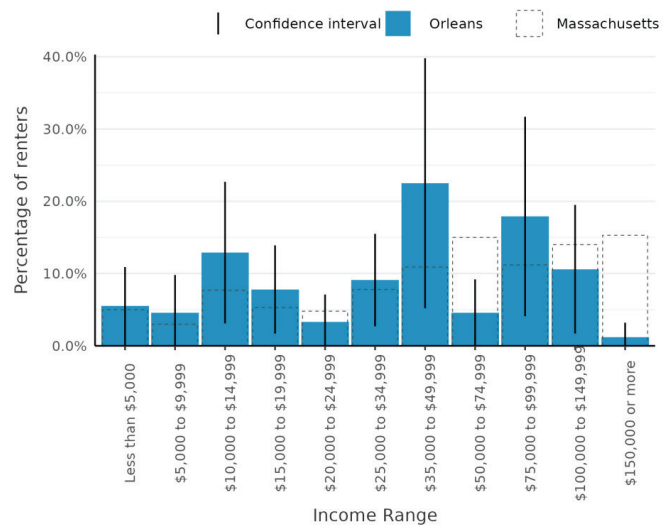
3. Massachusetts Dept. of Economic Research, Labor Force, Employment and Unemployment Data, <https://lmi.dua.eol.mass.gov/lmi/LaborForceAndUnemployment/TownComparison>

**Table 5.1  
Orleans Average Annual Wages, 2022**

Sector and Industry	Average Annual Wage
Arts, Entertainment, Recreation	\$30,732
Accommodation, Food Service	\$36,348
Retail	\$42,224
Finance, Insurance	\$168,220

Source: Massachusetts Dept. of Economic Research

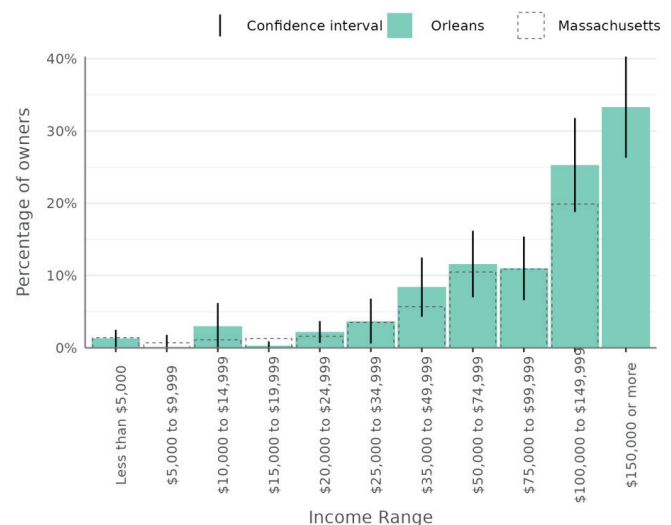
### Renter Households by Income



Source: U.S. Census Bureau American Community Survey, 2019-2023 5-year estimates. Table S2503: Financial Characteristics



### Owner Households by Income



Source: U.S. Census Bureau American Community Survey, 2019-2023 5-year estimates. Table S2503: Financial Characteristics



The seasonal demand fluctuations present a challenge both for the provision of municipal services and for the workforce striving to live here year-round. Further, the Town’s reliance on the tourism industry produces a fragile economic foundation, as tourism demand fluctuates and is highly sensitive to global economic trends and other global factors, e.g. the COVID pandemic.

These tourist-related sectors produce significant revenue for the Town. In Fiscal Year 2024, there was a total of \$212,703,467 in taxable sales from room rentals (including short-term rentals) resulting in \$1,595,276 in taxes collected; and \$37,629,600 in taxable sales from meals, resulting in \$282,222 in taxes collected.<sup>4</sup> Additionally, the Town

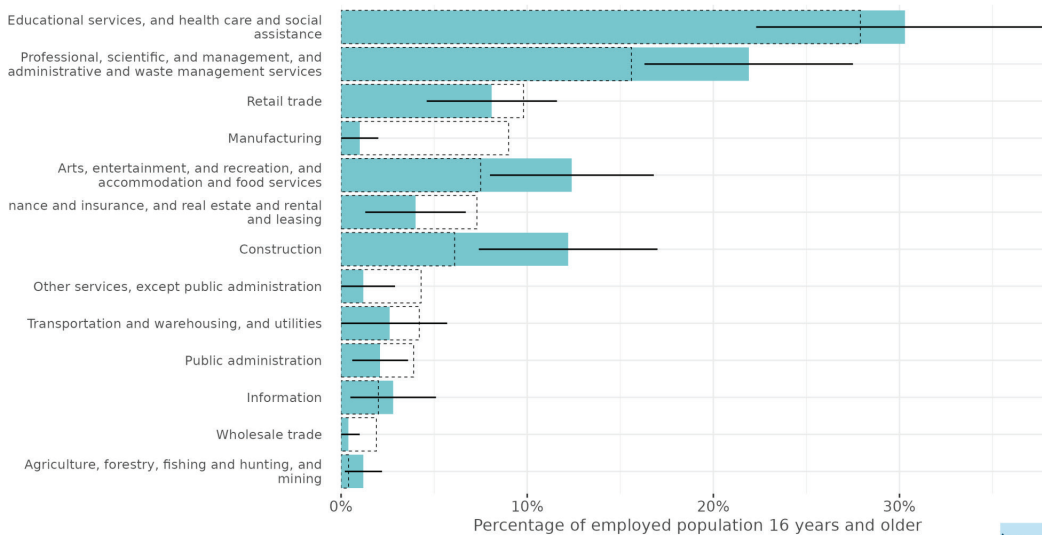
anticipates collecting \$2,069,000 in beach fees in Fiscal Year 2025.<sup>5</sup>

Orleans has a strong Chamber of Commerce, a membership organization dedicated to supporting the economic prosperity of its member businesses and the Orleans community, and that fosters a climate where Orleans quality of life and history are preserved. The Chamber Foundation supports economic, cultural, and educational opportunities within the community, promoting local business growth and providing resources and scholarships for educational development. The Chamber also plays a key role in organizing special events and holiday celebrations, including holiday strolls, First Friday events, the Blessing of the Fleet, and more.

4. <https://datacapecod.org/pf/local-option-taxes/>

5. FY25 Final Budget, <https://www.town.orleans.ma.us/DocumentCenter/View/6665/FY25-Orleans-Budget-Final-DRAFT-32124>

## Employed Population by Industry, Orleans vs State



Source: U.S. Census Bureau American Community Survey, 2019-2023 5-year estimates. Table DP03: Selected Economic Characteristics



## Recent Actions by the Town

In 2022, the Town completed an Economic Development Plan which evaluated the current business environment and offered actionable recommendations for improving the Town's future economic vitality and its continuation as an enjoyable home for residents and a desirable destination for visitors. A central focus was support for small and local business. The guiding principles of the plan:

- Promoting year-round growth in the Village Center and Town Cove/6A areas
- Increasing visitor length-of-stay and spending
- Establishing a local leadership structure to achieve common goals
- Managing and protecting natural assets, promoting the blue economy.



Main Street and Route 6A, downtown Orleans

The Economic Development Committee was formed in 2024 to guide the implementation of the 2022 Plan. The EDC “identifies priorities and facilitates actions that encourage a thriving year-round community, where our natural assets are cherished, our businesses evolve, and a diverse resident base welcomes visitors so all can live, work, and play in Orleans”.

The Town’s Village Center-focused planning efforts, as well as the Town’s housing plans, support the goal of fostering new economic and residential growth in the Village Center area. These plans support a vision for a vibrant, walkable, year-round core that will contribute to the livability, sustainability, and economic vitality of Orleans.



## Key Issues Moving Forward

Economic development is intertwined with many other issue areas in this plan. Making progress on community housing, public infrastructure, and climate resilience goals will help improve residents' economic well-being and quality of life. Looking forward, key issues include:

- » Making strategic advances in public infrastructure such as Broadband and EV chargers that will support a strong and diversified economy. The provision of broadband infrastructure is central to maintaining economic competitiveness and supporting a remote workforce. The transition to electric vehicles will need to be supported with modern electric vehicle charging stations.
- » Evaluating the practical impact that mandates or additional regulations may have on the cost-of-living in a Town where it is already financially difficult for many to live or operate a business year-round.
- » Focusing on “placemaking” in the Village center, including continued investment in bicycle and pedestrian infrastructure, public open spaces, and recreational amenities will ensure that Orleans continues to offer a high quality of life and attract residents and visitors.
- » Looking for ways to define Orleans as a unique live-work-play destination in a region crowded with opportunities for tourists of all ages and incomes. The “brand” for Orleans must balance the Orleans past – working class and seaside quaint – with the Orleans of tomorrow – one that offers modern amenities, unique experiences, and cultural enrichment.
- » Addressing the high costs of housing and the impediments those costs create to retaining a strong workforce and attracting a more skilled one.

## Economic Development Goal

- Build and sustain a local economy compatible with Orleans' environmental, cultural, and economic strengths that is comprised of a broad range of businesses providing year-round employment opportunities for a workforce diverse in age and income.

## Objectives and Actions

1. **Support the renewal of Orleans business districts into vibrant, compact, walkable places with safe, visible, and convenient connections to other commercial areas that foster a thriving ecosystem for businesses and promote year-round living.**
  - Build supportive infrastructure to ensure Orleans' future economic competitiveness and resilience.
  - Use trend analyses to set goals in each economic sector for future improvement.
  - Promote infrastructure investments such as bicycle and pedestrian facilities, open space improvements, public parking areas, and recreational amenities to create unique and engaging local places that will attract and retain residents and visitors.
  - Provide public spaces commensurate with downtown infill development.
  - Actively seek destination businesses to enhance the local economy.



**2. Create a business-friendly environment in Orleans that retains existing businesses, amplifies their success, supports their expansion, recognizes the value of entrepreneurs, and fosters a thriving, profitable, and resilient local marketplace.**

- Review municipal regulations, as well as permit processes, to increase the ease of getting local permits and approvals.
- Evaluate how the Town’s wastewater infrastructure program may affect local businesses and review associated policies and procedures to identify opportunities to support business retention and expansion.
- Market Orleans as a vibrant destination for year-round businesses, residents, and visitors through branding efforts, support for community events, and regional collaborations.
- Provide incentives and support for local businesses, including tax incentives, grant programs, and other district-level improvement efforts to equip local businesses with the skills and resources they need to grow, adapt, and remain competitive.
- Assess hotel/hospitality sector and identify opportunities to strengthen local businesses.

**3. Attract new, emerging, and high-value businesses and industries that will enhance the tax base and create well-paying jobs.**

- Grow and leverage partnerships with educational institutions to foster workforce development.
- Leverage the Town’s natural assets to sustain economic activity focused on the blue economy, water access, and recreation.
- Seek opportunities to amend zoning to meet changing economic needs and ensure sustainable growth, including an assessment of the industrial zone to support workforce housing and more diverse business uses.





*"Morning at the Parsonage Inn"*  
Paul Schulenburg,  
Addison Art Gallery



*"Waiting in the Shadows"*  
Paul Schulenburg,  
Addison Art Gallery



TOP: "Not Too Rough" Rosalie Nadeau, Tree's Place Gallery

BOTTOM: "By Pilgrim Lake" Rosalie Nadeau, Tree's Place Gallery



# Housing

## Background

The Town of Orleans, known for its cultural history and scenic beauty, is 88 miles from Boston, making it an attractive option for residents seeking a Cape Cod lifestyle. However, demographic shifts, the rise of remote work, and the lingering impacts of the COVID-19 pandemic have heightened housing demand, further exacerbating housing affordability challenges the Town was already experiencing.

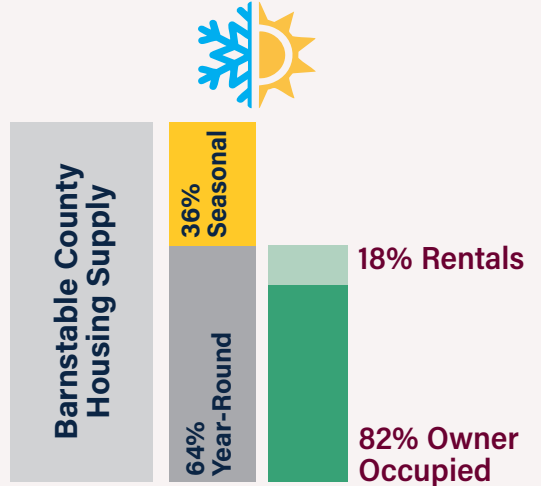
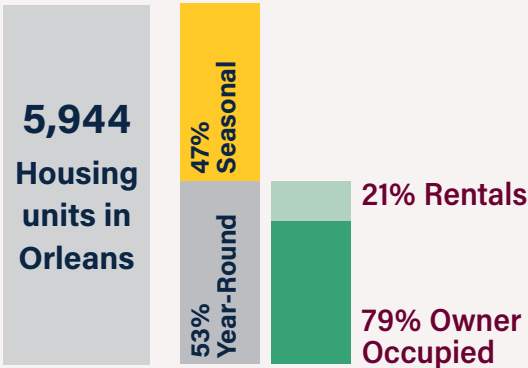
The Orleans 10-Year Housing Plan (Housing Plan) updated by the Affordable Housing Committee in 2023 provides a vision, goals and strategies to meet the

## Housing and the OCP Survey

Housing affordability (56%) and a decline in young families (46%) were the top two concerns identified by respondents to the OCP community survey, while housing for young families and local employees was identified as the greatest need by 86% of OCP survey respondents.

Town's housing production goals. Orleans residents want and need an equitable housing environment so that people of all ages, skills, and backgrounds can live and thrive here. The Housing Plan's goals and strategies are organized into four categories: Production; Planning, Policies, and Zoning; Local Initiatives and Programs; and Capacity, Coordination, and Education. The Housing Plan also includes data on Population and Household Trends, Housing and Market Affordability, Priority Affordable Housing Needs, and Regulatory Barriers and Challenges. A summary of the Housing Plan is provided below.

## Orleans Housing Statistics



**Median Household Income vs.**

**Income needed for single family homes**



2023  
\$98,798



SFH Income  
\$344,786

**Average Home Price**



2016  
\$570,000



2019  
\$743,900



2023  
\$1,190,000

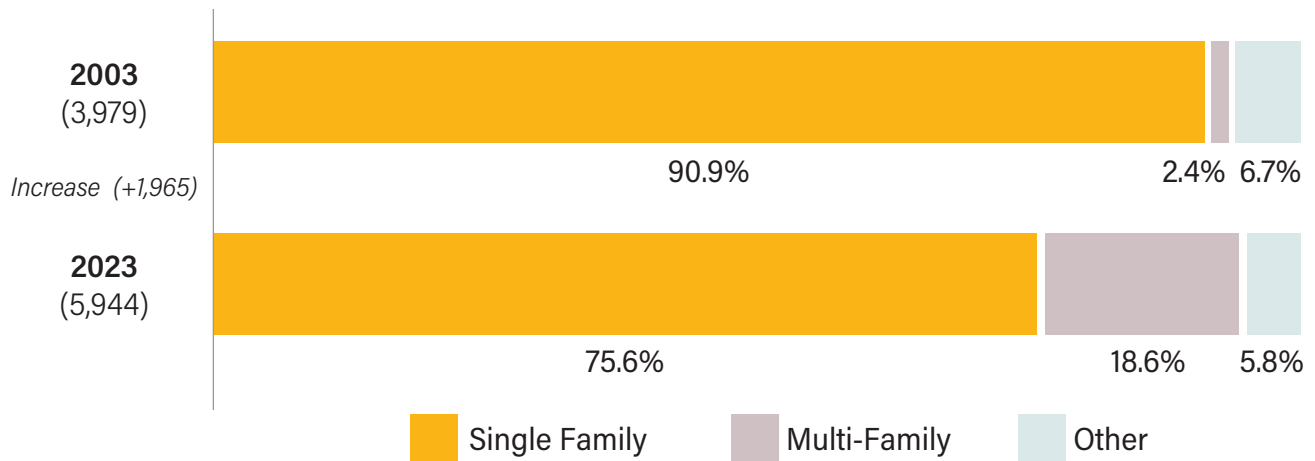
Source: Orleans 10-Year Housing Plan

## Population and Household Trends

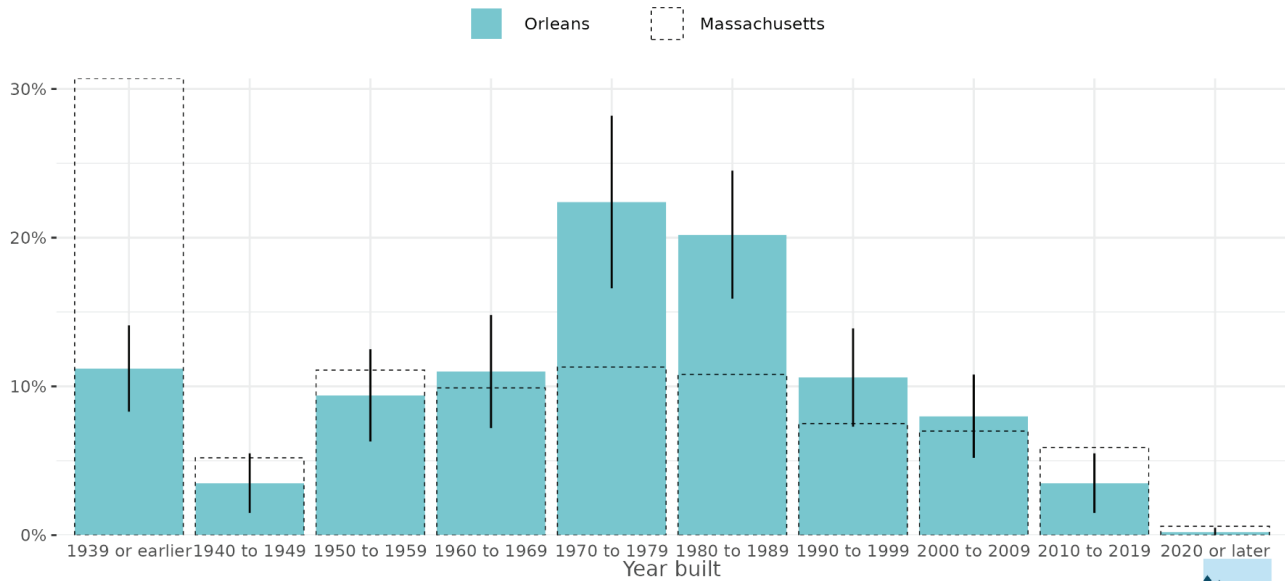
Orleans struggles to maintain a balanced demographic mix; therefore, a number of initiatives underway are aimed at attracting younger families and professionals to sustain the Town's vitality and ensure its long-term prosperity. The demand for housing in Orleans remains consistently high, particularly during the summer months. This demand translates into high housing costs, making affordability a significant concern for both residents and newcomers.

Orleans year-round population has been fairly stable over the last 15 years. The 2010 population was 5,890 and the 2024 population was 6,431. However, the Town's age demographic has undergone significant changes, marked by an increase in both numbers and percentages for individuals over 65. The number of families with

## Housing Stock, 2003 v. 2023



## Housing Stock by Year Built, Orleans v. State



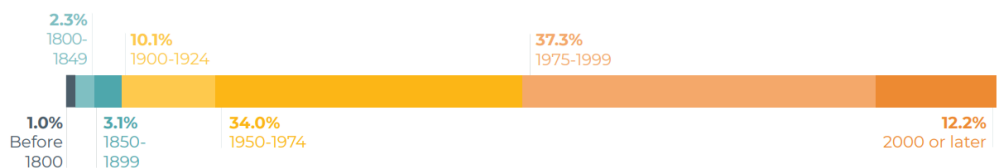
Source: U.S. Census Bureau American Community Survey, 2019-2023 5-year estimates. Table S2504: Physical Housing Characteristics



### Housing Stock by Year Built

Like the region, the vast majority of housing units in the town were built between 1950 and 1999. Less than 13% of Orleans housing stock was built in the 2000s.

(Assessors' data and CCC housing typology analysis)



children has declined in the past 20 years. This trend is reflected in declining school enrollment.

The average household size in Orleans is 2.06 people, while the average housing unit in Orleans has three bedrooms. The housing stock in Orleans is 75.6% single-family residential and 18.6% multi-family. While the percentage of multi-family units is higher in Orleans than in most Cape Towns, the lack of diversity in the housing stock, coupled with constrained supply, limits people's ability to choose the housing option that best fits their lifestyle as they age.

In 2023, more than one in four households in Orleans spent more than 30% of their income on housing costs, creating a "cost burden" that forces lower-income households to make tradeoffs between spending on vital needs like food, healthcare, and transportation.

## Subsidized Housing Inventory

Orleans' Subsidized Housing Inventory (SHI), last updated by the state in 2023 shows that 9.15% of year-round housing units are designated as affordable (at or below 80% of Area Median Income). Orleans submitted an additional 62 units for inclusion on the SHI, bringing the percentage of affordable housing units up to 11%. This figure brings the Town's percentage above the state's mandated 10% threshold and meets the housing affordability goals established by the 2006 OCP (10% housing affordability by 2020).

