

Town of Sandwich

Local Comprehensive Plan

March 2024
Final Draft

Town of Sandwich

**Local
Comprehensive
Plan**

March 2024

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Thank You

The LCP Steering Committee would like to thank the following individuals for all their input throughout this process.

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Sandwich Boardwalk

Planning for Sandwich's future

Town of Sandwich Local Comprehensive Plan

The Local Comprehensive Plan (LCP) is the Town of Sandwich's master plan.

According to Massachusetts General Law Chapter 41, Section 81D, "A planning board established in any city or town under section eighty-one A shall make a master plan of such city or town or such part or parts thereof as said board may deem advisable and from time to time may extend or perfect such plan."

The Town of Sandwich first adopted a master plan in 1970. Subsequent plans were adopted in 1987, 1996, and 2009. The 1996 and 2009 LCPs were certified by the Cape Cod Commission as consistent with the Cape Cod Commission Act and Regional Policy Plan (RPP) in effect at that time. The 2018 RPP, amended in 2021, is the fifth prepared by the Cape Cod Commission. The Town of Sandwich is updating its LCP to be consistent with the 2018 RPP and address new issues and community needs since the 2009 LCP was adopted.

The LCP will guide growth and conservation policies for the next ten years and beyond. The LCP defines the parameters by which growth should occur and identifies actions to shape growth and preserve town character. It defines the community's driving forces; provides a focused community vision for the future and lays out a plan for implementation.

Sandwich Vision Statement

The Sandwich LCP envisions a vibrant, diverse and sustainable seaside community that cherishes our historic past, values our natural resources, and creates new opportunities that make Sandwich a great place to live, work and play.

The LCP will serve as a guide for the next decade of growth development and planning in Sandwich. The plan will be an actionable, measurable, and living document. It will ensure that the Town of Sandwich proactively moves towards 2035 as a vibrant community that is highly desirable to residents, visitors and businesses.



Heritage Museums and Gardens

Town of Sandwich Location Map





Historic Sandwich Village

Sandwich Growth Policy

Sandwich will maintain the qualities and characteristics that residents and visitors value through managed growth, thoughtful development and a reimagining of existing uses. Sandwich will ensure that our natural environment, cultural assets and rich historical value will continue to be preserved while allowing for economic growth and housing that meets the existing and future needs of Sandwich.

In 2020, the Town of Sandwich established the LCP Steering Committee. The Committee was tasked with updating the 2009 plan. In January 2021, the Committee conducted its first public outreach with an online survey. More than 320 Sandwich residents participated in the virtual forum. The responses from the survey yielded

five priority categories: Community Character, Cultural and Recreational Opportunities, Economic Development, Natural Resources, and Neighborhoods.

In addition to the online survey, the Committee held public forums focusing on each of the five categories. To increase participation, two workshops were held for each category totaling ten opportunities for residents to participate in the process.

Community Goals

The Steering Committee established goals for the Sandwich LCP based on the information gathered from public outreach and the Natural, Built, and Community Systems identified in the RPP.

Within Natural Systems, goals focus on water resources, coastal resiliency, wetland resources, wildlife and plant habitat and open space.

Within Built Systems, goals include community design, capital facilities and infrastructure, transportation, energy, waste management and climate mitigation.

Community Systems associated goals are cultural heritage, economy and housing.

Existing Conditions

This section contains an overview of existing conditions in Sandwich organized by Natural, Built, and Community Systems beginning with a description of Sandwich today focusing on demographic and land use issues. Each summary describes current conditions in the Town, recent actions, and key issues moving forward. The existing conditions identify town assets, strengths, and related challenges and opportunities, and reflect changing conditions since the LCP was last updated.

Capital Infrastructure and Facilities

In this section, the LCP aligns and cross-references capital investments contemplated in the Action Plan with the Town's ongoing capital facilities planning. This review ensures that the capital requirements necessary to implement the LCP are planned for and met.

Housing Production Plan

The Housing Production Plan focuses on addressing the community's diverse housing needs. With a goal to foster inclusivity and sustainability, the plan emphasizes the creation of affordable housing options while balancing growth with environmental stewardship. Strategies include incentivizing mixed-income developments, promoting accessory dwelling units to maximize land use, and collaborating



Main Street Sandwich Village

with developers to ensure a range of housing types. By prioritizing smart growth principles, this plan aims to cultivate a vibrant, resilient, and equitable community for current and future residents.

Targeted Action Plan

The targeted action plan comprises initiatives categorized under Natural, Built, and Community Systems. These actions



Dexter Grist Mill

are essential for implementing the Local Comprehensive Plan (LCP) and encompass a spectrum of endeavors, including critical studies, zoning modifications, public education, and outreach efforts.

Within the natural systems framework, the LCP details targeted actions to safeguard our water resources, enhance coastal resiliency, preserve wetlands, protect and foster wildlife and plant habitats, and conserve open spaces. The plan also outlines initiatives to nurture diverse wildlife and plant habitats, balancing conservation with responsible land use practices. These actions align with our town's commitment to environmental stewardship and resilience, forging a path toward a more sustainable and harmonious coexistence with nature.

The Built Systems segment delineates strategic actions spanning community design, facilities, infrastructure, transportation, energy, waste management, and climate mitigation. Community design initiatives prioritize inclusive, walkable neighborhoods and mixed-use developments, fostering a sense of belonging and accessibility. Upgrades to facilities and infrastructure aim to enhance

public services and support sustainable growth. Transportation strategies emphasize multimodal options, such as pedestrian-friendly pathways, reducing reliance on individual vehicles. Energy-focused actions concentrate on promoting renewable sources and energy-efficient practices to minimize the carbon footprint. Waste management endeavors include measures to foster a circular economy. Furthermore, the plan addresses climate mitigation through carbon reduction strategies, resilience planning, and the integration of sustainable practices into the built environment. These coordinated actions aim to create a resilient, efficient, and environmentally conscious town, aligning with our vision for a thriving and sustainable community.

The Community Systems section of the LCP delineates targeted actions to preserve cultural heritage, bolster the local economy, and address housing needs. Preservation of cultural heritage involves initiatives to safeguard historical sites, promote cultural events, and encourage community engagement. Economic strategies center on fostering entrepreneurship, supporting local businesses, and attracting sustainable economic development opportunities. Regarding housing, the plan

emphasizes diverse housing options, including affordable housing programs, zoning revisions to accommodate varied housing types, and partnerships to address housing accessibility. These combined efforts aim to nurture a vibrant cultural identity, foster economic resilience, and ensure housing inclusivity, ultimately enhancing the quality of life for our community members. These collective actions aim to fortify our town's resilience, sustainability, and community well-being.

Plan Implementation Summary

The Plan Implementation Summary embodies a comprehensive strategy. It encompasses a phased approach, detailing timelines, responsible stakeholders, and key performance indicators for each identified action. The

implementation framework prioritizes collaboration among various departments, community stakeholders, and external partners to ensure seamless execution. Central to this approach is a robust monitoring and evaluation system that tracks progress annually. Continuous community engagement and transparent communication channels serve as cornerstones, fostering support and participation throughout the implementation process. Ultimately, this implementation summary forms the blueprint for realizing the LCP's vision, promoting sustainable growth, enhancing community well-being, and achieving long-term prosperity for our town.



Shoreline stabilization at Town Neck Beach

SECTION 1

Community Vision

The Vision Statement and Growth Policy are an expression of shared community values for future development and resource protection. It defines what the Town of Sandwich is today and what the community envisions it to be in the future.





Today's Cocktails
Ain't no - 1/2 oz. rum, 1/2 oz. blueberry
Lena Maria - 1/2 oz. rum, 1/2 oz. lime juice, 1/2 oz. orange juice
Cape Codder - 1/2 oz. rum, 1/2 oz. lime juice, 1/2 oz. orange juice
Paloma - 1/2 oz. rum, 1/2 oz. lime juice, 1/2 oz. orange juice
Tom Colling - 1/2 oz. rum, 1/2 oz. lime juice, 1/2 oz. orange juice

Sandwich Vision Statement

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Sandwich Growth Policy

Sandwich will maintain the qualities and characteristics that residents and visitors value through managed growth, thoughtful development and a reimagining of existing uses. Sandwich will ensure that our natural environment, cultural assets and rich historical value will continue to be preserved while allowing for economic growth and housing that meets the existing and future needs of Sandwich. Growth will be focused in community activity centers; South Sandwich Village, Industrial Park, Marina, Sandwich Village and Business Districts. Development will be (in response or responsive) to the setting in which it is located and strive to protect the unique environment of Sandwich.

SECTION 2

Community Goals

This section includes Goals for the Sandwich 2023 Local Comprehensive Plan, organized according to the 2018 Cape Cod Regional Policy Plan framework of Natural Systems, Built Systems, and Community Systems.





WINDMILL COTTAGE
1870

PRIVATE

The Johns
Sandwich & Esch
The City

Main Street Sandwich Village

Goals

Natural Systems



Water Resources



Coastal Resiliency



Wetland Resources



Wildlife and Plant Habitat



Open Space

Community Systems



Cultural Heritage



Economy



Housing

Built Systems



Community Design



Capital Facilities & Infrastructure



Transportation



Energy



Waste Management



Climate Mitigation

Natural Systems



Coastal Resiliency Goal

Prevent or minimize human suffering, loss of life, property, critical municipal facilities and environmental damage resulting from storms, flooding, erosion, and relative sea level rise.



Wildlife and Plant Habitat Goal

Protect, preserve, and restore where appropriate wildlife and plant habitat to maintain biological diversity and preserve the scenic character and minimize the negative impacts of development.



Water Resources Goal

Protect groundwater and surface water resources to ensure a sustainable supply of drinking water and to preserve and restore ecological integrity. Protect the overall water quality and its resources by providing management and treatment of all potential contaminants.



Wetlands Resources Goal

Protect, preserve and restore where appropriate the quality, ecological values and functions of inland and coastal wetlands and their buffers.



Open Space Goal

Protect, preserve, restore or acquire open space properties while encouraging public access and adequate use.

Built Systems



Community Facilities and Infrastructure Goal

Provide community facilities and services responsive to a diverse population and pursue solutions that address community and regional needs.



Energy Goal

Promote an adequate, reliable carbon-free supply of energy to meet the needs of all users in Sandwich.



Climate Mitigation Goal

Support the Commonwealth's Roadmap to Decarbonization thresholds to reduce greenhouse gas emissions.



Community Design Goal

Protect and enhance the unique character of Sandwich through vibrant connected neighborhoods. Guide development to preserve Sandwich's character and cultural heritage, minimize adverse impacts and enhance the quality of life.



Transportation Goal

Plan and encourage the implementation of a safe, reliable and affordable public transportation network as an alternative to polluting vehicles.



Waste Management Goal

Promote a sustainable solid waste management system for Sandwich that protects public health, safety, the environment and supports the economy.

Community Systems



Cultural Heritage Goal

Identify, protect, and preserve the significant cultural, historical and archeological values and resources of Sandwich.



Economy Goal

Promote a sustainable and vibrant economy comprised of a broad range of businesses providing employment opportunities to a diverse workforce.



Housing Goal

Promote the production of more homes for owners and renters that are safe, inclusive and attainable for people with different income levels and needs.

Public Process

Steering Committee Formation

In July of 2020, the Town of Sandwich established a Local Comprehensive Plan (LCP) Steering Committee. The committee consisted of volunteers from various town boards as well as two members at lodge.

Online Survey

The following January, the Committee conducted its first public outreach with an online visioning survey. The survey consisted of seven questions focused on Sandwich of today and Sandwich in the future. More than 320 Sandwich residents participated in the survey.

In response to the question, ***‘What are the top three issues facing Sandwich today?’***, the residents identified the following top issues:

Current Top Issues	% of Respondents
• Taxes	28%
• Climate	16%
• Economic Development	11%
• Infrastructure	9%
• Schools	7%
• Housing	7%

In response to the question, ***‘What are the top three issues that Sandwich may face in the future?’***, the residents identified the following top issues:

Future Top Issues	% of Respondents
• Taxes	22%
• Climate	19%
• Housing	12%
• Economic Development	10%
• Schools	10%

The current top issues of taxes and climate continued to be the top future issues identified by survey respondents.

In response to the question, ***‘What would you like Sandwich to be like in 2030?’***, the residents responded by identifying the following focus areas:

Focus Areas	% of Respondents
• Commercial Development	25%
• Natural Resources Protection	15%
• Families (including schools)	14%
• Diverse & Inclusive Community Improvement	11%

In response to the question, ***'What do you most value in Sandwich?'***, the residents identified the following top values:

Most Value	% of Respondents
• Natural Systems	50%
• Community	28%
• Historic Resources	12%

In response to the question, ***'What should we improve or expand in Sandwich?'***, the residents identified the following opportunity areas for improvement or expansion:

Improve or Expand	% of Respondents
• Economic Development	18%
• Community Services, Systems & Schools	17%
• Add stores and recreation	14%

More detailed survey results can be found on the Town website: www.sandwichmass.org/1560/Local-Comprehensive-Plan.

Public Forums

As soon as the COVID public health crisis allowed, the Steering Committee held public forums in the fall of 2021, focusing on five categories:

- Creating viable, livable neighborhoods
- Protecting Sandwich's historic character
- Enriching cultural and recreational opportunities
- Creating economic growth opportunities
- Protecting and conserving natural resources

To increase participation, two workshops were held for each category, for a total of ten opportunities for residents to participate in the process. Recurring themes from the workshops included the following:

- Improve Communication from the Town to Residents
- Improve the Town website: event calendar, link to other helpful websites
- Promote more year-round housing and allow various housing types
- Create more sidewalks, bike and walking paths, and parking
- Allow mixed use and expansion in our business districts
- Increase signage
- Promote diversity and multi-generational neighborhoods

- Support Wastewater efforts and protect our water
- Become a Green Community
- Bring in light industry, expand infrastructure to encourage tech business and focus on eco-friendly enterprises.
- Have Sandwich build a brand
- Capitalize on Town owned historic sites
- Promote volunteers
- Regulate short-term rentals

The committee used the information from the survey and workshops to help inform the Goals and Objectives of this LCP update.



Community Workshop

Cape Cod Commission Involvement

The Town of Sandwich through its LCP Steering Committee has reached out to the Cape Cod Commission (CCC) for guidance and assistance in navigating the LCP process.

The CCC assigned Chief Planner Chloe Schaefer and Planner Martha Hevenor as liaisons to the LCP Steering Committee and Town Staff. Commission staff were instrumental in explaining the process to the LCP Steering Committee and participated in several meetings.

In 2022, the Town of Sandwich received a District of Local Technical Assistance (DLTA) Grant from the CCC to assist in the completion

of the LCP. With the grant, the Town procured the services of Tighe & Bond to review the work of the LCP Steering Committee and develop a document that will be presented to Town Meeting and later submitted for certification by the Cape Cod Commission as consistent with the Cape Cod Commission Act and Cape Cod Regional Policy Plan.

In addition to the work of the consultant, Commission staff continued to review the document and provide necessary components prior to CCC certification review. Commission staff also provided GIS resource maps for inclusion in the LCP.



Sandwich Town Office

SECTION 3

Existing Conditions, Key Issues & Needs

This section provides an overview of the key issues facing the Town of Sandwich today, organized by the Cape Cod Regional Policy Plan: natural systems, community systems and built systems.





SANDWICH
TOWN HALL

Town Hall
1834

Historic Sandwich Town Hall

Land Use – Sandwich Today

Background

Sandwich (the “Town”) is the oldest town on Cape Cod and retains a great deal of its historic charm: a walkable village center three National Register Districts; a number of museums; lushly treed winding country roads; a few remaining farms; a varied collection of coastal and inland natural areas, and an overall character of a quaint New England town. The Town’s character reflects its history: its beginnings as a farming and fishing community, its years as a small industrial community, its role as a summer destination, and its more recent emergence as a town from which people commute to urban areas. Each of these aspects of the Town’s character is reflected in its physical pattern of growth.

Existing Land Use

According to the U.S. Census Bureau, the Town has a total area of 44.2 square miles, of which 42.74 square miles is land and 1.5 square miles, or 3.2% is water. The Town includes a significant portion of Joint Base Cape Cod (JBCC) with 8,000 acres that are controlled by the Commonwealth of Massachusetts. As a result, public service land uses are by far the single largest land use category in Sandwich accounting for approximately 60% of the total land use. Following public service land use, single-family residential development accounts for approximately 35.4% of land use in the Town. Based on information in the Town’s 2018 OSRP, according to the Town’s Assessor’s database, there are about 1,398 acres of developable land left in Sandwich, accounting for about 7.5% of the total land

area in the town outside of JBCC. Additionally, there are an estimated 71 acres of potentially developable land that may have some form of legal and environmental constraints including deed restrictions or wetlands.

The 132 acre power plant property is the single largest industrial use in the Town. A few farms remain in production and are greatly valued by townspeople for both their open space and the productive use of the land that the farms represent. The Town’s historic “wood lots” stretch from the coast to the Ridge, which had given settlers equal access to the natural resources of shoreline, marshlands, freshwater ponds and springs, upland meadows and forest. According to the 2019 Comprehensive Economic Development Strategy (CEDS), 36% of Sandwich’s land area is dedicated to protected open space.

There are three saltwater and three freshwater beaches in Sandwich. Saltwater beaches include the Town Neck Beach and Boardwalk on Wood Avenue and Boardwalk Road, East Sandwich Beach on North Shore Boulevard, and Sandy Neck Beach (for residents only) on Sandy Neck Road. Freshwater beaches include Snake Pond Beach (for residents only) on Snake Pond Road, Ryder-Wakeby Park on South Sandwich Road, and the Oak Crest Cove (for residents only) on Peters Pond.

Historic Development Patterns

Like many of the early Cape Codders, Sandwich settlers were farmers first and fishermen on the side. Sandwich colonists originally divided their settlement into common

property and private farming lands. Town Neck and the salt marshes were originally commons used for grazing cattle. Private land typically ran in north-south strips (called “long lots”) from the beach back to the moraine ridges. This pattern enabled each colonist to have a slice of different habitat for various land uses: meadows for English hay in the richer soil near the shore, homes and yard gardens along the King’s Highway, then pastures and woodlots in the poorer soils and rugged terrain south of the highway.

By the early 1800s, industrial activity began to take hold in Sandwich. The glass industries and related works spawned a number of supportive businesses, which continued through the end of the nineteenth century. The community’s location relative to Boston meant that it was the first Cape town to enjoy the commercial advantages of rail transport in the 1840s. The advent of the automobile brought about inevitable change. By 1920, Sandwich’s population began to

grow with the advent of the automobile and, people found jobs building homes along the southern coastal areas and the foundation of the tourist economy took shape.

The U.S. Army Corps of Engineers took control of the Cape Cod Canal in 1918. A National Guard Camp was created on the 3,841 acre Coonamessett Ranch in the southwest corner of the Town. Lombard Park on the south side of the ranch was donated to the Town. Clearing and construction for an airstrip, water supply, and sewer treatment plant began in 1936. The facility was named Camp Edwards. The U.S. Army took control of the camp in 1940 and proceeded to enlarge it considerably. In six-month’s time, 1,500 buildings were constructed, creating a significant military installation that had a tremendous impact on the Town. The base expanded into surrounding towns and grew to approximately 22,000 acres in size. By the 1950s, spurred by the post-World War II boom, Sandwich’s character as a seaside resort was well established. Since the mid-1900s,



1884 Sandwich Birds Eye Map, Source: BPL

many of the former summer tourists have purchased homes and retired to Sandwich.

East Sandwich has been heavily subdivided, but more vacant lots remain in this part of town than in its western village neighbors. Heavily developed along its eastern perimeter, South Sandwich and the Ridge District contain the greatest potential for more large subdivisions. Forestdale has vast new suburban-style residential developments. Sandwich Village has a more densely settled collection of largely historic properties ranging from the late 1600s to the early 20th Century, interspersed with more recent homes. East Sandwich has both rural development patterns large old farmsteads. Early Quaker homes and the Quaker Meeting House, while also having some of the most suburban patterns (acre-lot, grid subdivisions popular in the 1970s, such as Carleton Shores).

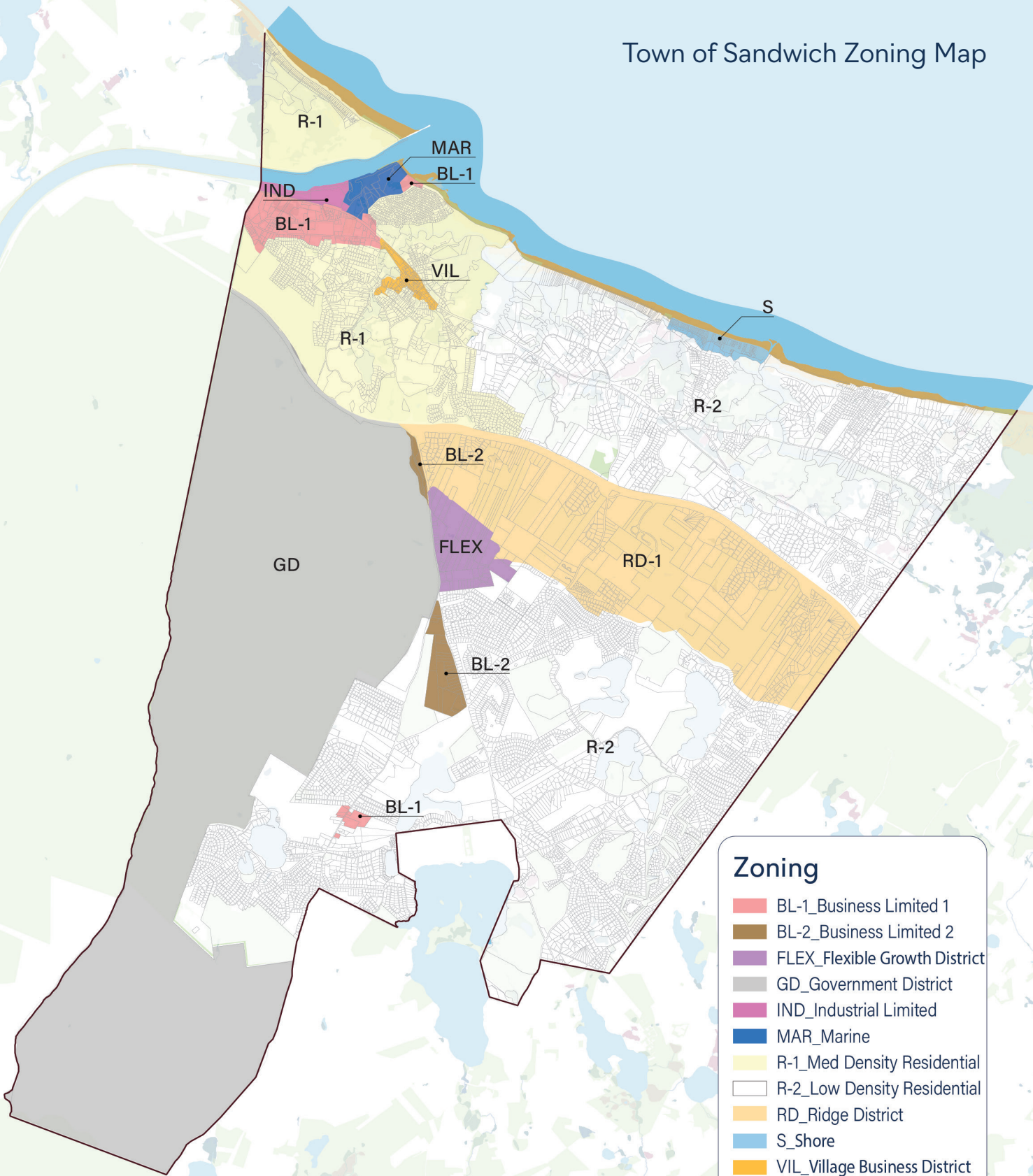
The Three Ponds area in South Sandwich was designated as a District of Critical Planning Concern (DCPC) by the Barnstable County Assembly of Delegates in 2000 to protect water quality, preserve open space, and maintain the character of nearly 700 acres of land and more than 300 acres of water in southeastern Sandwich. In the DCPC uses are limited and other restrictions are placed on development and uses to ensure that the area's critical resources are protected. In addition, the Town made a number of purchases using Land Bank and Community Preservation Act funding and other funds to protect the Cook/Rubicon property on Shawme Pond, the YMCA Camp on Lawrence Pond, and the Agilent property on Peters Pond.

Existing Zoning

The Sandwich Zoning Bylaw is made up of eleven zoning districts and six overlay districts. The Town includes three residential districts: Residence (R-1), Residence (R-2), and Ridge District (RD). R-2 is intended to provide lower density development, while R-1 is intended to provide higher density development in areas that are served by public utilities. The minimum lot size in the R-2 and the Ridge District is 60,000 square feet; the minimum lot size in the R-1 district is 40,000 square feet.

The Town has established two business districts, Business Limited (BL-1) and Business (B-2), which provide for small-and large-scale business developments. Business zones are scattered along Route 130 and in the northwest of town near the Cape Cod Canal. The Shore (S) district, a small strip along Cape Cod Bay, allows uses related to travel accommodations where such uses are already permitted. The Village Business District (VIL) is comprised primarily of Downtown Sandwich and was established to ensure the preservation and enhancement of the historic village center. The Industrial Limited (IND) district along the Canal includes the JERA Americas Inc. power plant. The FLEX district is primarily located off Route 130 and the former town landfill, Jan Sebastian Drive (Sandwich Industrial Park), and the gravel pits near Peters Pond. The Town has established a special Marine Limited (MAR) district to allow uses that are compatible with preservation of the oceanfront, which is located at the mouth of the Cape Cod Canal. The Governmental District (GD) encompasses Joint Base Cape Cod. The Three Ponds District is a special zoning district established

Town of Sandwich Zoning Map



Zoning

- BL-1_Business Limited 1
- BL-2_Business Limited 2
- FLEX_Flexible Growth District
- GD_Government District
- IND_Industrial Limited
- MAR_Marine
- R-1_Med Density Residential
- R-2_Low Density Residential
- RD_Ridge District
- S_Shore
- VIL_Village Business District

0 0.5 1 2 miles

Source: 'Zoning Map_Town of Sandwich' PDF, November 2017

through a District of Critical Planning Concern (DCPC) designation in February 2000 to protect water quality, preserve open space, and maintain the character of nearly 700 acres of land and more than 300 acres of water in southeastern Sandwich.