## Priority Affordable Housing Needs

In Orleans, priority affordable housing needs center on addressing the persistent gap between housing supply and demand, particularly for cost-burdened households. Considering the Town's demographic and affordability trends, Orleans plans to address the following priority housing needs to better serve the community:

- » Defining and making necessary policy and financial investments to support homeownership and rental housing options for cost burdened individuals and families.
- » Increasing availability of rental units for young professionals and essential workers who currently face challenges in accessing attainable housing.
- » Promoting the development of "missing middle" housing types to increase housing supply and diversity to meet a range of needs and incomes.
- » Managing the continued rise of short-term rental housing.

The steep increases in housing costs have also led to discussions about how

to address middle-income affordability challenges. Opportunities for expanding programs and creating subsidized units for households making up to 200% of the Area Median Income are being explored.

## Recent Actions by the Town

Orleans actively supports housing through efforts to streamline regulations (zoning amendments), direct assistance programs such as the direct tenant subsidy on an income basis, direct financial support to affordable housing developers, and partnerships with community organizations.

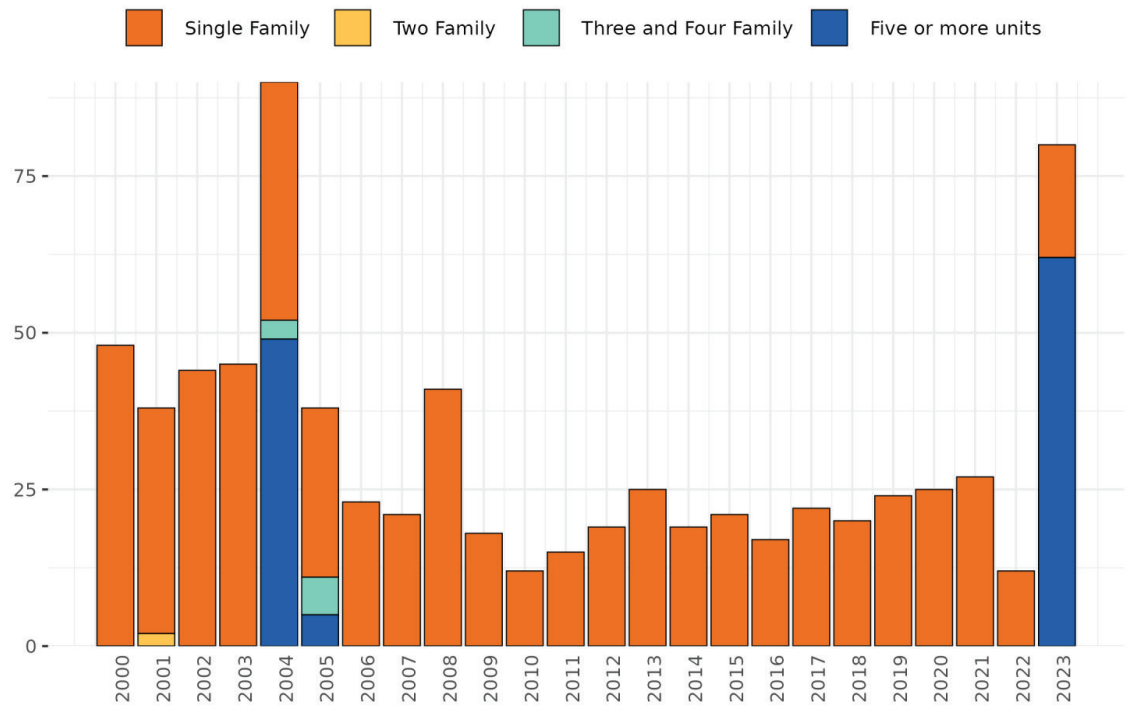
**Three current projects represent significant progress toward the Town's affordable housing goals:**

- 62 units at the former Cape Cod 5 headquarters being developed by Pennrose; *initial occupancy in July 2025.*
- 14 units at 107 Main Street by Housing Assistance Corporation; *initial occupancy November 2025.*
- 78 units at the former Governor Prentice Motel by Preservation of Affordable Housing, Housing Assistance Corporation, and Habitat for Humanity; *design and permitting expected in 2026.*

The Orleans Affordable Housing Trust was established in 2019 to support affordable housing initiatives, including the creation and preservation of affordable housing to benefit low- and moderate-income households. The Trust has provided funding support for several housing projects - toward the purchase of land as well as financial contributions that have helped leverage public and private financing.

Several zoning bylaw amendments in support of housing have been passed. Six articles passed at the 2023 Annual Town Meeting to promote infill and mixed-use development, including by-right multi-family provisions and a reduction in parking requirements to one space per dwelling unit. Orleans also has a by-right Accessory Dwelling Unit bylaw, allowing units up to 1,200 square feet. The ADU allowances are consistent with the Massachusetts Affordable Homes Act. Concerns about short-term rentals have been addressed through the creation of a rental registry, a prohibition on rental of apartments for periods of less than 30 days, and a requirement that accessory dwelling units, if leased, shall be for periods of not less than 90 days.

# Annual Housing Units Permitted by Building Type in Orleans



Source: U.S. Census Bureau - Annual Building Permit Survey (Reported and Imputed)



## Key Issues Moving Forward

The current housing trends in Orleans, coupled with topics identified by participants of the Housing Production Plan focus groups, highlight several primary housing issues facing Orleans including affordability, year-round housing availability, a lack of rental housing, limited housing diversity, and accessibility. Looking forward, key issues to address are:

- » Expanding efforts to find and/or develop local housing for the seasonal workforce, middle-income households, and the municipal workforce. Housing shortages are making it harder for employers to attract workers because affordable housing is not available.
- » Supporting the more productive use of previously developed land where infrastructure exists with streamlined zoning and permitting, or other incentive programs to increase supply, while maintaining community character.
- » Developing “missing middle” housing typologies (a range of multi-unit or clustered housing types compatible in scale with detached single-family homes) to help diversify the housing stock and provide attainable options. Expanding options for the development of cottage courts, duplexes, and townhomes in walkable areas through zoning amendments will need to be addressed.
- » Incentivizing the development and preservation of attainable year-round rentals or ownership properties, in addition to exploring options to regulate short-term rentals will be needed to address seasonal challenges in the housing market.
- » Implementing strategies that address climate resiliency, energy efficiency, and housing needs. Orleans should be at the forefront of developing innovative programs and projects in these areas.



- » Utilize the Seasonal Communities designation for its potential opportunities to support development of year-round housing.

## Housing Goal

- To promote Orleans as a vibrant place with an intergenerational community that provides a diverse range of ownership and rental housing that is attractive to younger people, families, and retirees, and that strengthens the local labor market and economy.

## Objectives and Actions

### 1. Realize the Town's adopted goal of creating 350 new attainable and affordable year-round housing units with a focus on retaining and attracting young families and growing and supporting our workforce.

- Adopt new Zoning Bylaw amendments and a streamlined permitting process to support mixed-use development and "missing middle" housing types in the Village Center and other locations supported by municipal sewer.
- Evaluate opportunities for housing on Town-owned land.
- Support the creation of accessory dwelling units through streamlined permitting and other incentives.
- Continually evaluate if funding priorities and programs are meeting housing needs and develop new production targets and goals.

### 2. Increase the percentage of the Town's existing housing that is occupied year-round.

- Adopt regulations, policies and programs, including tax incentives, and subsidies to encourage the year-round occupancy and rental of existing housing units.
- Implement and leverage tools funded from the Commonwealth's "Seasonal Communities" program.
- Continue and expand/promote direct-assistance programs that encourage housing stability and quality of housing stock.
- Monitor short-term rental activity and implement programs and policies to generate year-round use of existing single-family housing stock.
- Work to ensure that all rental units in Orleans are registered with the Town.

### 3. Support housing efforts through adequate resources, staffing, and partnerships.

- Work with regional partners to implement innovative programs, increase cost-effectiveness, and connect residents with expanded options for housing support.
- Develop sustainable funding sources for the Affordable Housing Trust Fund.

### 4. Develop a plan to accommodate seasonal workers.

- Work with the business community and developers on necessary regulatory changes and specific projects.





# Community Services

## Background

The Town of Orleans provides a host of services to the community, including those directly related to the health and well-being of its residents, businesses and visitors.

Community factors that impact people's health are referred to as "**social determinants of health**". Overall, Orleans' demographics and environmental conditions set the stage for a high quality of life and well-being:

**Economic stability:** According to the Census Bureau, the median household income in Orleans is \$98,798, higher than the Barnstable County \$94,452, but lower than the Commonwealth at \$101,341. 10% of the population in Orleans lives below the poverty line and 7% of households are receiving SNAP benefits.

**Education access and quality:** Of residents over the age of 25, 59% have a bachelor's, graduate or other professional degree and almost all adult residents have a high school education.

**Housing stability:** 78% of Orleans residents are homeowners, but 27% of those households spend 30% or more of their income on housing costs. 55% of renter households spend 30% or more of their income on housing costs.

**Neighborhoods and environment:** There is a high degree of environmental integrity in Orleans; water quality issues, both marine and freshwater, are actively being addressed by the Town. The Town's suburban development pattern results in a high degree of dependence on the automobile. Sidewalks and dedicated bike lanes are limited.

**Social and community context:** Orleans is a small community with an active population. The Orleans Senior Center, Snow Library, and other private organizations provide places and activities that bring the community together.

Below is a description of the most prominent services currently provided by the Town that support healthy living and quality of life.

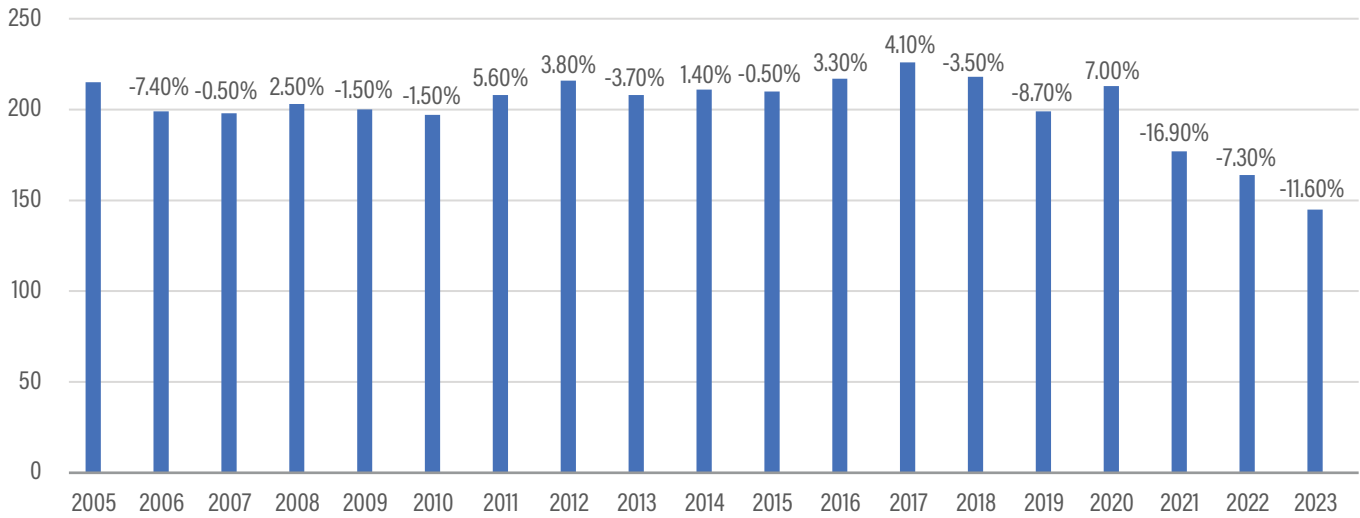
## **Department of Recreation, Culture and Community Events**

The Town contributes to the health and quality of life of residents by providing recreation facilities and Town-sponsored recreation programs. The Recreation Department began to expand program offerings in 2024 for youth and adults based on a Town-wide survey of residents' needs and interests. A map of Town recreation facilities and recent work to map future facility needs can be found in the Community Facilities section of the OCP.

## **Elder Services**

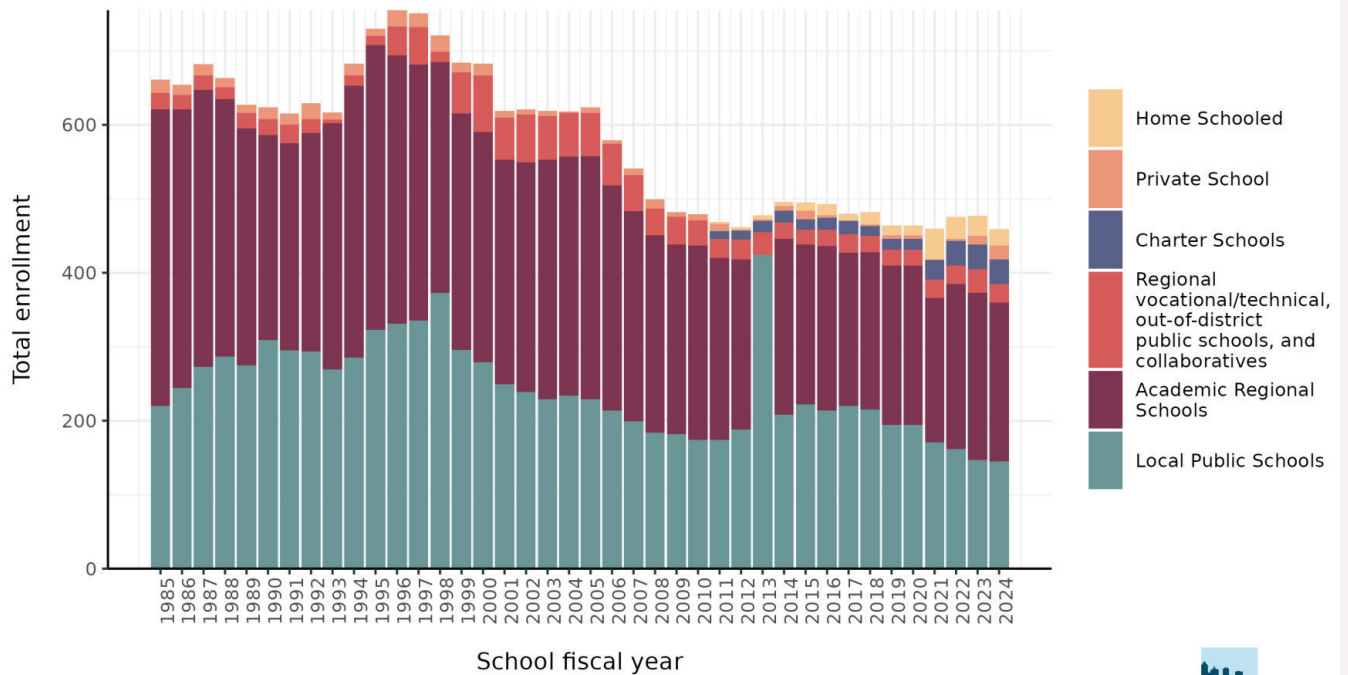
The Orleans Council on Aging (COA) operates a senior center on Rock Harbor Road. Services include fitness programs, support groups, nutrition training, and a host of community engagement opportunities. The COA provides regular transportation for in-town shopping, as well as rides to medical appointments on a reservation basis. In addition, a supportive adult day care program is available for residents with physical and cognitive issues.

## Elementary School Enrollment, 2005-2023



Source: Orleans Planning Department

## School Aged Children by Enrollment Type, 1985-2024



Source: Massachusetts Department of Elementary and Secondary Education



## Education

Public education services are provided through the Nauset Regional School District. An elementary school for Orleans residents is located at 46 Eldredge Park Way. It was built in 1956 and is in need of modernization. Secondary school is provided at the nearby Nauset Regional Middle School. High school students from Orleans attend Nauset Regional High School located in North Eastham. An extensive High School renovation program was completed in 2025.

The Town provides a Universal Pre-School Support Program to help families supplement costs for basic pre-school services. Orleans children can qualify for up to a maximum of \$10,000 per school year for 4-year-olds and \$5,000 per school year for 3-year-olds. This program is designed to address the high cost of living on the Cape and retain families with children.

## Library

The Snow Library provides support to residents of all ages. From Baby's First Year support groups to toddler playtime to elementary school visits and middle school homework meet-ups, to adult book groups, musical performances and the Lifelong Learning series. The facility is a hub for the arts, community gatherings, and a place to learn.

## Public Health

The Town's Health Department provides a variety of services to support public health. It administers a water sampling program for public beaches. Annual licensing and inspections are done for all restaurants and food service establishments. Septic system applications are reviewed for compliance with State sanitary codes. The Health Department also processes applications for sewer system connections.

Orleans Police Department operates a wellness program that provides a daily phone call to check-in with older residents. In a community with more than a thousand single-person households, the program has grown in popularity over the years. It is available to anyone who signs up through the Police Department.

Approximately 10% of Orleans residents under the age of 65 live with a disability<sup>6</sup> and a total of 47% percent of the population is 65 years of age or older. As residents age, the risk of developing health issues or a disability increases. Community facilities and infrastructure will need to be adapted to meet growing accessibility and mobility needs.

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6. US Census Bureau ACS 5-year estimates 2019-2023. <https://www.census.gov/quickfacts/fact/table/orleantownbarnstablecountymassachusetts/PST045224>

## Key Issues Moving Forward

- » Responding effectively to declining school enrollment trends and the impact on local public education and coordinating this response with the need to upgrade the Orleans Elementary School.
- » Providing adequate space for expanded indoor and outdoor recreation and social activities.
- » Identifying options for the Orleans Senior Center which is in a location likely to be impacted by sea level rise in the future.
- » Coordinating schedules for recreational programming with school facilities to effectively utilize existing spaces.
- » Adapting our community facilities, housing stock, and infrastructure to meet the range of needs at every stage of life.
- » Support the restoration of lakes and ponds to allow people to enjoy them without public health risk.

## Community Services Goal

- Provide efficient and cost-effective public services to residents of all ages that encourage healthy living, vitality and independence.



## Objectives and Actions

### 1. Ensure a high-quality pre-K through grade 12 education for all Orleans students.

- Monitor school enrollment numbers and trends and effectively utilize the data for planning municipal services.
- Evaluate regional opportunities at all levels of the public schools.
- Continue to fund educational and family support programs to serve needs of Orleans students at all levels.

### 2. Provide recreation, health and wellness programs that are of the most interest to residents.

- Create and maintain a comprehensive inventory and assessment of Town-wide program offerings, services and facility needs of each age group to guide assessment and improvements.
- Create a Community Services department working group to determine services and facility needs for each age group.
- Implement a survey to determine unmet needs and program expectations of the public and respond with appropriate programming.

- Continue to support health and human service grants made available to local non-profit organizations that benefit Orleans residents.

### 3. Respond to the changing needs of an aging population and those of young families.

- Determine opportunities to share existing public facilities with Town departments to meet service needs.
- Reestablish the Disabilities Commission to work toward universal design for public buildings.
- Perform a broad-based needs assessment for Orleans senior citizens.
- Coordinate with other local COAs and State agencies for efficient delivery of services.

### 4. Prioritize public health and safety in municipal decisions and policy making.

- Identify and resolve accessibility issues at public facilities and spaces. Evaluate accessibility as part of a facilities management plan.
- Develop and implement a public communications strategy to get vital health and safety information to the public.



# Historic Preservation and Cultural Heritage

## Background

Orleans is recognized for its rich heritage and commitment to historic preservation. Incorporated as a separate Town in 1797, the land that became Orleans was first settled by British Colonists in 1644. Prior to that, indigenous civilizations thrived on the land, including the Nauset Tribe of the Wampanoag Confederation. The Town is recognized for its rich historical threads, including maritime, agricultural, economic and commercial, military, cultural, and ecclesiastical. Today, many historic buildings, streetscapes, landscapes, and cultural sites remain and are a tribute to our past, defining the character of the Town that stands today.

## Old Kings Highway Regional Historic District

An approximately 2-mile portion of the Cape Cod Bay side of Orleans, between Route 6A and U.S. Route 6 is located within the Old King's Highway Regional Historic District (OKHRHD). Adopted by Special Act in 1976, the OKHRHD includes more than 62 miles in six Towns and is the largest contiguous historic district in the United States and the only regional historic district in Massachusetts. The purpose of the district is to preserve and protect buildings and sites of historic significance. Within the District are original examples of many periods of early American architecture dating back to the 17th Century. The Orleans

Old King's Highway Historic District Committee conducts public hearings and initially acts on all proposed signs, buildings or structures that are to be erected, altered or removed within the designated District. Review criteria include historic value, design, material, and setting. The Old King's Highway (Route 6A) is also designated as a state highway maintained by the State with unique local protection of the Scenic Road Act (adopted as Chapter 61 of the Acts of 1992) to protect its vegetated shade tree canopy. In 2021, Route 6A was also designated a National Scenic Byway, one of only four in Massachusetts.

## Orleans Historical Commission

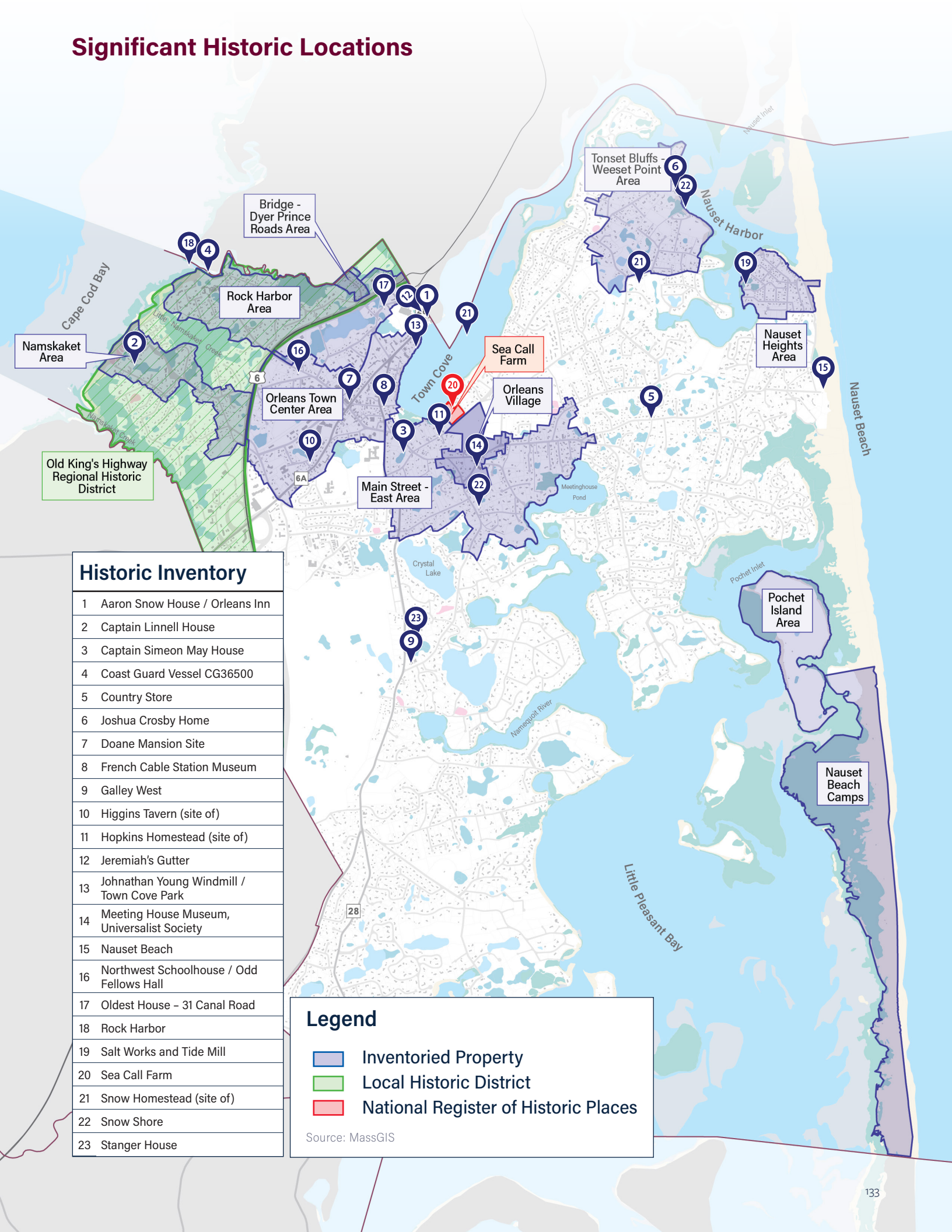
The Orleans Historical Commission was established in 1965 and seeks to preserve the rich historical legacy of Orleans through public education, advocacy, applying the Town's Demolition Delay Bylaw, and the development and implementation of programs geared to the preservation of our historic buildings and spaces.

The Commission has jurisdiction over structures constructed before 1920, listed on the State or National Register of Historic Places, or that have been voted to be historically or architecturally significant. The Commission can impose a one-year demolition delay for structures





# Significant Historic Locations



## Historic Inventory

1	Aaron Snow House / Orleans Inn
2	Captain Linnell House
3	Captain Simeon May House
4	Coast Guard Vessel CG36500
5	Country Store
6	Joshua Crosby Home
7	Doane Mansion Site
8	French Cable Station Museum
9	Galley West
10	Higgins Tavern (site of)
11	Hopkins Homestead (site of)
12	Jeremiah's Gutter
13	Johnathan Young Windmill / Town Cove Park
14	Meeting House Museum, Universalist Society
15	Nauset Beach
16	Northwest Schoolhouse / Odd Fellows Hall
17	Oldest House - 31 Canal Road
18	Rock Harbor
19	Salt Works and Tide Mill
20	Sea Call Farm
21	Snow Homestead (site of)
22	Snow Shore
23	Stanger House

## Legend

- Inventoried Property
- Local Historic District
- National Register of Historic Places

Source: MassGIS

found to be “preferably-preserved significant buildings”. The Town also has minimum maintenance requirements for structures under the Historic Commission’s purview meant to prevent demolition by neglect.

## State and National Register Listed Sites

Orleans is home to many significant historical sites that serve as physical reminders of its rich heritage. The Massachusetts Cultural Resource Information System (MACRIS) database includes approximately 1,400 entries for the Town. Orleans features various sites, from the Nauset Heights area, where the Nauset tribe once farmed and fished, to sea captains’ homes and over 30 pre-Revolutionary War homes. National Register sites include: **Coast Guard Motor Lifeboat CG 36500** (used in the storied 1952 SS Pendelton rescue), the **French Cable Station, Sea Call Farm**, and the **Universalist Society Meetinghouse**. Additionally, the Old King’s Highway Regional Historic District described above is listed on the State Register of Historic Places. Orleans also has four historic cemeteries: Rogers Cemetery, Smallpox Cemetery, Methodist Burial Ground, and

Orleans Cemetery, each with its own unique historical significance.

The following map on page 121 is a list of key locations within Orleans that hold significant historical importance, reflecting the breadth and depth of the community’s cultural legacy. It is important to note that scholars have found multiple sites of indigenous occupation with archaeological significance, but to protect the physical integrity of the remaining artifacts these sites are not shown on the map.

Orleans has 140 structures with construction dates prior to the end of the Revolutionary War, an additional 220 structures that predate the end of the Civil War, and 567 structures that predate the end of World War II.



Captin Linnel House



Snow's Block, 1888

## Recent Efforts by the Town

The Orleans Historical Commission works on initiatives to increase the protection of historic properties. Past efforts have focused on establishing historic districts but were not successful. A renewed focus on protecting individual properties that have high historic value is under consideration.

The Orleans Historical Society has been rebranded as the Centers for Culture and History in Orleans. The organization owns a host of artifacts of the history of Orleans at the Universalist Society Meetinghouse.

## Key Issues Moving Forward

- » Protecting historic assets to maintain the Town's unique historic character, promote the visitor economy and grow cultural tourism opportunities.
- » Developing programs for rehabilitation of historic buildings.
- » Updating regulations that contribute toward historic preservation goals.
- » Ensuring that residents are actively involved and supportive of historic preservation goals and initiatives.
- » Assessing the potential impact of climate change on historic assets and taking appropriate action as needed.
- » Increasing awareness of the value of historic properties to the community and their contribution to Orleans' character through ongoing outreach, signage and other efforts.



"A Long Time in Orleans" Paul Schulenburg, Addison Art Gallery



"House Down the Road" Joyce Žavorskas, Left Bank Gallery

## Historic Preservation and Cultural Heritage Goal

- Protect and preserve the important historic and cultural features of the Town’s archaeological resources, landscape, structures and streetscapes that help shape its special character, and ensure that future development respects the Town’s traditions and distinctive character.

## Objectives and Actions

### 1. Preserve historic buildings, documents, artifacts, and sites in a manner that accommodates progress, and engenders public support of the value they add to the community.

- Create an integrated public education campaign about the history of Orleans and its historic resources through various strategies including posting information on the Town website, preparing printed materials, presenting lectures, creating maps and videos, and posting informational signs in key gathering spots.
- Continue to identify historically significant properties and evaluate them for possible inclusion on local, state and/or national listings.
- Submit key properties for inclusion on the National Register of Historic Places.
- Protect the historically significant section of Orleans and evaluate such areas as potential historic districts.

### 2. Seek and make public information about the indigenous settlements that predated European colonization and the co-existence of the cultures within the area that has become Orleans.

- Use ongoing public education to create awareness of the historic character of Orleans prior to European settlement.

### 3. Promote the adaptive re-use of historic buildings in a manner that maintains their historic elements and aesthetics while making investments leading to long-term preservation.

- Develop methods to better protect historic structures, including research on other communities, incentives, and revisions to the Demolition Delay Bylaw.
- Coordinate with the Centers for Culture and History in Orleans on preservation goals and activities.



# Arts and Culture

## Background

Orleans has a strong tradition of fostering arts and culture. Orleans was one of the first Massachusetts communities to be officially designated as a cultural district by the Massachusetts Cultural Council in 2013. The district was re-designated in 2018 and now spans the entire Town. The Orleans Cultural District Committee works in partnership with local groups to support a wide range of arts and cultural experiences. The Committee promotes artistic endeavors from gallery tours to outdoor concerts and theatrical performances through innovative collaboration and supportive environments for the creative economy. These programs and events are aimed at stimulating local business, encouraging recreation, and supporting activities that protect the Town's heritage.

The arts and culture sector is a strong economic driver as well as a contributor to the creation of resilient and livable

places. The U.S. Bureau of Economic Analysis (BEA) reports that in 2023 arts and cultural production in Massachusetts accounted for a \$29.7 billion economic impact, over 130,000 jobs, and 4.04% of the state's economy. A vibrant arts and culture sector helps support a strong local business ecosystem as well as the visitor economy in Orleans.

The Orleans Cultural District website lists 16 art galleries, 5 artist and artisan studios (including the Artist Cottages, a unique, affordable "pop-up" opportunity for artists to create and sell their work at Orleans Market Square), 4 museums or displays, 3 performing arts venues, and 24 other businesses supporting local artists. Public art has been installed on Main Street and Cove Road and building murals have been painted in several areas.

Special events and gatherings done in partnership with private entities, non-



profits, the Town, and the Orleans Chamber are a key part of Orleans' cultural landscape. These events include the Orleans Farmers Market and outdoor art displays, the holiday stroll, and numerous events throughout the year.

Snow Library contains the Crane Gallery, Snow Studio Makers space, and hosts many annual events.

### **Recent Efforts by the Town**

In 2023, the Orleans Cultural District expanded to include cultural assets throughout the Town. This allows for a more inclusive approach to create a cohesive cultural community and include all cultural assets regardless of their proximity to the Village Center.

## Key Issues Moving Forward

- » The need to recognize Orleans as a cultural hub through programming, branding, and other efforts.
- » The need for funding and staff support for arts and culture efforts.
- » Lack of indoor and outdoor performance space for arts and cultural activities.

## Arts and Culture Goal

- Create a plan to support the development of Orleans as a center of arts and cultural activities.



## Objectives and Actions

### 1. Develop and implement a comprehensive plan for developing Orleans into a major, year-round arts and culture center for residents and visitors on Cape Cod.

- Integrate arts and culture offerings and spaces into the design for mixed use redevelopment of the Town center.
- Support new and expanded private or not-for-profit arts and culture-related spaces, studios, galleries, and events.
- Expand programming to generate year-round interest and increase visitation to Orleans for arts and cultural offerings.
- Provide additional programs in the arts, centered on the Native American history and culture of Orleans and Cape Cod in collaboration with appropriate agencies.
- Develop and implement a comprehensive plan to market Orleans and its arts-based activities and businesses.
- Develop and implement a "place-making" plan that brings art into public spaces including public art, wayfinding signage, improved lighting, and other improvements.

- Develop programs that stimulate enjoyment and appreciation of the arts and culture in Orleans.
- Evaluate and provide resources needed to maintain and expand the Orleans Cultural District and execute the plan.

### 2. Utilize Town staff resources to serve as the fulcrum for arts and culture within the Town's governing and committee structure, with the mission to enhance the quality of life, the economy, and the design of Orleans through the arts.

### 3. Evaluate the feasibility of a year-round venue for classes, studios, performance, lectures, other presentations, or exhibitions. Consider using public school buildings.

- Complete a "cultural market study" to determine level of demand for performing arts and future potential.
- Inventory local artists, conduct an opinion survey, and develop alternative approaches to the future of performing arts in Orleans.
- Consider satellite facility space for specialized studios such as pottery, glass making, printmaking and the like.



# Governance

## Orleans Government Today

Orleans is one of 351 municipalities in the Commonwealth of Massachusetts. The Town operates through a Town Meeting form of government, under a Town Charter initially adopted in 1987 and amended on occasion since then.

The Town Meeting is the legislative body of the Town. Adoption of all bylaws and the appropriation of funds must be approved by Town Meeting, which is presided over by an elected Town Moderator. Any Orleans registered voter is eligible to attend Town Meeting, speak on the floor, and vote on the disposition of articles. A minimum quorum of 200 voters is required.

The five-member Select Board is the chief executive goal-setting and policy-making agency of the Town. It has the authority to establish Town policies, and to

represent the Town in inter-governmental relations. Members are elected by popular vote to overlapping 3-year terms.

The Town's chief administrative officer is the Town Manager. The position is appointed by the Select Board based on charter-required qualifications, including a degree in public administration and at least five years' experience as a municipal official. Under the Charter, "the Town Manager shall be the chief administrative officer of the Town and shall be responsible for administering and coordinating all employees, activities and departments placed by General Law, or Charter or Bylaw under the control of the Select Board or the Town Manager. The Town Manager shall implement the goals and carry out the policies of the Select Board."



## Good Governance Principles

Orleans relies on resident volunteers who sit on various boards and committees that are necessary to attend to the many issues of the Town. Per the Town Charter (6-1-2), “Multi-member bodies established under this Charter shall possess and exercise all powers given to them under the Constitution and laws of the Commonwealth, and shall have and exercise such additional powers and duties as may be granted and delegated by this Charter, Bylaw, or vote of the Town Meeting.”

To maintain an objective review of financial matters, the Finance Committee is appointed by the Town Moderator.

The Town provides public services that its legislative body approves and funds. Basic services include public safety, roads, education, Town water and sewer, and refuse disposal.

The Town will effectively provide the services authorized through its legislative decisions and regulatory requirements while practicing the tenets of good governance and respecting the needs and capacities of all residents.

### Good Governance is:

- Participatory
- Consensus Oriented
- Accountable
- Transparent
- Responsive
- Effective and Efficient
- Equitable and inclusive
- Follows the rule of law

## Key Issues

- » Ensure that long range capital planning is thoughtfully and strategically addressed and annually monitored for adjustment as needed.

## Governance Goal

- Provide for the services and needs of the community and its residents, businesses and visitors while protecting the assets and resources of Orleans for future generations.

## Objectives

1. Practice sound governance principles as a framework for effective decision-making to promote trust and accountability.
  - Ensure that Town operations are conducted according to the Town Charter.
2. Utilize sound planning and operating principles and practices in all areas of Town government.
3. Employ sound financial practices and capital planning.
4. Increase public participation in the decision-making process.
5. Create mechanisms that provide opportunities for collaboration and consensus building among boards, committees and the general public.







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# BUILT SYSTEMS

## **Community Design**

## **Community Facilities and Infrastructure**

## **Transportation**

## **Energy and Climate Mitigation**

## **Climate Resiliency**

According to the 2018 Regional Policy Plan, built systems are humanmade physical elements of the region that allow for people to live, visit, and work on the Cape. Protecting and enhancing the built environment, including providing infrastructure that supports the region and vibrant activity centers, is vital to supporting the Cape's population.

Infrastructure improvements, including roadways, sewer collection and treatment were identified by respondents to the 2023 community survey as high priorities for the Town. Respondents also identified the need for additional sidewalks, bike lanes/shoulders and multi-modal pathways as important future transportation needs. Survey respondents felt it was extremely important for pedestrians and cyclists to have a safe connected network to popular destinations in Orleans. Ensuring the resilience of Orleans extensive coastline to the impacts from climate change, including low-lying roadways and vulnerable infrastructure, will also be important considerations.



**3**  
Public Beaches



**24**  
Town Landings



**1,398**  
Tons of Solid Waste  
Disposed of (2024)



**1,562**  
Tons of Recyclable  
Materials Disposed  
of (2024)



**559**  
Tons of Construction  
Debris Disposed of  
(2024)



**350,000**  
Gallons/Day  
Capacity @ Sewer  
Plant



**94**  
Miles of Roads

**11**  
Miles of State Roads  
**54** Public **29** Private



**30**  
% of Roadways w/ Scenic  
Designation



**2**  
Fixed Route Bus Services



**6**  
Miles of Sidewalk



**2,723,000 kWh**  
Municipal Energy Use  
(FY24)



**34,768 gallons**  
Municipal Gasoline Use  
(FY24)



# Community Design

## Background

Orleans has a rich architectural heritage, with buildings dating back to the eighteenth and nineteenth centuries, showcasing its past as a rural coastal community and a bustling nineteenth-century commercial center. Most of Orleans growth and development was guided by its incredible waterfront amenities of Cape Cod Bay, Pleasant Bay, Town Cove, and the Atlantic Ocean. By the mid-1800s, Orleans commercial center was located along Main Street and what is now Route 6A. Individual commercial buildings were typically 2 to 2 ½ stories tall (though some notable exceptions were 3 ½ stories) and sited close together at the street edge. Outside this small area, most buildings were residential and set farther apart and behind front lawns. While the earliest homes were modest and only 1 ½ stories tall, many later homes were 2 to 2 ½ stories with visible architectural detailing. Today, the Town's center hosts a mix of residential and commercial uses that define the Town's character with a modest scale. Many of these early homes were converted to commercial or mixed use, creating the human-scale buildings that characterize parts of Route 6A and Route 28. Over 56% of respondents to the 2023 OCP community survey felt that it was extremely important to preserve and enhance the historic character of the Town.

47  
MAIN STREET

Coastal Bridal Boutique  
VINTAGE & MODERN COUTURE

HIDDEN  
GEM

HEALING ARTS  
COLLECTIVE  
ACUPUNCTURE • MASSAGE  
TAJI • YOGA • ZEN KARATE

ISLAND HORSE  
TOP



## **Current Built Environment**

The architectural style of commercial and residential buildings in Orleans represent various time periods in the Town's history, ranging from Colonial to commercial strip plazas. As a result, the Town has taken steps to better regulate future development through its Site Plan Review and Architectural Review processes.

### **Site Plan Review**

The Town has a well-established Site Plan Review (SPR) process governing the review of proposed development projects. The purpose of SPR is to provide a forum to familiarize project applicants with applicable Town requirements and to ensure the design and layout of development and redevelopment is consistent with Town regulations. Site Plan Review applies to changes in uses and development that meet defined thresholds in the zoning ordinance. It consists of an informal process, designed to give applicants feedback and permit guidance early in the planning process, and a subsequent formal process that requires plans prepared by registered professionals. Site Plans are reviewed by appropriate committee members for consistency with zoning and other applicable regulations and standards. Criteria for SPR approval includes elements such as provisions for future interconnections between parking areas, minimizing curb cuts, as well as placement of buildings, structures, fences, lighting and fixtures on each site in such a manner to provide for visibility of the shoreline and water from public ways or adjacent developed properties.

### **Architectural Review**

Recognizing the importance of preserving Orleans' distinct character, the Town established an architectural review process in 1990 to preserve and enhance the Town's unique character by preventing incompatible construction or alterations, promoting conservation of significant buildings, enhancing property values, and encouraging flexibility in development. The Architectural Review Committee (ARC) and process were established to preserve and enhance the Town's cultural, economic and historic resources by providing for a detailed review of the appearance of new and altered structures and sites which may affect these resources.



## What is Placemaking?

Placemaking is a collaborative, community-based approach to planning, designing, and managing public spaces to improve their quality and create a sense of place, ultimately enhancing the well-being and vitality of a community.



Approval involves 14 review criteria including elements such as character, distinguishing features, architectural details, scale, massing, setback, height, building materials, roof design, fenestration, color, signs, lighting, and landscaping. These criteria ensure compatibility with existing architectural styles, preservation of historic features, and integration with the surrounding environment.

## Historic Preservation Efforts

The Old King's Highway Regional Historic District and the Orleans Historical Commission play key roles in protecting historic properties and ensuring new designs are compatible with existing neighborhoods. These efforts are discussed in more detail in the Historic Preservation and Cultural Heritage section of the OCP.