The overlay districts are superimposed over other zoning districts to impose supplementary requirements or to provide a mechanism to encourage or shape development. A few of

Telecommunications. At the 2015 Special Town Meeting, the Town adopted a Large Scale Ground Mounted Solar Overlay District to encourage the development of large-scale solar arrays. Over the years, residents expressed concern over the destruction of natural habitat to install such arrays. In response, the Large Scale Ground Mounted Solar Photovoltaic Installations bylaw was amended at the 2022 STM to include Canopy Solar by right thereby



Sandwich Marina

these districts are intended to protect natural resources, including the Flood Plain District (whose boundaries are based on the 100-year flood elevations established by the Federal Emergency Management Agency), the Surface Water Protection District (applying to any area within 300 feet of surface water ponds), and the Water Resource Overlay District (to preserve the Town's groundwater resources). The other districts include Adult Entertainment, Municipal Use, Parking, and Wireless

promoting solar arrays over established parking lots and minimizing habitat loss.

As stated in the 2021 Sandwich Housing Production Plan, 92.4% of all Sandwich's housing units are single-family detached homes, significantly higher than that of Barnstable County as a whole at 82% and the State at 52%. Almost all of the new housing growth has been single-family homes with some modest representation of other housing

types. Single-family residential development is permitted by right in all residential and the Shore district and permitted by special permit in the business districts. Mixed-use development is not defined in the Sandwich zoning bylaw. In the B2 District, multiple mixed market-rate and affordable owner occupied or rental dwelling units are allowed by special permit. According to the Sandwich zoning bylaw, multi-family dwellings are allowed in Residential districts and the BL-1 and B-2 and Ridge districts by special permit, provided the land area per dwelling unit equals 1.2 times the lot area required for a single-family dwelling.

Report on Trends

From 2010 – 2020, Sandwich had a negative growth rate of -1.8%, approximately the average for Barnstable County as a whole. While all Cape towns have a large number of seasonal homes and retirees, Sandwich tends to have a higher percentage of year-round residents than the rest of the region due to its relative convenience for commuters. According to the 2020 U.S. Census, the owner-occupied housing unit rate between 2016-2020 was 89.4%. According to U.S. Census data, the population of Sandwich saw a slight decrease in population between 2010 and 2020 from 20,675 to 20,259 residents.

Despite a modest loss in the population of year-round residents, net new housing units increased by 1,214 units or 13.9% between 2000 and 2019 according to the Town's 2021 Housing Production Plan, a rate somewhat higher than county and state housing growth rates of 12% and 11.7%, respectively. According to 2020 census data, the Town has a total of 9,689 units representing growth of 213 new

units and a 2.2% increase since 2010. As of 2021, Sandwich has approximately 10,000 housing units, of which 71% are owner-occupied, 7% are rentals, 17% are seasonal, and 5% are undefined. Only 314 homes are deemed deed restricted affordable.

Based on 2019 American Community Survey data of housing market trends compiled by the Cape Cod Commission, the median sales price in 2020 in Sandwich was \$465,000. The income needed to affordably own a home in Sandwich is \$117,034/year (30% of income) compared to the 2019 median Cape household income of \$74,336. As of May 2021, Sandwich's median sale price climbed to \$526,000, likely boosted by the COVID-19 pandemic, which caused a surge in housing demand that significantly decreased the inventory of available listings and pushed prices to unprecedented levels throughout the Cape. According to the Cape Cod & Islands Association of Realtors 2022 Annual Report, the median sales price increased to \$602,500 in 2022. Until very recently, housing costs in Sandwich remained relatively affordable to working families with the lowest median home value on Cape Cod.

Recent Actions by the Town

In 2015, the Town of Sandwich in collaboration with MassDevelopment hired consultants to develop a conceptual masterplan for the area around the marina at East Boat Basin in Sandwich, Massachusetts, known as the Marina District. The motivation for the study was to propose a plan for a roughly 22.5 acre parcel owned by the Town immediately adjacent to the marina. The plan also identified several other adjacent parcels

held by various other landowners to include in the master planning. The proposed plan included residential, commercial, hospitality and civic components with uses arranged to promote additional activity along the waterfront, including the mixed-use district in the town-owned parcel adjacent to the marina. Several components of the plan have been implemented, including improvements to the marina facilities, 140 seasonal slips, 42 commercial slips, boat ramp and fuel service, restrooms and a variety of restaurants, making this an attractive amenity for the Town.

In 2017, the Town purchased 9.7 acres of cranberry bogs bordering Old County Road and Talbots Point Conservation Area. Several of the bogs located in the Town are under Chapter 61 protection or have a Conservation Restriction on their deed, but not all. A few properties have turned over development rights to the Commonwealth under the Massachusetts Agricultural Preservation Restriction. The program offers to pay farmers the difference between the fair market value and the agricultural value of their farmland in exchange for a permanent deed restriction which precludes any use of the property that will have a negative impact on its agricultural viability.

As noted in the Community Design section, the Town also participated in a planning effort sponsored by the Cape Cod Commission in 2019 to develop model designs for compact mixed-use development for the South Sandwich study area. The study recommended both minor and major zoning changes that the Town could undertake to foster more pedestrian scale, mixed-

use, compact village nodes with increased housing opportunities in this area.

Key Issues Moving Forward

The Town has completed substantial planning directed at encouraging compact development and redevelopment in growth centers identified in the 2009 LCP. The Town has also committed to implementing recommendations of the Town's Comprehensive Water Resources Management Plan to address wastewater treatment to address water quality issues and also support the economic development goals and housing needs of the Town. According to the Town's 2022 Housing Production Plan, the highest priority need for housing in the Town is subsidized rental housing to make living in Sandwich more affordable, particularly for those with very limited financial means. In addition, housing prices have risen faster than incomes, making housing less affordable. According to the Town's OSRP, as of spring 2017, only 3.69% of Sandwich's housing stock (303 units) could be considered affordable housing. Sandwich has made considerable efforts in the last 5 years to improve its stock of affordable housing. The Terrapin Ridge project and the sale of the Henry T. Wing School for senior rental housing will increase the number of deed-restricted affordable units. Wastewater treatment will be required for additional density and compact development in growth centers.

Consideration of revisions to local zoning and/or adoption of form-based regulation in areas identified for growth and redevelopment will also be needed in order to meet the Town's future housing needs while continuing to meet other community goals.

Sandwich Activity Centers



Sandwich Marina

Sandwich Village

Sandwich Industrial Park and District

South Sandwich Village Center



Open Space - Levels of Protection

- Legend**
- In Perpetuity
 - Limited
 - None
 - Unknown



Natural Systems

The region's natural systems are vital to the economy and way of life. The natural environment of Cape Cod includes the water and ecosystems upon which life depends. The natural systems of the Cape center around water, water-dependent resources, and habitat. High quality natural systems are part of Cape Cod's attraction for residents and visitors, but they are also all susceptible to contamination from various land uses and activities and are increasingly vulnerable to changes in climate. In the future, it is anticipated 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. Protection and restoration is a critical need.

Sandwich Visitor Center Garden



Pollination Station

Pollination is the process by which flowering plants reproduce. Genetic material (pollen) from the male part of the flower is transferred to the female part of another flower. When this happens, egg cells within the female part of the flower are fertilized and a fruit begins to grow. Inside that fruit is a tiny seed waiting to reach the ground where it can grow into a new plant.



Pollination can happen by wind and water. 90% of all pollination however, is achieved with the help of animal pollinators.

WIND Wind-pollinated plants release light pollen into the air. These grains have feathery, shaped stigmas to catch the pollen drifting by.

WATER Water-pollinated plants release pollen that float like a boat. Pollen drifts around the water's surface in the hopes of making contact with other plants' stigmas.

Plants relying on pollinators have wet, sticky pollen. It readily adheres to the bodies of animals visiting flowers in search of proteins and carbohydrates.

Carefully look at the different flowers in the garden. Can you see where the pollen is produced?



Water Resources

Background

The Town is fortunate to possess a wide variety of water resources spanning across all types of fresh and salt water. Sandwich residents and visitors alike greatly value the Town's water resources. Responses from public workshops held in 2021 indicated that the Town's abundant fresh and saltwater resources are the Town's greatest asset and its greatest liability. Concerns about threats to water quality from numerous sources and the impacts from climate change were paramount among residents' concerns.

Ponds are the most common freshwater resource, making up 698 acres of Sandwich's surface area. Of the 63 ponds in Sandwich, 10 are designated as Great Ponds, which are larger than 10 acres in size. These Great Ponds are owned by the Town and are open for public access. Mashpee Wakeby Pond, Peters Pond, and Snake Pond are used for swimming and fishing, and abut Town conservation land. Acquiring land adjacent to ponds has been a high priority of the Town to protect environmental resources and provide public access to a freshwater resource. Numerous kettle ponds are also found throughout the Town. Kettlehole ponds depend on precipitation and groundwater flow for inputs. There are a few streams and rivers that flow through Sandwich. One historically prominent

river, the Scusset, was used in creating the Cape Cod Canal. Surface freshwater resources are directly connected to the Sagamore Lens and Cape Cod sole source aquifer, as they all serve as groundwater recharge areas. In these areas, freshwater accumulated from precipitation can seep into the ground, replenishing the aquifer. Land uses inside the recharge areas directly impact the water quality of the aquifer and consequently pond water quality. In certain cases, the groundwater can reach the surface without use of a pump or a well, forming a natural spring. There are 7 known springs located within the Town.

Sandwich, being a coastal community, is home to multiple saltwater resources, such as wetlands (freshwater and saltwater), estuaries, and marshes. These are all critical resources for not only residents and visitors but also diversity of plant and animal species. MassAudubon's Coastal Waterbird Program has identified 5 sites within Sandwich, including all coastal beaches, as important bird areas.

There are many mollusk and fish species that call Sandwich home, including soft-shelled clams, quahogs, blue mussels, lobsters, and crabs. There are also three anadromous fish runs located in Sandwich, which use the salt marshes and estuaries to migrate from the ocean to freshwater ponds to breed. Sandwich has historically been home to many shellfish beds, although in modern times these have been impacted by pollutants and impaired water quality resulting in regulatory prohibitions on shellfishing. The Town has recently reopened portions of the Sandwich Harbor system after decades of efforts curbing

pollutants from adjacent failing septic systems and untreated runoff. The Town regulates the taking of shellfish by issuing recreational permits and working with the MA Division of Marine Fisheries and the Select Board to open and close shellfishing harvest areas.

The Sandwich Water District (District) covers 75% of Sandwich and is comprised of 7,241 metered connections, pumping out approximately 5.433 million gallons in 2020 from 11 public supply wells over 146 miles of water mains. Based on a 2021 water quality report, the District serves a winter population of 17,750 and throughout the summer months serves an estimated 23,000 consumers from Groundwater Wells #2 through #11. For additional water supply, interconnections exist between Sandwich and the Bourne Water District, Centerville, Osterville, and Marstons Mills Water District and the Upper Cape Regional Water Supply Cooperative. The 2021 Water Quality report indicated 1 detection of Coliform in 2020 from sources naturally occurring in the environment. Nitrate concentrations ranged from 0.14 – 4.04 ppm, primarily due to runoff from fertilizer use, leaching from septic systems and erosion of natural deposits.

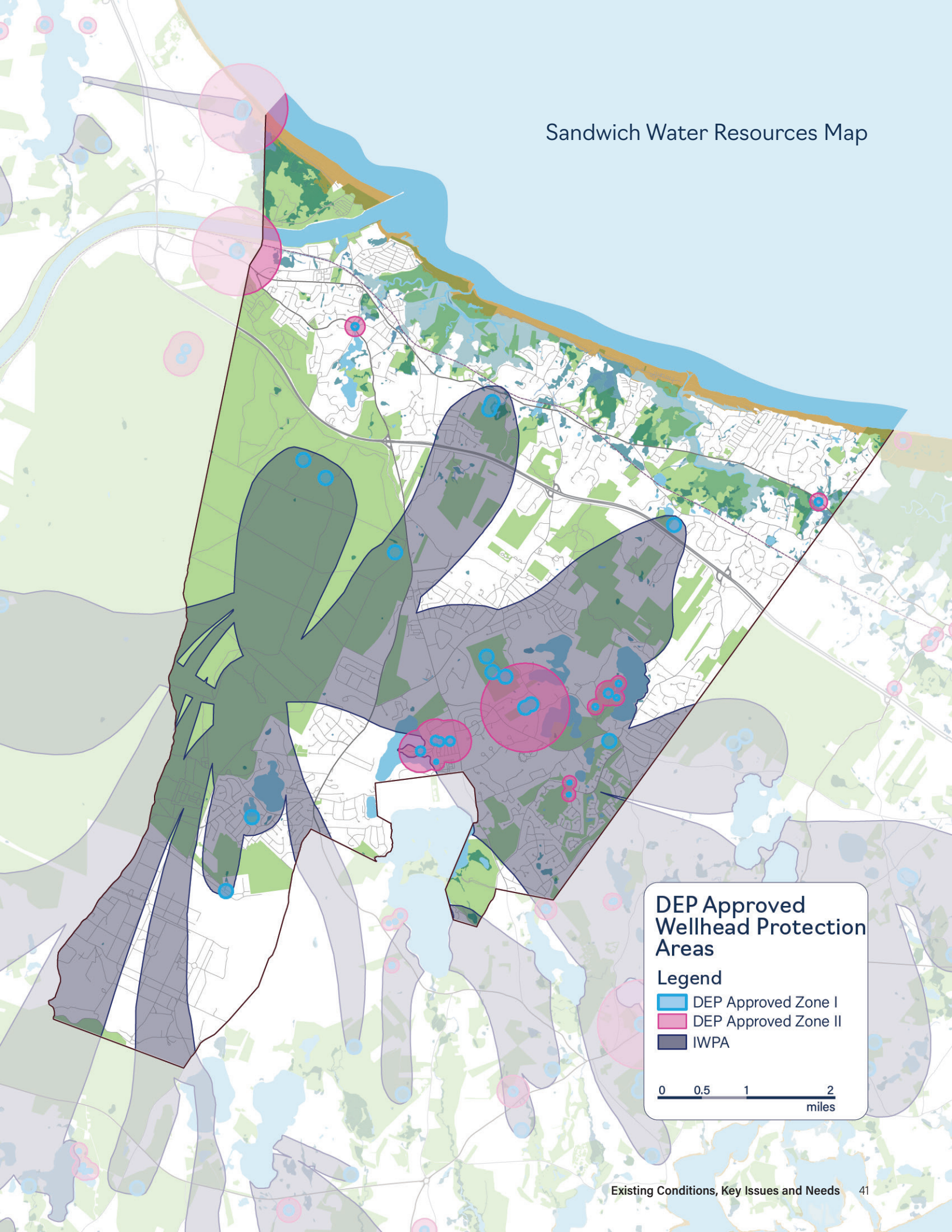
The Sandwich Water District maintains an interconnection (Route 130 Booster Station) with the Upper Cape Regional Water Supply Cooperative (UCRWSC) PWS ID # 4261024 and during 2020 received approximately 111,986,000 gallons of water from the Cooperative. The UCRWSC consists of three groundwater supply wells located on the Massachusetts Military Reservation (MMR), renamed as Joint Base Cape Cod (JBCC) in 2013. A Board

of Managers representing four-member public water supply systems manages the Cooperative. The member public water supply systems include the Town of Falmouth, Bourne Water District, Mashpee Water District and Sandwich Water District. The Cooperative also has the capacity to supply water to the Otis Air National Guard public water system. Wells #1, #2 and #3 are located in a forested area of the northeastern portion of JBCC. JBCC has adopted a Groundwater Protection Plan to prohibit inappropriate activities in the Zone II areas of community public water supply wells. In addition, the creation of the Environmental Management Commission provides oversight over activities on the northern portion of the JBCC.

There are four community wells available for residents, though they produce small volumes of drinking water, and do not have the capacity to support large amounts of residences. Approximately 30% of Sandwich residents use private wells for their potable water. It has been more than 30 years since the Water District has expanded public drinking water supply. The Town intends to encourage the expansion of public water to more residents as a result of analysis performed in the CWRMP. The Town will present funding to support public water expansion for existing residences on private wells and to support growth through the Water Infrastructure Investment Fund at future Town Meetings.

As noted in the Land Use section, the Three Ponds area in South Sandwich was designated as a District of Critical Planning Concern (DCPC) by the Barnstable County Assembly of Delegates in 2000 to protect

Sandwich Water Resources Map



DEP Approved Wellhead Protection Areas

Legend

- DEP Approved Zone I
- DEP Approved Zone II
- IWPA

0 0.5 1 2 miles

water quality, preserve open space, and maintain the character of nearly 700 acres of land and more than 300 acres of water in southeastern Sandwich.

Private on-lot wastewater disposal, in conformance with the State Sanitary Code (Title 5) and local amendments, adequately protects Sandwich citizens from the potential public health problems associated with improperly designed or located wastewater disposal systems. However, there are several areas of town with long-standing challenges associated with on-lot wastewater disposal. There are also challenges associated with wastewater disposal in public drinking water supply Zone II protection areas. Lastly, there is a need to protect coastal waters from excessive nitrogen loading and freshwater ponds from high phosphorus loading. Approximately 30% of the Town's existing wastewater flow requires solutions to address one or more these challenges.

Recent Actions by the Town

Comprehensive Water Resource Management Plan

The Town developed a Comprehensive Water Resource Management Plan (CWRMP) in 2017 to guide the improvement of water quality in groundwater, freshwater ponds and coastal estuaries, including the Nitrogen Total Maximum Daily Load (TMDL) requirements for certain coastal estuaries. The plan is highly adaptable to accommodate measured progress in water quality improvement, future regional opportunities, effectiveness of potentially

lower-cost alternatives, and availability of favorable financing. The CWRMP is consistent with the requirements of the Cape Cod Commission's 208 Water Quality Plan Update (2015) and includes local, inter-municipal and regional collaboration to moderate the project costs. Information provided in this section was based on the 2017 CWRMP that was informed by significant effort and input from the Town's Health, Planning, and Engineering Departments and the Water Quality Advisory Committee (WQAC). The full report is available on the Town's website.

Both traditional and non-traditional methods were identified to address the needs in the CWRMP Needs Assessment phase. These methods were then short-listed and each watershed was assessed independently to determine the most applicable solutions for each watershed. The watershed-specific options were then combined into the following "composite wastewater plans", which include a hybrid of traditional and non-traditional wastewater management methods.

In August 2023, in furtherance of our CWRMP approved in 2017 the Town of Sandwich submitted its first request to the State Revolving Fund (SRF). The State Revolving Fund (SRF) loan program offers affordable financing options to cities, towns, and public water utilities to improve water supply infrastructure and drinking water safety. The Town of Sandwich submitted a Project Evaluation Form (PEF) to upgrade and connect the Oak Ridge School to the Sandwich High School's waste water treatment facility. Both facilities are out of compliance with DEP standards and are included in the first phase of

Growth Area	2009 Local Comprehensive Plan	2011 WQAC Review at Build-Out	2011 WQAC Review at Planning Horizon
New Residential units	2,696 units	2,833 units	1,870 units
New Commercial space	971,270 sq. ft.	1,738,350 sq. ft.	1,147,310 sq. ft.
New Civic space	146,000 sq. ft.	171,000 sq. ft.	112,860 sq. ft.
New Industrial space	1,307,045 sq. ft.	963,300 sq. ft.	635,710 sq. ft.
Redeveloped Residential Units		1,000 units	660 units
Redeveloped Commercial space		139,600 sq. ft.	92,140 sq. ft.
Redeveloped Civic space		0 sq. ft.	0 sq. ft.
Redeveloped Industrial space		24,400 sq. ft.	16,100 sq. ft.

the Town’s conveyance and collection layout. The project is estimated to cost approximately \$9 million and is the Town’s first proposed investment in wastewater infrastructure.

Buildout Analysis

A buildout analysis was completed by Wright-Pierce, the Town’s wastewater consultant, for the Town’s 2017 CWRMP.

The buildout analysis assumed that new development would generate wastewater flow at the same rate as current development for each type of land use (e.g., 188 gpd for residential). Redevelopment can occur as either a building expansion (e.g., additional bedroom, accessory apartment, commercial expansion, etc.) or a conversion to a more intense use (e.g., seasonal to year-round home, small shop to a restaurant, etc.). For the residential category, it has been assumed that an additional 94 gpd would be generated per unit redeveloped (i.e., 282 gpd). For the non-

residential category, it has been assumed that an additional 30 or 50 gpd would be generated per thousand square feet of redevelopment.

Under these assumptions, it has been estimated that approximately 755,000 gpd of new wastewater flow will be generated town-wide. This results in a Theoretical Build-out future wastewater flow of 2,422,000 gpd. This represents a 45% increase over the estimated current wastewater flows of 1,667,000 gpd. Of this increase in flow, 86% is associated with development of vacant land and 14% is associated with the redevelopment of existing properties.

The Sandwich Water Quality Advisory Committee (WQAC), in conjunction with the Sandwich Department of Planning and Economic Development, determined an estimate of the amount of growth that would occur by the Planning Horizon as two-thirds (or 66%) of the Theoretical Build-out. Based on these assumptions, at the Planning Horizon, the Town estimates that approximately

497,000 gpd of new wastewater flow will be generated. This results in a Planning Horizon future wastewater flow of 2,164,000 gpd. This represents a 30% increase over the estimated current wastewater flows. Working with Town staff to review demographic data combined with a review of water use data resulted in an estimated current equivalent annual population of 25,600 individuals. The population estimates associated with Planning Horizon and Theoretical Build-out are 30,100 and 33,700 individuals, respectively.

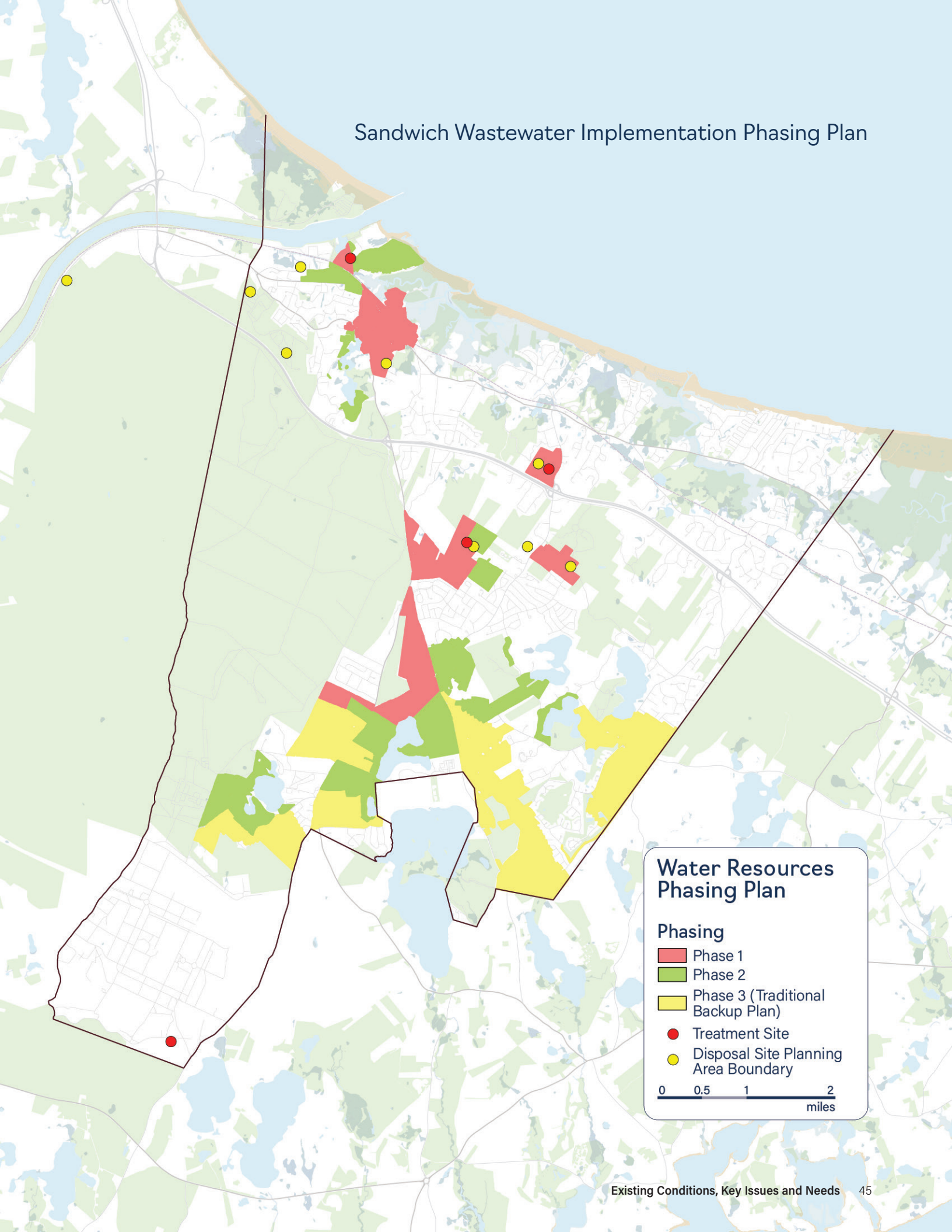
Based on the evaluations conducted, the WQAC recommended selection of Plan B, which consisted of a Hybrid Plan with Nitrogen Credit Trading that was supported by the Select Board. A multi-faceted and multi-phased plan was developed around Plan B to manage costs, to allow time for neighboring towns to advance their wastewater planning and implementation and to take full advantage of an adaptive management framework, as espoused in the 208 Water Quality Management Plan Update. The recommended plan also includes an assessment of available funding sources, sewer user rates, general taxation impacts, overall affordability and general environmental impacts.

The principal elements of the plan include a combination of traditional wastewater collection and treatment to serve about 1,880 residential, commercial and industrial parcels, two advanced wastewater treatment facilities (WWTF), effluent recharge and reuse for watersheds of non-nitrogen sensitive embayments, and connection of the Forestdale and Oak Ridge Schools to the new advanced WWTF. Sandwich was the first municipality

in the Commonwealth to adopt the Water Infrastructure Improvement Fund in 2018, which will help fund future wastewater and water needs and solutions as noted above. In addition, three public water extensions are proposed; one based on proximity to a proposed effluent disposal site and two based on existing high concentrations of nitrate in groundwater. A series of stormwater best management practices (BMPs) are proposed to address sediment and nutrient loadings to Snake Pond, Peters Pond, Pimlico Pond, Hoxie Pond, Upper Shawme Pond and Lower Shawme Pond. The CWRMP also considers methods to minimize greenhouse gas emissions during the design phase and selection of sites that reflect a long-term view towards climate change. The traditional measures (structural facilities) described above are expected to cost approximately \$86 million to build, and \$1.25 million to operate annually, both expressed in 2017 dollars (ENR CCI 10280). Traditional measures address approximately 36% of the nitrogen removal requirements associated with TMDLs.

Non-traditional elements of the CWRMP include water conservation programs; wastewater flow and load reduction; land use controls to avoid sewer-induced growth; use of innovative/alternative on-site wastewater treatment systems for future development outside of identified sewer service areas; fertilizer control program; fertigation resulting from golf courses, lawns and parks; enhanced natural attenuation of freshwater ponds; air quality monitoring program; and development of a watershed nitrogen credit trading program with inter-municipal agreements.

Sandwich Wastewater Implementation Phasing Plan



Water Resources Phasing Plan

Phasing

- Phase 1
- Phase 2
- Phase 3 (Traditional Backup Plan)

● Treatment Site

● Disposal Site Planning Area Boundary

0 0.5 1 2 miles



Hoxie House dock on Shawme Pond

The non-traditional measures described above are treated as operational expenses (i.e., no capital cost for construction) and are expected to cost approximately \$58 million annually, expressed in 2017 dollars (ENR CCI 10280), including a new staff hire to manage the program (in an existing department or new department) and nitrogen credit trading costs for Phase 1. Non-traditional measures address approximately 64% of the nitrogen removal requirements associated with TMDLs.

The CWRMP includes three significant opportunities for regionalization: 1) connection

to the JBCC WWTF; 2) enhanced natural attenuation; and 3) watershed nitrogen credit trading. These elements will require continued monitoring and leadership by the Town. The CWRMP proposes a phased approach to implementation over a seven-year period starting with completion of the 2017 plan.

The CWRMP further recommended further evaluation of ponds within the Town. A 2019 investigation of Sandwich ponds by Water Resource Services, Inc. included a detailed assessment of current threats, pond water quality, management

needs and recommendations for twelve of the Town's most significant ponds.

Sandwich has developed a Stormwater Management Plan (SMP) that outlines current laws and regulations and specifies best management practices (BMPs) to address stormwater impacts. The SMP is intended to meet NPDES Phase II regulations and to provide a framework for protecting water resources. All storm drains in the town have been mapped, but the vast majority are leaching catch basins and do not discharge to any waterbody or stream. Such systems may impact groundwater quality but are not direct influences on ponds.

In recognition of the role that groundwater plays in surface water quality, Sandwich has also adopted a groundwater protection statute under its zoning process that regulates development within 300 feet of any pond or wetland.

Toward that end, in 2022 and 2023 the Town has continued to serve as the lead on Shared Wastewater Management Study Group, funded by Efficiency and Regionalization Grants from the Commonwealth in support of shared infrastructure for Bourne, Falmouth, Mashpee, Barnstable and Joint Base Cape Cod. The Town of Sandwich has continued to actively explore the potential to take advantage of unused wastewater treatment and disposal capacity at JBCC. In 2023 this effort was slowed by Federal Guidelines related to PFAS (define) in effluent from wastewater treatment facilities, particularly the JBCC Plant. While the Select Board considers JBCC as a viable short and long term solution for Sandwich, addressing State and Federal standards for PFAS in

wastewater discharge will slow progress. Work will continue on regional solutions including the likely pursuit of increased effluent disposal at JBCC to support municipal water quality needs.

Also in 2022, the Town unanimously approved and filed an Act Relative to Wastewater Treatment and Disposal in the Town of Sandwich, special legislation to streamline funding, procurement and contracting at JBCC.

Key Issues Moving Forward

Nitrogen Loading/Wastewater Disposal

The Town must continue to seek solutions to on-site wastewater disposal to protect water quality of its marine and freshwater resources that are a critical component of the Town's economic and community development goals. Contributing watersheds to marine embayments do not present a high threat level for reduction of nitrogen inputs, but future inputs from increased development will need to be managed to prevent degradation of marine water quality. A primary focus for Sandwich is determining the feasibility of connecting to the JBCC wastewater system and implementing this solution if deemed appropriate.

The Town's Wastewater Management Study, originally prepared in 2017 and revised in 2019, as well as continued work with the towns of Bourne, Falmouth, Mashpee, and Barnstable, has allowed for ongoing regional work on shared wastewater management consistent with Sandwich's Efficiency and Regionalization grant agreement. This grant agreement furthers the two regional JBCC studies led by Falmouth. The 2022 grant will evaluate the regulatory

expectations for nitrogen management, watershed management, and effluent disposal, with particular focus on increasing disposal capacity at JBCC. The scope includes collaboration with regulators, interest groups, Converge and ASUS as operators at JBCC.

Ponds

The 2019 Sandwich ponds report indicated that the major pollution threat to ponds is mainly nutrients from developed land and cranberry bogs. While the Town's 300-foot setback for wastewater disposal is a significant measure to protect pond water quality, stormwater runoff with nutrients, sediment, bacteria, salt or other deicing chemicals, and hydrocarbons are all potentially significant pollutants. The Town could work towards becoming more chemically independent, by enforcing reductions or bans on the use of herbicides, pesticides, and insecticides, all of which eventually transfer into ground and surface waters. This would increase the health of Sandwich's estuaries, marshes,

ponds, and rivers, by reducing the abundance of Nitrogen and other chemicals that find their way to the water sources via runoff.

The Town's Stormwater Management Program (SWMP) was completed in 2019 in an ongoing effort to minimize stormwater impacts to the community and Cape Cod in compliance with the U.S. Environmental Protection Agency New England and Massachusetts Department of Environmental Protection NPDES Phase II Stormwater Regulations. The Cape Cod Freshwater Initiative is a science-based, information-driven planning process to engage stakeholders and enable action to protect and restore Cape Cod's freshwater resources. The Town of Sandwich is participating in regional pond water quality monitoring through that initiative.

The Sandwich Health Department endorsed an MOU with the Association for Preservation of Cape Cod (APCC) for Cyanobacteria monitoring in 2021 for Lawrence Pond, Upper and Lower Shawme Pond, Peters Pond, Snake Pond, Spectacle Pond, and Triangle

Pond. Results will be reported to the Health Department. Initial June testing results, for these ponds, indicates a low warning for Cyanobacteria.

However, a 2021 State of the Waters project by APCC indicates that Mashpee-Wakeby Pond has unacceptable



Sandwich Water District Bob's Field



Stormwater retention basin at Heritage Gardens



Stormwater retention basin at the Center for Active Living

water quality and requires restoration. The Town should consider participation in the monitoring program and pursue measures to improve impacted ponds where indicated.

Drinking Water Protection

The Town must continue to monitor drinking water quality for per and polyfluoroalkyl substances (PFAS) that have been found in other drinking water systems on Cape Cod and are associated with a variety of sources, including firefighting foams, food packaging, skin care and clothing products. As a precaution, the Sandwich Water District removed Well 9 from service in August 2022. Well 9 will remain offline as the District investigates the source of the PFAS and develops a mitigation plan.

Additionally, an expansion of Water District service into East Sandwich as well as areas currently served by private wells should be considered due to the increasing need to monitor contaminants of emerging concern. Generally, public water should be extended to all properties in Sandwich in the near future.

2023 MassDEP adopted Watershed Permit Regulations, 310 COMR 21.00, and Title 5, Natural Resource Nitrogen Sensitive Area Regulations, for Cape Cod only, commonly referred to as NSA regulation. This regulation requires upgrades of private septic systems if communities do not plan to address nitrogen impacts to impaired watersheds. As of 2023 the Town of Sandwich does not have a nitrogen impaired waterbody, but does contribute to the Three Bays and Popponeset



Dock Creek on Dewey Ave

Bay watersheds. Sandwich, Mashpee and Barnstable have existing Memoranda of Agreement on our shared responsibilities for these water bodies and plans to implement watershed permits whereby the Town of Sandwich will fund additional sewer connections in the lower watersheds in our neighboring communities commensurate with our nitrogen contribution as outlined in the act and consistent with previous agreements.

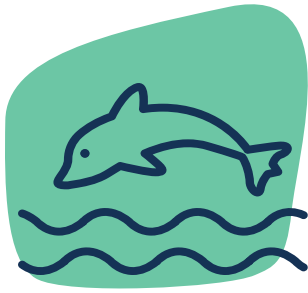
Stormwater

Sandwich has developed a Stormwater Management Plan (SMP) that outlines current laws and regulations and specifies best management practices (BMPs) to address stormwater impacts. The SMP is intended to meet NPDES Phase II regulations and to

provide a framework for protecting water resources. All storm drains in the Town have been mapped, but the vast majority are leaching catch basins and do not discharge to any waterbody or stream. Such systems may impact groundwater quality but are not direct influences on ponds. In an ongoing effort to minimize stormwater impacts to the community and the region, the MS4 SMP is currently being updated in compliance with the U.S. EPA New England and Massachusetts Department of Environmental Protection NPDES Phase II Stormwater Regulations.



Habitat mounds just off Boardwalk Road



Coastal Resiliency

Background

Coastal resiliency is a phrase that is becoming more and more common in the everyday lives of the citizens of coastal communities. As the rate of global climate change has increased in recent years, the impacts of a changing Earth can be seen on the local scale. Coastlines are extremely susceptible to climate change, with flooding due to storms, sea level rise, and accelerated coastal erosion being the most prevalent hazards to coastal communities. The hazard risk along the coast is not limited specifically to the plots of land directly on Cape Cod Bay but has long lasting impacts on the entire town.

The Town has 27 miles of saltwater shorefront, with 7.5 of those miles being beaches on Cape Cod Bay. The remaining 19.5 miles of shorefront property are either privately developed land or government agency-owned land. The Town has multiple parcels that are designated to be sensitive coastal environments, meaning that they face daily hazards and challenges which could impact the future health of the environment. Scorton Neck Conservation Land, which connects to Sandy Neck Barrier Beach, has been designated as an Area of Critical Concern, while other areas such as the East Sandwich and Spring Hill barrier beaches are recognized

as areas that require strict development rules, as governed by the local, state and federal regulations for coastal areas. These areas of high coastal hazards are directly impacted by changes in climate, and thus the highest priorities regarding coastal resiliency practices.

Current Trends

Changes in the local climate have two direct factors that will impact the coastline of Sandwich: an increase in the still water elevation of the Atlantic Ocean (sea level rise), and the increased intensity and frequency of seasonal storms. Winter Nor'Easters are storm events that create high hazard flooding



Coastal reinforcement at Town Neck Beach (photos left & right)

conditions for the immediate coastal zone, with the north shore of Sandwich bearing the brunt of each of these storm events. The intensity of a storm is often referred to by its return period. For example, a 100 Year Storm has a One in One Hundred (1%) chance that a storm of such intensity will happen in any given year. Likewise, a 10 Year Storm has a One in Ten (10%) chance that a storm of such intensity will happen in any given year. With this designation system, the higher the number, the more intense the storm is. This is an important metric, as it is used to designate the impact zones for such storm intensities.

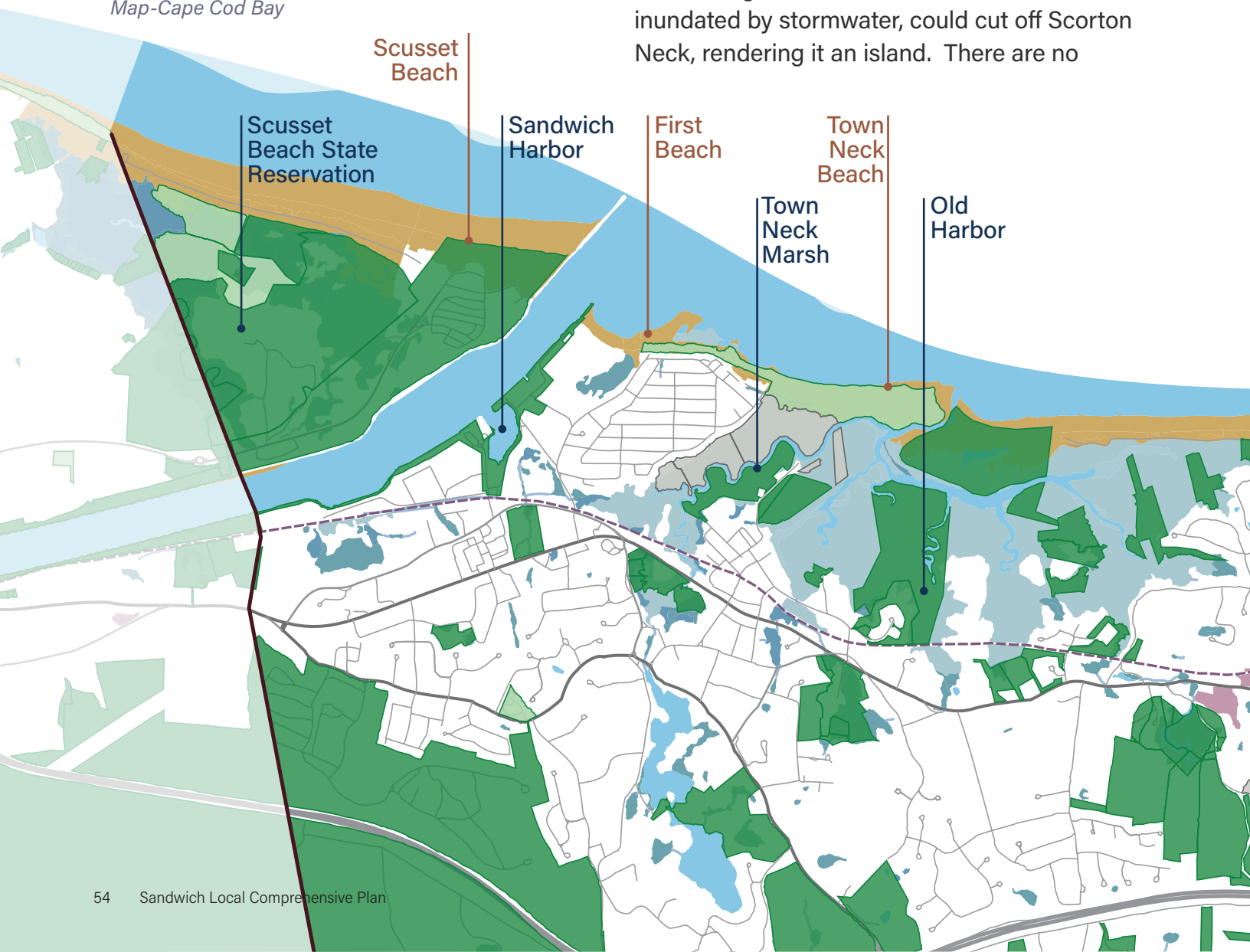
There are 382 habitable dwellings within the 100-year floodplain in the Town (the area that would suffer flooding during a 100 Year Storm), with approximately 300 of these dwellings located on the seaward side of the first major access road (Route 6A). Of these dwellings, approximately 50 buildings are in the Velocity Zone (V-Zone), which has been designated by the Federal Flood Insurance Program as land areas where storm surge or direct wave action occurs. Landward of the Velocity Zone are other flood-prone areas (A-Zones), where standing water expected from storms up to 100 Year intensities. These locations do not expect to experience direct wave action and are mostly



comprised of marshes and shorefront uplands. Coastal flooding directly impacts the northern coastline of Sandwich, where wave action is present against the dunes and barrier beaches. Behind the barrier beaches lie salt marshes and uplands, which will not face any erosion due to wave action but will become inundated during a storm event. Further inland, the lakes and ponds face minimal hazards from flooding as these generally fluctuate with longer-term groundwater level trends. There are some low-lying structures that have experienced flooding at times of high groundwater and pond levels.

Additionally, local inland topographic low points may experience increased precipitation-based flooding events as storm frequency and intensity increase. This is exacerbated in many of these locations as many neighborhood drainage systems were designed and built decades ago with outdated standards that relied on minimal treatment and disposal. Many of these systems rely on simple leaching catch basins that provide limited capacity and are vulnerable to degradation over time from upslope erosion and sediment clogging that cannot be remedied with basic cleanouts and similar maintenance. Another major concern for flooding is the location of Route 6A, which if inundated by stormwater, could cut off Scorton Neck, rendering it an island. There are no

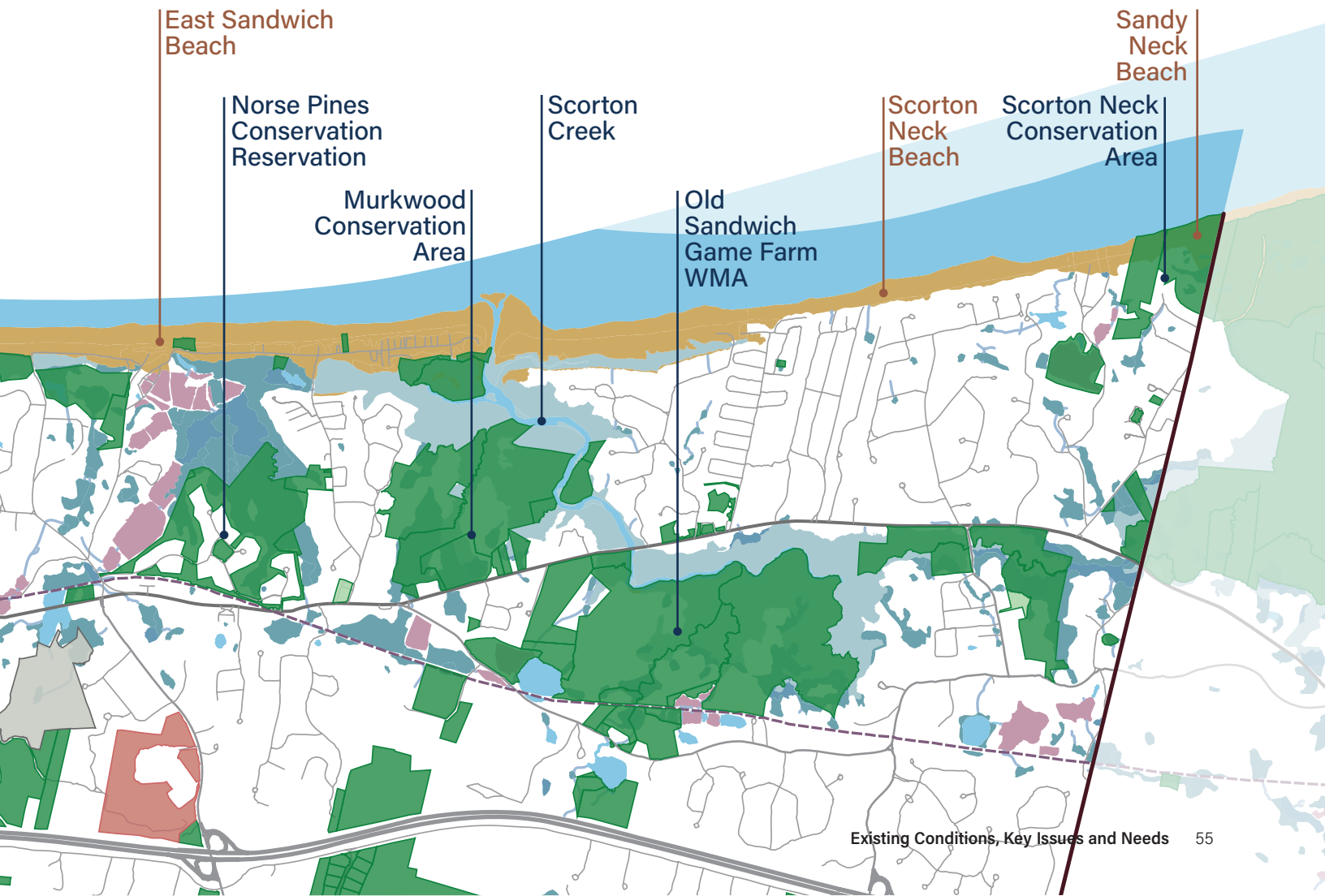
Sandwich Coastal/Open Space Resources Map-Cape Cod Bay



easy exit routes for stormwaters to recede, which prolong the damage window for storm events. Coastal flooding events can overwhelm street drainage systems with debris that can clog inlets and pipes and trap floodwaters.

Erosion is another important physical impact on the coastline of the town of Sandwich. Long-term erosion metrics have been measured since the 1860's and give a general trend as to how the shoreline is changing over centuries. Short-term erosion metrics are measured on a decade-based scale, with measurements analyzed from the early 1950's to the mid 1990's. Both short- and long-term metrics are analyzed in number of feet lost per year, also known as Erosion Rate, and have been analyzed for the following locations:

Town Beach, Scorton Shores Beach, Scorton Neck Beach, Sagamore Beach (Central), and East Sandwich Beach. The Town Beach has the highest long-term erosion rate at -1.57 ft/yr, and Scorton Shores Beach has the highest short-term erosion rate at -2.90 ft/yr. This gives an important look into how the coastline is changing, with Scorton Shores Beach being an obvious hot spot for current erosion. At this location, 18 dwellings are highly threatened to erosion-based hazards. Sea level rise (SLR) poses a threat to the immediate coastal areas of Sandwich, such as the area defined as the 100-year floodplain but will also impact the upland areas located behind the floodplain. It is estimated that approximately 300 acres could be lost by the year 2100 due to sea level





Town Neck Beach Dune Restoration/Beach Nourishment

rise and coastal erosion. Upland areas are still vulnerable to still water elevation increases, but not direct wave action or erosion.

Recent Actions by the Town

The Town of Sandwich has taken steps towards increasing the resiliency of its coastline. A 2016 Hazard Mitigation Plan (HMP) completed for the Town of Sandwich by the Cape Cod Commission describes the natural hazards, assets, areas of vulnerability, and mitigation strategy for the Town. The 2016 HMP included 26 action items, several of which have been implemented. The Town also became a certified Massachusetts Municipal Vulnerability Preparedness (MVP) community in 2018 following the Community Resilience Building (CRB) framework to identify

top hazards, current concerns, strengths and vulnerabilities and recommended actions to improve the Town's resilience to natural and climate-related hazards.

In 2019, with MVP action grant funding, the Woods Hole Group conducted a climate change vulnerability/risk assessment and adaptation study of the Town's natural resources, high-risk development areas, and municipal assets. The report included natural resource adaptation strategies at the regional and local level, strategies for high-risk development and municipal assets, as well as policy and regulatory recommendations.

In 2022 the U.S. Army Corps of Engineers (USACE) formally approved the Section 111 Study, accepting responsibility for starving beaches down gradient of the Cape Cod Canal

jetties from sand accreting at Scusset Beach and placed a value of \$12.5 Million for the Scussett Dredging and beach nourishment on Sandwich's north facing beaches in area of Town Neck and First Beach. The USACE has not approved the perpetual re-nourishment from the regular dredging of the Cape Cod Canal, and continues to seek federal approvals to connect dredging to perpetual maintenance of the beaches.

Police and Fire headquarters were relocated to the Sandwich Public Safety Complex at the corner of Cotuit Road and Quaker Meeting House Road in 2019 to relocate these critical facilities out of the floodplain.

The Sandwich Boardwalk, which has recreational and cultural significance to the Town, extends only a few feet above the coastal marsh. This treasured asset has undergone several repairs after numerous past flooding events, including storms in March 2018 and severe damage in January 2022. The boardwalk is being reconstructed to improve accessibility, preserve its iconic look and feel, and elevate to improve the resiliency of the boardwalk to storms and climate change impacts.

Accurate topographical data is crucial to creating flood maps, which are used to identify the areas of most severe risk to stormwater damage. A mapping study completed by the Department of Natural Resources for the Town including a flyover was conducted in 2020 that resulted in data to accurately identify the existing conditions of the Town's shoreline and will be used to identify low-lying regions that may be susceptible to flooding.

The Town participates in the Community Rating System (CRS), a voluntary incentive program that recognizes and encourages community floodplain management practices that exceed the minimum requirements of the National Flood Insurance Program (NFIP). In CRS communities, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community's efforts. The Town entered the CRS program as a Class 7 and improved its Class in the Community Rating System to a Class 9 in 2018. The Town also increased the base flood elevations, also known as freeboard, in AE zones by 1 foot.

Key Issues Moving Forward

Given the threat that flooding, sea-level rise, coastal erosion, and Nor'easters pose to Sandwich's coastal areas, and given the impacts already experienced by the Town's beach and dune systems in recent years, continued implementation of the Woods Hole Group climate change vulnerability/risk assessment and adaptation study should be a priority for the Town to improve the Town's resilience.

The Town ranks fourth on the Cape for the number of structures built within the velocity V-Zone. In 2021, Sandwich participated in the Cape Cod Commission's MVP grant to review current land use regulations and develop a model coastal resiliency bylaw to promote natural resource migration and reduce risk in the floodplain due to sea level rise. The model bylaw has been drafted to be inserted, on a stand-alone basis, as a self-contained article within an existing local wetlands bylaw. The Town should consider

adopting the bylaw in whole or in part through local regulations to protect resources and reduce development risk in the floodplain.

There are numerous roadways connecting the barrier beaches of Sandwich with the mainland at Route 6A that are highly vulnerable assets. In particular, roadways and related drainage systems that provide access in and out of barrier beach neighborhoods such as Spring Hill Beach and East Sandwich Beach via Roos and Foster Roads, and Ploughed Neck Road, respectively, are highly vulnerable. Without the use of these roadways, these coastal neighborhoods become isolated and likely without emergency services or access to food or proper shelter during storm events.

The Cape Cod Commission is working with the Town to examine vulnerabilities in the roadway network and identify adaptation alternatives. With funding support from the U.S. Economic Development Administration and the Massachusetts MVP program, the Commission has contracted with the Woods Hole Group to conduct a vulnerability assessment of roadway segments, bridges, and culverts due to flooding from the combined effects of sea level rise and storm surge. The project employs state of the art modeling and community engagement to identify and prioritize low lying roads to target for coastal resiliency action. The project kicked-off in 2021 and is now completed. Additional funding will be needed to advance the



Scorton Creek marshes

design of key roadway segments identified through the vulnerability assessment.