## Recent Efforts by the Town

In 2019, the Town, with assistance from the Cape Cod Commission, developed design guidelines to support and guide the Architectural Review and Site Plan Review processes. The guidelines aim to ensure that proposed developments align with the desired vision for Orleans while meeting the goals and intent of the Town's regulations. They apply to new commercial development, redevelopment, and multi-family residential development within Orleans' commercial zoning districts.

Overall, the guidelines emphasize the importance of maintaining the feel of a New England maritime village, responding to building and site context, protecting significant historic structures, and improving fit, function, and quality. They encourage development that respects Orleans' historic context, preserves its unique character, and enhances its vibrancy and attractiveness. The 2019 design guidelines note that design decisions should be based on specific locational context of the development. Maintaining or creating a "street wall" defined by buildings in the Village Center is important, and larger buildings may be appropriate to enhance the visual and pedestrian experience in a defined area. Appropriateness of scale must be evaluated independently for each location.

## Key Issues Moving Forward

- » The Town must balance encouraging new investment and adding vibrancy to key areas with attention to design, compatibility, and long-term sustainability when establishing development regulations, including zoning, design review, and historic protections. Development and redevelopment can lead to the loss of historic buildings, and can change the look and feel of a place, and how people experience it.
- » With various entities overseeing regulatory compliance, design, historic preservation, and zoning, development review processes must be effective, streamlined, and coordinated and be seen by residents and developers as working towards agreed-upon long-term goals.

## Community Design Goal

- To make Orleans a model of good design by protecting, enhancing and improving the Town's built and natural environment for the benefit and enjoyment of residents and visitors.

## Objectives and Actions

### 1. Encourage appropriate uniformity in the design of new development with the surrounding context, while allowing for forward-thinking design that blends a modern aesthetic with the traditional Cape Cod vernacular.

- Evaluate the Architectural Review Committee bylaw and the Orleans Design Guidelines and revise as appropriate to achieve better design outcomes and to be responsive to changing building and energy codes.
- Revise the zoning bylaws in business districts to ensure appropriate orientation of buildings and parking areas to the street and contextually appropriate building forms and massing.

### 2. Protect historic structures that are valuable and important to the Town's history and character.

### 3. Revise the design review process and the supporting tools to be clear, enforceable, and streamlined.

- Review the Architectural Review Committee (ARC) structure to

streamline review of signage and other minor improvements and ensure robust professional support for major project reviews.

### 4. Ensure that new development, redevelopment, or investment in business districts reinforces a pedestrian orientation, incorporates landscaping and natural amenities, and improves the overall function of the area.

- Implement a comprehensive place-making program in Orleans that incorporates streetscape improvements, wayfinding, and reinvestment in public spaces.
- Establish a panel to include at least one professional architect, urban designer, and landscape designer to be retained on behalf of the Town to represent the design interests of the Town in all significant design and development projects, including public art installations, streetscape, Town buildings, outdoor public spaces, and commercial developments.





# Community Facilities and Infrastructure

## Background

The quality of life for residents, business owners and visitors in Orleans is significantly influenced by the availability and reliability of community facilities, essential services, and infrastructure. Town beaches, Snow Library, recreational facilities at Nauset Regional Middle School, and biking/walking trails were cited by participants in OCP visioning workshops as favorite Town facilities. This section provides an overview of Town-owned facilities, infrastructure and related services and identifies future needs.

## Town Facilities

### Police Station - 99 Eldredge Park Way

In 2016, Orleans voters authorized \$11.5 Million in funding for construction of a new and fully equipped police station designed to meet the Town's current and future needs. The new station opened in 2018 with a secure detainee processing and detention area, secure evidence processing and storage, a training/community room, roll call area, drive-through sally port, locker rooms, fitness area, administrative offices, dispatch center and storage.



# Town Facilities

Senior Center –  
150 Rock Harbor Road



"Old Firehouse"  
Community Center –  
44 Main Street



Wastewater  
Treatment  
Facility –  
29 Overland Way

Orleans  
Elementary  
School –  
46 Eldredge Park Way



ELEM

Snow Library –  
67 Main Street

Town Hall –  
19 School Road



Town Hall Annex –  
139 Main Street (Annex)

Fire/Rescue  
Station –  
58 Eldredge Park Way



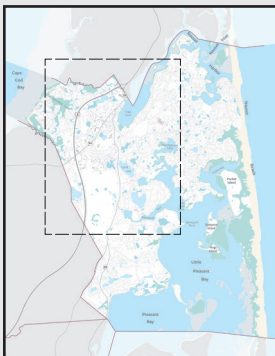
Department of  
Public Works –  
18 Bay Ridge Lane

Police Station  
99 Eldredge Park Way



Transfer Station –  
56 Lots Hollow Road

Department of  
Public Works –  
40 Giddiah Hill Road



## **Fire/Rescue Station - 58 Eldredge Park Way**

The Orleans Fire/Rescue Station is a two-story brick building built in 1987. Currently, the only access to the station on Eldredge Park Way accommodates two-way traffic for both public and emergency business. Driveway access to the Fire/Rescue Station has excessively sloped grades, which can result in difficulty controlling fire apparatus during snow and ice conditions, and inadequate parking. The building's interior has multiple floor levels with various rooms on each level. The station has been retrofitted over the years to accommodate changing needs. Redevelopment of the facility is needed to ensure continued excellent response to medical and fire emergencies, and to address site access, driveways and parking deficiencies, as well as many areas of the building that do not meet National Fire Protection Association standards, modern building codes or accessibility standards. The Town is in the process of pursuing options to construct a new facility.



## **Town Hall - 19 School Road**

The Orleans Town Hall was fully renovated and expanded in 2006 to provide additional conference rooms/hearing rooms for the service and needs of the community at the time.

## **Town Hall Annex - 139 Main Street**

The former American Legion Hall was purchased by the Town in 1998 and currently houses the Recreation Department. The property had been used for various department needs on a temporary basis and was the site of a temporary police station during construction of the new public safety facility. The Town Hall Annex may be a temporary site for other facilities under development in the future. The building does not meet current building codes and is being evaluated by the Town for update or replacement.

## **Orleans Elementary School – 46 Eldredge Park Way**

The Orleans Elementary School was constructed in 1956 and requires code improvements to meet modern standards for public education. The property includes athletic fields and a playground and houses various activities for the Recreation Department during the year, including open gym, basketball, indoor soccer and a summer playground program for 160 children. The building is currently being evaluated for comprehensive improvement. A recent study titled “Orleans Elementary School Capital Asset Assessment” was conducted to explore potential upgrades. The study considered two primary options: renovation of the existing structure or its complete replacement. The assessment examined the physical conditions across five key areas: site, building envelope and energy efficiency, building interiors, mechanical and fire protection, and electrical, fire alarm, data, and security. The study concluded with detailed cost estimates and total study capacity numbers for both options. In the 2022-2023 school year, there were 145 students enrolled at Orleans Elementary School. The enrollment population is not expected to increase significantly over the next two decades. Option 1, to renovate the existing facility, would allow for 328 students, while Option 2, to replace the existing facility, would accommodate 232 students. The cost to renovate or replace the school building is projected at approximately \$50M. A regionalization strategy may be a possible third option.



## **Senior Center – 150 Rock Harbor Road**

The Council on Aging/Senior Center located on Rock Harbor Road serves the needs of older adults in Orleans and offers transportation services, fitness classes, health and wellness programs, food and nutrition programs, social and recreational programs, outreach services, adult supportive daycare, and more. The property is deed-restricted to uses only for senior citizens. The Senior Center also has spaces for public meetings. Access to the facility is via Rock

Harbor Road, a low-lying road that is subject to flooding during major storm events.

### **“Old Firehouse” Community Center - 44 Main Street**

The “Old Firehouse” at 44 Main Street is referred to as the Orleans Community Center. The approximately 3,800 square foot building has public restrooms, is currently used by the Recreation Department for activities, and as a space for after-school programs for middle school students. A portion of the building is also leased to the Orleans Chamber of Commerce. The Town is considering redevelopment of the Community Center into a mixed-use facility that would include community uses on the main floor and housing above.

### **Snow Library - 67 Main Street**

Snow Library was founded with a \$5,000 bequest by David Snow in 1867. The current mid-century Snow Library building was last expanded 1992. The facility is free to all residents of Massachusetts and non-resident taxpayers. With 6,517 cardholders in 2023, comprised of 54% Town residents and 46% from other Towns, the library plays an important role in community life. The library acts as

a historical archive, study hall, meeting and play space, and cultural and community center. The staff actively engages with the community, with cooperative programs with the Orleans Elementary School and after-school visits from Middle School students. The library stands as one of the most heavily visited facilities in Orleans, offering a diverse range of programs for families and individuals of all ages, attracting over 1,000 participants annually to its Friends of the Snow Library Lifetime Learning series alone.



Conceptual plans are being developed for the construction of a new modern library at the same location.



**Department of Public Works – 40 Giddiah Hill Road and 18 Bay Ridge Lane**

The Orleans Department of Public Works is located in an approximately 42,000 square-foot facility constructed in 2018 on Giddiah Hill Road. The facility has staff headquarters, significant garage space, washdown facilities and is fully compliant with building codes.

The former Highway and Parks Garage, located at 18 Bay Ridge Lane, is currently used for cold storage of equipment during the off-season. Future use of that property is under evaluation. Currently, the site is used for a staging area to support sewer construction. The three-acre property is on partially-filled land.

**Transfer Station – 56 Lots Hollow Road**

The Orleans Transfer Station is open year-round for Orleans residents. The Transfer Station accepts numerous items for recycling, composting, and household hazardous waste collection and operates a Gift House on the grounds to allow residents an orderly and clean place to leave good, sound items that could be reused by

fellow residents and to save the Town solid waste costs. In 2024, the transfer station accepted 1,398 tons of municipal solid waste and 559 tons of construction/demolition debris. The facility also accepted 1,560 tons of various recyclable and compostable materials. Due to increasing costs of solid waste disposal, the Town considered a pay-as-you-throw system, but it has not been adopted as of mid-2026. The Board of Health has authority over user fees for the facility.



## **Town Wastewater Treatment and Water Supply Facilities**

### **Wastewater Treatment Facility – 29 Overland Way**

A new wastewater treatment facility (WWTF) on Overland Way went online in March 2023. The facility has a daily flow capacity of 350,000 gallons, is expandable, and was designed to meet the daily flow requirements of the 2023 Amended Comprehensive Wastewater Management Plan (ACWMP) for Orleans.

### **Public Water System**

Orleans has had a public water system since March 12, 1961, when Town voters purchased a 500-acre watershed to protect its water resources. Eight wells currently supply public drinking water to nearly every residential property in Town. The Water Department serves approximately 5,000 accounts (97% of the Town) through over 140 miles of water mains. There are two storage tanks (standpipes) that provide water system pressure and emergency storage, with a total daily capacity of 3.1 million gallons and usable storage of 1.9 million gallons. The Water Department has one corrosion control facility constructed in the early 1990s that provides disinfection and pH adjustment for the Gould Pond wells. An iron and manganese treatment plant was built in 2004 on Cliff Pond Road, at which time the use of three other corrosion control facilities were discontinued. These buildings continue to provide value by storing records, lawn equipment and water supply equipment.

## **Town Recreation Facilities**

### **Water Access**

Orleans has numerous shoreside facilities for the convenience and safety of boaters, kayakers and beachgoers as well as providing numerous opportunities for fishing and clamming. Kayaking and paddleboarding were among some of the favorite activities cited by participants in OCP visioning workshops.

# Town Recreation Facilities



## **Recent Actions by the Town**

### **Facilities Planning: Beaches and Water Access**

#### ***Nauset Beach Phased Relocation***

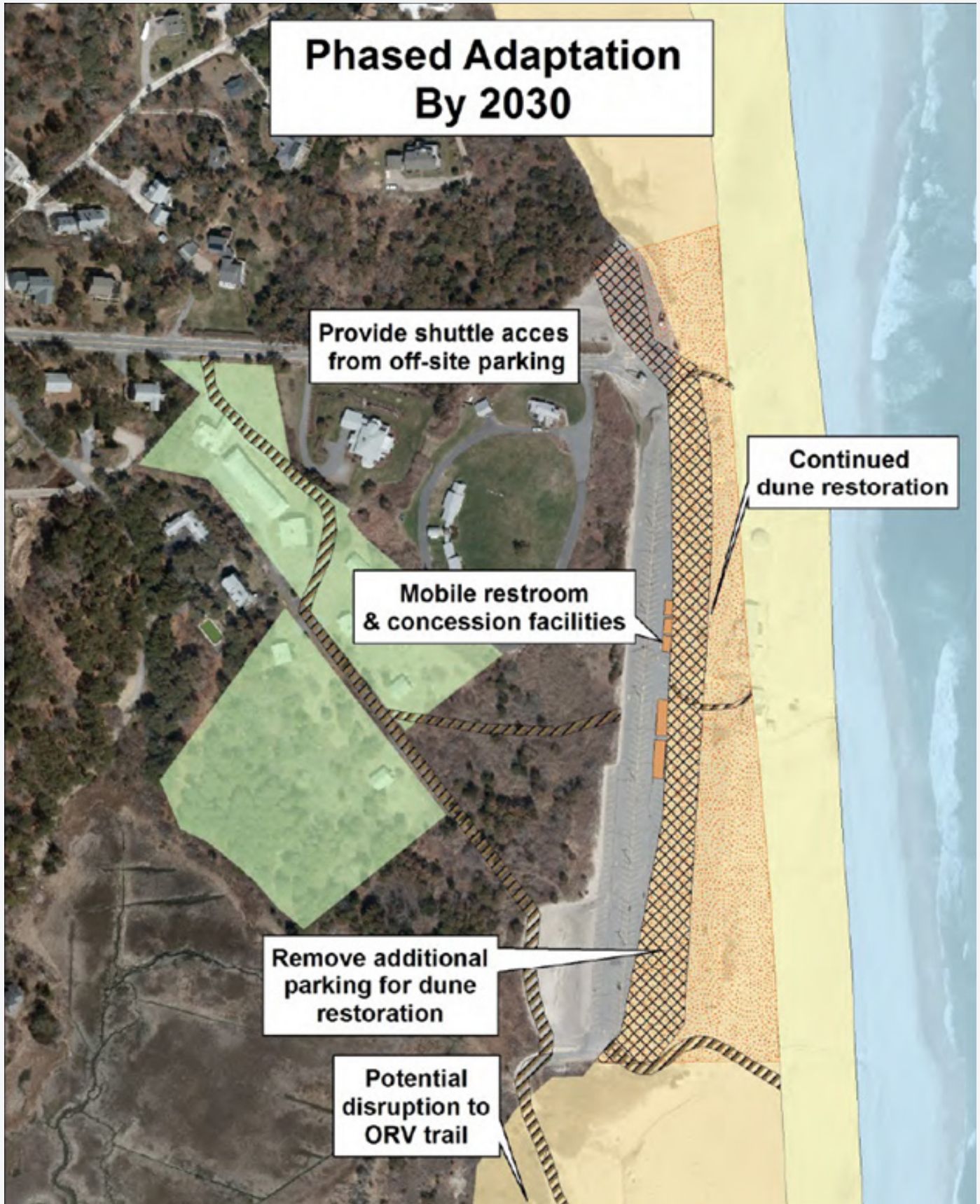
Nauset Beach, located on the Atlantic Ocean, is a renowned recreational area for residents and visitors alike. The Town operates beach bathhouses, licenses food trucks and provides 500 parking spaces. Proactive measures have been undertaken to respond to erosion and the westward migration of the beach, as outlined in the 2016 Orleans Outer Beach Management Plan. Recent efforts include the completion of a 200-space upgradient parking lot, septic system pump station, gatehouse, stormwater improvements, and relocated Town gazebo to restore facilities that were lost or severely damaged during 2018 Nor'easters. In line with the retreat plan, the Administrative Building on Nauset Beach is slated for removal in the near future. The southern portion of Nauset Beach provides access for a popular oversand vehicle (OSV) program. To the north is a resident-only beach that is accessed via Callanan's Pass in Nauset Heights. Recent storms have limited access to the north portion.

#### ***Skaket Beach Management Plan***

Located on the bay side of Cape Cod, Skaket Beach is known for its extensive intertidal flats and tide pools, popular with young families, artists, casual beach goers and oyster aquaculture. Located on the beach is an administrative building, bathhouse and a summertime snack shack. In 2024, Town Meeting approved funding to develop a comprehensive beach management plan for Skaket Beach.

#### ***Town Landings Assessment***

Orleans has 24 Town landings, serving as important access points to the water for recreational and commercial activities. The Town is currently evaluating landings to ensure their continued and safe use and identifying opportunities to enhance parking facilities to improve access. As noted in the Economic Development section, the Town recently approved \$9M at 2024 Town Meeting for Rock Harbor improvements.



Phase 3 of the Proposed Retreat Plan to be completed by 2030.

## Capital Improvement Planning

The Town has a five-year Capital Improvement Plan that is updated annually as required by the Town Charter. This OCP includes a capital facilities and infrastructure plan to prioritize investments that will support long-term sustainability and vitality through implementation of the OCP.

Recognizing the importance of conducting a thorough analysis of needs to guide future planning and investment decisions, Orleans has examined alternatives and costs associated with development of new and upgraded facilities as detailed in several studies, including the 2022 Community Center Feasibility Study, 2021 Fire Station Feasibility Study, 2023 Orleans Elementary School Capital Asset Assessment, and the 2023 and 2024 Snow Library Building and Feasibility studies. Further, Orleans is mindful of the need to balance community facilities needs with the costs of sewer infrastructure construction anticipated over the next several decades, as outlined in the Orleans Amended Comprehensive Wastewater Management Plan.

The analysis from these studies provides insights into the requirements and aspirations of the Orleans community. The Community Center Feasibility Study underscores the income and wealth disparities within the





community and recognizes the diverse needs of retirees, working individuals, and seasonal residents, including “snowbirds”. It also explored the concept of a “campus” along Eldredge Park Way that could be the site for a fire station, elementary school, and community center. Discussions continue regarding the desirability of a community center to serve as a focal point for civic engagement and social cohesion.

The Snow Library Building Program identified the role of Snow Library as a central hub for the Town since 1887. The current library building faces constraints from overcrowding and limited meeting space, necessitating expansion. The proposed building program aims to address these challenges by providing a larger auditorium, meeting rooms, and enhanced spaces for children and teens. In addition, the need for ADA access improvements to the heart of the 1.3-acre Village Green, adjacent to Snow Library, was identified by the Community Preservation Committee in 2022.

Together, these studies highlight the Orleans community’s desire for spaces that foster social interaction, education, and recreational activities. They underscore the importance of coordination, flexibility, and inclusivity in meeting the diverse needs of residents and enhancing community well-being.



## Key Issues Moving Forward

- » Continue work to replace the Fire and Rescue Facility.
- » Address the need to renovate or replace Snow Library.
- » Continue progress on public sewer phases to meet environmental needs.
- » Address the maintenance needs and/or replacement of the Orleans Elementary School.
- » Determine how to provide community center services, either through a distributed approach or a single facility.
- » Maintain recreation facilities and address increasing demand for additional programs.
- » Maintain beach facilities and respond to erosion and other concerns.
- » Provide downtown visitor facilities that support a strong local economy.
- » Address Town landing maintenance, including providing adequate shoreside facilities, as well as parking and access for motorized and hand-carried boats.

## Community Facilities and Infrastructure Goal

- To develop and maintain community facilities, infrastructure, and services to meet the needs of Orleans residents.

## Objectives and Actions

### 1. Develop and maintain community facilities in a cost-effective manner

- Create and maintain an inventory and assessment of all Town community facilities to guide development, maintenance and improvements.
- Address Elementary School, Fire & Rescue, Library, and future community center needs, possibly on a single site.
- Replace the Nauset Beach administration building with a new facility at 223 Beach Road.
- Replace seasonal employee housing at Wildflower Lane.

### 2. Enhance community facilities (including physical facilities and Town waterfront) to improve functionality, accessibility, and inclusivity.

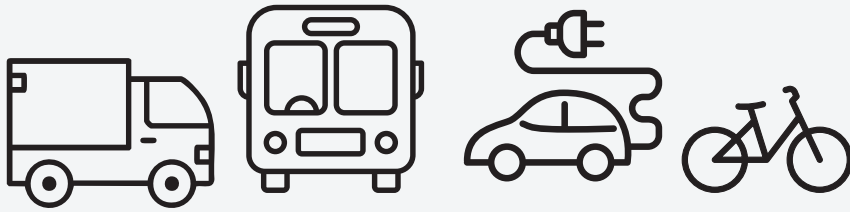
- Make Americans with Disabilities Act (ADA) accessibility improvements across Town facilities.
- Maintain and improve the Water Department infrastructure.
- Plan for timely expansion of Wastewater Treatment Facility as system volume indicates.

### 3. Reduce solid waste volume through recycling to better manage the Town transfer station. Expand the types of materials that can be recycled.

- Continue to reduce solid waste volume by implementing additional recycling strategies. Adopt an overall strategy to reduce the waste stream, including reconsideration of a pay-as-you-throw program.
- Consider options for food composting program for commercial businesses.
- In managing the transfer station, evaluate the need for materials prohibitions in the future.

### 4. Identify opportunities to repurpose and reassign the use of existing community facilities, and work with neighboring Towns towards efficient use of community facilities, services, and programs.

- Repurpose community facilities as needed to meet community needs.
- Coordinate with neighboring jurisdictions on opportunities to regionalize facilities, resources and services.



# Transportation

## Background

Transportation infrastructure in Orleans presents complex challenges in accommodating both local, regional and seasonal traffic demand within its network of highways, streets, trails, and pathways. The Town is committed to maintaining safe accommodation for all users and to promote last mile connectivity across all modes of travel.

Orleans is uniquely positioned at the “elbow” of Cape Cod, with two primary east-west aligned highways (US Route 6, MA Route 6A) and north-south aligned Route 28, that serve the Lower Cape and converge with US Route 6 heading north to the Outer Cape. These connections are served by a modern roundabout intersection at the terminus of Route 28 at Route 6A and a traditional rotary intersection where Route 6A intersects US Route 6. Both roadway corridors are inundated with an influx of seasonal residents and tourists traveling to and through Orleans in the summer months.

Locally, people also use these roadways to access the Town’s downtown shopping district and Orleans’ many beaches, ponds, and coves.

A highlight of Orleans multi-modal transportation is the Cape Cod Rail Trail, a regional 25-mile multi-use trail adjacent to Orleans’ downtown. Orleans also has a walkable commercial center. The Town is served by fixed-route and on-demand bus service provided by the Cape Cod Regional Transit Authority, as well as the Roadrunner on-demand service provided by the Council on Aging.

## Roadways

Orleans has approximately 94 total miles of roads of varying functional classification: 22 miles of arterial roadways, approximately 5 miles of collector roadways, and 67 miles of local roadways. Roadways in Orleans are also divided by jurisdiction, with approximately 10 miles of roadway under MassDOT jurisdiction; 50 miles of Town-

# Road Status and Scenic Roads



## Road Classification Legend

- State
- Town
- Private
- Scenic

Source: MassGIS, Town of Orleans

owned accepted roadways; and 34 miles of private or unaccepted roadways.

State roadways are comprised of the numbered routes which traverse Orleans – primarily US Route 6, MA Route 6A, and MA Route 28. MA Route 39 is an 8.15-mile long southwest-northeast route through the Towns of Harwich, Brewster, and Orleans that terminates at the roundabout intersection at Route 28 in Orleans. Route 39 is under Town jurisdiction for the entirety of its approximately 0.63-mile extent in Town.

Local public roadways are split between those “accepted” and having a formal layout, and “unaccepted” where no layout has been established. The Orleans Highway Department is responsible for maintenance of all local public roads. Where no formal layout exists, the Town is only responsible for maintaining the road to the edge of the asphalt. The lack of formal layouts hinders the Town’s ability to add sidewalks or other improvements accommodating multi-modal users.

For private roadways, maintenance, including snow removal, is the responsibility of the owner. Chapter 90 of the Town’s General Code includes

an emergency access provision establishing a minimum clearance between 10 and 14 feet wide for roadways in existence at the time of adoption of the 1993 law, and a 14-foot horizontal and vertical clearance for all new roads in Town. The Fire Chief is responsible for verifying compliance, with the Highway Department empowered to clear roads which are not in compliance. The cost is intended to be borne by the property owner, but enforcement has been difficult.

Scenic roads in Orleans are roadways where preserving and maintaining natural resources are paramount. Chapter 139 of the Town’s General Code establishes 30 scenic roadways within the Town. In accordance with the provisions of MGL C. 40, § 15C, cutting of trees or removal of stone walls requires a public hearing before the Tree Warden and Planning Board. This law is vital to maintaining the natural and historic tree canopy of the Town.

## **Pavement Management and Chapter 90 Funds**

In Spring 2019, the Town of Orleans retained Vanasse Hangen Brustlin (VHB) to update the Town's pavement management system by performing pavement condition evaluations on all Town-maintained roadways and parking lots with the goal of prioritizing pavement maintenance and rehabilitation projects and analyzing budgetary needs. In 2022, VHB conducted a street survey and compiled a report update. Historically, the Town performs a pavement management study update every five (5) years.

The Pavement Management System is used to program road maintenance in a cost-efficient manner. Roads are maintained to avoid the cost of full reconstruction.

## **Traffic Count Trends**

The Cape Cod Commission and MassDOT maintain a public database of traffic count data across the Cape. Annual Average Daily Traffic (AADT) is a metric used in transportation planning and engineering for analyzing and forecasting traffic volume including measuring the average number of vehicles that travel on a road or highway each day



## Complete Streets

Complete Streets is a fundamental concept of modern infrastructure development and maintenance that, per Massachusetts General Law (MGL) C.90I § 1, “provides safe and accessible options for multiple travel modes for people of all ages and abilities including, but not limited to, walking, cycling, public transportation, automobiles and freight.” It confirms a critical need to accommodate users regardless of their age, ability, or income level.

The Commonwealth of Massachusetts established a Complete Streets funding program in 2016 to provide grants to municipalities to encourage them to routinely include complete streets design elements during roadway construction or reconstruction. The Town of Orleans adopted a Complete Streets Policy in early 2020, and as noted above, established a Complete Streets Prioritization Plan in May 2021. The plan establishes and ranks 43 projects of varying cost which can leverage funding available through the state for construction of complete streets-focused projects. To date, the Town has not obtained project funding through Tier 3 of the program, which can provide up to \$500,000 for project construction.

over the course of a year. The following Table 6.1 summarizes vehicular traffic volumes for key roads within Orleans and the date of data collection.

## Key Intersections

Beyond the numbered routes and arterial roadways, key “pinch points” exist at intersections within Orleans. The key Route 6A and Route 28 corridors have a series of traffic signals which may cause delays for through traffic on numbered routes. Traffic signals are located at the following locations:

- Route 6A in Orleans at Bay Ridge Lane.
- Skaket Corners (West Road/Eldredge Park Way).
- Main Street at 6A.
- Along Route 28 at Eldredge Park Way/Tonset Road.
- Stop and Shop Plaza/Old County Road.

All are under MassDOT jurisdiction. A traffic signal located at Main Street and Tonset Road is under Town jurisdiction. Critical connection points also exist at the three circular intersections in Town – the Route 6A/Route 28 roundabout, the newly completed Route 39/Route 28 roundabout, the Orleans/Eastham rotary – and at unsignalized intersections of Canal Road at Route 28 near the Orleans/Eastham rotary, and at intersections in East Orleans serving connections to full-time and seasonal residents such as Hopkins Lane at Tonset Road and Barley Neck Road at Beach Road.

## **Parking**

In addition to roadway access and pedestrian and bicycle connectivity, the availability of parking drives economic development in a downtown business district. There are 1,596 spaces in the Village Center, with 347 public spaces and 1,249 private spaces.<sup>10</sup> The largest lot serves the Orleans Marketplace, with 421 spaces. Public parking also includes on-street parking on Main Street and Old Colony Way.

The 2018 Parking Study evaluated parking occupancy in May and July 2018, and found a peak occupancy at mid-day on a Thursday in July, at 63% occupancy of available spaces. A closer look at specific locations revealed isolated lots close to popular establishments fill up, but adequate parking remains available within a short walking distance, including on-street parking.

The Orleans Zoning Bylaw includes provisions for businesses to provide shared on-site parking or pay a fee in lieu of providing parking on-site. A review conducted by the 2018 Parking Study revealed that 78% of businesses within the Village Center provide parking in excess of that required by zoning. The study concluded that the Village

Center had adequate parking to support business activity and that patrons park once and visit multiple businesses, even when utilizing private parking areas.

## **Public Transportation**

Public transportation on Cape Cod is provided by local and regional bus service; CapeFLYER summer weekend train service from Hyannis to Boston's South Station; ferry service from Harwich to Nantucket and from Hyannis and Falmouth to Martha's Vineyard and/or Nantucket, as well as seasonal service from Provincetown to Boston; and the Cape Cod Gateway airport in Barnstable that services commercial airlines and municipal airports in Chatham and Provincetown.

Within Orleans, the Cape Cod Regional Transit Authority (CCRTA) operates the Hyannis to Orleans "H2O" with daily service approximately hourly between downtown Hyannis and Orleans Center via Route 28 and Route 39, excluding Sunday; and the FLEX, operating daily from Harwich to Provincetown including stops in Orleans, excluding Sunday. The FLEX will "flex" up to ¾ mile off its route to service people who have difficulty getting to a regular bus stop, with reservations required for off-route stops.

CCRTA also provides a daily public demand response service called Dial-A-Ride Transportation (DART) as a door-to-door, ride by appointment service six days a week, with limited service on Sunday.

The Orleans Senior Center offers Roadrunner transportation services, with reservations required for local rides Monday through Friday for medical appointments within Orleans or at Brewster Medical, other errands within Orleans, or rides to the Senior Center. This service typically operates during daytime hours. The Roadrunner also provides rides to local meals at St. Joan of Arc and to the Senior Center Day Center Program. Finally, the Roadrunner provides grocery shopping trips on a general schedule on Mondays, Wednesdays and Fridays.

The Town contains an Environmental Justice population (Block group 2 of Census Tract 104) defined under the state income criteria as a neighborhood that does not exceed 150 percent of the statewide annual median household income. Residents in this area represent 13.8% of the total population of the Town. Improvements in sustainable mobility such as transit, pedestrian and/or bicycle facilities can help address community equity challenges for underserved community members and improve safety for all users. On-demand and fixed route services provided by both CCRTA and the Orleans Senior Center help to support this population and lead to improved equitable outcomes across the community.

**Table 6.1**  
**Orleans Average Annual Daily Traffic Volumes\***

Location	Year					
	2017	2018	2019	2020	2021	2022
Route 28 (South of Main St)	8,435	8,250	-	6,452	11,603	11,597
Route 28, north of Route 39	11,379	-	9,670	-	-	15,611
Route 28, south of Route 39	5,261	-	-	-	-	-
Route 6A/28, south of Orleans/ Eastham Rotary	16,367	-	-	-	20,308	-
Tonset Rd, east of Route 28	-	4,327	-	-	7,000	-
Beach Rd, west of Mill Lane	-	-	3,692	3,988	-	7,093
Beach Rd, east of Brick Hill Rd	-	-	-	-	6,066	-
Beach Rd, west of Nauset Heights Rd	-	--	-	-	-	5,114
Route 28, South of Main St	-	-	8,476	-	-	-
Route 6A/28, East of Route 28	17,089	-	-	--	-	-

\*Average annual daily traffic (AADT)-selected listing

# Roadway Improvement Projects

**2019**  
Main/6A:  
*Intersection upgrade*

**2019, 2004**  
Main/Old  
Colony Way:  
*Intersection  
improved*

**2004**  
6A/Cranberry Cove Plaza:  
*Improvements to side entrance completed*

**2015**  
6A/28/Canal Road:  
*Roundabout*

**2012**  
6A/Brewster Cross:  
*No left turns onto 6A*

**2019**  
Main/Rt. 28:  
*Signalized intersection  
improvements, relocated*

**2019, 2018**  
Post Office Sq:  
*Entrance, Access  
improvements*

**2008**  
6A/West/Eldredge  
Park Way: *Major  
intersection upgrade*

**2008**  
Rt.28/Finlay Road:  
*Intersection widened*

**2008**  
Lots Hollow Rd/  
Eldredge Park Way:  
*Turning lane, relocate  
intersection*

**2024**  
Rt. 28 & 39/Quanset Rd:  
*Roundabout*

## Pedestrian and Bicycle Facilities

The Cape Cod Rail Trail (CCRT) provides a continuous path for cyclists from Yarmouth to Wellfleet and passes close to the Village Center of Orleans on the north leg of the intersection of Main Street and Old Colony Way. The CCRT crosses US Route 6 at two points in Orleans - along the alignment of West Road north of Skaket Corners, and at a dedicated overpass just west of the Orleans-Eastham rotary.

According to the 2021 Orleans Complete Streets Prioritization Plan, sidewalks in Orleans are limited to the downtown area, with a few sidewalk segments scattered throughout Town. OCP community survey respondents identified additional sidewalks (55%), multi-modal pathways (52%) and additional bike lanes/shoulders (47%) as the most important transportation-oriented needs in Town.

The Town is promoting awareness of the state's Vulnerable Road User (VRU) laws enacted in 2023 which establish a safe passing distance of at least 4 feet when passing VRUs such as cyclists



and pedestrians. The law also includes provisions for lights on bikes to be ridden at night, which can be promoted through local advocacy and in cooperation with Orleans Police Department to reach the local cycling community and summer cycling workers, particularly temporary visa holders.

## Safety

An evaluation of transportation infrastructure Town-wide must consider access and safety for all users. Local and state crash report data indicates 662 crashes in Orleans for the three-year period from 2018 to 2020. Of these, 279 crashes occurred in peak season, illustrating an expected correlation

between peak traffic demand and crash history. No fatal crashes were reported in this period.

A review of the top 50 crash intersections on Cape Cod reveals no locations within the Town of Orleans. A review of circular intersections Cape-wide includes the Orleans/Eatham rotary as the 4th highest with 79 crashes over the 3-year period, and the intersection of Route 6A at Route 28 as the 9th highest with 18 crashes. A review of interchanges Cape-wide reveals that the Exit 89 interchange of US Route 6 at Route 6A is the 8th highest with 40 crashes. The Cape Cod Commission has adopted a Vision Zero policy to improve safety across all Cape towns.



## Recent Actions by the Town

### *Transportation Capital Improvements*

Over the past two decades, Orleans has strategically and methodically planned for intersection improvements to maintain level of service and improve safety. The following is a list of key intersection improvements undertaken since 2000, including status of critical problem intersections.

In 2021, the Town installed 900 feet of sidewalk and improved crossings along and across Old Colony Way, from Main Street to Orleans Marketplace. These improvements connect the popular Orleans Farmer's Market and nearby artists' shanties within Orleans Village Center. The majority of the project (approximately \$250,000) was funded by MassDOT's Shared Winter Streets and Spaces program.

### **Village Center Streetscape Improvements**

The Town obtained a \$1.7 million grant to implement many of the Plan's recommendations including brick sidewalks, street crossings and furnishings in the Main Street village core. This project was supported by the 2011 Streetscape Plan.

In 2024, Town Meeting approved funds to complete a feasibility study to explore options to provide safe pedestrian and bike access/potential shared use path from Main Street to Nauset Beach as part of the Complete Streets prioritization plan.

### *Planning Efforts*

The Town has conducted several Town-wide transportation studies since the last master plan update. These studies have largely focused on improving pedestrian facilities, bicycle facilities, and building the connectivity of the multi-modal transportation network. The Route 6A RESET Plan, the Parking and Circulation Study, the 2011 Streetscape Plan, and the Wayfinding Plan provide a coordinated set of recommendations for improving the public spaces in the commercial center. By enhancing the streetscape and pedestrian accommodations, along with providing a coordinated parking system, Orleans is encouraging visitors to downtown to leave their cars or bicycles and become pedestrians. These plans include recommendations for specific improvements to the sidewalk and crosswalk networks, street furnishings, landscaping, lighting, and appropriate signage to improve connectivity and the character of the village center.

### ***Transportation and Bikeways Advisory Committee***

The Town's recently constituted Transportation and Bikeways Advisory Committee merged prior committees charged with separate traffic, parking, bicycle, and pedestrian focus areas. The Committee is charged with reviewing and making recommendations on all issues relating to the safety of the roadways and multi-modal pathways in Town. This consolidation effort aligns with the Town's Complete Streets policy and should serve

the Town well in decision-making to provide safe and accessible options across multiple travel modes.

## Prior Planning Efforts

- 2009 Bicycle Study
- 2011 Streetscape Plan
- 2015 Route 6A Corridor RESET Project
- 2018 Parking and Circulation Study
- 2021 Orleans Wayfinding Plan
- 2021 Complete Streets Prioritization Plan

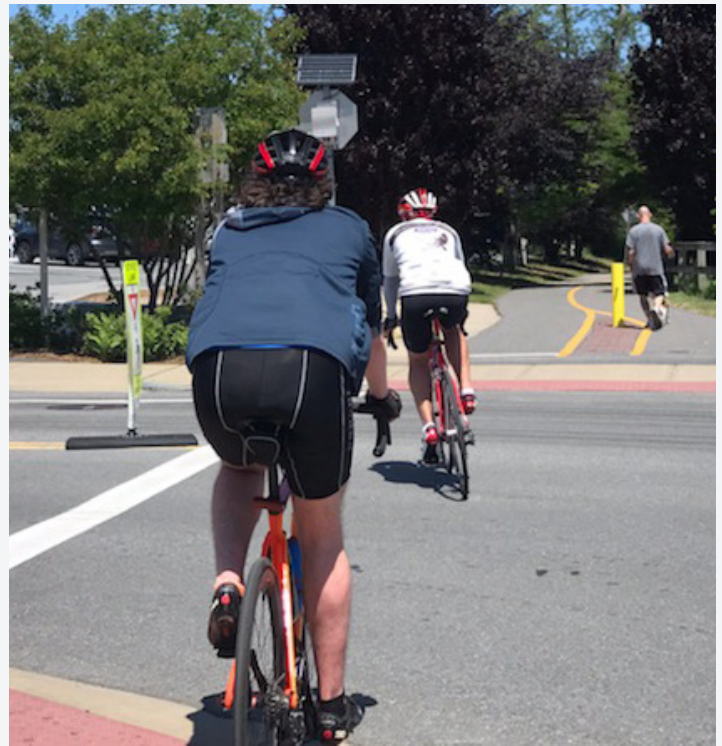


## Key Issues Moving Forward

- » Evaluate support for a safe walking path to Nauset Beach from downtown Orleans.
- » Identify priority projects from the Complete Streets Prioritization Plan for Tier 3 funding opportunities through the MassDOT Complete Streets funding program that includes healthy and safe transportation options for all users.
- » Establish layouts for unaccepted roadways to facilitate future sidewalk construction.
- » Evaluate Electric Vehicle charging infrastructure opportunities to align with both Town transportation and climate mitigation goals and policies that serve the current and future needs of the community and its visitors.
- » Evaluate the feasibility of providing seasonal shuttle service.
- » Repair existing sidewalks as part of routine roadway maintenance as funding allows.



- » Continue to pursue sidewalk construction Town-wide.
- » Work with MassDOT and the Cape Cod Commission to improve vulnerable user access on Route 28, Route 6, Route 6A.
- » Incorporate green infrastructure in to local roadway improvements.
- » Identify funding opportunities through the US Department of Transportation Safe System Approach program and all available federal and state grant funding.
- » Study intersections of concern based on the data presented in this section and local understanding of traffic patterns to support future infrastructure improvements.
- » Continue to pursue all opportunities to extend bicycle infrastructure through both on-road, buffered on-road, and off-road facilities to the greatest extent practicable to make connections from the CCRT to commercial, recreational, and natural resource sites in Orleans.



## Transportation Goal

- To promote and support a safe, reliable, multi-modal transportation system for all users by providing an interconnected network of safe streets, shared use paths, sidewalks and bicycle lanes throughout Orleans.

## Objectives and Actions

### 1. Design the transportation system to support the safe coexistence of vehicles, bicycles, and vulnerable users.

- Require that new road construction projects be coordinated so that transportation needs expressed in the Orleans Comprehensive Plan can be addressed in the planning stage before commencing the formal design process.
- Maintain roadways on a schedule that is cost-effective and avoids major reconstruction.
- Ensure that roadway design reflects year-round traffic demands and pursue management strategies to address peak seasonal traffic flow.
- Develop public layout plans for all major public roads in the Town.
- Provide alternative seasonal transportation options such as shuttles to beaches and other high demand locations.

- Complete and implement a wayfinding plan, including directional signs to destinations and parking.
- Complete a comprehensive traffic study of the Route 6A corridor in Orleans.
- Evaluate Eldredge Park Way intersection with Lots Hollow Road for transportation improvements.

### 2. Develop a more environmentally sustainable blend of transportation modes.

- Create safe bicycle and walking links to establish an interconnected transportation network that supports travel that is not reliant on vehicles.
- Ensure all road and transportation projects including all new projects, retrofit, or reconstruction projects adhere to the Town's Complete Streets Policy to accommodate bicycles and pedestrians.