Adjacent to Town Neck and the Marina is the historic downtown that abuts the Old Harbor marsh system, which extends inland to River Road and properties along Main and Jarves Streets. In present day conditions this area is frequently flooded due to extreme precipitation and coastal flooding via the Old Harbor marsh on the southern side of Route 6A through Mill Creek at River Street. This downtown area is essential to the Town's economic vitality as it is home-base for tourism and numerous commercial businesses along Route 6A and Jarves Street. A more site-

specific investigation of critical elevations would better inform adaptation planning for this business district. There are also segments of the municipal stormwater system that are vulnerable to sea level rise and storm surges. The most highly vulnerable outlets are within the Historic Downtown District. Resilience is fundamental to the preservation of cultural assets because, without adaptation measures, it is likely that historic and cultural assets will suffer material and structural damage due to severe flood impacts in the future. The Historic Downtown District includes a number of important historic assets that are highly vulnerable to coastal flood inundation.





Open Space Background

Open space and recreation planning in Sandwich has been a long-term effort by residents, town officials, and volunteers to protect natural resources, conserve open space, and provide recreational opportunities for residents and visitors. The Town's open space and recreation planning dovetails nicely with the LCP Vision statement which envisions a vibrant, diverse, and sustainable seaside community. The Town is continually shaped by its historic past, vast natural resources, and outdoor recreational spaces to work and play.

The Town's open space planning efforts have supported the development of new recreation areas, athletic fields, and indoor recreation areas while improving the quality of recreational resources through maintenance practices. The Town has also sought creation of a sports industry in Town as an economic development opportunity. At the same time the Town has dedicated significant resources to protection of unique natural and historic resources that support the Town's biodiversity and scenic character. Expanding and improving public access areas to Town properties including trails, parking, disabled-persons' accommodations, and restrooms are also key components of the Town's open space planning efforts.

Under the LCP, the Town of Sandwich promotes acquisition and preservation of key parcels of land for protection of groundwater supplies, coastal wetlands, and wildlife

habitat. In addition, the town pursues goals of protecting and conserving natural areas and their associated habitat values by encouraging creation of connecting greenbelts between natural and developed areas since such wildlife corridors facilitate the survival of species by allowing movement between habitats in an increasingly developed environment.

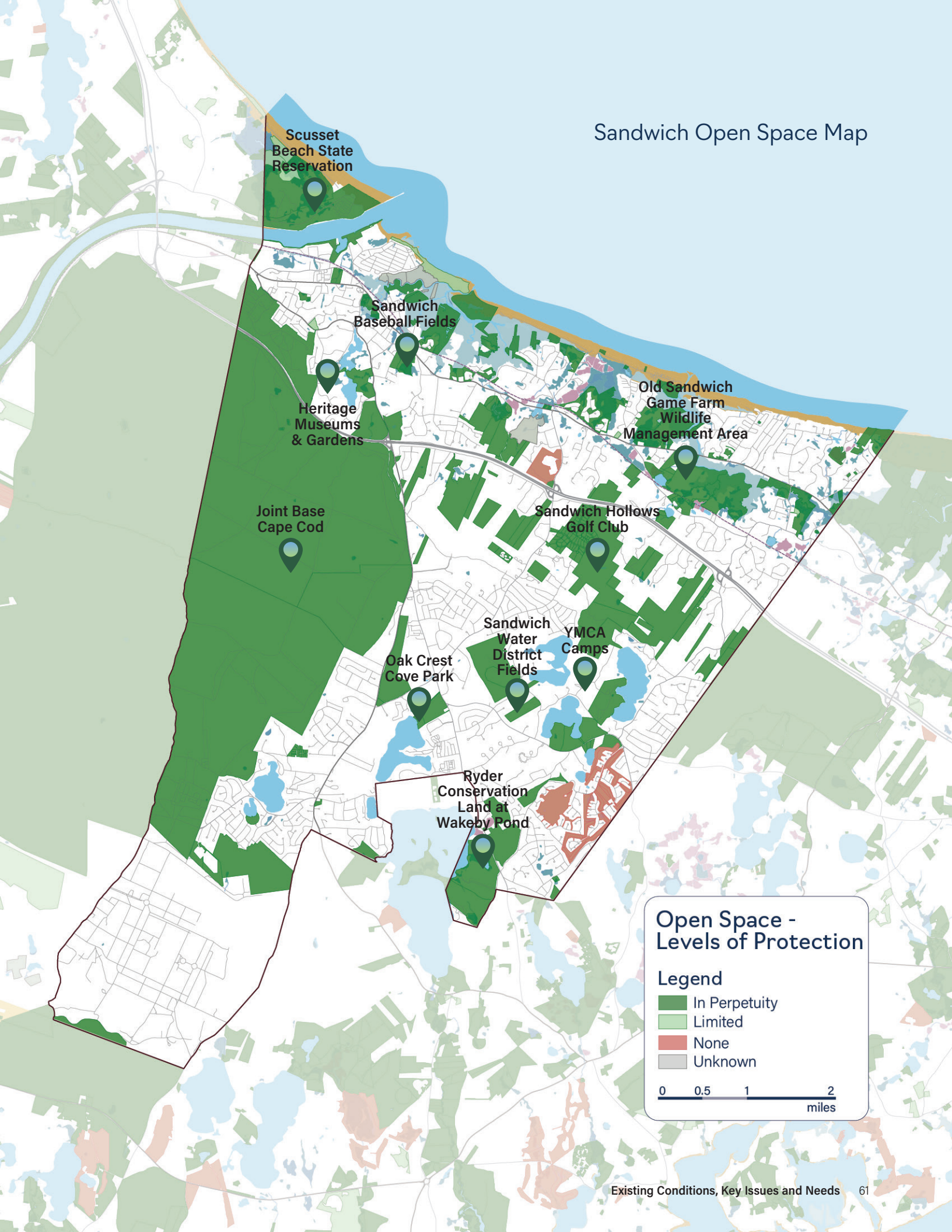
With special attention toward NHESP areas of priority habitat and BioMap Core Habitat and Critical Natural Landscape, the town actively develops measures to protect threatened or endangered species from development, invasive species, climate change and recreational uses of open space lands.

Current Status and Trends

In 2000 the Cape Cod Commission designated the Three Ponds Area of South Sandwich as a District of Critical Planning Concern to help protect these water resources. Such a district allows establishment of special regulations to protect resources in the designated area, which in this case includes 692 acres of land associated with Lawrence, Spectacle and Triangle Ponds. One focus of the district is protection of endangered species, and there are multiple listed plant species associated with some of the ponds in Sandwich. However, the District includes only the three ponds mentioned above, leaving other ponds with less protection.

Sandwich has over 1,300 acres of wetlands. These wetland areas are highly productive systems and provide important habitats for many species of wildlife. Due to their high permeability, they also are very important

Sandwich Open Space Map



Scusset Beach State Reservation

Sandwich Baseball Fields

Heritage Museums & Gardens

Joint Base Cape Cod

Oak Crest Cove Park

Sandwich Water District Fields

Ryder Conservation Land at Wakeby Pond

Sandwich Hollows Golf Club

YMCA Camps

Old Sandwich Game Farm Wildlife Management Area

Open Space - Levels of Protection

Legend

- In Perpetuity
- Limited
- None
- Unknown

0 0.5 1 2 miles

in absorbing and detaining surface waters, which becomes crucial during storm flooding events. Wetlands also help to maintain stable groundwater levels throughout the year, and aid in keeping the quality of water in a safe zone for human consumption. Wetland soils help filter out pollutants, thereby reducing the contamination of streams, lakes, and groundwater.

Over 4,135 acres of open land are owned by the Town, with a large portion of these lands acquired by the Conservation Commission (approximately 2,200 acres). Town-owned cemeteries comprise approximately 94 acres; the Sandwich Water District comprises approximately 518 acres; recreational facilities (fields, courts, indoor facilities) comprise approximately 200 acres of school properties,

and town properties for fishing, boating, beaches for swimming, athletic fields and playgrounds comprise approximately 700 acres. An additional 400 acres of additional open space is present within the Town but does not have a designated or specified use.

There are several recreational fields and facilities already in place within the Town. There are 8 soccer fields (2 of which are of regulation size), 1 field hockey field (which is shared space with girls' lacrosse), 2 football fields, 4 full sized baseball fields, 7 little league or softball fields, 4 indoor basketball courts, 3 tennis courts, 1 pool, 1 golf course, and 7 playgrounds. The following facilities are in poor or unusable condition: 1 track, 3 outdoor basketball courts, and 2 tennis courts. Recreational facilities are important



Sandwich Water District Fields

to attracting residents and retaining young families with children interested in being outdoors and playing sports. A 2-mile section of the 14.2-mile Cape Cod Canal Bike Path runs through Sandwich along the Cape Cod Canal, which is maintained by the U.S. Army Corps of Engineers.

Recent Actions by the Town

Sandwich's Planning and Development Department completed the OSRP update in 2018. The OSRP is a comprehensive look at open space issues, needs, goals, and actions. The Plan identifies the following overarching goals:

- 1) Identify opportunities for development of new recreation areas/facilities and retain lands of recreational value.
- 2) Maintain and improve quality of recreational services while keeping costs within a limited municipal budget.
- 3) Develop recreation facilities and programs that will help build local capacity for creating a recreation and sports industry that can be a significant economic contributor for the Town.
- 4) Manage Town open space properties to protect natural resources while encouraging appropriate public use.
- 5) Plan and coordinate protection of lands of recreation interest.
- 6) Plan and coordinate protection of lands and conservation interest.
- 7) Expand and improve access to public open space and recreation areas.

- 8) Coordinate protection and management of natural resource areas, recreational resources, and open spaces within multiple jurisdictions.

Sandwich has taken a recent initiative to use Geographic Information System (GIS) mapping technology to map out the existing walking and hiking trails that are currently open in the Town. Currently, there are approximately 18 miles of trail systems within conservation lands, the longest of which is the Maple Swamp trail. By accurately mapping the walking trails, it will be easier to mark and advertise what Sandwich has to offer for both casual and more difficult walks and hikes. A recent and accurate map also allows for trail guides to be updated. Color-coded trails based on length and difficulty of the terrain are available for public viewing, so users can select the best trail for their availability.

The Town's wetland protection bylaw serves to protect the natural fresh and saltwater wetlands in Sandwich. The bylaw strengthens the minimum state performance standards, imposes restrictions for building structures on dunes, and asserts the Town's jurisdiction of small wetlands and vernal pools. Conservation Commission regulations also require a 100 foot setback of septic system leaching fields from a wetland boundary, rather than the 50-foot state standard.

There is an abundance of freshwater ponds located within Sandwich's footprint, but the Town does not control much pond front property, which limits public access points for residents to abundant ponds within the Town. The Town has identified purchasing pond front land as a priority and has since

purchased land at Peters Pond and Spectacle Pond for public use. Lawrence Pond, which is the Town's largest pond, has limited public access with a marginal boat access point.

Sandwich has made an effort to purchase land with the intention of preserving open space. Since 1999, over \$11 million dollars' worth of land has been purchased, including the 525 acre Striar property within the Ridge district of Sandwich, a physiographic region with major landscape features including irregular ridges, called moraines, which formed during the retreat of the Wisconsin Glacier about 15,000 years ago. The Ridge represents a large portion of the wild land left in Sandwich. Over the years, wind, waves, and storm action have shaped dunes, beaches, and other shoreline features, but Sandwich is characterized by its glacial history. The Striar property has been eyed by trail enthusiasts for its potential connection to Cape Cod Pathways, a regional walking trail network. This plot continues to be the Town's largest block of continuous forested lands and is home to a wide variety of plants and animals. Diversified wildlife openings have been created throughout the eastern portion of the Ridge, through the efforts of the Natural Resources Office.

Sandwich has put forth multiple efforts in creating a new bike path running through Town. Initially, a bike path running parallel to Route 6A was proposed but was found to not be ideal due to the high number of residential curb cuts, narrow shoulders, and high traffic volumes as well as natural and cultural resource constraints along the proposed route. The Town also considered creation of a bike path that would follow the railroad

tracks that run through town based on the railroad's light transportation use. The recent repaving of Service Road, which parallels the Mid-Cape Highway, is a potentially safer route alternative for recreational uses. The Town has an approved shared use path project on the Cape's Transportation Improvement on Service Road between Route 130 and Chase Road. Construction began in 2023 and will likely finish in 2024. The Service Road is listed, as are Main Street and Water Street through the historic Center, as part of a recommended long-distance bike trail on regional bike maps.

The Town Recreation Department is in the Oak Crest Cove lodge. This building also offers a multi-purpose use function hall and meeting spaces. The Recreation Department manages the Oak Crest Cove Lodge and its smaller building, Hamilton Hall. Both spaces are used for recreation and community programming serving all ages. Both buildings can be used as a location for private events such as parties and meetings. Set on Peters Pond, this 86 acre property services residents and visitors alike and offers a variety of recreational opportunities including youth and adult recreation and fitness programs, all-day summer youth camp, community special events, beach area, fishing, boating, two outdoor basketball courts that are lighted until 10 pm daily, an 18-hole disc golf course, and walking trails.



Top & Bottom: Heritage Museums & Gardens

Key Issues Moving Forward

Sandwich has identified goals to protect and improve upon open and recreational space within the town limits. The Town is looking to identify opportunities for development of new recreation areas and facilities, and to retain lands that hold recreational value. To support the recreational goals of the Town, additional athletic fields for school or community sports groups for both practice and games will be needed. A new skate park and multi-purpose court facility was recently constructed near the intersection of Cotuit and Quaker Meeting House roads using Community Preservation Act (CPA) funds. Maintenance of existing public and private recreation areas such as golf courses, summer camps, and campgrounds is also needed to encourage active recreation while protecting natural resources. Improved public access to Lawrence Pond should also be considered a priority for the Town.

The costs of purchasing, restoring, and maintaining recreational services must be balanced with a limited municipal budget, which could be increased by the support and use of CPA funds for recreational projects. CPA funds may be used for the acquisition, creation, and preservation of land for recreational use, and for the restoration of land for recreational use that was purchased under the CPA. The Sandwich Hollows Golf Course needs infrastructure investments and improvements to remain financially and industry viable. Significant funding was recently approved for this purpose and needs to continue in the future. Year-round use of such recreational areas is encouraged, with a diverse selection of activities welcomed at

such facilities. This also includes any indoor recreation facilities, so that there are accessible facilities even during the colder winter months.

There are wider economic benefits to expanding recreational facilities. Creating a local sports industry will draw people from surrounding towns into Sandwich to compete in tournaments, creating opportunities for local hotels and bed and breakfasts to host competing sports teams. Marketing the Town for its recreational opportunities could result in additional high-level sports tournaments and competitions here. Economically productive recreational resources, such as beaches, woodlands, boating access, and fishing areas should also be maintained, and promoted to stimulate the economy surrounding those resources. Any expansion of such resources could serve to attract people from other communities to the Sandwich area for recreational sports and hobbies.

It is important to also preserve and protect open space for natural resources and wildlife as conservation lands. The Town should support policies to regulate access



Sandwich Hollows Club House

to these areas to prevent illegal dumping, unauthorized access, illegal hunting practices, and resource degradation will be needed.

Continuing to purchase waterfront lands for public access is an important consideration for the Town. This includes ponds, wetlands such as streams and rivers, and coastal

properties. One of the challenges facing the Town is accommodating access to its coastal resources which is impacted by coastal and climate processes such as erosion and increasing sea levels. Protection of coastal lands can also serve to help the Town adapt to the impacts of climate change.



Top & Bottom: Sandwich Skateboard Park/Pickleball Courts, Center for Active Living

Built Systems

The built environment—human-made infrastructure and resources—accommodates the people who choose to live and visit Cape Cod. 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. In many cases, infrastructure, such as wastewater treatment, is needed to improve and maintain the integrity of the region’s natural environment. Built systems rely heavily on fossil fuels. Changes in climate require the region evaluate past development and consider changes needed to mitigate and accommodate the potential effects. The built environment must complement the regional character and be protective of the natural systems.



Historic Structure, Sandwich Village



Community Design

Background

The December 2021 Preserving Community Character workshops identified the preservation of Sandwich's hometown character as an important issue, with responses like 'Quintessential Hometown,' 'Traditional New England Village,' and 'multigenerational.' Community character featured prominently in public comments received on the desired vision for Sandwich's future. While community character was primarily interpreted to mean the physical fabric of the community—its buildings, landscapes, and neighborhoods—workshop participants also acknowledged the Town's desire for more diverse residents, as the population is currently 95% white, 2.1% Hispanic or Latino, 1% African American, 1.6% Asian, and 0.3% Native; existing social and housing challenges; and a drive to be more connected with one another.

Sandwich's history and heritage as the Cape's "first town" draws visitors from around the world. Sandwich has strived to protect its historic resources. Continuing to build upon these successes will ensure that Sandwich remains an attractive community with cultural and recreational opportunities.

As noted in the Land Use section, the area north of Route 6 in Sandwich is part of the Old King's Highway Historic District. In addition, the Town has three National Register Historic Districts. The significant historic resources within the Town help define the character of the community.

Sandwich's Historical Development

Major Indian trails followed an east-west route through Town along what is now Route 6A and Old County Road, and north-south route along Cotuit Road and the north end of Route 130. Sandwich had its share of famous sea captains but remained more agricultural than most Cape towns. By the early 1800s, industrial activity began to take hold. The famed Boston and Sandwich Glass Company was established in town using lumber from extensive forested lands in the southern part of Town to fuel the factory furnaces. The glass industries and related works brought in immigrant populations to make and decorate the glass, and spawned a number of supporting businesses, which continued through the end of the nineteenth century.

By 1920, Sandwich's population began its rebound from a late 19th century decline following closure of the Boston and Sandwich Glass Company, as the idea of Cape Cod as a summer resort took hold. People found jobs building homes along the southern coast of Cape Cod, and the foundation of the tourist economy took shape. By the 1950s, spurred by the post-World War II boom, Sandwich's character as a seaside resort was well established. Since the mid-1900s, many of

the former summer tourists have purchased homes and retired to Sandwich. Today, retirees represent the largest user group of the Cape's service economy. Construction of the Canal Electric Power Plant in 1965 within the Town's primarily rural landscape motivated residents to support the establishment of the Old King's Highway Regional Historic District. Approved in 1973, OKH is the longest continuous historic district in the nation.

Sandwich was discovered by commuters during the 1980's with improvements to Route 3 and Route 25. Families with children bought houses and large subdivisions sprung up throughout the community. An estimated 2,832 new homes were built from 1980 to 1990. To serve this new population, two new schools were built in the late 1980's as well as shopping centers along Cotuit Road and Route 6A. The Sandwich Industrial Park was also established in this timeframe. In the late 1990s and early 2000s, the extension of the Massachusetts Bay Transit Authority (MBTA) commuter rail line to Kingston and Plymouth allowed Sandwich residents to commute to South Station in Boston for a variety of employment opportunities. The expansion of commuter rail combined with soaring home prices on the "South Shore" created another housing boom in Sandwich.

Since World War II, the population and economy of Sandwich has increased steadily as its quality of life became evident to more

and more vacationers, retirees, and Boston commuters. Between 1950 and 1960 the year-round population more than doubled, (from 1,007 to 2,082), as did summer residents (3,120 to 7,000). The population boom continued with a year-round resident population of 20,675 in 2010, according to U.S. Census data. The population growth spawned from intensive speculative residential development, which in turn created the demand for more commercial development. Single-family detached structures cover 6,259 acres and are the largest residential use by a significant amount and the second largest land use in Town.

Development Trends

Conservation and historic preservation issues are paramount in the Town, as residents are anxious to protect the environmental and cultural features that attracted them. Concerns expressed during the December 2021 workshops included increased commercial development with its associated traffic, buildings, parking lots and outdoor lighting. Residents also expressed concern about development threatening the community's historic resources, including demolition and replacement of historic beach cottages with larger homes.

Recent Actions by the Town

The 2009 LCP designated four (4) Smart Growth Centers including the following:

- The Route 6A/Tupper Road/Town Marina Area between the Cape Cod Canal and Route 6A
- The Sandwich Industrial Park and District
- The South Sandwich Village Center (or Golden Triangle) between Route 130, Cotuit Road, and Quaker Meetinghouse Road
- The Historic Sandwich Village/Route 6A Area

These growth centers have been the focus of significant planning and design efforts by the Town since adoption of the 2009 LCP. Below is a summary of these planning efforts.

The Route 6A/Tupper Road/Town Marina Area

The Town Marina area has long been identified as an area of potential development due to its proximity to the marina/canal. As noted in the Land Use section, the Town received funding from MassDevelopment in 2015 to develop a conceptual masterplan for an approximately 22.5 acre area around the marina at East Boat Basin. The property contains wetlands and a stream that runs along the southern portion of the site. The parcel also includes a large parking lot and informal storage area used seasonally for overflow marina parking or boat storage. In addition to the Town-owned land, a number of adjacent parcels held by varying owners were also included as part of the masterplan study.

Key objectives included:

- Improving access to the water's edge to maximize its potential as a public asset.
- Incorporating a mix of uses that are economically viable to activate the area and attract residents and seasonal visitors.
- More intensive uses focused along the waterfront, with less intensive uses serving as a transition back to the adjacent neighborhood.
- Protection of natural areas within the site.

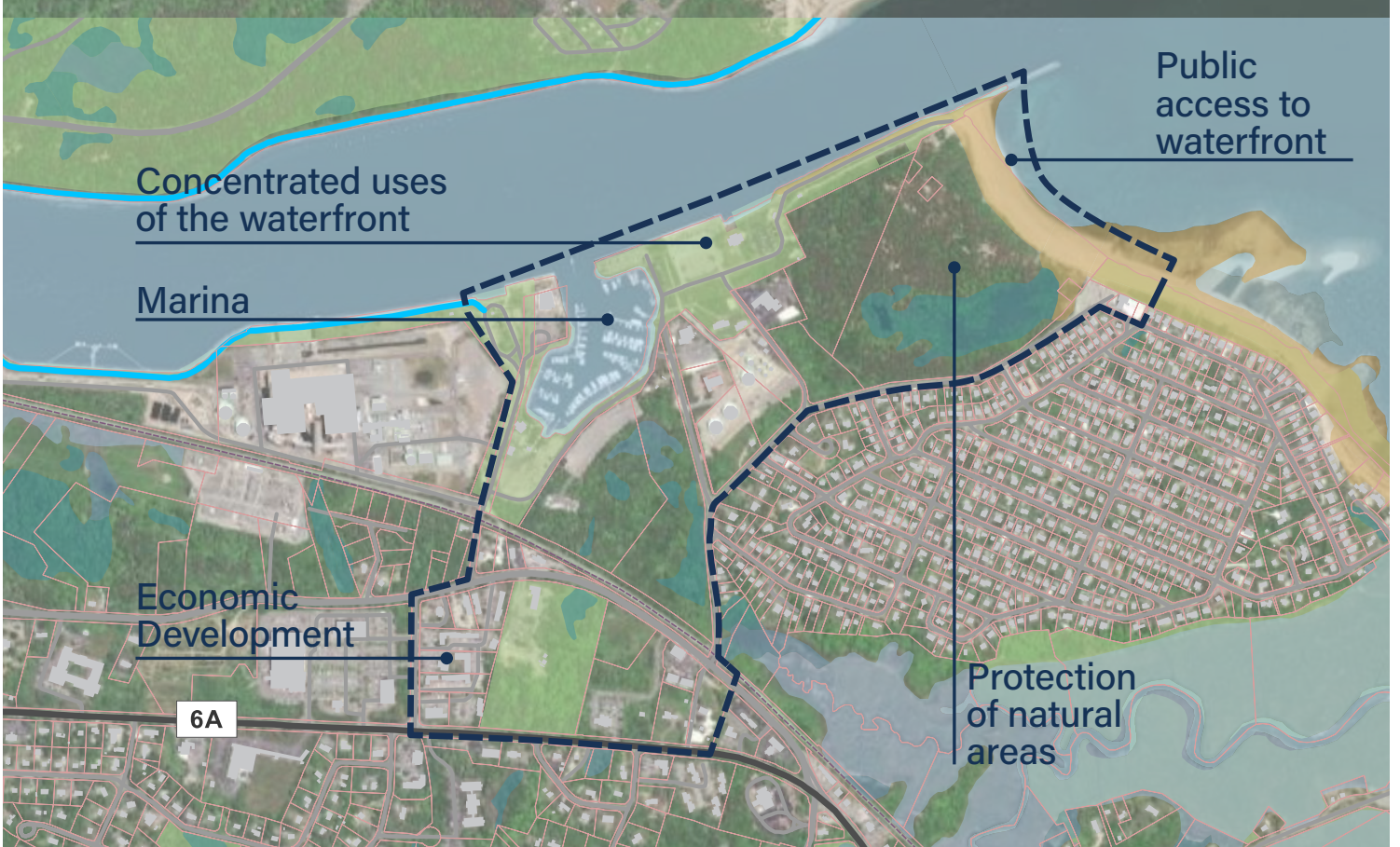
Several components of the plan have been implemented with the exception of residential uses (See figure on p.73).



Views from the Marina and channel walk



Views of Merchant's Square



Sandwich Marina Plan

Sandwich Industrial Park and District

The Sandwich Industrial Park is on Route 130 off Exit 59 of the Mid-Cape Highway and is divided into two distinct areas, the Jan Sebastian Drive development and the gravel pits. Because of the park's location within a zone of contribution, new uses should be compatible with protection water supply protection and appropriate in scale. The concept plan for the Sandwich Industrial Park and District illustrates a series of streetscape enhancements and new infill buildings along Jan Sebastian Drive to create a more attractive setting for private investment and future development. This portion of the district is extended into the gravel pit areas through a series of new roadway connections using an upgraded Kiah's Way as the primary access. Streetscape improvements would be extended through the new portion of the business park and roadways may also be extended to other areas including Meetinghouse Road and the Service Road to improve access and traffic distribution.

In 2014, the Cape Cod Commission approved an application by the Town for revisions to Development of Regional Impact (DRI) Thresholds of up to 40,000 square feet. for proposed Research and Development and Light Manufacturing uses in the Sandwich Industrial Park to allow additional development to support its mandate to ensure balanced economic development in the region.

South Sandwich Village Center (Golden Triangle)

In 2019, the Cape Cod Commission received funding from the Massachusetts Executive Office of Energy and Environmental Affairs to develop model designs for compact development in four Cape Cod communities and a form-based code framework, titled Community Resilience by Design. Completed by the Providence-based Union Studio architects, the project aims to identify forms of multi-family and mixed-use development that respond to the surrounding community context and meet the design and housing goals of a community. The South Sandwich Village Center area was refined during the process to focus on three areas shown on the map to the right.

- The area around the intersection of Cotuit Road and Quaker Meetinghouse Road, including portions of the Town-owned parcel.
- The corridor along Cotuit Road from Route 130 to Quaker Meetinghouse Road.
- The Village Green Area on Route 130 north of Snake Pond Road.

These were selected based on the Town's plans to construct a new wastewater treatment facility with a capacity of 500,000 gallons per day and corresponding infrastructure. Based on public input received at workshops, smaller scale options that focused on existing developed areas on the Town-owned parcel would be more likely to gain community support. The study recommended both minor and major zoning changes that the Town could undertake to foster more pedestrian scale, mixed-use, compact village nodes with increased housing opportunities in this area.

South Sandwich Community Design and Regulatory Framework



Examples of in-fill development from 'Missing Middle' by Union Studio

10 MIN
DRIVE TO
TOWN
CENTER

Fisk
Forestdale
WMA

Forestdale
School

130

Conservation
Area

South Sandwich Village Center

Legend

-  1. Cotuit Road and Quaker Meetinghouse Road
-  2. Cotuit Road, Route 130 to Quaker Meetinghouse Road
-  3. Village Green Area on Route 130

0 0.25 0.50
miles

Source: Union Studios, South Sandwich Community Design and Regulatory Framework

Town Hall Square/Jarvesville National Register Historic Districts

Preserving the character of Sandwich Historic Village and improving its appeal to both residents and visitors was a primary land use goal of the 2009 LCP. Activities and improvements that promote pedestrian use are of utmost importance. The general land use principles for the Historic Village and Route 6A area include the following:

- Visually improve the area from Jarves Street to the Route 6A/Tupper Road split, through creative landscaping, screening, enforcement of the sign code, decreasing curb cuts, and rehabilitating, expanding and improving the appearance of existing buildings.
- Encourage small-scale economic development in existing buildings.
- Development of pedestrian improvements and facilities including public restrooms.
- Village zoning allowing appropriate mixed-use in character with traditional development patterns of the historic village.
- Improve the open space behind First Church of Christ UCC so that it can be used as a park.

The concepts for Sandwich Village recognized the vulnerability of the village to flooding and proposed elevation of buildings with parking behind buildings. A recent study completed by the Army Corps of Engineers Silver Jackets team in cooperation with the CCC, Town administration, and the Sandwich Historical Commission analyzed conditions and made recommendations for improving the resiliency

of historic homes within the flood zone.

The preservation and restoration of the 1834 Sandwich Town Hall began in 2009 following several years of study and planning with the support of \$3.1 Million in Community Preservation Act funds. The entire building is open to the public. The first floor of Town Hall is rented to the Sandwich Arts Alliance (SAA). SAA has created an enriched cultural space showcasing local artists. The Town Hall restoration project received a Massachusetts Historical Commission Preservation Award in 2011. Sandwich Town Hall operations were relocated to Tupper Road to allow the Town to begin consolidation of Town Staff functions into one location.

Key Issues Moving Forward

The LCP community design goal includes protecting and enhancing the unique character of the community through vibrant connected neighborhoods, and guiding development to preserve Town character and cultural heritage. Limitations on the availability of public water and lack of wastewater infrastructure will continue to significantly restrict development, limiting some higher densities in designated smart growth centers that could provide a wider range of residential and commercial opportunities. The higher costs of dealing with necessary infrastructure will be a continued challenge to affordable housing development that can help make Sandwich a more diverse, inclusive, and equitable place.

As the Town continues to focus its efforts on the four Smart Growth Centers targeted for economic development in



Views from Sandwich Center

the 2009 LCP, the community will need to reach consensus on appropriate scale and density for future development and redevelopment in these designated areas to garner support for required zoning and infrastructure funding at Town Meeting.

Many residents have expressed that preserving Sandwich's heritage is critically important to their overall quality of life. In

terms of historic resource protection, the Town should continue to pursue National Register listing for historic resources.

Increased power-generating capacity at the Canal-generating property could result in future development opportunities.



Sandwich Town Hall



Dexter Grist Mill



Sandwich Marina area



Community Facilities and Infrastructure

Background

The term community infrastructure includes a variety of physical facilities and assets that the Town and other organizations provide for public purposes including community buildings, schools, parks and recreation facilities, transportation, and waste management. Future planning for community facilities and infrastructure is essential to retaining a diverse resident population as well as accommodating the needs of visitors to the Town. Participants in 2021 workshops cited their desires for additional facilities in their neighborhoods including sidewalks, bike lanes and/or bike paths, and the need for more park amenities including a dog park.



Oak Ridge School

Residents also highly valued the numerous historic and cultural assets including the Sandwich Glass Museum, Heritage Gardens, and the Sandwich Boardwalk. Some residents noted the lack of an indoor recreation facility. This section will focus on the issues of recreation and transportation facilities and infrastructure as priorities for the Town.

Current Status

Public Schools

Sandwich public schools include the Forestdale School (PreK-2nd grade); Oak Ridge School (grades 3 – 6); Sandwich STEM Academy (grades 7 – 8); and Sandwich Public High school (grades 9 – 12).

Recreation Facilities

The Town manages numerous community facilities through the Recreation Department. The facilities are in the area off Cotuit Road and Quaker Meetinghouse Road and include



Sandwich Public High School

a community center, Pop Warner football field, other play fields, fitness trail, horseshoe pits and volleyball court. The Town also owns the Sandwich Hollows golf course, an 18-hole golf course with clubhouse, tennis courts and driving range on Round Hill Road.

The Recreation Department also opened the new Oak Crest Cove Park on Quaker Meetinghouse Road in 2020 that includes a skate park and tennis courts/pickleball courts, creating new inter-generational recreational opportunities for residents through a safe, accessible, well planned and maintained park area. In 2022 the Recreation Department added a new 18-hole, par-60 disc golf course at Oak Crest Cove park.

There are also approximately 510 acres of summer youth camps and approximately 107 acres of commercial campgrounds, more than any other Cape Cod town.

Sandwich Boardwalk

As noted in the Coastal Resilience section, the Sandwich Boardwalk is a recreational and cultural landmark. Thousands of visitors enjoy this treasured asset throughout the year. The Sandwich Boardwalk has undergone several repairs after numerous past flooding events, including storms in March 2018 and severe damage in January 2022. The boardwalk is being reconstructed



Skateboard Park/Pickleball Courts, Center for Active Living

to improve accessibility, preserve its historic character, and elevate to improve its resiliency to storms and climate change impacts.

Museums/Monuments

As noted above, the Town maintains numerous historic resources including the Dexter Grist Mill, Sand Hill School Community Center, the Hoxie House Museum, and Old Sandwich Town Hall, which was renovated and restored in 2009. The Town also maintains several monuments and memorials. The Benjamin Nye Homestead Museum and Wing Fort House Museum are owned and operated by non-profit organizations. As noted in the Community Design section, Sandwich's history

and heritage as the Cape's "first town" draws visitors from around the world. Sandwich has strived to protect its historic resources. Other museums in Town include Heritage Museums and Gardens, Thornton Burgess Society/Green Briar Nature Center, and the Boston and Sandwich Glass Company.

Community Space

As noted in the Community Design section, Sandwich Town Hall was restored in 2009 using Community Preservation Act funds. The entire building is open to the public with an auditorium that can be rented for community events.



Sandwich Glass Museum

The Town has a number of ADA-accessible facilities for community meetings and events, including the Sand Hill School Community Center, built in 1885 as a schoolhouse for children of workers from the Sandwich Glass Factory. The building was fully rehabilitated in 2018 and is within the Old King's Highway Regional Historic District and a contributing structure to the Jarvesville National Register Historic District. Municipal operations at Town Hall were relocated to Tupper Road in 2022.

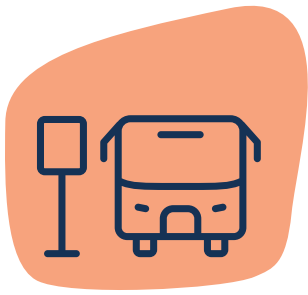
The Sandwich Center for Active Living opened in 2023, replacing the Human Services Building. The approximately 24,000 sq.ft. building includes offices for Senior Services. Also included in the building is a gymnasium, exercise rooms, conference space, and a second-level

walking track. The building is designed to accommodate the needs of a variety of ages.

The Sandwich Public Library renovation was completed in 2021. The renovation protected and reinforced the library's historic fabric and its dedication to reading, archival research, technology, and learning while making the spaces more open and contemporary. Highlights of the renovation include a new approach for the children's and teens' areas, a technology bar, and a dedicated archival room.



Sandwich Center for Active Living



Transportation

Roadways, Bus, and Rail

Sandwich's roadway network is characterized by several arterial corridors. Route 130, Quaker Meetinghouse Road, Cotuit Road, and Great Hill Road provide north-south connectivity while the Mid-Cape Highway (Route 6), Route 6A, and Farmersville Road carry east-west traffic. Connecting these major corridors are a series of collectors including Service Road that runs parallel to Route 6, and many local streets primarily serving residential areas. The Massachusetts Department of Transportation (MassDOT) owns and maintains approximately 20 miles of roadway including Route 6, Route 6A, and portions of Route 130. The Town

owns and maintains approximately 149 road miles. Approximately 79 miles are privately owned and maintained, and less than one mile outside of JBCC are federally operated. With the exception of Route 130 between Jan Sebastian Drive and Cotuit Road, as well as other select exclusion areas, on-street parking is permitted on local streets and on streets in the Town Center. Parking is also permitted on major streets within shoulders except on numbered state highways.

The Cape Cod Regional Transit Authority's (CCRTA) Sandwich Line provides fixed-route service and connections to Barnstable and Buzzards Bay in Bourne. In-town stops include shopping plazas, high-density housing areas, the Spaulding Rehabilitation Hospital, Heritage Park, and Town Hall. Seasonal rail service was recently revived between Boston and Hyannis in the form of the Cape Flyer train. Though the train passes through Sandwich, it does not stop at the Sandwich Depot on Jarves Street. The nearest stops are at Buzzards Bay and Hyannis.



Cape Cod Regional Transit Authority (Source: CCRTA)

Paratransit services are available to Sandwich residents such as the intercity and commuter bus services provided by the Plymouth and Brockton Street Railway Company (P&B) and Bonanza Bus Lines. The park-and-ride lot at the Sagamore flyover is the primary stop, and studies indicate that about 80% of the cars parked in the Sagamore lot come from Sandwich. Connections to the commuter bus services operated from Cape Cod must be made in the surrounding towns of Falmouth, and Barnstable.

There is railroad service through the Cape Cod Central Railroad (CCCRR), the Mass Coastal Railroad Corporation, and Commuter Rail service to Boston is available to residents using the Massachusetts Bay Transportation Authority's (MBTA) Old Colony and Kingston lines. The closest civilian airport serving Sandwich is the Cape Cod Gateway Airport to the east and Boston-Logan International Airport about 60 miles north of Sandwich via Route 3.

The Commonwealth has announced plans to seek federal funding to replace both the Bourne and Sagamore bridges. The Massachusetts Department of Transportation (MassDOT) has also unveiled the results of its Canal Area Transportation Study, and published draft plans for revision of roads leading to the proposed new canal bridges.

The Cape Cod Regional Transit Authority provides fixed route bus service via the Sandwich Line between Downtown Hyannis, through Sandwich, to Buzzards Bay Train Station via route 28, Oak St, Race Lane, Farmersville Road, Cotuit Road, Route 130 and Route 6A.

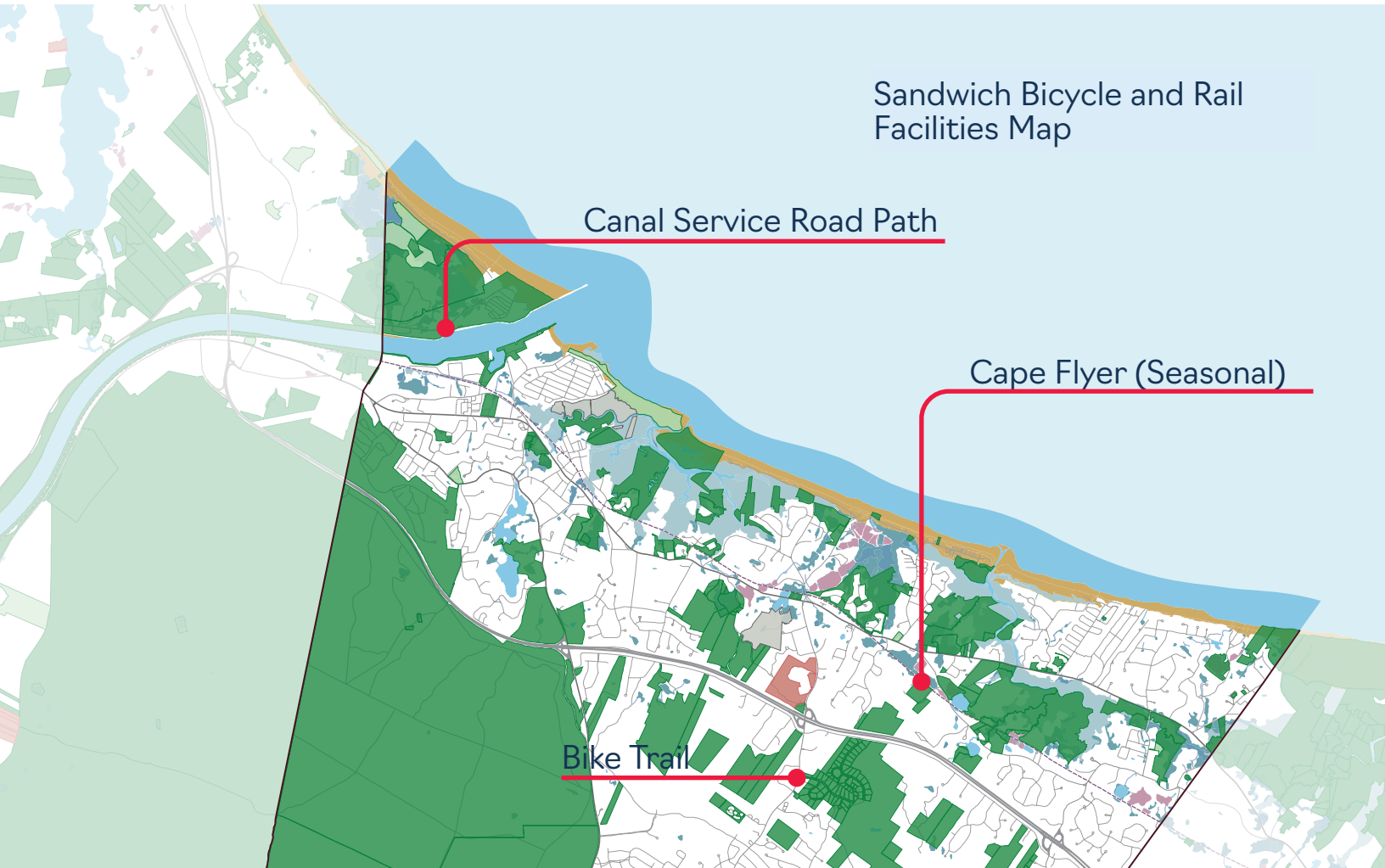
Pedestrian and Bicycle Facilities

Sidewalks in Sandwich are concentrated in two separate networks: one within Historic Village Center and one along a few major streets south of Route 6. Most residential streets outside of the Historic Village Center area do not have sidewalks or are limited to one side of the street. The Town has completed sidewalks along Sandy Neck Road, Beale Avenue, and the entire 4-mile length of Quaker Meetinghouse Road connecting to numerous Town facilities, residential areas, commercial areas, Sandwich High School, Oak Ridge School, and Forestdale School. Marked pedestrian crossings are the most frequent within the Historic Village Center.

Sandwich has direct access to the Canal Service Road Path, a popular shared-use path that runs along both the northern and southern sides of the Cape Cod Canal, linking to Bourne and Sagamore. Pedestrian and bicycle counts indicate that the southern side is the most heavily used and can exceed 1,500 users on a summer day. Sandwich also hosts a portion of the Claire Saltonstall Bikeway—a 135-mile signed route from Boston to Provincetown— along Route 130 from Route 6A to Service Road and continuing along the Service Road into Barnstable. Sandwich has no on-street bike lanes.

The Town encourages walking and biking through supportive policies, programs and projects. Sandwich established a Bikeway and Pedestrian Committee and is an active Safe Routes to School community. In 2017, the Town adopted a Complete Streets Policy and Prioritization Plan. The purpose of Sandwich's Complete Streets Policy is to

Sandwich Bicycle and Rail Facilities Map



accommodate all users by creating a road network that meets the needs of individuals utilizing a variety of transportation modes and to integrate the planning, design, operation and maintenance of streets so that they are safe for all users of all ages and abilities.

Recent Actions by the Town

The 2018 Bikeway and Pedestrian Master Plan mapped routes where people currently walk or bike, mapped preferences for future routes and places to walk/bike to and identified barriers to walking or biking in Sandwich. The report provided recommendations ranging from low-cost projects such as pavement markings and signage to capital construction projects with corresponding maps and a link to an infrastructure recommendations table. Detailed recommendations were prepared for Sandwich Village, South Sandwich and Forestdale as well as East and Southeast Sandwich.

The following projects have been implemented since completion of the plan:

- Canal to Main Street Bicycle Route established; constructed sidewalk along the length of Beale Avenue; constructed sidewalk along the length of Sandy Neck Road with grant funding support; advanced the Service Road project through the MassDOT design process (a major undertaking) and continues improvements to the intersection of 130/QMR (on-going) with grant funding support.
- In 2014, the Town completed a park and recreation master plan and feasibility study for the Sandwich Hollows golf course to evaluate the available property of the golf club and surrounding Town

and school properties for additional outdoor recreation and community park development. The master plan included schematic layout plans for development of athletic fields, parking, and concessions that the property could support in addition to the existing golf course.

- The Town, MassDOT, and Cape Cod Commission (CCC) are advancing plans for a shared use path along the northern side of Service Road from Route 130 into Barnstable. The Town is also pursuing a shared-use-path connector from the Service Road to the Cape Cod Canal Bike Path.

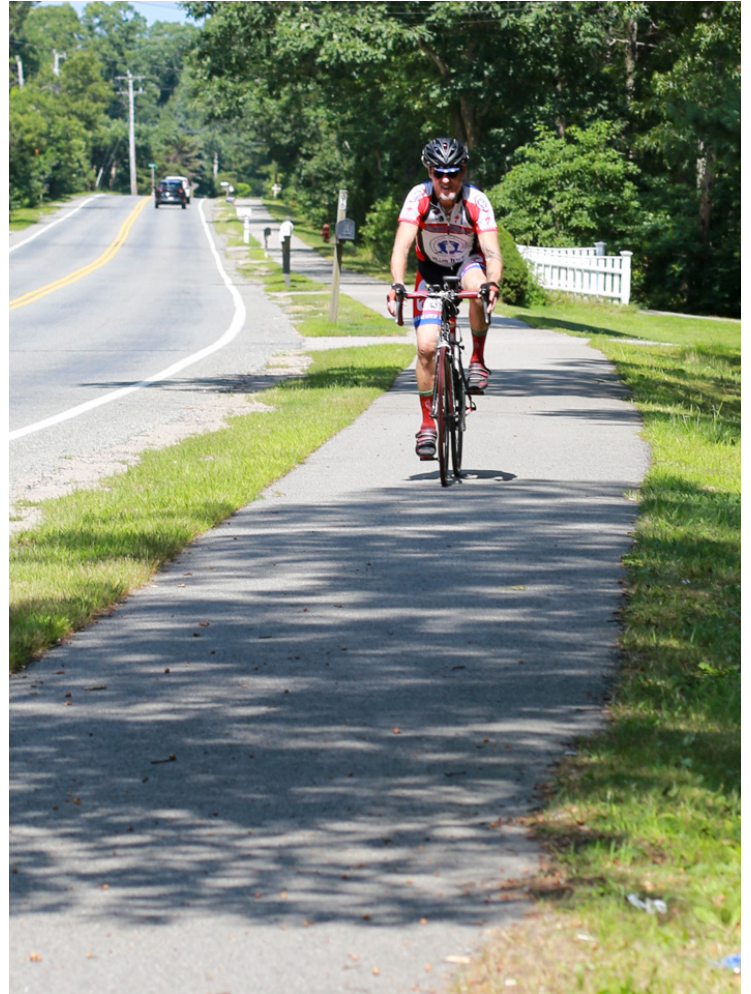
Key Issues Moving Forward

Major constraints to expanding pedestrian and bicycle access within the Town and to surrounding communities include narrow rights-of-way as well as environmental and historic resources. Nonetheless, the Town should continue to prioritize improvements to bicycle and pedestrian facilities to implement priority projects in the Town's Complete Streets Policy and Prioritization Plan wherever feasible to provide alternative modes of transportation for residents as well as visitors. The Town has committed to maintaining a comprehensive inventory of pedestrian and bicycle facility infrastructure and incorporating Complete Streets projects into its Capital Improvement Priority Plan.

The five-year update for the Town's Financial Policy Manual has commenced and will include the upcoming fiscal year's capital budget and a five-year projection of capital needs and expenditures that details their estimated costs,

descriptions, and anticipated funding sources. This five-year update should incorporate and in the future be tied to the LCP action plan to coordinate funding for needed community infrastructure priorities to support growth and redevelopment in appropriate areas.

Maintaining the rural character of Town roadways while providing multi-modal transportation facilities (such as sidewalks and bike trails) are important land use objectives. Priorities should include providing additional sidewalk and bicycle connections to and from residential areas to schools, recreation facilities and designated smart growth centers to reduce vehicle trips and provide safe alternatives to automobile dependence.

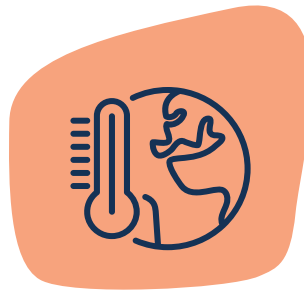


*Top: Multipurpose path along Quaker Meetinghouse Road
Bottom: Bike Path along Service Road under construction*



Waste Management

The Town's municipal solid waste is collected by private haulers or brought by homeowners to the Town's transfer station. The Town transports its solid waste with trailers to the SEMASS/COVANTA incineration and waste-to-energy facility in Rochester, Massachusetts. Sandwich's contract with SEMASS/COVANTA expires in 2025 with an option to extend for another 5 years. The Town has enjoyed a favorable disposal fee and expects renewal costs to significantly increase as solid waste disposal options diminish. The Town's former landfill has been capped and is used for composting purposes only. Recycling and hard-to-manage materials are hauled by the Town and private haulers to regional recycling facilities. Sandwich adopted a Pay-as-you-Throw (PAYT) solid waste program in 2011 where residents purchase preprinted stickers or bags for disposal of trash, thereby paying directly for the amount of solid waste they generate. There is no direct fee for recycling. Sandwich is participating in a Cape Cod Commission study to identify potential regional recycling facilities on Cape Cod.



Climate Mitigation

Background

Climate change is an environmental challenge that is impacting the lives of people, plants and animals all around the globe. Rising sea levels, coastline changes, drought, water quality and air quality are all issues arising from the recent accelerated rate of climate change and global warming. According to the 2021 Cape Cod Climate Action Plan, by the year 2100, damage to Cape Cod's buildings and land lost to inundation could total over \$30 billion dollars. While climate change as a whole is a global challenge, our land use patterns and way of life dictate our greenhouse gas (GHG) emissions, the leading cause of the climate crisis. Dedicated and immediate action is necessary to slow the effects of climate change and improve the region's resiliency to its impacts.

The leading cause of climate change is the rate of carbon emissions produced by consumption of fossil fuels such as gasoline, diesel and coal. The Commonwealth of Massachusetts has set a statewide net-zero carbon emissions target for 2050, including a 50% reduction in carbon emissions by 2030.

While Town-wide data regarding Sandwich's contribution to GHG emissions are not yet available, data from the 2021 Cape Cod Climate Action Plan indicate that Cape Cod's 2017 GHG emissions equal 3,564,875

million tons of CO₂, or approximately 4-5% of Massachusetts state emissions. The Climate Action Plan identified the major sources of GHG as being from transportation and stationary energy sources (emissions that arise from the consumption of fuels used in electricity generation in homes and businesses, for example), with transportation (55.5%), and stationary energy sources (39.2%) accounting for 95% of the region's GHG emissions. On-road vehicles account for 43% of the region's emissions and nearly 80% of transportation emissions. Cape Cod is highly residential, with only 2-3% of the reported commercial and industrial building square footage in the state. Residential development is predominantly single-family homes, resulting in the residential subsector being the highest single contributor of stationary energy emissions. Offsetting these overall emissions, forested land captures an equivalent of 9% of the region's carbon emissions.

As described in the June 2018 Municipal Vulnerability Preparedness (MVP) Summary of Findings, the Town has many concerns and faces multiple challenges related to the impacts of natural hazards exacerbated by climate change. In recent years, the Town has experienced a series of highly disruptive and damaging weather events, including three successive Nor'easters in March 2018, as well as significant rainfall events, such as the greater than 2 inches of rain that fell on a single day in July 2017. The impacts from recent Nor'easters included significant coastal flooding, inundating some neighborhoods for days; high winds, resulting in 98% of the town without power; many downed trees that blocked roads; and coastal erosion

resulting from heavy surf and storm surge. The frequency of these storms in March 2018 exacerbated the impacts, as the Town was still recovering from the last storm when the next one arrived. The magnitude and severity of the impacts of these storms produced a heightened level of awareness in Town and provided additional motivation to comprehensively improve resilience and reduce local vulnerabilities to natural hazards.

As noted in the MVP report, the impacts from these events were felt differently. For example, the northern part of Sandwich (north of Route 6A in particular) borders Cape Cod Bay and was exposed to damage from coastal flooding and storm surge. The forested inland areas experienced tree damage from wind, snow and ice, as well as inland flooding along roads due to poor drainage. The combination of these issues presents a challenge to emergency preparedness and response, and requires comprehensive yet tailored actions for establishing mitigation priorities for different areas of Town.

Recent Actions by the Town

In addition to the MVP report, the Town completed a Hazard Mitigation Plan (HMP) in 2016, describing the natural hazards, assets, areas of vulnerability, and mitigation strategies. The Town has completed several mitigation actions to address emergency management needs. As noted above, the Town also completed the MVP planning process in 2017, making the Town eligible for MVP action grants for implementation efforts. The Town has made progress on several initiatives as a result of MVP action grants, including a Vulnerable

Municipal Infrastructure Assessment (2019) and a vulnerability and adaptation study for downtown Sandwich. Details pertaining to a climate change vulnerability/risk assessment and adaptation study completed by Woods Hole Group in 2019 is discussed in further detail in the Coastal Resiliency resource section. In addition, the Town received funding from the Natural Resources Conservation Program (NRCS) program for storm water/shellfish beds enhancement at the Jones Lane Culvert in June 2020.