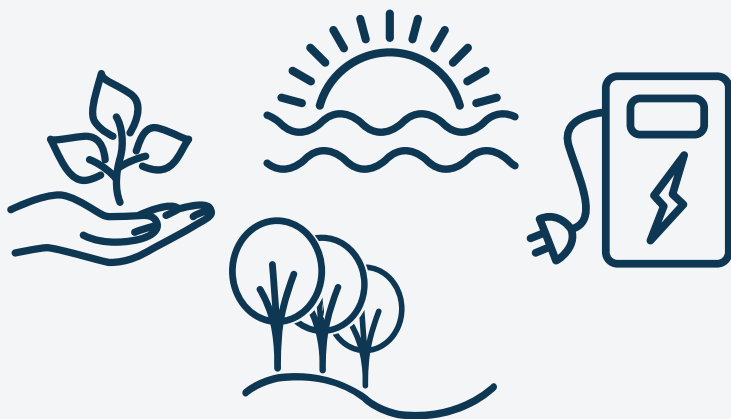
"Boat House, Kents Point" Paul Schulenburg, Addison Art Gallery

### **3. Protect the environment and community aesthetics in all transportation improvement projects.**

- Design transportation improvement measures required as a result of new development or redevelopment to be consistent with community character and maintain historic, scenic or natural resources.

### **4. Support and encourage regional transit initiatives.**

- Collaborate with regional partners to expand transportation needs for all users, and particularly seniors.



# Energy and Climate Mitigation

## Background

The impacts of climate change pose a catastrophic threat to our global and local ecosystems and to our local tourist-driven economy. Globally, greenhouse gas (GHG) emissions are the primary driver of climate change, requiring large-scale decarbonization solutions. But there are steps that communities can take to reduce their emissions and their dependence on fossil fuels. To mitigate the impacts of climate change, the Commonwealth of Massachusetts has set a statewide net-zero carbon emissions target for 2050, including a 50% reduction in carbon emissions by 2030.

Unlike other parts of the state confronting sizeable industrial emissions, the Cape's GHG emissions come primarily from cars, trucks, and buildings. Implementing local strategies to reduce emissions in these areas will enhance the Town's contribution to the State's net-zero carbon emission goals.

The Town is working to integrate energy efficiency and sustainability considerations into every municipal action. Anticipating and addressing climate change impacts is part of the responsibility of all Town departments.



*"Golden Hour" Rosalie Nadeau, Tree's Place Gallery*

## **Energy Efficiency, Electrification, and Electric Vehicles**

The Town of Orleans has been pursuing solar installations and energy efficiency at Town facilities to reduce the Town's carbon footprint and its expenditure on energy, as well as to increase its resilience and preparedness for extreme weather events and mounting natural hazards. "Energy efficiency" in this context includes high-quality insulation, no thermal bridging, windows with

low thermal conductivity, airtight construction, and ventilation with heat recovery such as can be found in "passive house" construction.

Solar installations are currently operating at the landfill, the Council on Aging, and a carport in Orleans for the benefit of the Nauset Regional School District. In addition, the Town has a "net metering"

contract that gives it the benefit of 10% of the production of a solar project in Freetown, MA. In total, current solar projects meet 33% of the Town's electric load. Current plans for expanding alternative energy use include solar projects at the Department of Public Works and Natural Resources (DPW) building, and the Town's water and wastewater treatment plants, and electric vehicle charging stations at Depot Square.

Reducing electricity use through energy efficiency projects generates substantial cost savings and makes a significant contribution to climate mitigation efforts. Regular energy efficiency audits and emissions inventories help Towns monitor trends and set goals for energy and emissions reductions. The most effective way to reduce GHG emissions in buildings is to convert fossil fuel heating and water heating equipment to electricity, which will increasingly be fueled by renewable sources such as wind and solar. The Town will pursue this strategy for municipal facilities and promote it for the

community. Support for energy efficiency in private buildings, including for business owners and low- and moderate-income households, can be provided through partnerships with organizations such as Cape Light Compact/Mass Save and through advocating for financial resources and technical assistance.

The Town has participated in the Cape Light Compact (CLC) energy efficiency program since 2006 to implement energy efficiency measures in municipal facilities. CLC works with member Towns to implement energy efficiency measures in new and existing schools, town offices, police and fire stations, parking areas and other public facilities.

Energy efficiency and GHG emissions reductions can also be addressed through updates to vehicles and taking measures to reduce vehicle miles traveled. The Town currently has 3 plug-in hybrid electric vehicles in its fleet.

## Prior Planning Efforts

- 2019 Municipal Vulnerability Preparedness (MVP)
- 2019 Hazard Mitigation Plan (HMP)



## Recent Actions by the Town

Orleans was designated a Green Community in 2018 under the Green Communities Program of the Massachusetts Department of Energy Resources (DOER) and was awarded a grant of \$134,709 to fund energy conservation measures in municipal facilities. To qualify as a Green Community, the Town had to meet five specific criteria, including zoning and permitting provisions for renewable energy facilities, an energy reduction plan, a fuel-efficient vehicle policy, and, by adopting a “stretch code,” increasing energy efficiency requirements in the Town’s building code. Under the initial grant, variable speed pumps were installed in the Town Hall’s heating and cooling system and an electric vehicle (EV) was purchased for the Town. Other projects are being sought so that the remaining funds will be applied to energy efficiency, renewable energy and other projects to reduce the Town’s consumption of fossil fuels.

The Town has adopted a Zero Emission First Vehicle Policy (referred to above as a “fuel efficient” vehicle policy). A key element of this policy is that, in replacing Town-owned or leased vehicles, the Town will prioritize EVs where feasible for the vehicle’s function, followed in priority by plug-in hybrid, hybrid electric or other alternate fuel vehicles. In addition, the

Town is seeking to significantly expand its public EV charging infrastructure for both municipal and consumer use.

The State has pivoted from energy reduction to GHG reduction and has established a net-zero emissions limit for 2050 (i.e., GHG emissions are not to exceed the quantity of carbon dioxide or its equivalent removed from the atmosphere and stored annually). Accordingly, the State has created the Climate Leader Communities program, under which communities can take steps to help Massachusetts meet its net-zero commitment by 2050. The Town’s Select Board has included Climate Leader certification among its 2025 goals. Municipalities that become Climate Leader Communities are expected to not only address the GHG emissions resulting from municipal operations, but also engage in clean energy/climate activities in their communities and continue to implement best practices that promote climate mitigation and clean energy adoption. Enhanced grant funding is available to Climate Leader Communities to mitigate the costs of decarbonization projects.

As part of its efforts to seek Climate Leader Community designation, the Town is making efforts to develop and adopt a climate action plan for municipal infrastructure and its citizens.

## Key Issues Moving Forward

- » Increase the use of alternative energy for Town facilities and services.
- » Reduce automobile use by providing alternative transportation options.
- » Advocate for residents to incorporate climate-friendly lifestyle changes.
- » Improve energy performance of Town buildings.
- » Evaluate zoning changes that will lead to more energy efficient development.
- » Reduce Greenhouse Gas emissions in all Town activities.
- » Reduce solid waste stream through recycling and source reduction techniques.

## Energy and Climate Mitigation Goal

- To reduce the community's contribution to climate change by ensuring that current and future energy infrastructure is cleaner, more efficient and more resilient by incorporating renewable energy, energy efficiency, and electrification to the maximum extent practicable.

# Objectives and Actions

## 1. Become a Climate Leader Community within the Commonwealth of Massachusetts.

- Develop and implement a climate action plan.
- Develop and implement a Decarbonization Roadmap for Orleans.
- Continue to maximize solar energy investments to maximize the State's 10MW of solar projects eligible for Net Metering Credits.

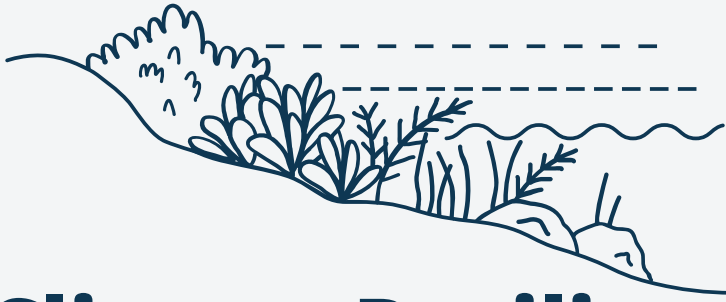
## 2. Minimize energy consumption, and maximize energy efficiency and conservation, in all municipal capital planning and design projects.

- Take actions to meet State-wide net-zero carbon emissions targets of 50% reduction by 2030 and 100% by 2050.
- Maintain energy use and emissions inventories for Town facilities to monitor trends and set goals for energy and emissions reductions.
- Incorporate renewable energy and energy use reduction in public facilities in the Town of Orleans.
- Prioritize all-electric options for municipal vehicle purchases.

## 3. Promote reducing energy consumption and maximizing energy efficiency on private property in Orleans.

- Promote through public education and advocacy low or no carbon technologies for building energy use through participation in energy efficiency programs and partnerships.
- Promote use of MassSave for home and business energy assessments.
- Work with local businesses to promote energy efficiency measures for the business community.
- Increase the number of electric vehicle charging stations in Town.

## 4. Adopt climate action mitigation and adaptation strategies.



# Climate Resiliency

## Background

Orleans has a significant amount of coastline - 53 miles of coastline in a Town that is only 14 square miles in area. Many seaside areas are low-lying and prone to flooding and storm damage. The characteristics and extent of Orleans natural resources are detailed in the Natural Systems section of the OCP. This section describes the thoughtful planning, infrastructure, and resource management efforts that have already taken place in Orleans. It will be necessary to continue these efforts to ensure the community remains resilient to climate change.

## Current Trends

Coastal communities are accustomed to storm events, which are increasing in frequency and intensity. The trend is projected to continue under future climate change scenarios. In 2018, Orleans experienced a series of disruptive and damaging weather events, including three successive Nor'easters in March, as well as a significant rainfall event (>4 inches) that fell within a few hours in August. The impacts from the nor'easters caused significant coastal erosion at Nauset Beach, resulting in the loss of more than 50 feet of coastal dune and necessitating removal of the iconic Liam's Snack Shack. Coastal flooding and high winds also resulted

## Prior Planning Efforts

- 2019 Municipal Vulnerability Preparedness (MVP)
- 2019 Hazard Mitigation Plan (HMP)



in disruptions to the electrical supply in many areas of Town. These events created a heightened level of awareness of the need to comprehensively improve community resilience and reduce local vulnerabilities to natural hazards.

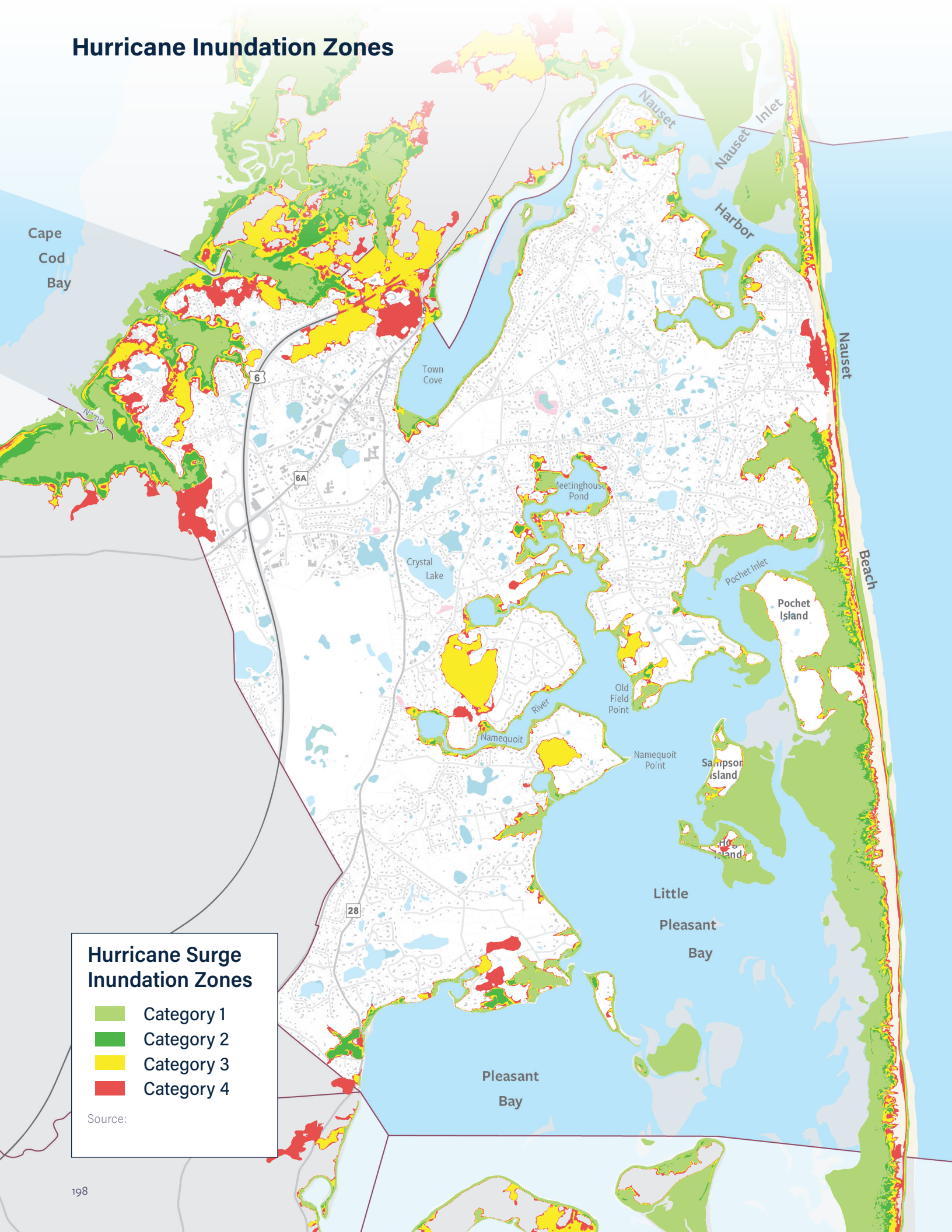
The Orleans coastline is a defining feature of the Town. It provides valuable tourism and recreation benefits and vital habitat for threatened and endangered species. When asked “What do you value most about Orleans?” during OCP visioning workshops, participants rated highly the natural landscape, including the quality of bayside and seaside beaches. Participants indicated that they would like the Town to adopt a commitment to addressing the risks from climate change. Additionally, over 50% of respondents to the survey felt that climate change/coastal resiliency was among the highest priorities for the Town.

The Atlantic-facing barrier beach system provides the first line of defense for the Town against coastal storms, flooding,

wave action and storm surge. During storm events, the barrier systems face erosion, areas of overwash, shifting inlets, and excessive shoaling in the estuaries. Vulnerable coastal properties are threatened by flooding and erosion, which could also impact the Town’s future tax base. In addition, wooded inland areas experience the effects of tree damage from wind, snow and ice, as well as hazards from flooding along roads. The combination of these issues presents a challenge to emergency preparedness and response, and requires comprehensive, tailored actions to establish mitigation priorities for different areas of Town.

The 2019 Municipal Vulnerability Preparedness (MVP) Plan, developed under a state planning framework, identified nor’easters, hurricanes and tropical storms, flooding, and coastal erosion as the hazards of greatest concern to the Town. Vulnerable populations, neighborhoods, ecosystems, infrastructure and transportation

# Hurricane Inundation Zones

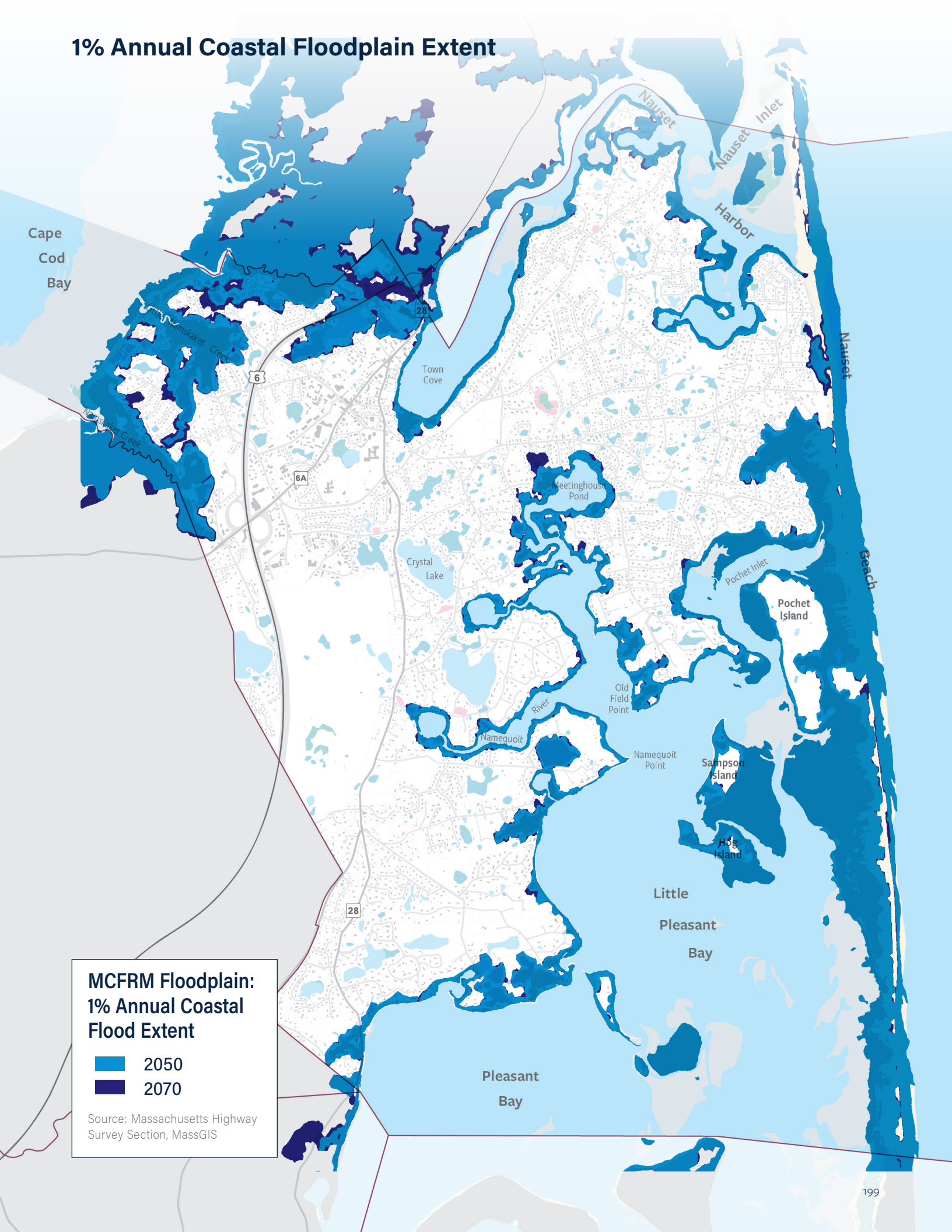


## Hurricane Surge Inundation Zones

- Category 1
- Category 2
- Category 3
- Category 4

Source:

# 1% Annual Coastal Floodplain Extent



## MCFRM Floodplain: 1% Annual Coastal Flood Extent

- 2050
- 2070

Source: Massachusetts Highway  
Survey Section, MassGIS

networks, and community facilities were also identified as vulnerable to these hazards. As a result of the Town's recent experience with extreme weather, the

MVP Plan identified a list of strengths and assets, including:

## MVP List of Strengths and Assets

- The effectiveness and coordination of first responders and emergency personnel, supported by committed Town leadership.
- Multiple piers and landings provide emergency responders with ready access to various locations.
- Barrier beaches, marshes and estuaries along Orleans coasts are an important buffer, offering the first line of defense against storms through storm surge attenuation and reduction of wave energy. Without these natural resources in place, the Town's coastal and inland infrastructure and homes would suffer greater damage during storm events.
- The Cape Cod National Seashore has well-protected natural resources which may be more resilient to natural hazards and climate change impacts. The National Seashore can provide aid to Orleans during an emergency, including federal staff and equipment resources.
- Snow Library, Nauset Regional Middle School, the DPW Facility and the Community of Jesus are key facilities that could serve as gathering places during hazard events.



## Recent Actions by the Town

The Town has completed a Municipal Vulnerability Preparedness (MVP) Plan and Hazard Mitigation Plan (HMP). These plans outline vulnerabilities, strengths, and actions the Town may take to become more resilient to climate change impacts. These plans also make the Town eligible for state and federal grant funding.

The Town has utilized programs and support from ResilientMA to begin addressing future needs to prepare for a changing natural environment.

## Key Issues Moving Forward

- » The Town is committed to resiliency planning as demonstrated by efforts to document hazard events, identify strategies to mitigate impacts, and implement those strategies. Looking forward, the Town must continue to view the provision of services, infrastructure design and planning, and other issues through the lens of climate resiliency.

Key planning and project implementation efforts include:

- » Working to improve the resiliency of public infrastructure and buildings, by:
  - Partnering with utilities or adding alternative energy systems to improve the reliability of the power distribution system during storm events, including public water supply wellfields and protecting vulnerable populations during power outages.
  - Adapting transportation networks and infrastructure to both reduce carbon emissions and reliance on fossil fuels; as well as identifying and addressing vulnerabilities in the infrastructure, such as low-lying roads susceptible to flooding.
- » Addressing both existing vulnerabilities and anticipating and planning for future ones which requires a commitment to sustained planning and investment. Effective planning must address mitigating vulnerabilities, enhancing response efforts, and developing recovery strategies for when climate events occur.