The Town adopted a Complete Streets Policy in 2017. The goal of Complete Streets is to provide safe and accessible options for all modes of travel and help to encourage less vehicle travel, a significant source of GHG emissions, and more opportunity for walking, biking and transit. In 2018, the Town and the Sandwich Bikeway and Pedestrian Committee completed a Town-wide Bikeway and Pedestrian Master Plan that included an existing conditions inventory, facility toolkit, and recommendations for infrastructure improvements and other education, enforcement and regulatory enhancements. Implementation of the Master Plan is ongoing. To date, various accessibility and infrastructure improvement projects have been completed including: the establishment of a bike route connecting the Canal to Main Street; construction of a sidewalk along Beale Avenue; construction of sidewalk on Sandy Neck Road using CS grant funding; advancement of the Service Road SUP project through the MassDOT TIP design process; and improvements to the intersection of 130/QMR with CS funding. Public workshops held in 2021 as part of the LCP update indicated support for additional bike lanes and sidewalks in Town.

There are three electric charging stations in Town, allowing for up to 7 electric vehicles to charge at the same time. This is a step in the right direction in terms of providing the correct infrastructure for the community by providing access to a charging port in town. Construction of more electric charging stations would further encourage residents and visitors to purchase electric vehicles, which will help to reduce GHG emissions overall. The Town is attempting to provide increased opportunity for vehicle charging stations by allowing canopy solar over existing parking lots as a by right development.

Key Issues Moving Forward

The 2021 Cape Cod Climate Action Plan's baseline inventory addresses the need to cut back the region's emissions as a whole and more specifically in the transportation and stationary energy sectors. These sectors make up nearly 95% of all greenhouse gas emissions that the region produces. As Cape Cod seeks to align with the Commonwealth of Massachusetts's climate goals, reducing greenhouse gas emissions is a top priority for the region. Passenger cars and SUVs are the largest contributor to transportation emissions, with 19,481 vehicles registered in Sandwich, putting the focus of reducing emissions on private vehicles.

The Town could consider increasing public transportation options within the town and could work with neighboring towns to provide additional public transportation for working residents who travel outside of Sandwich. Investing in electric vehicles for municipal vehicle fleets and increasing electric vehicle

infrastructure for the public would also reduce the greenhouse gas emissions produced by vehicles. The Town could pursue resources and programs to support development of additional electric vehicle charging stations in appropriate locations to help reduce the local GHG emissions in support of State goals.

The Massachusetts Executive Office of Energy and Environmental Affairs Department of Energy Resources Green Communities Division provides grants, technical assistance, and local support to help municipalities reduce energy use and costs by implementing clean energy projects in municipal buildings, facilities, and schools. The Select Board recently voted to take initial steps towards Green Communities designation including adoption of the Massachusetts stretch building code and associated three-year updates, consistent with the requirements

of the Green Communities Act.

The Town could also consider completing a town wide GHG inventory and climate action plan to support the Town's climate goals. As an example, the Town of Truro established a Climate Action Committee in 2019 to review the carbon footprint of Town-owned facilities and equipment and make recommendations to the Select Board on methods to minimize the Town's carbon footprint and vulnerabilities to climate change. Using online support tools from the International Council for Local Environmental Initiatives (ICLEI), the Truro Climate Action Committee completed a town wide GHG inventory and a Climate Action Plan in 2021.

As a region, over 80% of Cape Cod's land area is already protected or developed, with over 90,000 acres of protected open



EV charging station

space. Between 2001 and 2011, however, the Cape lost more than 2,300 acres of forest cover, with 70% of the loss replaced by development (buildings, driveways, parking lots, etc.). Focusing future development in already developed areas in activity centers of housing, economic activity and services and away from areas that are undeveloped can help maintain our region's ability to sequester carbon. As noted in the Land Use section, the Town has been making significant

strides to encourage development in strategic planning areas identified in the 2009 LCP.

The Town could also consider performing energy assessments on all municipal buildings and work with the Cape Light Compact (CLC) to access available programs. Many Town properties have been reviewed by the CLC, but further assessments are encouraged. The Town could also consider pursuing adoption of small-scale community solar at appropriate locations. The CCC created an online screening tool to



Proposed solar array at (top) Sandwich Hollows Golf Club and (bottom) Sandwich High School.

identify areas in Barnstable County that may be appropriate for large-scale solar photovoltaic (PV) projects and those areas that may be less appropriate due to potential impacts to natural resources. This tool could be used as a starting point to help inform the siting of potential solar PV projects. The Town has two PV projects under contract with the Cape & Vineyard Electric Cooperative (CVEC) at the Sandwich Hollows Golf Course, Sandwich High School, as well as Oakridge and Forestdale schools.

As discussed in the Coastal Resilience chapter/section, Sandwich is working with the Cape Cod Commission on updating and strengthening local bylaws to better address coastal development and redevelopment with the goal of building coastal resiliency. Revisions to municipal bylaws focused on practices to encourage or incentivize energy efficiency and conservation, onsite or local renewable energy, and compact development to minimize impervious surfaces other sustainable building and site development practices could also be pursued by the Town.



Existing conditions at (top) Sandwich Hollows Golf Club and (bottom) Sandwich High School.

Community Systems

The Cape's community systems, which include the culture, people, and economic activity of the area, are critical for fostering and maintaining vibrant communities and social networks that serve and support the people who live, work, and play in the region. The community systems are intricately tied to the environment. Impacts to natural systems, such as those related to climate change or water quality, will present challenges with respect to protecting cultural heritage, community character, and the economy.



Sandwich Town Hall



Local Economy

Background

Sandwich community workshop participants recognized the importance of creating a sustainable local economy. Specifically, workshop participants wanted to see:

- A greater focus on building a “green economy” based on the Town’s natural beauty and resources.
- An economy that fosters the growth of small business that are compatible with the Town’s character.
- Future economic focus on light industry and expanded infrastructure to encourage tech business and eco-friendly enterprises.
- Economic development opportunities focused in South Sandwich Village (Golden Triangle) and the Industrial Park.
- Development of a brand for Sandwich and marketing plan to attract new business.

Regional Economy

As stated in the 2019 Cape Cod Comprehensive Economic Development Strategy (CEDS), the dominant industries on Cape Cod related to the seasonal economy and retiree population are 17% healthcare, 16% accommodations and food services, and 16% retail trade. Just under 25% of the

region’s jobs are in the creative economy, financial, information sectors, and professional and technical service sectors, with wages around or above the average for the region.

The region’s marine assets, location, and the presence of global marine industry leaders provide valuable employment opportunities in the marine sciences and technology sector. Additionally, Cape Cod Community College, Bridgewater State College, Massachusetts Maritime Academy, and strong K-12 schools provide educational opportunities that contribute to the region’s economy. The county’s labor force makes up 59.3% of the population, with over 95.8% of the population holding a high school degree and over; 45% holding a bachelor’s or more advanced degree (compared with approximately 91.1% of all Massachusetts residents holding a high school degree; and about 44.5% holding a bachelor’s degree or higher).

Based on the 2017 Cape Cod Housing Market Analysis, average wages in all of the top seven Cape Cod sectors—accommodation and food services, retail trade, healthcare, professional and technical services, construction, local government, and administrative/waste services—are below the amount of household income per year required to afford a median priced house in the region. (The US Department of Housing and Urban Development defines housing affordability as paying 30% or less of a household’s income on housing). Only the highest-paid employees within the county’s major employment categories were able to afford owning a house in 2015. Household income has not kept up with rising costs of



Local Businesses Thrive in Sandwich

housing on Cape Cod, an issue that will be greatly exacerbated given the forecasted trends in population and employment.

Local Economy

According to the 2019 CEDS, Sandwich's top three employment sectors are in education and health services (32%), leisure and hospitality (22%), and retail trade (11%). Sandwich's 2020 median household income, per US Census Data, was \$100,324. Based on the Cape Cod Commission's Data Cape Cod portal, the unemployment rate in December 2021 was 3%. Of the total population, 97.6% of adults aged 25 years and over had obtained a high school diploma or more, somewhat higher than the County as a whole. Sandwich has a working population of 10,804 people,

with 74.6% in private industry, 16.1% in government, and 16.1% self-employed. The JERA Americas Inc. Power Plant is the largest industrial contribution to the Town's tax base, with Sandwich's average tax bill FY2021 of \$6,193.75. The Town's FY2021 total residential tax paid was \$57,268,361 and commercial tax paid was \$9,465,831.

Local Demographics

Sandwich, like much of Cape Cod, is populated by a mixture of working families, retirees, summer residents, and visitors. Sandwich's median age is 56 years, compared to 53.7 for Barnstable County as a whole. In 1960, Sandwich had a population of just over 2,000 year-round residents that has increased to about 20,500 in 2021. 24% of the year-round



Tree House Brewing Company outdoor seating

residents in Sandwich are over 65 years old.

Sandwich has many defining elements that make it an attractive place for retirees, seasonal residents, and visitors as well as working residents. Like the rest of Cape Cod, the business and job mix in Town is heavily influenced by the non-working populations. Economic growth and new opportunities depend in part on bringing resources from outside the Town into the Town. Other types of places export goods or services, but for the Cape economy and for the Town, it is the place that is valued, which cannot be exported, and must be visited. Defining Sandwich as a place, and investing in the elements that define that place, is essential to building a strong local economy. As noted in further detail in the Land Use - Sandwich Today section, Sandwich

tends to have a higher percentage of year-round residents than the rest of the region due to its relative convenience for commuters.

Recent Actions by the Town

The Sandwich Select Board 2022 Long-Range Plan mission statement is to provide the public with the highest, most efficient and effective level of service with the resources available in a manner that exemplifies honesty, integrity and a commitment to public service while honoring the Town's rich history, protecting the environment and responsibly planning for the future. The Board's Long-Range plan is updated annually to identify the primary issues and projects on which the Town will focus in the coming year, and to report this to Town Meeting.

The Select Board's Long-Range Plan includes economic development actions intended to increase the commercial tax base and create jobs. Economic development priorities identified in the Long-Range Plan include: continued assistance to Stonepeak with the Canal Station power plant upgrades; exploration of economic development opportunities with the CCC; and determination of viability of Payment-in-Lieu-of-Tax (PILOT) program for local non-profit organizations.

Key Issues Moving Forward

The 2021 Sandwich community workshops identified a number of opportunities that the Town should focus on, including support for industries that contribute to a healthy economic base and generate revenue. In addition, residents supported economic development focused on a combination of natural resources, redevelopment of South Sandwich Village (Golden Triangle), and the Industrial Park through mixed use zoning and sewer development. In addition, there was continued support for expansion of recreation opportunities as a mechanism to bring additional revenue to the Town. Other efforts to support the local economy shared by residents included an updated website and a marketing/branding effort by the Town.

As noted in other sections, the lack of wastewater infrastructure in designated growth areas is limiting the redevelopment potential

of these areas. Similar to other Cape towns, Sandwich faces the challenges of the high cost of housing and low wages, and the lack of a diversity of housing types to meet the needs of all residents. Implementation of the 2021 Housing Production Plan should be a priority of the Town to retain working families that help support the tourism and recreational opportunities sought by the Town.

The Year 3 Annual Report produced by the Cape Cod Commission includes an initiative to advance the Land Use Planning for Economic Resilience effort to facilitate vibrant, compact mixed-use downtown areas across the region and improve the stability and resiliency of the local economy. Year 4 activities will include development of a zoning and land-use regulations guide and support for best practices implementation in Cape Cod towns. The Town has an opportunity to engage with the Commission to review and



Canal Station Power Plant

revise local bylaws to meet its economic and community development goals.

The Town should also pursue funding opportunities to develop a branding/marketing plan for the community to improve its position in the regional economy. Programs such as the Urban Lands Institute offer technical assistance to help communities create strategies for economic development focused on specific targeted locations. The Town could also consider designation of the South Sandwich area as a District of Critical Planning Concern for economic development that would

give the Town an opportunity to plan and gain consensus on zoning and appropriate density and a mix of uses for the future of this area with development of special regulations. This regional planning tool was used by the Town of Eastham for the North Eastham commercial district in fostering housing development, mixed-use, and addressing critical transportation issues. Special attention should be paid to Town efforts to expand power production in a more environmentally-friendly manner at the canal power plant.



Canterbury Plaza



Sandwich Industrial Park



Restoration of the Sand Hill School Community Center (2018)



100 Route 6A Town Government Offices (2022)



Sandwich Center for Active Living (2023)



Dedication of the Public Safety Complex (2019)



Sandwich Fire Department

SECTION 4

Capital Infrastructure and Facilities

This section includes a description of key capital facilities and infrastructure needed to accommodate anticipated future growth and development and protect resources in Sandwich.





ENT

SANDWICH
FIRE DEPARTMENT

Sandwich Public Safety Complex

Since the ratification of the 2009 Sandwich Local Comprehensive Plan, the Town has invested in excess of \$70 million in capital improvements to Town buildings, infrastructure, recreation and coastal resilience. In 2010, the town completed restoration of the 1834 original Town Hall at 130 Main Street. In 2013, the town completed the Quaker Meetinghouse Road sidewalk project, which extended the sidewalk from Route 130 to Route 6. An additional extension of the Sandy Neck sidewalk from Route 6A to the Barnstable town line occurred in 2019.

Beginning in 2017, the town made a significant investment in the Quaker Meetinghouse Road and Cotuit Road area. In 2019, the Public Safety Complex opened, which includes a state-of-the-art Police Headquarters and a modern Fire Station. Included in the project was the restoration of the 6A fire substation. A skate park and pickleball courts were constructed with CPA funds and a disc golf course was established along with a BMX track.

In addition, the Sandwich Center for Active Living opened in the spring of 2023. A new

irrigation system at Sandwich Hollows Golf course has been completed.

The restoration of the Sand Hill School Community Center was completed in 2018 and in 2021 the Sandwich Public Library opened its doors to a newly renovated building.

Government offices were spread across several buildings. The Town consolidated those departments to one building and in November 2022, the Town opened its doors to a government center at 100 Route 6A.

Beginning 2014, some 150,000 cubic yards of sand were placed on Town Neck Beach for renourishment and restoration.

The following list represents identified capital projects the Town is intending to complete or make significant progress on within the next ten years. The town recognizes that impacts to coastal resources may reprioritize improvements to increase long term sustainability of capital facilities and infrastructure to ensure resiliency of Sandwich's coastline.



Dexter Grist Mill

Capital Facilities and Infrastructure Key Needs and Priorities

Project & Description	Funding Source
Public Services	
Wastewater	
<p>The Town anticipates making significant progress implementing Phase I of the Town’s Comprehensive Water Resource Management Plan (CWRMP). The Town is reviewing the location of a Waste Water Treatment facility to be sited at either Jan Sebastian Drive or Joint Base Cape Cod. Anticipated final determination will be in 2024. Complete implementation of Phase I is estimated to take 20 to 25 years.</p>	<p>At the November 2018 Special Town Meeting, voters approved the adoption of the Water Infrastructure Investment Fund (WIIF) for the purposes of creating a funding source to address water quality issues. In addition to the WIIF, the Town is reviewing funding options through the State Revolving Fund and the Cape Cod & Islands Water Protection Fund. The Town will be maximizing ARPA funds to address the septic needs at Sandwich High School, Oak Ridge School and Forestdale School. Anticipated cost for Phase I is \$125 million.</p>
Playgrounds	
<p>The Sandwich Recreation Department is scheduling reconstruction of the Adventure Playground on Quaker Meetinghouse Road for completion in 2024. The School District is planning to update the Forestdale School playground in 2023 and the Oak Ridge School playground in 2024.</p>	<p>The Recreation Department had secured funding for the Adventure Playground through CPA funds. The funding for the school playgrounds was included in the May 2022 Town Meeting debt exclusion. Estimated costs for all three playgrounds is \$1 million - \$1.2 million.</p>

Associated LCP Goals	Corresponding LCP Categories	Priority
Wastewater project supports the goals associated with the Community, Natural and Built Systems by creating the necessary infrastructure to address nitrogen and provide opportunities to increase density and housing production while protecting water resources.	Capital Facilities & Infrastructure, Economy, Housing, Water Resources	10 + Years
Playgrounds project supports the goals associated with Community Systems by creating a recreational environment which would increase the physical and mental well-being of the participants.	Community Design, Capital Facilities & Infrastructure	2 Years

Public Buildings

Downtown Fire Station

The Fire Substation at 115 Route 6A is located within a flood plain. The Town is examining relocating the facility to Route 130 on the DPW lot. This location provides access to downtown and a speedier response to support other units with its close proximity to Route 130 and Route 6. With the relocation of the substation, the Town would declare the existing station as surplus and examine the potential of disposing the property along with the adjoining former police station lot to maximize potential returns.

The Town is anticipating a determination of relocation in Fiscal Year 2024. A consultant has been retained to estimate potential costs for the new facility. Funding will come from a future debt exclusion.

DPW Barn

The current Barn is becoming inadequate to meet departmental needs. The introduction of a new fire substation would create an opportunity to review the existing structure to determine if a joint facility can be constructed or two separate buildings to meet the growing needs of each department.

A consultant has been retained to provide a cost analysis for a fire substation and DPW Barn. Funding for the consultant has been secured. Future costs for new construction will be the subject of a debt exclusion.



<p>Downtown Fire Station project supports the associated goals of the Community and Built Systems by providing a state of the art fire facility whose location will provide critical support to the downtown and cultural center.</p>	<p>Community Design, Capital Facilities & Infrastructure, Cultural Heritage</p>	<p>5 Years</p>
<hr/>		
<p>DPW project supports the associated goals of the Community and Built Systems by building a modern facility which will provide support to waste management and street maintenance.</p>	<p>Community Design, Capital Facilities & Infrastructure, Waste Management</p>	<p>5 Years</p>

Public Infrastructure

Streets

The Town has performed an overall review of the road network and has determined the average condition of public streets registers a 76 on the Pavement Condition Index (PCI). The Town has set a goal to have public streets meet a PCI of 85. By maintaining roads in GOOD condition, with every \$1 spent on proper maintenance of GOOD rated roads, the Town avoids \$15 in repair costs and road rebuilds.

Estimated costs for road maintenance are approximately \$2.6 million per year. Assumed funding is from state Chapter 90 funds and Highway Budget, which provides \$1.5 million per year. The balance is from DPW capital budget and if necessary future road bonds. Additionally, the Town applies for Complete Street grants whenever possible. Complete Streets is an approach to planning, designing building, operating and maintaining streets that enables safe access for all people who need to use them including pedestrians, bicyclists, motorists and transit riders of all ages and abilities.

Shared Use Path

Design for the Shared Use Path (SUP) on Service Road has been completed and construction began winter 2023. Construction will include a 12-foot wide path; drainage improvements; parking lot at west limit of work; roadway crossings at Quaker Meetinghouse Road and Chase Road.

Estimated cost of project is \$9 million to be funded by Mass DOT.

Bikeways

The Town is examining the potential of extending the Service Road SUP to connect to the Canal Path. The overall goal will be to increase recreational opportunities; create healthy transportation options; establish a regional draw to cultural amenities and businesses. The connection would provide a segment to the future Cape Cod Rail Trail Extension, the East Coast Greenway and the Claire Saltonstall Bikeway.

The estimated design cost for the extension will be approximately \$1 million, overall construction will approach \$12 million. The Town will be seeking various grants to complete the project.



Streets project supports the associated goals of Community and Built Systems by creating and implementing a maintenance plan that will support the Town's largest physical asset and enhance opportunities for transportation and provide pathways for pedestrian and bicycle travel.	Community Design, Capital Facilities & Infrastructure, Transportation, Economy	On Going
<hr/>		
Shared Use Path project supports the associated goals of Community and Built Systems by providing pathways for pedestrian and bicycle travel.	Community Design, Capital Facilities & Infrastructure, Transportation, Energy, Economy, Climate Control	On Going
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Bikeways project supports the associated goals of Community and Built Systems by providing pathways for pedestrian and bicycle travel.	Community Design, Capital Facilities & Infrastructure, Transportation, Energy, Economy, Climate Control	5 Years
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Drainage

The DPW has planned to perform three significant drainage projects per year to address identified flooding which adversely impacts roads and surrounding neighborhoods.

The DPW has identified funding from budget and Chapter 90 funds to upgrade drainage.

Tree Management Plan

The DPW through the Town Tree Warden will conduct an inventory of town trees to review health and sustainability of town shade trees.

Funding for tree maintenance plan to be included in overall budget.

Coastal Resilience

Beach Restoration

The US Army Corp of Engineers approved the Section 111 report and recommended actions. As a result, the federal government will fully fund the work identified in the Section 111. The town will receive sand from the dredging performed at the east end of the canal and will also be permitted to accept sand from the Scusset Beach nearshore borrow site. An estimated 225,000 cubic yards of sand will be placed on Town Neck Beach. Work is expected to begin winter 2023-2024. The Town will work with the Army Corp to permanently change the maintenance dredge permit to allow dredge material to be placed on Sandwich beaches.

Expected cost of project is \$12.5 million to be fully funded by the federal government.

<p>Drainage project supports the associated goals of Natural and Community Systems augmenting the effects of flooding.</p>	<p>Capital Facilities & Infrastructure, Waste Management, Coastal Resiliency, Climate Mitigation, Ocean Resources, Wetlands Resources</p>	<p>On Going</p>
<p>Tree Management Plan project supports the associated goals of Natural and Community Systems by recognizing the role of trees in the community and the necessity to create a plan to ensure their vitality.</p>	<p>Community Design, Climate Mitigation, Cultural Heritage, Wildlife & Plant Habitat</p>	<p>On Going</p>
<p>Beach Restoration project supports the associated goals of Natural, Community and Built Systems by instituting a long-range plan and identifying a funding source that would reconstruct and maintain the barrier beach that would provide storm surge protection for both the natural and capital resources of the Town.</p>	<p>Capital Facilities & Infrastructure, Coastal Resiliency, Climate Mitigation, Ocean Resources, Wetlands Resources, Wildlife & Plant Habitat, Open Space</p>	<p>2-5 + Years</p>

Boardwalk

The Town is reconstructing the boardwalk to improve its resiliency. The existing boardwalk has suffered repeated damage over the years and the Town is providing a more durable replacement with lower maintenance requirements.

In Fiscal Year 2019, Town voters approved an \$8 million public road and infrastructure bond. \$2 to \$2.5 million of the bond was set aside for the reconstruction of the Boardwalk. An additional \$500,000 has been earmarked through special legislation at the Massachusetts State House. Estimated cost of the reconstruction is \$3 million.

Schools

School Administration Building

Over the years, The Sandwich School District administrative offices have been housed in various school buildings. The Wing School was the subject of an RFP and soon will be repurposed as senior affordable housing. With the construction of CAL and the relocation of senior services to that building, it was decided to permanently move the administrative offices to the QMH location, central for all three schools within the district. The building is currently being refitted to accommodate the District's mission.

Estimated cost to refit the Human Services Building to accommodate the Sandwich School District Administrative Offices is \$1,950,000. Funding for the project is part of the larger \$15.3 million debt exclusion approved at the 2022 May annual Town Meeting.

School Capital Plan

An extensive review of capital needs for the School District was performed in 2022. In addition to refitting the Town building for administrative office space, the study reviewed the condition of Sandwich High School, Oak Ridge School and Forestdale School. Each buildings heating systems, HVAC systems and building envelopes were evaluated. The study also looked at playgrounds and stage lighting. It was determined that each facility required significant maintenance.

Estimated project costs to satisfy repair needs are \$13.3 million. Funding for the repairs were included in the \$15.3 million debt exclusion approved at the 2022 May annual Town Meeting.

Boardwalk project supports the associated goals of Community and Built Systems by reconstructing the Sandwich Boardwalk which has long represented a focal point for community pride and economic vitality.	Community Design, Coastal Resiliency, Capital Facilities & Infrastructure, Cultural Heritage, Economy	2 Years
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School Administration Building project supports the associated goals of the Community and Built Systems by developing a modern centrally located administration building to support and address the needs and well-being of the Sandwich student population and their caregivers.	Community Design, Capital Facilities & Infrastructure, Economy, Cultural Heritage	2-5 Years
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School Capital Plan project supports the associated goals of the Community and Built Systems by implementing a repair and maintenance program to address facility needs to create a safe and welcoming learning environment for the student population.	Community Design, Capital Facilities & Infrastructure, Economy, Cultural Heritage	2-5 Years
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Surplus Property

Town Hall Annex

The Town is reviewing sale options for the former office facility in order to determine which use would enhance the Village district.



Town Hall Annex project supports the associated goals of the Community and Built Systems by reviewing options that would convey the property to an entity that will repurpose the building into an anchor destination which would contribute to the vitality of the Village District.	Community Design, Capital Facilities & Infrastructure, Economy	On Going
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SECTION 5

Housing Production Plan

This section includes a summary of the Town’s 2021 Housing Production Plan, a plan to provide for the development of fair low-and moderate-income housing consistent with local needs.





Housing Production Plan Summary

This section summarizes the August 2021 Town of Sandwich Housing Production Plan (HPP).

Important Acronyms

- (ACS) American Community Survey
- (ADU) Accessory Dwelling Units
- (BCHC) Barnstable County HOME Consortium
- (CCC) Cape Cod Commission
- (CPA) Community Preservation Act
- (DRI) Cape Cod Commission's District of Regional Impact
- (CPC) Community Preservation Corporation
- (DLTA) District Local Technical Assistance
- (DDS) Department of Developmental Services
- (DMH) Department of Mental Health
- (DHCD) Massachusetts Department of Housing and Community Development
- (FMRs) Fair Market Rents
- (HPP) Housing Production Plan
- (HUD) US Department of Housing and Urban Development
- (MAPC) Metropolitan Area Planning Council
- (MAP) Mortgage Assistance Program
- (LCP) Local Comprehensive Plan
- (LIP) Local Initiative Program
- (RAP) Rental Acquisition Program
- (SHA) Sandwich Housing Authority

- (SHI) Subsidized Housing Inventory
- (SHOP) Sandwich Home Ownership Program
- (SSVC) South Sandwich Village Center
- (UMDI) University of Massachusetts Donahue Institute

Introduction

The Town is situated on the northwest portion of the peninsula on both sides of the Cape Cod Canal and is only 57 miles southeast of the City of Boston, making it more appealing for Massachusetts residents to reside in, and commute to and from major job centers of Boston and Providence than most other Cape Cod communities. An increase in companies' flexibility for remote work as a result of the COVID-19 pandemic has enabled many people to relocate to Cape Cod, increasing the demand for housing and driving up prices.

As the oldest town on Cape Cod, established in 1639, Sandwich includes rich cultural history, scenic views, and a plethora of community and recreational spaces. The achievements of the Town and open space organizations have contributed greatly to its beauty and environmental quality, yet the same achievements have impacted both the availability and cost of housing.

Rising housing prices experienced across the country as of July 2022 and the losses of income within households as a result of the COVID-19 pandemic have, in turn, expanded affordability gaps and increased

cost challenges. Sandwich is experiencing demographic shifts that have influenced the need for affordable housing for young families while also supporting Sandwich's increasing population of aging/elderly adults. Like many Cape Cod towns, Sandwich is mostly residential with a winter population that is typically smaller than the population during summer months. Additionally, challenges of supporting young families and aging/elderly adults in the community is not unique to Sandwich; this is occurring across Cape Cod. According to the Regional Housing Market Analysis (2017) commissioned by the Cape Cod Commission (CCC) and Barnstable County, population growth projections for the county included a "very modest" increase for Sandwich to an estimated population of 20,761 residents by 2025, representing only a 0.4% rate of growth between 2010 and 2025. Notably, the Regional Housing Market Analysis completed relied largely on structural economy factors rather than birth, death, migration, and the like. Much of the housing growth occurring on Cape Cod and in the Town is a direct response to seasonal and vacation housing demand. Seasonal units and second homes have increased approximately 3.5%, from 2000 (+/- 13.4 %) to 2019 (+/- 16.9%). Although the current percentage is less than the 32% level for Barnstable County, the 16.9% of current seasonal units and second homes is much more than the 3.6% level for the State of Massachusetts. Despite housing challenges, this temporary population of seasonal residents has bolstered the local economy, especially during summer months.

Housing Trends

There are several population and household trends that have been researched and analyzed for the 2021 HPP. These trends are for periods prior to August 2021, when the HPP was published. They are as follows:

Population and Household Trends

- Between 1970 and 2000, Sandwich's population quadrupled in size.
- According to population data collected by the U.S. Census Bureau and American Community Survey (ACS) data, Sandwich's population increased from 5,239 in 1970 to 20,259 in 2020.
- According to the population data provided by the State Data Center at the University of Massachusetts Donahue Institute (UMDI), Sandwich's population could increase to 21,121 by 2030, and then a population loss to 19,893 by 2040.
- While the total population increased by less than 1% between 2000 and 2019, those age 65 or older increased by 68%.
- The population of older individuals is growing in Sandwich, while the population of young adults (ages 20 to 34) is shrinking. Sandwich has experienced a net loss of young adults since 1990.
- Non-families (single person living alone or two or more unrelated people living together) have increased from 22.2% of all households in 1990 to 27.8% of all households in 2019.

- In 2000, the census described the population as predominantly white (approximately 98%), with a small percentage (approximately 2%) of residents identifying as other races. In 2019, the minority resident population increased to 5%.
- Poverty levels remain relatively low with a slight increase to 3.6% of the resident population since 2010 based on 2019 estimates.
- The median household income for Sandwich is \$98,827 which is considerably higher than Barnstable County's median at \$74,336 and the state median at \$85,843.
- Educational levels in Sandwich are relatively high, with 96.8% of the adult population (ages 25 or older) possessing at least a high school degree, and 47.3% possessing a college degree or higher.
- Public school enrollments reflect decreasing numbers of children, reflecting

the substantial demographic shift toward fewer younger residents and families.

- The 2019 census estimates identify 2,023 residents as claiming a disability, representing 10% of the population and somewhat lower than the statewide level of 11.6%. Levels of disability, plus an increasingly aging population, indicate that there are significant special needs within the Sandwich community.

Housing Market and Affordability

- According to the Subsidized Housing Inventory (SHI) 3.84% of year-round housing units have been determined to be affordable by the Commonwealth of Massachusetts and included in the Town's Subsidized Housing Inventory (SHI). This is up from 272 units and 3.6% in 2009.
- Escalating market prices for land and housing have reduced the supply of private



Jarvesville Historic District

market housing and has also increased challenges to creating affordable housing.

- Market data from Banker & Tradesman indicates that the median value of a single-family home increased from \$297,676 in 2010 to \$526,000 in 2021, while median value of a condominium increased from \$225,000 in 2010 to \$282,500 in 2021. The cost of a median single-family home in Sandwich is just slightly lower than the county level at \$550,000.
- Most rentals are out of reach for lower wage workers. The gross median rent of \$1,321 from 2019 census data required an income of approximately \$60,840, which was not affordable to 26% of residents. To afford the market rent of approximately \$2,000 for a two-bedroom unit, a household should earn \$88,000, which is considerably higher than the 2019 median renter household income of \$50,401. As a result, many lower wage workers hold second jobs or are a part of a household

with higher wage earners, which may still be insufficient without subsidized housing.

- There was a 21% net loss of rental units between 1990 and 2019, likely involving conversion to owner-occupied or seasonal use. The Cape Cod Commission's Regional Housing Market Analysis suggests that over the next ten years seasonal housing units are expected to increase at more than twice the rate of year-round units, making it more difficult for year-round resident households to find year-round units at affordable prices.
- The Sandwich Housing Authority (SHA) administers 179 rental assistance vouchers from various state and federal programs, however, those who obtain these vouchers are often unable to find qualifying units in Sandwich given rent levels beyond the Fair Market Rent (FMR) limits.
- According to Banker & Tradesman market data, while incomes in Sandwich



Sandwich Housing

increased by 127% between 1990 and 2019, the median single-family house price increased by 193%. In 1990, the median income was 32% of the median house price but decreased to 25% by 2019. The gap between income and house value was \$92,500 in 1990, but more than tripled to \$300,173 by 2019. The median income-earning household could likely afford a single-family home of about \$401,000 based on 95% financing; this represents an affordability gap of approximately \$125,000. With 80% financing, the affordability gap is \$54,500. The affordability gap can be a challenge for many purchasers, particularly first-time homebuyers without the equity from a former home.

- Of the 2,515 households with incomes at or below 80% of area median income, 1,759 or 70% were overspending and 1,146 or 46% had severe cost burdens.
- Vacancy rates in Sandwich have remained low, at only 1.7% in 2019. Vacancy rates for rentals, however, have fluctuated from 4.3% in 1990, up to 11.9% in 2000, down to 7.9% in 2010, and up to 11.8% in 2019. Higher vacancy rates might be attributed to some seasonal turnover of units.

Priority Affordable Housing Needs

After considering these trends, the Town considers the following as its future priority housing needs:

- More subsidized rental housing for non-families and seniors
- Increase availability of rental units ranging from studios to multi-bed (2+) apartments for single people and lower wage earners who have been priced out of the housing market but are needed to bolster Sandwich's service and tourist economy.
- Provide rental units that are more appropriately sized for small, non-family, or senior households.
- New homeownership opportunities
- Uses of first-time homebuyer initiatives or state mortgage financing for affordable new ownership would benefit new homebuyers who represent and contribute to social and economic diversity and support vitality in the community.
- Special needs housing
- Increase affordable housing for 10% plus additional Sandwich population identifying as disabled.
- Support for seniors and to live independently and remain connected to the community.
- Exploration of "workforce housing units"
- Additional attention to integrate workforce housing units for those earning above 80% AMI but still priced out of the community's high-priced housing market.

Housing Production Goals and Target

The Massachusetts Department of Housing and Community Development (DHCD) administers the Housing Production Program under MA General Law, Chapter 40B, 760 CMR 56.03(4) that allows cities and towns to prepare and adopt an affordable housing plan that will support the production of an increase of 0.50% affordable housing units over one year. This program supports an estimated 41

units per year for Sandwich (0.5% increase), or 82 units per two years (1.0% increase) which would be eligible for inclusion in the SHI.

Sandwich's production goals over the next five (5) years are based on the following strategies:

- Convert existing housing to affordable units (RAP - Rental Acquisition Program)
- Explore new housing assistance program (MAP - Mortgage Assistance Program)

Strategies by Year	Units < 80% AMI	Workforce Units 80% to 120% AMI, Market Units or Intelligible for SHI	Total # Units
Year 1 - 2022			
Convert existing housing to affordability / Rental Acquisition Program	2 rentals	0	2
<i>Subtotal</i>	2	0	2
Year 2 - 2023			
Encourage mixed-use development/40B Golden Triangle*	40 rentals	0	40
Work cooperatively with private developers on private property / 40B / small clustered infill project	3 ownership	3 workforce 6 market	12
Convert existing housing to affordability - Rental Acquisition Program	2 rentals	0	2
Explore new housing assistance program / Mortgage Assistance Program	3 ownership	0	3
<i>Subtotal</i>	48	9	57
Year 3 - 2024			
Work with private developers on privately-owned properties / 40B*	40 rentals	0	40
Work cooperatively with private developers / inclusionary zoning	2 ownership	18	20
<i>Subtotal</i>	42	18	60
Year 4 - 2025			
Development of publically-owned property - former Police Station	16 rentals	0	16
Encourage mixed-use development / Golden Triangle - Phase II	30 rentals	10 workforce units	40
<i>Subtotal</i>	46	10	56
Year 5 - 2026			
Work with private developers on privately-owned properties / 40B	10 ownership	30	40
Work with private developers on privately-owned properties / 40B*	20 rentals	0	20
Convert existing housing to affordability - Rental Acquisition Program	2 rentals	0	2
Convert existing housing to affordability- SHOP II or other infill ownership development	6 ownership	2 workforce	8
Work cooperatively with developers on privately-owned properties / Special needs housing - group home	4 special needs rentals	0	4
Explore new housing assistance program / Mortgage Assistance Program	3 ownership	0	3
<i>Subtotal</i>	46	32	77
Total	183	69	252

*All units count as part of the SHI in 40B rental developments.

- Encourage mixed-use development, including the Golden Triangle
- Work cooperatively with private developers on private property, privately owned property, inclusionary zoning, 40B/small, clustered infill projects, special needs housing, group home housing, etc.
- Development of publicly owned property (former Police Station)
- Convert housing to affordable units (Sandwich Home Ownership Program (SHOP) or other infill ownership development)
- Encourage workforce housing development at 80%-120% AMI

Housing Targets

To qualify for a DHCD approved HPP, Sandwich needs to meet an affordable housing production standard and obtain certification from DHCD that the standard had been met. The minimum target is a 0.5% increase of

the Town's year-round housing inventory as reported in the most recent decennial census, and the target has to be met within a single calendar year. If DHCD finds that Sandwich has met the annual standard, the one-year certification will take effect as of the date that the Town actually achieved the numerical target for that calendar year. If the Town's new affordable housing production is equal to or greater than the 1% of its year-round housing inventory, the certification will remain in effect for two years. The following table, taken from the 2021 HPP, shows the timeline/plan that the Town created to reach the DHCD standard:

Affordable units produced under this HPP are eligible for listing in the Chapter 40B SHI. Affordable units produced through this HPP are included as part of the SHI, which is applied through the Local Initiative Program (LIP) administered by DHCD if other state or federal housing subsidy is not involved. In addition to being used for "friendly 40B" projects, LIP can be used for counting those



(Left and right) Habitat for Humanity project on Cotuit Road

affordable units as part of a Town's SHI that are being developed through some local action.

For non-comprehensive permit units, this means making sure the units meet the requirements of DHCD's Local Initiative Program (LIP) by virtue of a qualifying local action, such as:

- Zoning approval, such as "by right" or special permits for affordable housing;
- Substantial financial assistance from funds raised, appropriated, or administered by the Town; and/or
- Provision of land or buildings that are owned or acquired by the Town and conveyed at a price that is substantially below-market value

To be counted as SHI, units must be:

- A result of municipal action or approval;
- Sold or rented based on procedures articulated in an affirmative fair marketing and lottery plan approved by DHCD;

- Sales prices and rents must be affordable to households earning no more than 80% of area median income; and
- Long-term affordability is enforced through affordability restrictions, approved by DHCD.

Regulatory Barriers

This section describes land use and environmental regulations affecting residential development including zoning, wetlands, aquifers, septic systems, and infrastructure.

Zoning

- Historically, the Sandwich zoning bylaw included minimal provisions to encourage the creation of affordable housing or multifamily housing; in addition, certain sections have created conflicts of understanding and therefore subsequently limited development of affordable accessory dwelling units and practice discriminatory housing practices.



However, the Town has added several provisions in the zoning bylaw to allow higher densities through accessory apartments or density bonuses based on specific regulations or requirements. The Town has approved a revision to the bylaw to make it less complicated and provide greater incentives to encourage its use. The Town also approved revisions to the accessory apartment bylaw to allow them by-right if constructed within a single-family dwelling which will make it easier to create units that diversify the housing stock without requiring new construction. The Town also approved changes to zoning that allows the conversion of existing cottage colonies to residential or mixed-use rentals, condominiums, cooperatives, or time-share condos in accordance with SHI requirements.

Environmental

- Town-owned open space (recreational resources, protected wildlife habitats, indigenous vegetation), Sandwich Water District-owned lands, and state-protected lands (Shawme-Crowell State Forest and Joint Base Cape Cod) comprise approximately 50% of all land in Sandwich. The sizeable amount of protected land in Sandwich puts more intense development pressure on non-protected, developable areas of town. Additional regulations for wetland, aquifer, and septic system protection add another layer of environmental protection that also reduces the amount of buildable land, which in turn, drives up time and costs associated with new development efforts. As a result, all potential development

projects will be subject to significant environmental constraints and regulations.

Infrastructure

- The Town of Sandwich does not have sewer service. There are three wastewater treatment plants, one of which is under capacity, and might be tapped for new, nearby development. The Town also includes zones of nitrogen sensitivity that restrict density, and the northeastern corner of Sandwich has no water service. The reliance on wells and septic systems has a significant impact on developability, and costs associated with infrastructure (water, sewer, etc.) will continue to be a constraint for affordable housing development.

Availability of Subsidy Funds

- Financial resources to subsidize affordable housing preservation, production, and rental assistance are both limited and competitive in Massachusetts. For many, securing necessary funding can be challenging, and developers often encounter multiple funding rounds before any project work can begin. Programs are in place, however, to assist affordable housing development, including Community Preservation funding, as well as housing subsidy from the Barnstable County HOME Consortium (BCHC).

Community Perceptions

- Affordable housing, subsidized housing, and low-income housing often carry a stigma to residents and other community members that fear development might disrupt the status quo or undermine

neighborhoods and property values. However, residents are realizing that high real estate prices have made it challenging for certain members of the community to afford or live in the community, and growing awareness of the imbalance is leading to more proactivity and support of affordable housing projects. Communication within the community is essential for growth and support.

Implementation Strategies

The information summarized below displays the foundation for the actual housing strategies based on priority housing needs identified in the Sandwich HPP. The following implementation strategies were developed based on the understanding that the Town should be promoting affordable housing to satisfy the full range of local needs, not just the 10% Chapter 40B standard. Additionally, emphasis on local residents' understanding, commitment, and involvement in the process is encouraged throughout the process. The following strategies have been developed to meet the 10% DHCD affordable unit goal:

Planning and Regulatory Strategies include:

1. Assess and amend existing zoning
2. Promote mixed-use development in South Sandwich Village
3. Adopt inclusionary zoning
4. Address zoning to allow affordable housing on nonconforming lots and

revisit density bonus provisions

5. Consider Transfer of Development Rights in appropriate areas
6. Explore property tax exemption for affordable year-round housing
7. Establish a municipal affordable housing trust fund
8. Conduct educational campaign on affordable housing
9. Secure professional support by hiring a housing coordinator
10. Ensure adequate SHI monitoring

Housing production strategies include:

- Make publicly-owned property available for affordable housing
- Work cooperatively with private non-profit and for-profit developers on privately-owned properties
- Convert existing housing stock for affordable rental and for sale housing
- Encourage mixed-use development in strategic planning areas

Direct housing assistance strategies include:

- Explore new homebuyer program assistance
- Consider introducing a small repair grant program

The 2021 HPP includes a summary of housing strategies, priorities for implementation, number of units created and responsible party.

SECTION 6

Targeted Action Plan

This section includes action items necessary to implement the LCP, including additional studies needed, zoning changes, and/or public education and outreach.





Coastal stabilization at Town Neck Beach

Natural Systems



Water Resources Goal

Protect groundwater and surface water resources to ensure a sustainable supply of drinking water and to preserve and restore ecological integrity. Protect the overall water quality and its resources by providing management and treatment of all potential contaminants.

Associated Actions:

- Continue to monitor drinking water quality for per and polyfluoroalkyl substances (PFAS) and work with the Sandwich Water District to extend water service in areas served by private wells impacted by contaminants of emerging concern.
- Assess the impact of the Town's policies and practices, and work with Joint Base Cape Cod and neighboring towns, to reduce water resource vulnerability.
- Analyze and update zoning/municipal regulations/general bylaws to achieve safer growth in water resource sensitive areas including restrictions on the use of herbicides, pesticides, insecticides, and fertilizers. Consider adopting the CCC's model bylaw as a guide.
- Convert septic systems to connected wastewater systems to address priority needs for growth and redevelopment, implementing the CWRMP phased approach.
- Establish a community education program that informs residents on alternative septic systems, as approved by DEP fertilizer use and the importance of pumping individual septic systems.
- Continue the Town's efforts to mitigate untreated stormwater runoff as identified in the CWRMP and Storm Water Management Plan (SWMP), and update the CWRMP and SWMP as appropriate as the work progresses and/or new runoff discharges are identified.
- Continue to participate in the pond monitoring program and pursue measures to improve impacted ponds where indicated, including treating ponds with alum.
- Work with Sandwich Water District to extend water service to the entire Town.
- Develop a Management Plan to address future challenges related to PFAs treatment.



Coastal Resiliency Goal

Prevent or minimize human suffering, loss of life, property, critical municipal facilities and environmental damage resulting from storms, flooding, erosion, and relative sea level rise.

Associated Actions:

- Continue to participate in the Municipal Vulnerability Preparedness Program
 - Continue to implement the Woods Hole Group climate change vulnerability/risk assessment and adaptation study focused on
 - Consider adoption of the CCC's model coastal resiliency bylaw to promote natural resource migration and reduce risk in the floodplain due to sea level rise.
 - Investigate the costs to the community of continued development in the floodplain by preparing a cost benefit analysis
 - Pursue further evaluation and implementation of improvements to high priority low-lying roadway segments, bridges and culverts identified in the Woods Hole Group Low-Lying Roads project.
 - Conduct a site-specific investigation of critical elevations in the Route 6A and Jarves Street business district to inform adaptation planning for this business district.
- Combat the negative effects of climate change on the sustainability of historic properties by partnering with other organizations to provide guidance/ education on improving energy efficiency and flood resiliency of historic properties.
 - Establish an ongoing plan for nourishment and revitalization of the Town's beaches in cooperation with the Army Corps of Engineers, including a revision to the current permit.



Wetlands Resources Goal

Protect, preserve and restore where appropriate the quality, ecological values and functions of inland and coastal wetlands and their buffers.

Associated Actions:

- Address anticipated migration of wetlands and their buffers due to climate change.
- Pursue mapping all vernal pools on Town owned conservation lands.
- Pursue strengthening and enhancing the Town wetlands bylaw regulations including adopting flood plain regulations and updating regulations and for barrier beaches and buffer zones.
- Continue applying for MVP grants, including mediation of tidally influenced culverts.
- Investigate applying for a Town 10-year navigational dredge permit for Old Harbor/Mill Creek, which could place the dredge spoil on the barrier beach system on Town Neck and Springhill Beach.
- Pursue an outreach program to educate residents on the benefits of protecting wetlands and buffer zones.
- Create a public information pamphlet for property owners living near wetlands.



Wildlife and Plant Habitat Goal

Protect, preserve, and restore, where appropriate, wildlife and plant habitat to maintain biological diversity and minimize the negative impacts of development.

Associated Actions:

- Continue updating the Property Management Plan, focusing on trail management, forest revitalization and shorebird protection.
- Continue yearly testing and sanitary surveys of shellfish beds to maintain and propagate current stock.
- Pursue mapping wildlife corridors in Sandwich and look at ways to protect and connect these corridors.
- Continue protected shorebird monitoring program.
- Pursue habitat management grants, including grants that allow the implementation of prescribed burns utilizing the existing Sandwich Fire Management Plan.
- Create public information program on the benefits of protecting and enhancing wildlife corridors and native plant species.
- Create a public information pamphlet for property owners to enhance wildlife and plant habitats.
- Support community gardens and agricultural lands that produce food locally.



Open Space Goal

Protect, preserve, restore or acquire open space properties while encouraging public access and sustainable use.

Associated Actions:

- Provide funding to significantly improve public access and provide continued maintenance of the Town's inventory of open space with improved public access to Lawrence Pond as a priority – leveraging these spaces for residents and creating new assets for visitors.
- Support use of CPA funds for recreational projects identified in the Town's Open Space and Recreation Plan.
 - Continue to pursue purchase of waterfront lands for public access.
 - Continue to protect vulnerable coastal lands subject to the impacts of climate change.
- Develop policies to regulate access to conservation lands to prevent illegal dumping, unauthorized access, illegal hunting practices, and prevent resource degradation.
- Acquire Open Space through the use of CPA Funds.
- Connect the Center of Active Living to nearby conservation land by creating walking trails. Investigate outdoor fitness equipment for this area.
- Increase signage to caution against toxic plant species and ticks.
- Update the Sandwich 2018 Open Space and Recreation Plan to ensure funding for open space acquisition.

Built Systems



Community Design Goal

Protect and enhance the unique character of Sandwich through vibrant connected neighborhoods. Guide development to preserve Sandwich's character and cultural heritage, minimize adverse impacts and enhance the quality of life.

Associated Actions:

- Advance bylaws that protect the historic resources and character of the Town.
 - Consider zoning changes and/or design guidelines within the National Register Historic Districts to ensure new construction is compatible with the character of the District.
 - Consider affirmative maintenance bylaw for vacant properties to deter demolition by neglect.
- Reinforce the design of additions to/renovations and/or new construction of municipal buildings and spaces to reflect the town's heritage and culture through consultation with Sandwich Historical Commission using preferred design guidelines.
- Pursue development of design guidelines for large-scale development using the CCC's Designing the Future to Honor as a guide.
- Pursue development of form-based regulation or mixed-use development bylaws in activity centers/growth centers that are at an appropriate scale and density for Sandwich.
- Combat the negative effects of climate change on historic properties by partnering with other organizations to provide guidance/education on improving energy efficiency and flood resiliency.
- Support future land use needs; transportation, housing, solid waste and recycling at JBCC.
- Continue collaboration with the Army Corps to provide additional recreational opportunities at the Marina.

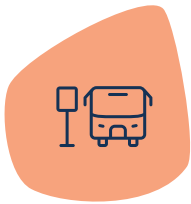


Community Facilities and Infrastructure Goal

Provide community facilities and services responsive to a diverse population and pursue solutions that address community and regional needs.

Associated Actions:

- Support the construction of a new DPW Barn and Fire Substation.
- Implement Phase I of the Town's Comprehensive Water Resource Management Plan (CWRMP) by 2027.
- Continue to implement priority projects in the Town's Complete Streets Policy and Prioritization Plan.
- Ensure sufficient funding to manage and maintain town facilities.
- Create a 5-year energy reduction plan for municipal buildings.
- Continue to maintain the new resilient and accessible Sandwich Boardwalk.
- Continue to provide public access to lakes and ponds, and ensure their quality for use through established freshwater management and education of BMPs.

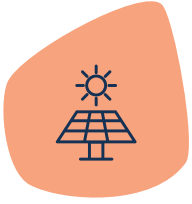


Transportation Goal

Plan and encourage the implementation of a safe, reliable and affordable public transportation network as an alternative to polluting vehicles, with options for pedestrians, bicyclists, and transit riders.

Associated Actions:

- Coordinate with the CCRTA to create and install user-friendly bus routes and signage at all bus stops. Work with the CCRTA/state legislators to restore rail service to Sandwich to meet year-round and seasonal needs.
- Explore use of marina for water transportation/commuter ferry service to/from Boston.
- Implement recommendations from the Bikeways and Pedestrian Master Plan that improve safety, comfort and access for walking and bicycling. Create and improve connectivity throughout the town through the following:
 - Consult with the Bikeways and Pedestrian Committee to identify important linkages.
 - Consult with our land-use boards to emphasize the importance of sidewalks and bike lanes.
- Prioritize associated development fees to advance neighborhood and pedestrian connectivity.
- Create and lengthen sidewalks in neighborhoods leading to village centers.
- Connect shared use path to the Cape Cod Canal.
- Increase walking and cycling usage and safety through education.
- Identify off-street public parking within the village area for visitors and residents.
- Increase wayfinding signage.
- Investigate the potential for a Park and Ride service at Exit 59.
- Create an overlook walkway at the Marina.
- Identify and implement actions to improve motorist safety.
- Support MassDOT's efforts to improve Canal Bridge.
- Investigate future coordination with the Town of Barnstable for the shared-use path connection to the Barnstable Town line along the Service Road.



Energy Goal

Promote an adequate, reliable carbon-free supply of energy to meet the needs of all users in Sandwich.

Associated Actions:

Building and Development Projects

- Adopt current energy codes proposed at the state level to ensure that new homes and large renovations are built to the optimal energy standards. Provide or identify education on new codes for the trades.
- Adopt a rapid solar installation approval permitting process.
- Adopt a zoning overlay for solar to be installed on historic buildings.
- Ensure energy benefits are shared among all communities to reduce historical social and economic inequities.
- Support modernization and efficiency efforts of the Canal Power Plant.
- Continue to promote the installation of solar panels.

Electric Vehicles

- Install EV charging stations at municipal locations. Make stations available to the public using various payment options.
- Facilitate and encourage the installation of private EV charging stations by local businesses.
- Adopt a fuel efficiency policy for municipal buildings and vehicles.
- Work to provide electric buses and vans for schools and public use are electric.
- Provide electric shuttles in the spring, summer and fall to local area beaches.
- Provide electric bicycle charging stands in the town center and at beaches.
- Encourage battery operated equipment for town departments.