## Climate Resiliency Goal

- To prevent or minimize human suffering and loss of life and property or environmental damage resulting from storms, flooding, erosion, and relative sea level rise, associated with climate change and other natural and constructed influences.

## Objectives and Actions

### 1. Develop a set of Town-wide policies to incorporate climate resiliency practices across all aspects of local government.

- Participate in the State's Municipal Vulnerability Preparedness (MVP) 2.0 process.
- Complete 5-year plan updates to the FEMA Hazard Mitigation Plan (HMP).
- Maintain the Town's Community Rating System (CRS) Class designation under the National Flood Insurance Program (NFIP).
- Maintain a log of Floodplain inquiries by residents and property owners, maintain elevation certificates on properties with construction in the flood zone, and annually submit CRS documentation to FEMA.
- Develop an asset management framework to manage Town

infrastructure and facilities, and significant natural resources considering potential adverse impacts from climate change, flooding, and sea level rise.

### 2. Monitor and mitigate human impact on environmentally sensitive areas.

- Consider adopting Flood Area Design Guidelines adopted by the Cape Cod Commission for low-lying coastal and upland areas to reduce vulnerability of the built environment to coastal hazards.
- Identify, fund and repair low-lying roadways most susceptible to flooding during storm events and inform first responders, residents and visitors of the risks.
- Incorporate natural solutions to improve climate resilience, using the Nauset Beach Management Plan as an example.

## Project Highlight: Nauset Beach Phased Retreat Plan

Nauset Beach is a renowned recreational area for residents and visitors. The Town has administrative buildings and operates beach bathhouses, licenses food trucks and provides 500 parking spaces. Proactive measures have been undertaken to respond to erosion and the westward migration of the beach, as outlined in the 2016 Orleans Outer Beach Management Plan. Recent efforts include the completion of a 200-space upland parking lot, septic system pump station, gatehouse, stormwater improvements, and relocated Town gazebo to restore facilities that were lost or severely damaged during 2018 Nor'easters. In line with the retreat plan, the Administrative Building on Nauset Beach is slated for removal. The southern portion of Nauset Beach provides access for a popular oversand vehicle (OSV) program. To the north is a resident-only beach that is accessed via Callanan's Pass in Nauset Heights.

With a \$1 million State grant to help offset an \$5 million estimated project cost, Town Meeting approved construction of a 218-car parking lot on Town property (the former Beachside Motel) at 223 Beach Road. Future phases of the plan contemplate the relocation of the building containing restrooms and administrative offices upland, as well as a long-term plan to move parking off-site with shuttle service.



# 7

# ACTION PLAN

*"Landing at River Road" Paul Schulenburg, Addison Art Gallery*





## The Interrelated Nature of Issues in a Town Plan

Town planning is a complex process shaped by an intricate web of interconnected issues. No element of a town plan—whether related to housing, transportation, the environment, or economic development—exists in isolation. Instead, each decision influences a range of other outcomes, often in ways that are not immediately obvious. Understanding the interrelated nature of these issues is essential for creating resilient, sustainable, and equitable communities.

One of the most prominent examples of interconnection in town planning is the relationship between land use and

transportation. Decisions about where to place residential areas, commercial centers, and public amenities directly shape travel patterns. A town with sprawling, low-density development will require extensive road networks and foster car dependency. Conversely, a more compact and mixed-use layout supports efficient public transit, cycling, and pedestrian mobility. Transportation choices then feed back into environmental concerns, affecting air quality, carbon emissions, and noise pollution. Thus, a land-use decision inevitably becomes a transportation and environmental decision as well.

# Natural Systems

OC <sub>2</sub> Objectives / Actions

## Groundwater and the Aquifer

### 1. Monitor and Protect public water supply wells and zones of contribution.

- Prepare and regularly update the Town's water supply management plan.
- Maintain town's MS4 stormwater compliance by implementing green infrastructure improvements to provide stormwater treatment and storage.
- Purchase and protect land within the zone of contribution to public drinking water wells.

### 2. Propose and implement materials use restrictions and mitigation methods to reduce impacts to groundwater and inflow into water bodies.

- Identify and monitor contaminants of emerging concern, currently including PFAS, plastics and other physical and chemical contaminants.

Housing presents another set of interconnected challenges. The availability of housing, or lack thereof, influences the local economy, strength of the education system, healthcare, and recreation. When housing is unaffordable locally, workers face long commutes and increased stress; and the community suffers when it loses the young family demographic. Local governments must balance zoning policies, density allowances, and infrastructure capacity, knowing that each adjustment has consequences for economic opportunity, social equity, and environmental sustainability.

This plan was developed with thought given to the impacts of each issue area on other aspects of the town. One purpose of a town-wide plan is to achieve balance between competing interests so that the overall community is enhanced over time. This outcome can be achieved if individual decisions and recommendations are considered and resolved in a manner that is mindful and responsive to larger impacts and implications. That challenge will rest with those who implement the plan.

Timing - (S, M, L, Ongoing)	Resources - (staff, low, medium, high)	Lead Responsible Agency
Ongoing	High	Water Dept
S	M	DPW
Ongoing	M	OSC
L	H	DPW

## Freshwater Lakes and Ponds

### 1. Complete and implement management plans for ponds with public access so that they meet state, federal and regional standards, and implement recommendations

- On a regular cycle, monitor water quality trends and determine priorities for action.
- Limit impact of phosphorous and other nutrients through subsurface disposal system buffer zones.
- Regulate septic system leach field locations for new systems, and relocate upgradient septic systems to at least 300 feet from ponds.
- Research alternatives to reduce phosphorus from upgradient groundwater in proximity to fresh ponds.
- Develop plans to protect and enhance anadromous fish passage locations.
- Coordinate with brewster on plans for Baker's Pond.

### 2. Develop and implement a general management strategy for smaller ponds.

### 3. Enhance public alert and mitigation measures to address the occurrence of cyanobacteria.

- Refine protocols for evaluating information and informing the public.

### 4. Educate the public about responsible landscape management and the need to reduce or eliminate fertilizer and pesticide application.

### 5. Review and revise regulations that impact water resources as necessary to align with water quality goals.

## Marine and Coastal Resources

### 1. Implement the Amended Comprehensive Wastewater Management Plan to achieve threshold load reduction and restore marine water quality.

### 2. Design, fund and implement plans to mitigate nitrogen loading in coastal waters through non-structural (aquaculture, natural attenuation) and structural (collection and treatment facilities, stormwater) infrastructure improvements that meet state, federal and regional standards.

- Continue to monitor water quality conditions and track data for estuaries and develop and implement plans to improve water quality.
- Engage with Chatham, Harwich, and Brewster on the Pleasant Bay Watershed Permit and take agreed-upon actions as required.

Timing - (S, M, L, Ongoing)	Resources - (staff, low, medium, high)	Lead Responsible Agency
S	M	Planning
S	M	Health
S	L	Health
S	L	Planning
S	M	Natural Resources Manager
S	H	Planning
M	L	Planning
S	L	Health
S	L	Health
S	M	Conservation
S	M	Health
Ongoing	H	DPW
Ongoing	M	Planning
Ongoing	H	Planning

OCF  
ID

## Objectives / Actions

- Engage with Eastham to develop and implement plans to address nitrogen loading for areas with inter-municipal watersheds (i.e., Nauset Estuary and Rock Harbor).

### 3. Implement best practices to make Orleans more resilient to coastal erosion and other effects of climate change.

- Develop successive 5-year action plans to make Orleans more resilient to projected 25-year coastal erosion and climate change impacts.
- Maintain public access locations and respond to sea level rise and erosion.
- Adopt regulations that conserve salt marsh systems and allow for their migration.
- Review required setbacks for buildings in the coastal buffer zone.
- Preserve natural systems function in permitting development.

### 4. Develop an education campaign and alert system to notify the public in the event of outbreaks of harmful algae and bacteria in coastal water bodies.

- Coordinate with other Town Departments on shellfish closures and red tide occurrences.

### 5. Develop a shellfish management plan and update on a routine cycle.

## Wetland Resources

### 1. Protect wetlands to preserve their ecological integrity for current and future generations.

- Protect all wetlands through responsible development practices, including the establishment of buffer zones and prohibitions on development within sensitive areas and developing restoration strategies and monitoring programs.
- Identify opportunities and develop strategies to allow the natural migration of salt marshes.

### 2. Prevent the loss or degradation of wetlands.

- Strengthen floodplain (land subject to coastal storm flowage) management by adopting regulations targeted at increasing resilience.
- Continue to educate the community about wetlands and the vital role of wetlands in protecting human health and the environment.

<b>Timing - (S, M, L, Ongoing)</b>	<b>Resources - (staff, low, medium, high)</b>	<b>Lead Responsible Agency</b>
M	L	Planning
S	L	Natural Resources Manager
M	M	Natural Resources Manager
M	M	Conservation
S	L	Conservation
M	L	Conservation
S	L	Natural Resources
Ongoing	M	Natural Resources
Ongoing	L	Conservation
S	M	Conservation
M	L	Planning
S	L	Conservation

## Wildlife and Plant Habitat

### 1. Protect natural communities from human and environmental degradation through responsible regulation and management.

- Continue to identify endangered or threatened natural communities that require protection or intervention.
- Minimize fragmentation of wildlife and plant habitats by creating protected greenways and wildlife corridors as well as by protection of large unfragmented areas and the use of prioritized open space planning.
- Adopt additional enforceable provisions in the zoning bylaws to regulate how lots are prepared for development to prevent clear cutting of upland areas and removal of significant native trees, and to establish protections for undisturbed natural areas within required building setback areas.
- Follow Management Plans for Cedar Pond, Pilgrim Lake, Crystal Lake, Baker's Pond, and Uncle Harvey's Pond and others as developed.
- Maintain, monitor and improve the Town's anadromous fish runs and their spawning areas.
- Follow and regularly update habitat management plans to protect nesting areas of species of concern.

## Open Space

### 1. Preserve, expand and manage open spaces to mitigate the impacts of climate change, provide crucial habitats and wildlife corridors, protect water quality, implement carbon sequestration practices, provide recreational and health activities for citizens and ensure resilient landscapes for future generations.

- Utilize the 2025 Open Space and Recreation Plan to prioritize land protection efforts and maximize State matching grants.
- Actively identify additional parcels to enhance open space and work with owners and other partners to purchase or preserve open space.
- Evaluate opportunities for small-scale neighborhood pocket-parks and recreational amenities.
- Create land use and permitting policies that promote interconnectivity and compatibility of adjacent open space.
- Develop and implement best management practices for maintaining and enhancing public access to open space.
- Ensure ongoing beach management of natural resources of Nauset Beach, Skaket Beach, Town Cove and Pleasant Bay and work in cooperation with neighboring Towns and the Cape Cod National Seashore, when possible.

Timing - (S, M, L, Ongoing)	Resources - (staff, low, medium, high)	Lead Responsible Agency
Ongoing	L	Natural Resources
M	H	Planning
S	L	Planning
Ongoing	M	Planning
Ongoing	M	Natural Resources
Ongoing	M	Natural Resources
Ongoing	H	Planning
Ongoing	L	Planning
S	L	Recreation
M	L	Planning
M	M	Conservation
Ongoing	M	Natural Resources

- Identify and apply for or secure funding for enhanced ADA access across Town-owned open space and recreation areas.
- Provide uniform Orleans-branded public information on open space, including signs, interpretive displays, and brochures to increase appreciation of open space assets.

Timing - (S, M, L, Ongoing)	Resources - (staff, low, medium, high)	Lead Responsible Agency
M	M	Recreation/Parks and Beaches
L	M	Conservation

# Community Systems

OCF ID Objectives / Actions

## Economic Development

**1. Support the renewal of Orleans business districts into vibrant, compact, walkable places with safe, visible, and convenient connections to other commercial areas that foster a thriving ecosystem for businesses and promote year-round living.**

- Build supportive infrastructure to ensure Orleans' future economic competitiveness and resilience.
- Use trend analyses to set goals in each economic sector for future improvement.
- Promote infrastructure investments such as bicycle and pedestrian facilities, open space improvements, public parking areas, and recreational amenities to create unique and engaging local places that will attract and retain residents and visitors.
- Provide public spaces commensurate with downtown infill development.
- Actively seek destination businesses to enhance the local economy.

**2. Create a business-friendly environment in Orleans that retains existing businesses, amplifies their success, supports their expansion, recognizes the value of entrepreneurs, and fosters a thriving, profitable, and resilient local marketplace.**

- Review municipal regulations, as well as permit processes, to increase the ease of getting local permits and approvals.
- Evaluate how the Town's wastewater infrastructure program may affect local businesses and review associated policies and procedures to identify opportunities to support business retention and expansion.
- Market Orleans as a vibrant destination for year-round businesses, residents, and visitors through branding efforts, support for community events, and regional collaborations.
- Provide incentives and support for local businesses, including tax incentives, grant programs, and other district-level improvement efforts to equip local businesses with the skills and resources they need to grow, adapt, and remain competitive.
- Assess hotel/hospitality sector and identify opportunities to strengthen local businesses.

Timing - (S, M, L, Ongoing)	Resources - (staff, low, medium, high)	Lead Responsible Agency
S	M	Economic Development
S	M	Economic Development
M	H	Planning
Ongoing	M	Planning
Ongoing	L	Economic Development
S	L	Planning
S	L	DPW/Town Manager
M	M	Economic Development
S	H	Economic Development
S	M	Economic Development

**OCF ID Objectives / Actions**

**3. Attract new, emerging, and high-value businesses and industries that will enhance the tax base and create well-paying jobs.**

- Grow and leverage partnerships with educational institutions to foster workforce development.
- Leverage the Town’s natural assets to sustain economic activity focused on the blue economy, water access, and recreation.
- Seek opportunities to amend zoning to meet changing economic needs and ensure sustainable growth, including an assessment of the industrial zone to support workforce housing and more diverse business uses.

**Housing**

**1. Realize the Town’s adopted goal of creating 350 new attainable and affordable year-round housing units with a focus on retaining and attracting young families and growing and supporting our workforce.**

- Adopt new Zoning Bylaw amendments and a streamlined permitting process to support mixed-use development and “missing middle” housing types in the Village Center and other locations supported by municipal sewer.
- Evaluate opportunities for housing on Town-owned land.
- Support the creation of accessory dwelling units through streamlined permitting and other incentives.
- Continually evaluate if funding priorities and programs are meeting housing needs and develop new production targets and goals.

**2. Increase the percentage of the Town's existing housing that is occupied year-round.**

- Adopt regulations, policies and programs, including tax incentives and subsidies, to encourage the year-round occupancy and rental of existing housing units.
- Implement and leverage tools funded from the Commonwealth’s “Seasonal Communities” program.
- Continue and expand/promote direct-assistance programs that encourage housing stability and quality of housing stock.
- Monitor short-term rental activity and implement programs and policies to generate year-round use of existing single-family housing stock.
- Work to ensure that all rental units in Orleans are registered with the Town.

**3. Support housing efforts through adequate resources, staffing, and partnerships.**

<b>Timing - (S, M, L, Ongoing)</b>	<b>Resources - (staff, low, medium, high)</b>	<b>Lead Responsible Agency</b>
M	L	Economic Development
S	L	Economic Development
S	M	Planning
M	H	Affordable Housing Trust
S	M	Housing
S	L	Housing/Town Manager
S	L	Planning
Ongoing	L	Housing/Town Manager
S	M	Town Manager
S	M	Town Manager
Ongoing	M	Housing
Ongoing	L	Housing
S	L	Assessing

**OCF ID Objectives / Actions**

- Work with regional partners to implement innovative programs, increase cost-effectiveness, and connect residents with expanded options for housing support.
- Develop sustainable funding sources for the Affordable Housing Trust Fund.

**4. Develop a plan to accommodate seasonal workers.**

- Work with the business community and developers on necessary regulatory changes and specific projects.

**Community Services**

**1. Ensure a high-quality pre-K through grade 12 education for all Orleans students.**

- Monitor school enrollment numbers and trends and effectively utilize the data for planning municipal services.
- Evaluate regional opportunities at all levels of the public schools.
- Continue to fund educational and family support programs to serve needs of Orleans students at all levels.

**2. Provide recreation, health and wellness programs that are of the most interest to residents.**

- Create and maintain a comprehensive inventory and assessment of Town-wide program offerings, services and facility needs of each age group to guide assessment and improvements.
- Create a Community Services department working group to determine services and facility needs for each age group.
- Implement a survey to determine unmet needs and program expectations of the public and respond with appropriate programming.
- Continue to support health and human service grants made available to local non-profit organizations that benefit Orleans residents.

**3. Respond to the changing needs of an aging population and those of young families.**

- Determine opportunities to share existing public facilities with Town departments to meet service needs.
- Reestablish the Disabilities Commission to work toward universal design for public buildings.
- Perform a broad-based needs assessment for Orleans senior citizens.
- Coordinate with other local COAs and State agencies for efficient delivery of services.

<b>Timing - (S, M, L, Ongoing)</b>	<b>Resources - (staff, low, medium, high)</b>	<b>Lead Responsible Agency</b>
M	M	Housing
L	H	Town Manager
S	M	Housing
Ongoing	L	Planning/Town Manager
S	M	Town Manager
Ongoing	M	Town Manager
Ongoing	M	Community Services
S	L	Town Manager
S	L	Town Manager
S	L	Town Manager
S	M	Town Manager
S	L	Town Manager
S	L	COA
Ongoing	L	COA

**OCF ID Objectives / Actions**
**4. Prioritize public health and safety in municipal decisions and policy making.**

- Identify and resolve accessibility issues at public facilities and spaces and evaluate accessibility as part of a facilities management plan.
- Develop and implement a public communications strategy to get vital health and safety information to the public.

**Historic Preservation and Cultural Heritage**
**1. Preserve historic buildings, documents, artifacts, and sites in a manner that accommodates progress, and engenders public support of the value they add to the community.**

- Create an integrated public education campaign about the history of Orleans and its historic resources through various strategies including posting information on the Town website, preparing printed materials, presenting lectures, creating maps and videos, and posting informational signs in key gathering spots.
- Continue to identify historically significant properties and evaluate them for possible inclusion on local, state and/or national listings.
- Submit key properties for inclusion on the National Register of Historic Places.
- Protect the historically significant section of Orleans and evaluate such areas as potential historic districts.

**2. Seek and make public information about the indigenous settlements that predated European colonization and the co-existence of the cultures within the area that has become Orleans.**

- Use ongoing public education to create awareness of the historic character of Orleans prior to European settlement.

**3. Promote the adaptive re-use of historic buildings in a manner that maintains their historic elements and aesthetics, while making investments leading to long-term preservation.**

- Develop methods to better protect historic structures, including research on other communities, incentives, and revisions to the Demolition Delay Bylaw.
- Coordinate with the Centers for History and Culture in Orleans on preservation goals and activities.

**Arts and Culture**
**1. Develop and implement a comprehensive plan for developing Orleans into a major, year-round arts and culture center for residents and visitors on Cape Cod.**

- Integrate arts and culture offerings and spaces into the design for mixed use redevelopment of the Town center.

Timing - (S, M, L, Ongoing)	Resources - (staff, low, medium, high)	Lead Responsible Agency
S	M	DPW
Ongoing	M	Health
S	L	Historical
Ongoing	M	Historical
Ongoing	M	Historical
M	H	Historical
Ongoing	L	Historical
S	L	Historical
Ongoing	L	Historical
S	M	Planning

**OCF ID Objectives / Actions**

- Support new and expanded private or not-for-profit arts and culture-related spaces, studios, galleries, and events.
- Expand programming to generate year-round interest and increase visitation to Orleans for arts and cultural offerings.
- Provide additional programs in the arts, centered on the Native American history and culture of Orleans and Cape Cod in collaboration with appropriate agencies.
- Develop and implement a comprehensive plan to market Orleans and its arts-based activities and businesses.
- Develop and implement a "place-making" plan that brings art into public spaces including public art, wayfinding signage, improved lighting, and other improvements.
- Develop programs that stimulate enjoyment and appreciation of the arts and culture in Orleans.
- Evaluate and provide resources needed to maintain and expand the Orleans Cultural District and execute the plan.

**2. Utilize Town staff resources to serve as the fulcrum for arts and culture within the Town's governing and committee structure, with the mission to enhance the quality of life, the economy, and the design of Orleans through the arts.**

**3. Evaluate the feasibility of a year-round performing arts venue as an anchor facility for classes, studios, performance, lectures, other presentations, or exhibitions. Consider using public school buildings and Snow Library.**

- Complete a "cultural market study" to determine the level of demand for performing arts and future potential.
- Inventory local artists, conduct an opinion survey, and develop alternative approaches to the future of performing arts in Orleans.
- Consider satellite facility space for specialized studios such as pottery, glass making, printmaking and the like.

**Governance**

**1. Practice sound governance principles as a framework for effective decision-making to promote trust and accountability.**

- Ensure that Town operations are conducted according to the Town Charter.

**2. Utilize sound planning and operating principles and practices in all areas of Town government.**

**3. Employ sound financial practices and capital planning.**

**4. Increase public participation in the decision-making process.**

**5. Create mechanisms that provide opportunities for collaboration and consensus building among boards, committees and the general public.**

Timing - (S, M, L, Ongoing)	Resources - (staff, low, medium, high)	Lead Responsible Agency
L	M	Economic Development
M	M	Recreation, Culture, Community
M	M	Recreation, Culture, Community
S	M	Economic Development
M	M	Planning
S	M	Recreation, Culture, Community
M	M	Recreation, Culture, Community
		Recreation, Culture, Community
		Recreation, Culture, Community
		Recreation, Culture, Community
		Recreation, Culture, Community
Ongoing	Staff level	Town Manager

# Built Systems

OCP ID Objectives / Actions

## Community Design

**1. Encourage appropriate uniformity in the design of new development with the surrounding context while allowing for forward-thinking design that blends a modern aesthetic with the traditional Cape Cod vernacular.**

- Evaluate the Architectural Review Committee bylaw and the Orleans Design Guidelines and revise as appropriate to achieve better design outcomes and to be responsive to changing building and energy codes.
- Revise the zoning bylaws in business districts to ensure appropriate orientation of buildings and parking areas to the street and contextually appropriate building forms and massing.

**2. Protect historic structures that are valuable and important to the Town's history and character.**

**3. Revise the design review process and the supporting tools to be clear, enforceable, and streamlined.**

- Review the Architectural Review Committee (ARC) structure to streamline review of signage and other minor improvements and ensure robust professional support for major project reviews.

**4. Ensure that new development, redevelopment, or investment in business districts reinforces a pedestrian orientation, incorporates landscaping and natural amenities, and improves the overall function of the area.**

- Implement a comprehensive place-making program in Orleans that incorporates streetscape improvements, wayfinding, and reinvestment in public spaces.
- Establish a panel to include at least one professional architect, urban designer, and landscape designer to be retained on behalf of the Town to represent the design interests of the Town in all significant design and development projects, including public art installations, streetscape, Town buildings, outdoor public spaces, and commercial developments.

## Community Facilities and Infrastructure

**1. Develop and maintain community facilities in a cost-effective manner.**

- Create and maintain an inventory and assessment of all Town community facilities to guide development, maintenance and improvements.
- Address Elementary School, Fire & Rescue, Library, and future community center needs, possibly on a single site.

Timing - (S, M, L, Ongoing)	Resources - (staff, low, medium, high)	Lead Responsible Agency
S	L	Planning
S	L	Planning
Ongoing	H	Historical
S	L	Planning
		Planning
M	M	Planning
S	M	Town Manager
M	M	Town Manager
M	M	Town Manager

OCP ID	Objectives / Actions
	<ul style="list-style-type: none"> <li>• Replace the Nauset Beach administration building with a new facility at 223 Beach Road.</li> </ul>
	<ul style="list-style-type: none"> <li>• Replace seasonal employee housing at Wildflower Lane.</li> </ul>
	<p><b>2. Enhance community facilities (including physical facilities and Town waterfront) to improve functionality, accessibility, and inclusivity.</b></p>
	<ul style="list-style-type: none"> <li>• Make Americans with Disabilities Act (ADA) accessibility improvements across Town facilities.</li> </ul>
	<ul style="list-style-type: none"> <li>• Maintain and improve the Water Department infrastructure.</li> </ul>
	<ul style="list-style-type: none"> <li>• Plan for timely expansion of Wastewater Treatment Facility as system volume indicates.</li> </ul>
	<p><b>3. Reduce solid waste volume through recycling to better manage the Town transfer station. Expand the types of materials that can be recycled.</b></p>
	<ul style="list-style-type: none"> <li>• Continue to reduce solid waste volume by implementing additional recycling strategies. Adopt an overall strategy to reduce the waste stream, including reconsideration of a pay-as-you-throw program.</li> </ul>
	<ul style="list-style-type: none"> <li>• Consider options for food composting program for commercial businesses.</li> </ul>
	<ul style="list-style-type: none"> <li>• In managing the transfer station, evaluate the need for materials prohibitions in the future.</li> </ul>
	<p><b>4. Identify opportunities to repurpose and reassign the use of existing community facilities, and work with neighboring Towns towards efficient use of community facilities, services, and programs.</b></p>
	<ul style="list-style-type: none"> <li>• Repurpose community facilities as needed to meet community needs.</li> </ul>
	<ul style="list-style-type: none"> <li>• Coordinate with neighboring jurisdictions on opportunities to regionalize facilities, resources, and services.</li> </ul>

## Transportation

	<p><b>1. Design the transportation system to support the safe coexistence of vehicles, bicycles, and vulnerable users.</b></p>
	<ul style="list-style-type: none"> <li>• Require that new construction projects be coordinated so that transportation needs expressed in the Orleans Comprehensive Plan can be addressed in the planning stage before commencing the formal design process.</li> </ul>
	<ul style="list-style-type: none"> <li>• Maintain roadways on a schedule that is cost-effective and avoids major reconstruction.</li> </ul>
	<ul style="list-style-type: none"> <li>• Utilize Pavement Management to plan for cost-effective road maintenance.</li> </ul>

Timing - (S, M, L, Ongoing)	Resources - (staff, low, medium, high)	Lead Responsible Agency
M	H	DPW
M	H	DPW
Ongoing	M	DPW
Ongoing	H	DPW
L	H	DPW
Ongoing	M	DPW
S	L	DPW
Ongoing	M	DPW
M	M	Town Manager
L	L	Town Manager
L	M	DPW
S	L	DPW
Ongoing	H	DPW

OCP ID	Objectives / Actions
	<ul style="list-style-type: none"> <li>• Ensure that roadway design reflects year-round traffic demands and pursue management strategies to address peak seasonal traffic flow.</li> </ul>
	<ul style="list-style-type: none"> <li>• Identify priorities for public layout plans for major public roads in conjunction with major reconstruction projects.</li> </ul>
	<ul style="list-style-type: none"> <li>• Provide alternative seasonal transportation options such as shuttles to beaches and other high demand locations.</li> </ul>
	<ul style="list-style-type: none"> <li>• Evaluate transit needs in planning for removal of Nauset Beach parking lot as part of a phased retreat.</li> </ul>
	<ul style="list-style-type: none"> <li>• Complete and implement a wayfinding plan, incorporating branding and including directional signs to destinations and parking.</li> </ul>
	<ul style="list-style-type: none"> <li>• Develop a sign replacement program and seek funding.</li> </ul>
	<ul style="list-style-type: none"> <li>• Complete a comprehensive traffic study of the Route 6A corridor in Orleans.</li> </ul>
	<ul style="list-style-type: none"> <li>• Address Route 6A and Canal Road intersection for safety and function.</li> </ul>
	<ul style="list-style-type: none"> <li>• Seek MADOT project to improve Route 28/ Finlay Road/ Pond Road intersection.</li> </ul>
	<ul style="list-style-type: none"> <li>• Construct sidewalks on Main Street from Academy Place to Beach Road.</li> </ul>
	<ul style="list-style-type: none"> <li>• Evaluate Eldredge Park Way intersection with Lots Hollow Road to seek better traffic solutions.</li> </ul>
	<p><b>2. Develop an environmentally sustainable mix of transportation alternatives.</b></p>
	<ul style="list-style-type: none"> <li>• Create safe bicycle and walking links to establish an interconnected transportation network that supports travel that is not reliant on vehicles.</li> </ul>
	<ul style="list-style-type: none"> <li>• Ensure road and transportation projects including all new projects, retrofit, or reconstruction projects adhere to the Town's Complete Streets Policy to accommodate bicycles and pedestrians.</li> </ul>
	<p><b>3. Protect the environment and community aesthetics in all transportation improvement projects.</b></p>
	<ul style="list-style-type: none"> <li>• Design transportation improvement measures required as a result of new development or redevelopment to be consistent with community character and maintain historic, scenic or natural resources.</li> </ul>
	<ul style="list-style-type: none"> <li>• Update stormwater systems to prevent direct discharge of untreated stormwater to marine and fresh water bodies.</li> </ul>
	<ul style="list-style-type: none"> <li>• Manage trees along public roads for safety without damaging aesthetics .</li> </ul>

<b>Timing - (S, M, L, Ongoing)</b>	<b>Resources - (staff, low, medium, high)</b>	<b>Lead Responsible Agency</b>
L	M	DPW
L	M	Planning /DPW
L	M	Economic Development
M	H	DPW
M	M	Economic Development
M	M	Economic Development
S	L	Planning /DPW
M	H	Planning /DPW
L	H	DPW
M	H	DPW
S	M	DPW
L	H	DPW
M	H	DPW
Ongoing	L	Planning
Ongoing	M	DPW
Ongoing	M	DPW

OCP ID	Objectives / Actions
	<p><b>4. Support and encourage regional transit initiatives.</b></p> <ul style="list-style-type: none"> <li>• Collaborate with regional partners to expand transportation needs for all users, and particularly seniors.</li> </ul>

## Energy and Climate Mitigation

	<p><b>1. Become a Climate Leader Community within the Commonwealth of Massachusetts.</b></p> <ul style="list-style-type: none"> <li>• Develop and implement a climate action plan.</li> <li>• Develop and implement a Decarbonization Roadmap for Orleans.</li> <li>• Continue to maximize solar energy investments to maximize the State's 10MW of solar projects eligible for Net Metering Credits.</li> <li>• Take actions to meet State-wide net-zero carbon emissions targets of 50% reduction by 2030 and 100% by 2050.</li> </ul>
	<p><b>2. Minimize energy consumption, and maximize energy efficiency and conservation, in all municipal capital planning and design projects.</b></p> <ul style="list-style-type: none"> <li>• Maintain energy use and emissions inventories for Town facilities to monitor trends and set goals for energy and emissions reductions.</li> <li>• Incorporate renewable energy and energy use reduction in public facilities in the Town of Orleans.</li> <li>• Prioritize all-electric options for municipal vehicle purchases.</li> </ul>
	<p><b>3. Promote reducing energy consumption and maximizing energy efficiency on private property in Orleans.</b></p> <ul style="list-style-type: none"> <li>• Promote through public education and advocacy low or no carbon technologies for building energy use through participation in energy efficiency programs and partnerships.</li> <li>• Promote use of MassSave for home and business energy assessments.</li> <li>• Work with local businesses to promote energy efficiency measures for the business community.</li> <li>• Increase the number of electric vehicle charging stations in Town.</li> </ul>
	<p><b>4. Adopt climate action mitigation and adaptation strategies.</b></p>

Timing - (S, M, L, Ongoing)	Resources - (staff, low, medium, high)	Lead Responsible Agency
L	M	DPW
S	M	Town Manager
S	M	Town Manager
Ongoing	H	TM/DPW
Ongoing	H	TM/DPW
Ongoing	L	DPW
M	M	Town Manager
S	M	Town Manager
S	L	Town Manager
S	L	Town Manager
S	L	Energy Coordinator
S	M	Town Manager

## Climate Resiliency

### 1. Develop a set of Town-wide policies to incorporate climate resiliency practices across all aspects of local government.

- Participate in the State's Municipal Vulnerability Preparedness (MVP) 2.0 process.
- Complete 5-year plan updates to the FEMA Hazard Mitigation Plan (HMP).
- Maintain the Town's Community Rating System (CRS) Class designation under the National Flood Insurance Program (NFIP).
- Maintain a log of Floodplain inquiries by residents and property owners, maintain elevation certificates on properties with construction in the flood zone, and annually submit CRS documentation to FEMA.
- Develop an asset management framework to manage Town infrastructure and facilities, and significant natural resources considering potential adverse impacts from climate change, flooding, and sea level rise.

### 2. Monitor and mitigate human impact on environmentally sensitive areas.

- Consider adopting Flood Area Design Guidelines adopted by the Cape Cod Commission for low-lying coastal and upland areas to reduce vulnerability of the built environment to coastal hazards.
- Identify, fund and repair low-lying roadways most susceptible to flooding during storm events and inform first responders, residents and visitors of the risks.
- Incorporate natural solutions to improve climate resilience, using the Nauset Beach Management Plan as an example.

Timing - (S, M, L, Ongoing)	Resources - (staff, low, medium, high)	Lead Responsible Agency
S	M	Planning
M	M	Planning
Ongoing	L	Building Dept
Ongoing	L	Building Dept
M	M	Town Manager
M	L	Planning
S	M	DPW
S	M	DPW



TOWN OF ORLEANS  
DEPARTMENT OF PUBLIC WORKS &



Town of

*Orleans*

DEPARTMENT OF PUBLIC WORKS  
&  
NATURAL RESOURCES

40 GIDDIAH HILL ROAD

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NATURAL RESOURCES

# CAPITAL INFRASTRUCTURE AND FACILITIES PLAN 8



# Capital Infrastructure and Facilities

New Projects	Description
<b>Rock Harbor Bulkhead</b>	Rock Harbor east side bulkhead replacement. Under construction, Fall 2024
<b>CWRMP Sewer - Lakes &amp; Ponds (3)</b>	Phase 3 of ACWMP sewer project to protect Pleasant Bay watershed
<b>Fire Station replacement (Design)</b>	Replace 1987 facility to ensure long-term safety of residents
<b>Library replacement</b>	Replace Snow Library
<b>66 &amp; 76 Route 6A demolition</b>	Removal of buildings on site designated for affordable housing
<b>Water storage tank rehab</b>	Periodic maintenance to protect water storage tank
<b>Campus Project (Design)</b>	Potential project includes fire sta., elem. school, and community center on Eldredge Park Way property
<b>Fire Station replacement (Construction)</b>	Replace 1987 facility to ensure long-term safety of residents
<b>44 Main St. renovation</b>	Renovation of building for public use on street level and housing above
<b>CWRMP Sewer South Orleans (4) (Design) and Bay Ridge Lane Design &amp; Construction, PRB implementation</b>	Phase 4 of Orleans ACWMP to protect waters of Pleasant Bay Ridge Lane subject to grant funding
<b>Depot Square Redesign</b>	Reconstruct Depot Square to provide better functionality for residents and visitors
<b>CWRMP PRB 1, Mayflower Pt.</b>	Permeable Reactive Barrier to remove nitrogen from groundwater
<b>Gavigan cottages</b>	Replacement of buildings used to support seasonal lifeguard housing
<b>Orleans 2024 Campus Project - Phase 2</b>	Construction of Phase 2 of a community campus plan
<b>CWRMP Sewer South Orleans (4)</b>	Phase 4 of Orleans ACWMP to protect waters of Pleasant Bay
<b>CWRMP PRB 2, Duck Hole</b>	2nd barrier installation to remove nitrogen from groundwater

Cost (\$000s)	Priority (H, M,L)	How this Capital Investment Supports the OCP Vision, Goals, Purposes and Action Plan	Fiscal Year
8,300	H	Supports Blue Economy	2025
41,065	H	Ecological restoration of Pleasant Bay	2026
45,000	H	Critical facility for emergency response	2026
41,000	H	Heavily used community gathering space	2026
2,000	H	Prepares site for affordable housing development	2026
1,065	M	Protects public water system infrastructure	2026
4,500	M	Provides public services at a centralized location	2027
45,000	H	Critical facility for emergency response	2027
4,000	M	Supports arts on street level and affordable apartments on upper levels	2027
7,160	H	Ecological restoration of Pleasant Bay	2028
5,000	M	Supports downtown economic development	2027
3,300	L	Ecological restoration of Pleasant Bay	2028
2,500	L	Seasonal housing to maintain staff at Nauset Beach	2028
45,000	M	Provides public services at a centralized location	2030
43,560	H	Ecological restoration of Pleasant Bay	2029
8,400	L	Ecological restoration of Pleasant Bay	2030

New Projects	Description
<b>Nauset Beach Mobile Buildings</b>	Moveable buildings to replace administrative office and restrooms at Nauset Beach
<b>Town Cove Bulkhead</b>	Replacement of Goose Hummock landing bulkhead
<b>Old Colony Way reconstruction</b>	Complete Streets reconstruction of Old Colony Way to improve safety and functionality
<b>CWRMP PRB 3, Lockwood</b>	3rd barrier installation to remove nitrogen from groundwater
<b>CWRMP PRB 4, Norseman</b>	4th barrier installation to remove nitrogen from groundwater
<b>Main Street Reconstruction</b>	Road reconstruction to improve safety and accommodate bike/ped users
<b>CWRMP Sewer South Orleans (5) and PRBs</b>	Phase 5 of Orleans ACWMP to protect waters of Pleasant Bay
<b>CWRMP Sewer South Orleans (6)</b>	Phase 6 of Orleans ACWMP to protect waters of Pleasant Bay
<b>CWRMP WWTF Upgrade</b>	Increase capacity of treatment facility located on Overland Way
<b>CWRMP Sewer South Orleans (7)</b>	Phase 7 of Orleans ACWMP to protect waters of Pleasant Bay
<b>CWRMP Sewer South Orleans (8)</b>	Phase 8 of Orleans ACWMP to protect waters of Pleasant Bay
<b>CWRMP Sewer Pochet West (9)</b>	Phase 9 of Orleans ACWMP to protect waters of Pleasant Bay
<b>Additional Potential Projects</b>	
<b>Complete Streets projects</b>	Road improvements to allow all users to access roadways
<b>Fields Master Plan</b>	Plan to improve recreation facilities on Town and Nauset District athletic fields and facilities
<b>Broadband</b>	Improve services Town-wide
<b>Building Electrification</b>	Conversion of Town facilities from fossil fuel to electricity
<b>Resiliency</b>	Undefined projects may include low lying roads, erosion prevention, stormwater improvements
<b>Town Landings</b>	Various needs to be addressed

Cost (\$000s)	Priority (H, M,L)	How this Capital Investment Supports the OCP Vision, Goals, Purposes and Action Plan	Fiscal Year
3,000	M	Recreation facility supports beach for residents and visitors	2029
1,900	M	Supports Blue Econom and public access to Nauset Estuary	2029
3,000	M	Complete Streets road improvement project	2029
2,700	L	Ecological restoration of Pleasant Bay	2032
1,700	L	Ecological restoration of Pleasant Bay	2034
10,000	M	Complete Streets road improvement project	2031
24,380	H	Ecological restoration of Pleasant Bay	2032
26,735	H	Ecological restoration of Pleasant Bay	2035
42,490	H	Ecological restoration of Pleasant Bay	2038
19,291	H	Ecological restoration of Pleasant Bay	2040
28,889	H	Ecological restoration of Pleasant Bay	2043
32,747	H	Ecological restoration of Pleasant Bay	2046



# 9

## SUPPORTING PLANS AND POLICIES



## **Supporting Studies and Reports**

**2011** Town of Orleans Comprehensive Wastewater Management Plan, as amended, AECOM.

**2011** Orleans Village Center Streetscape Plan, Cape Cod Commission.

**2011** Orleans Streetscape Plan, Cape Cod Commission.

**2015** Route 6A Corridor RESET Project, Cape Cod Commission.

**2018** Parking and Circulation Study, Cape Cod Commission.

**2019** Community Resiliency by Design Study, Union Studios.

**2019** Orleans Conservation Open Space and Recreation Plan

**Cape Cod Commission** Housing Profiles, Town of Orleans

**PORT BY PORT:** Profiles and Analysis of the Massachusetts Commercial Fishery, Mass Division of Marine Fisheries, Urban Harbors Institute, Cape Cod Commercial Fishermen's Alliance

Massachusetts Department of Elementary and Secondary Education School and District Profiles

Massachusetts Department of Economic Research Labor Force and Unemployment Data

**Cape Cod Commission** Low-Lying Roads Project

**2019** Orleans Design Guidelines, Cape Cod Commission.

**2019** Municipal Vulnerability Assessment, Summary of Findings, Woods Hole Group.

**2019** Orleans Multi-Hazard Mitigation Plan, Woods Hole Group.

**2021** U.S. Census Bureau, Decennial Census 1990-2020

**2021** Orleans Complete Streets Prioritization Plan, Cape Cod Commission.

**2021** Orleans Wayfinding Plan, Cape Cod Commission.

**2021** Pond and Lake Atlas, Cape Cod Commission.

**2022** Economic Development Plan, Streetsense.

**2022** Community Center Feasibility Study Presentation

**2022** Fire-Rescue Feasibility Study Final Report, Kastle Boos Associates.

**2023** American Community Survey 5-Year Estimates

**2023** Orleans Elementary School Capital Asset Assessment, Habeeb and Associates Architects.

**2023** Snow Library Building Program, Cheryl Bryan Consulting.

**2023** Orleans Housing Needs Assessment/Community Survey Summary, JM Goldson.

**2024** Orleans Annual Report

# ORLEANS 2050



**The Town of Orleans  
Comprehensive  
Plan 2025-2050**