Policy, Education and Training

- Re-establish the Sandwich Energy Committee as authorized at 2019 Fall Town Meeting.
- Introduce a community-wide education program on best practices to reach established Massachusetts carbon targets. Provide online toolkits for best practices.
- Work with state and local agencies and groups to facilitate a clean and net-zero Sandwich.



Waste Management Goal

To promote a sustainable solid waste management system for Sandwich that protects public health, safety, the environment and supports the economy.

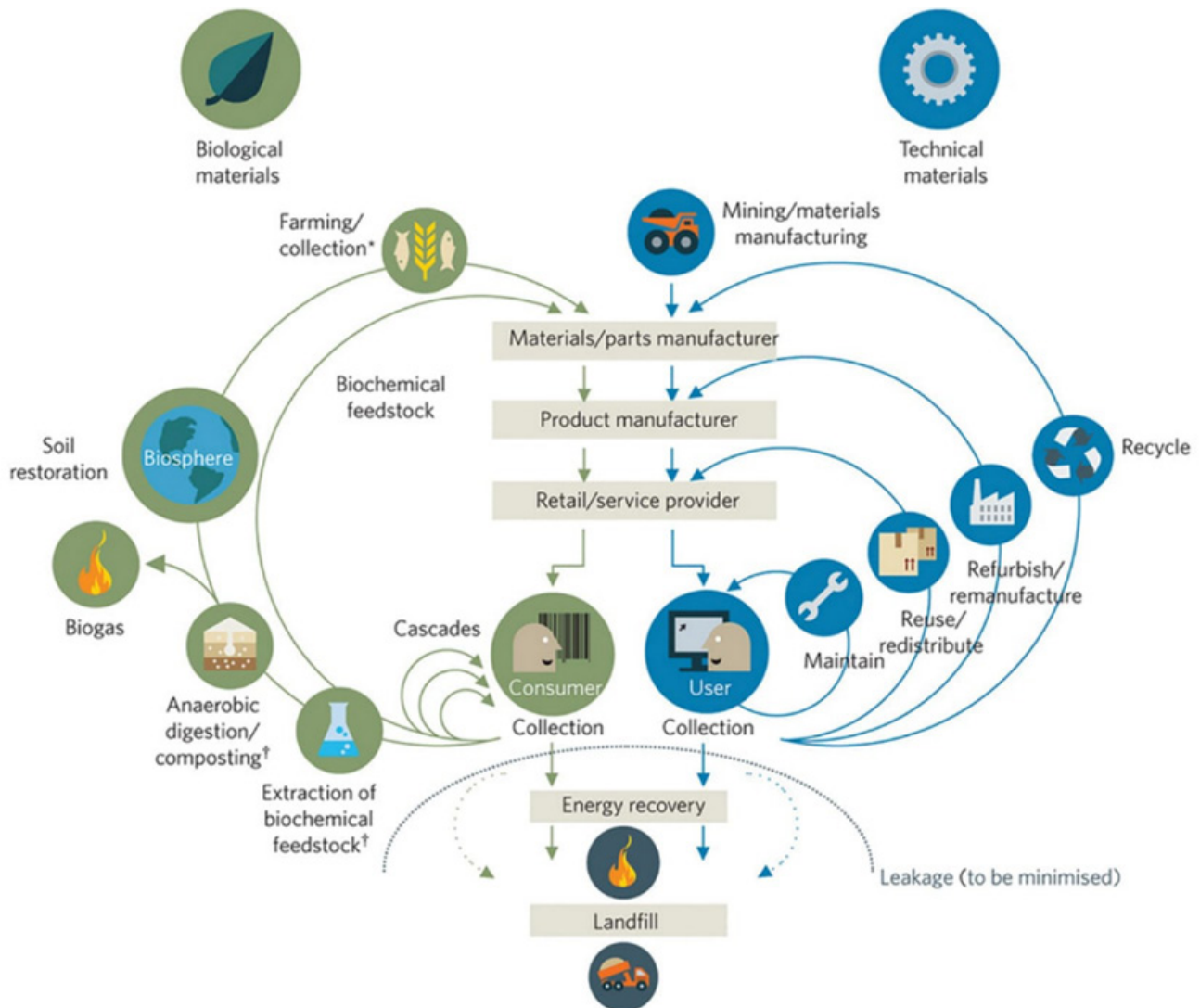
Associated Actions:

- Reduce consumption of unsustainable products.
 - Reduce the amount of resources consumed and create a minimal waste stream as a first priority for sustainable waste management.
 - Implement material use criteria that values and prioritizes circular economy-based design.
 - Create an action plan to optimize holistic lifecycle utilization by defining each stream of activity, prioritize based on environmental impact and mitigate final waste stream.
- Reduce consumer driven waste leakage.
 - Improving utilization of regional events such as Household Hazardous Waste, paint collection and local cleanup events.
 - Increase consumer education on actions they can do to buy products with environmental sustainability as a priority.
- Increase consumer education on reuse, repair, remanufacture, and recycle products.
- Implement a sustainable waste management system that incorporates feedback loops, with a focus on processes, that embodies adaptability and diverts waste from disposal.
 - Optimize final solid waste transport and disposal to minimize environmental impact.
 - Optimize collaboration with the Cape Cod Commission
 - Develop regional sustainable goals to ensure the Cape is more resilient to market changes and minimizes disposal and recycling fees.
 - Create a sustainable waste and recycling plan at the Upper Cape Regional Transfer Station (Joint Base Cape Cod) that incorporates optimal technologies, tools and process to deliver optimal results at the minimal total cost.
 - Develop collaborative plan to reduce creation of hard-to-recycle materials, and best practices to redesign, reuse, refurbish and recycle the same.
- Plan for the future.
 - Adjust and adapt materials management as the market changes, new technology advances and new State diversion mandates are adopted.

- Develop and implement with emergency management officials a waste management plan that accounts for future emergencies.

**Circular economy is based on building a holistic, lifecycle solution for all material in

the economy. The goal is to build criteria to align material use decisions that optimize the ability to Maintain, Reuse, Remanufacture and Recycle in order to minimize material sent to the landfill and incineration plant.



Source: Circular Economy



Climate Mitigation Goal

Support the Commonwealth's Roadmap to Decarbonization thresholds to reduce greenhouse gas emissions.

Associated Actions:

Green Communities Designation

- Achieve 'Green Communities Designation' by end of year 2024 as voted by Town Meeting. Annually apply for grants.
- Benchmark all Town fuel use and CO2 emissions from all Town-owned buildings, vehicles, and tools. Annually compare emissions to identify key areas of need.
- Annually identify key energy conservation measures and achievements to reduce energy consumption.

- Create and carry out an energy reduction plan for municipal buildings to meet the stated goals.
- When commercially available and practical, purchase electric vehicles for municipal fleet where possible and electric or battery run tools for municipal purposes. Develop a municipal vehicle fuel efficiency policy for vehicles purchased that are not available as electric vehicles.

Education

- Educate Town employees on best practices to reach net zero carbon target. Provide online toolkits.
- Educate homeowners, renters, and vehicle owners on the possibility and value of energy efficiency, electrifying buildings and deploying solar. Provide online toolkits.

Community Systems



Cultural Heritage Goal

Identify, protect, and preserve the significant cultural, historical and archeological values and resources of Sandwich.

Associated Actions:

- Leverage historical assets, including the Town's historical buildings and archives, by coordinating with other Town groups and departments to attract and support cultural tourism and local usage of those assets.
 - Apply for State and private historical grants to support our mission.
 - Work with non-profits and Town departments to enhance the Town's reputation as a cultural destination, promote related businesses, and leverage the use of historical buildings through cultural events, lectures and education.
 - Encourage cultural, historic and tourism groups and organizations to work cooperatively to generate consistent and uniform awareness of the Town's opportunities for residents and visitors.
- Retain the historic character of Sandwich by completing the following:
 - Continue to survey and/or update existing surveys of historical resources including archaeological, buildings, and cultural landscapes, using preservation specialists as needed.
 - Increase public awareness and support for preservation through education, community engagement, and events as well as a sharing of knowledge through an online presence and virtual walking tours.
 - Work with Town Administration and the Sandwich Cemetery Commissioners to continue preservation work on the Town's cemeteries (documentation, stone restoration).
 - Seek collaboration between the Sandwich Historical Commission and Sandwich Old King's Highway Historic District Committee to obtain Certified Local Government status through the Massachusetts Historical Commission, increasing opportunities for grant funding and education.
- Encourage the establishment of a nonprofit organization focused on preserving the Town's past to support creation of opportunities for cultural tourism.
- Work with local historic preservation groups to address demolition by neglect.



Economy Goal

Promote a sustainable and vibrant economy comprised of a broad range of businesses providing employment opportunities to a diverse workforce.

Associated Actions:

- Prioritize implementation of wastewater infrastructure in areas targeted for redevelopment.
- Improve Town's Economic Development website to better inform and assist business owners through the permitting process.
- Create mechanisms to understand local needs and issues.
- Cultivate areas in town suitable for small-scale businesses and areas suitable for large-scale businesses.
- Support reuse and redevelopment of canal power plant to improve energy efficiency for the region and increase levy capacity.
- Pursue technical assistance and grant opportunities to support the development of economic strategies for growth/activity centers.
- Pursue an economic development strategy that focus on "green" and "blue" economies.
- Introduce entrepreneurship programs to support small, local business and create shopping experiences.
- Seek support from the CCC for best practices in zoning and land use regulations guide.



Housing Goal

Promote the production of more homes for owners and renters that are safe, inclusive and attainable for people with different income levels and needs.

Associated Actions:

- Enact housing strategies identified in the Housing Production Plan.
- Promote the production of more year-round homes for owners and renters that are safe, inclusive and attainable for people with different income levels and needs.
 - Increase availability of the “missing middle” housing
 - Expand the availability of deed restricted affordable housing
 - Address accessibility to private housing market
- Regulate sustainable housing development
- Consider zoning changes to restrict the size of houses to a certain percentage over the average within that zoning district to discourage demolition of historic homes.
- Protect and improve existing housing stock.
- Investigate the impacts to the community of short-term rentals such as Air B&B.
- Build infrastructure and enact zoning changes to facilitate smaller homes, mixed use conversions, and spur the creation of affordable rentals and ownership opportunities.

Targeted Action Plan

Action	Leader	Timeframe
Establish a plan for nourishment and revitalization of the Town's beaches in cooperation with the Army Corps of Engineers, including a revision to the current permit.	Administration	2-4 years
Support use of CPA funds for recreational projects identified in the Town's Open Space and Recreation Plan.	Administration	Ongoing
Investigate the potential for a Park and Ride service at Exit 59.	All	5-10 years
Support modernization and efficiency efforts of the Canal Power.	All	As needed
Work with state and local agencies and groups to create a clean and net-zero Sandwich.	All	Ongoing
Continue to promote the installation of solar panels.	All	Ongoing
Support MassDOT's efforts to improve Canal Bridges.	All	Ongoing
Re-establish the Sandwich Energy Committee.	BOS	2-4 years
Encourage the establishment of a local nonprofit organization focused on preserving the Town's past to support creation of opportunities for cultural tourism.	BOS	5 years
Investigate coordination with the Town of Barnstable for the Service Road shared use path connection to Barnstable Town line.	DPW	2 years
Improve utilization of regional events such as Household Hazardous Waste, paint collection and local cleanup events.	DPW	2-4 years
Increase consumer education on actions they can do to buy products with environmental sustainability as a priority.	DPW	2-4 years
Increase consumer education on reuse, repair, remanufacture, and recycle products.	DPW	2-4 years

Action	Leader	Timeframe
Introduce signage boards at conservation areas describing flora and fauna and other related information.	Community Services	2-4 years
Connect the Center of Active Living to nearby conservation land by creating walking trails. Investigate purchase of outdoor fitness equipment for this area.	Community Services	2-4 years
Increase wayfinding signage.	DPW	3-5 years
Install EV charging stations at municipal locations. Make stations available to the public using various payment options.	DPW	3-5 years
Develop and implement with emergency management officials, a waste management plan that accounts for future emergencies.	DPW	5 years
Encourage battery-operated equipment for Town Departments.	DPW	5-10 years
Optimize final solid waste transport and disposal to minimize environmental impact.	DPW	5-10 years
Develop regional sustainable goals to ensure the Cape is more resilient to market changes and minimizes disposal and recycling fees.	DPW	5-10 years
Create a sustainable waste and recycling plan at the Upper Cape Regional Transfer Station (Joint Base Cape Cod) that incorporate the best technologies, tools and process to deliver optimal results at the minimal total cost.	DPW	5-10 years
Adjust and adapt materials management as the market changes, new technology advances and new State diversion mandates are adopted.	DPW	5-10 years
Reduce the amount of resources consumed and create a minimal waste stream as a first priority for sustainable waste management.	DPW	10 years
Implement material use criteria that values and prioritizes circular economy-based design.	DPW	10 years

Action	Leader	Timeframe
Create an action plan to optimize holistic lifecycle utilization by defining each stream of activity, prioritize based on environmental impact and mitigate final waste stream.	DPW	10 years
Develop collaborative plan to reduce creation of hard-to-recycle materials, and best practices to redesign, reuse, refurbish and recycle the same.	DPW	10 years
Continue to implement priority projects in the Town's Complete Streets Policy and Prioritization Plan.	DPW	Ongoing
Strengthen collaboration with the Cape Cod Commission.	DPW	Ongoing
Continue to maintain the new resilient and accessible Sandwich Boardwalk.	DPW, Natural Resources	Ongoing
Improve public access to all town facilities for increased availability and offerings to meet Sandwich's ongoing needs.	Community Services, Natural Resources	Ongoing
Increase walking and cycling usage and safety through education.	Engineering Department	2-4 years
Identify actions to improve motorist safety and implement them.	Engineering Department	2-5 years
Connect shared use path to the Cape Cod Canal.	Engineering Department	5-10 years
Consult with the Bikeways and Pedestrian Committee to identify important linkages.	Engineering Department	Ongoing
Create and carry out an energy reduction plan for municipal buildings to meet the stated goals.	Facilities Department	5-10 years
Ensure sufficient funding to manage and maintain town facilities.	Facilities Department	Ongoing
Assess the impact of the Town's policies and practices, and work with Joint Base Cape Cod and neighboring towns, to reduce water resource vulnerability.	Health Department	3-5 years

Action	Leader	Timeframe
Analyze and update zoning/municipal regulations/general bylaws to achieve safer growth in resource-sensitive areas including restrictions on the use of herbicides, pesticides, insecticides, and fertilizers. Consider adopting the CCC's model bylaw as a guide.	Health Department	3-5 years
Establish a community education program that informs residents on alternative septic systems, as approved by DEP, fertilizer use and the importance of pumping individual septic systems.	Health Department	5 - 10 years
Convert septic systems to connected wastewater systems to address priority needs for growth and redevelopment, implementing the CWRMP phased approach.	Health Department	5 - 10 years and beyond
Develop Management Plan to address challenges regarding PFAs treatment.	Health Department	5-10 years
Implement Phase I of the Town's Comprehensive Water Resource Management Plan (CWRMP).	Health Department, Select Board	5-10 years
Continue the Town's efforts to mitigate untreated stormwater runoff as identified in the CWRMP and Storm Water Management Plan (SWMP), and update the CWRMP and SWMP, as appropriate as the work progresses and/or new runoff discharges are identified.	Health Department	Ongoing
Continue to participate in the pond monitoring program and pursue measures to improve impacted ponds.	Health Department	Ongoing
Continue to provide public access to lakes and ponds, and ensure their quality for use through established freshwater management and education of BPM's.	Health Department	Ongoing
Continue to monitor drinking water quality for per and polyfluoroalkyl substances (PFAS) and work with the Sandwich Water District to extend water service in areas served by private wells impacted by contaminants of emerging concern.	Health Department	Ongoing

Action	Leader	Timeframe
Leverage Sandwich’s historical assets, including historical buildings and archives, by coordinating with Town groups and departments to attract and support cultural tourism and local usage of those assets.	Historical Commission	2-4 years
Increase public awareness and support for preservation through education, community engagement, and events, as well as a sharing of knowledge through an online presence and virtual walking tours.	Historical Commission	2-4 years
Work with non-profits and town departments to enhance the Town’s reputation as a cultural destination, promote related businesses, and leverage the use of historical buildings through cultural events, lectures and education.	Historical Commission	3-5 years
Encourage cultural, historic and tourism groups and organizations to work together to generate consistent and uniform awareness of the Town’s opportunities for residents and visitors.	Historical Commission	3-5 years
Continue to survey and/or update surveys of historical resources—including archeological, buildings and cultural landscapes—using preservation specialists, as needed.	Historical Commission	Ongoing
Work with Town Administration and the Sandwich Cemetery Commissioners to continue preservation work on the Town’s cemeteries (documentation, stone restoration).	Historical Commission	Ongoing
Create an overlook walkway at the Marina.	Marina Department	5-10 years
Continue collaboration with the Army Corps to provide additional recreational opportunities at the Marina.	Marina	Ongoing
Conduct a site-specific investigation of critical elevations in the Route 6A and Jarves Street business district to inform adaptation planning.	Natural Resources	2-4 years
Investigate a 10-year navigational dredge permit for Old Harbor/Mill Creek that could place the dredge spoil on the barrier beach system on Town Neck and Springhill Beach.	Natural Resources	2-4 years

Action	Leader	Timeframe
Pursue an outreach program to educate residents on the benefits of protecting wetlands and buffer zones.	Natural Resources	2-4 years
Create a public information pamphlet for property owners living near wetlands.	Natural Resources	2-4 years
Create a public information program on the benefits of protecting and enhancing wildlife corridors and native plant species.	Natural Resources	2-4 years
Create a public information pamphlet for property owners to enhance wildlife and plant habitats.	Natural Resources	2-4 years
Develop policies to regulate access to conservation lands to prevent illegal dumping, unauthorized access, illegal hunting practices, and prevent resource degradation.	Natural Resources	2-4 years
Pursue mapping all vernal pools in Town-owned conservation lands.	Natural Resources	2-4 years
Combat the negative effects of climate change on historic properties by partnering with other organizations to provide guidance/education on improving energy efficiency and flood resiliency.	Natural Resources	2-4 years
Consider adoption of the CCC's model coastal resiliency bylaw to promote natural resource migration and reduce risk in the floodplain due to sea level rise.	Natural Resources	3-5 years
Pursue further evaluation and implementation of improvements to high priority low-lying roadway segments, bridges and culverts identified in the Woods Hole Group Low-Lying Roads project.	Natural Resources	3-5 years
Address anticipated mitigation of wetlands and their buffers due to climate change.	Natural Resources	3-5 years
Pursue mapping wildlife corridors and look at ways to protect and connect the corridors.	Natural Resources	3-5 years

Action	Leader	Timeframe
Pursue habitat management grants, including grants that allow the implementation of prescribed burns utilizing the existing Sandwich Fire Management Plan.	Natural Resources	3-5 years
Provide funding to significantly improve public access and provide continued maintenance of the Town's inventory of open space with improved public access, leveraging these spaces for residents and creating new assets for visitors.	Natural Resources	3-5 years
Continue to implement the Woods Hole Group climate change vulnerability/risk assessment and adaptation study.	Natural Resources	Ongoing
Continue applying for MVP grants, including the mitigation of tidally influenced culverts.	Natural Resources	Ongoing
Continue updating the Property Management Plan, focusing on trail management, forest revitalization and shorebird protection.	Natural Resources	Ongoing
Continue yearly testing and sanitary surveys on shellfish beds to maintain and propagate current stock.	Natural Resources	Ongoing
Continue protected shorebird monitoring program.	Natural Resources	Ongoing
Support community gardens and agricultural lands producing food locally.	Natural Resources	Ongoing
Continue to pursue purchase of waterfront lands for public access.	Natural Resources	Ongoing
Continue to protect vulnerable coastal lands subject to the impacts of climate change.	Natural Resources	Ongoing
Continue to participate in the Municipal Vulnerability Program.	Natural Resources	Ongoing
Benchmark all Town fuel use and CO2 emissions from all Town-owned buildings, vehicles, and tools. Annually compare emissions to identify key areas of need.	Planning Department	2 years
Update the Sandwich 2018 Open Space and Recreation Plan to ensure funding for open space acquisition.	Planning Department	2 years

Action	Leader	Timeframe
Achieve 'Green Communities Designation' as voted by Town Meeting. Annually apply for grants.	Planning Department	2 years
Apply for State and private historical grants to support our mission.	Planning Department	2-4 years
Seek collaboration between the Sandwich Historical Commission and Sandwich Old King's Highway Historic District Committee to obtain Certified Local Government status through the Massachusetts Historical Commission, increasing opportunities for grant funding and education.	Planning Department	2-4 years
Combat the effects of climate change on the sustainability of historic properties by partnering with other organizations to provide guidance/education on improving energy efficiency and flood resiliency.	Planning Department	2-4 years
Pursue development of design guidelines for large-scale development using the CCC's Designing the Future to Honor the Past as a guide.	Planning Department	2-4 years
Create a 5-year energy reduction plan for municipal buildings.	Planning Department	2-4 years
Identify off-street public parking within the village area for visitors and residents.	Planning Department	2-4 years
Ensure energy benefits are shared among all communities to reduce historical social and economic inequities.	Planning Department	2-4 years
Introduce a community-wide education program on best practices to reach established Massachusetts carbon targets. Provide online toolkits for best practices.	Planning Department	2-4 years
Create mechanisms to understand local needs and issues.	Planning Department	2-4 years
Seek support from the CCC for best practices in zoning and land use regulations guide.	Planning Department	2-4 years
Investigate the impacts to the community of short-term rentals such as Air B&B.	Planning Department	2-4 years

Action	Leader	Timeframe
Coordinate with the CCTRA to create and install user-friendly bus routes and signage at all bus stops. Work with the CCRTA/state legislators to restore rail service to Sandwich to meet year-round and seasonal needs.	Planning Department, Town Administration	2-4 years
Annually identify key energy conservation measures and achievements to reduce energy consumption.	Planning Department	3+ years
Investigate the costs to the community of continued development in the floodplain by preparing a cost benefit analysis.	Planning and Development	3-5 years
Advance bylaws that protect the historic resources and character of the Town.	Planning Department	3-5 years
Consider zoning changes and/or design guidelines within the National Register of Historic Places to ensure that new construction is compatible with the character of the District.	Planning Department	3-5 years
Consider affirmative maintenance bylaw for vacant properties to deter demolition by neglect.	Planning Department	3-5 years
Reinforce the design of additions to/ renovations and/or new construction of municipal buildings and spaces to reflect the town's heritage and culture through consultation with Sandwich Historical Commission, using preferred design guidelines.	Planning Department	3-5 years
Explore use of marina for water transportation/ commuter ferry service to/from Boston.	Planning Department	3-5 years
Prioritize associated development fees to advance neighborhood and pedestrian connectivity.	Planning Department	3-5 years
Educate Town employees on best practices to reach net-zero carbon target. Provide online toolkits.	Planning Department	3-5 years
Educate homeowners, renters, and vehicle owners on the possibility and value of energy efficiency, electrifying buildings and deploying solar. Provide online toolkits.	Planning Department	3-5 years
Introduce entrepreneurship-type programs to support small local business and create shopping experiences.	Planning Department	3-5 years

Action	Leader	Timeframe
Cultivate areas in town suitable for small-scale businesses and areas suitable for large-scale businesses.	Planning Department	3-5 years
Consider zoning changes to restrict the size of houses to a certain percentage over the average within that zoning district to discourage demolition of historic homes.	Planning Department	3-5 years
Build infrastructure and enact zoning changes to facilitate smaller homes, mixed-use conversions, and spur the creation of affordable rentals and ownership opportunities.	Planning Department	3-5 years
Pursue an economic development strategy for the Town, which focus on "green" and "blue" economies.	Planning Department	5 years
Pursue development of form-based regulation or mixed-use development bylaws in activity centers/growth centers that are at an appropriate scale and density.	Planning Department	5 years
Increase availability of the "missing middle" housing.	Planning Department	5 + years
Expand the availability of deed-restricted affordable housing.	Planning Department	5 + years
Address accessibility to private housing market.	Planning Department	5 + years
Regulate sustainable housing development.	Planning Department	5 + years
Create and lengthen sidewalks in neighborhoods leading to village centers.	Planning Department	5-10 years
Facilitate and encourage the installation of private EV charging stations by local businesses.	Planning Department	5-10 years
When commercially available and practical, purchase electric vehicles for municipal fleet where possible and electric- or battery-run tools for municipal purposes. Develop a municipal fuel efficiency policy for vehicles. purchased that are not available as electric vehicles.	Planning Department	10 years

Action	Leader	Timeframe
Consult with our land-use boards to emphasize the importance of sidewalks and bike lanes.	Planning Department	Ongoing
Pursue technical assistance and grant opportunities to support the development of economic strategies for growth/activity centers.	Planning Department	Ongoing
Support implementation of the 2021 Housing Production Plan to address housing needs to support economic development.	Planning Department	Ongoing
Enact housing strategies identified in the Housing Production Plan.	Planning Department	Ongoing
Promote the production of more year-round homes for owners and renters that are safe, inclusive and attainable for people with different income levels and needs.	Planning Department	Ongoing
Adopt a fuel efficiency policy for municipal buildings and vehicles.	Planning Department	XX
Protect and improve existing housing stock.	Planning Department	XX

Action	Leader	Timeframe
Support land-use needs, transportation, housing, solid waste and recycling at JBCC.	Town Administration	3-5 years
Prioritize implementation of wastewater infrastructure in areas targeted for redevelopment.	Town Administration, Health Department, Building	5-10+ years
Provide electric shuttles in the spring, summer and fall to local area beaches.	Town Administration	10 years
Work to provide electric buses and vans for schools and public use.	Town Administration, School Administration	10 years
Identify facilities that are not meeting the needs of the public and upgrade as necessary.	Town Administration	Ongoing
Adopt current energy codes proposed at the state level to ensure that new homes and large renovations are built to the optimal energy standards. Provide or identify education on new codes for the trades.	Town Meeting	2-4 years
Acquire Open Space with CPA Funds.	Town Meeting	Ongoing

SECTION 7

Plan Implementation

This section includes a description of how the Town plans to review and report on progress with implementation of the LCP, including changes to local zoning and other regulations as proposed in the Action Plan.





SANDWICH
TOWN HALL

Sandwich Town Hall

Plan Implementation Summary

Implementation of the LCP will be the responsibility of Town Boards and Committees, Town Departments, as well as organizations. The Select Board will be responsible for identifying priorities and overseeing implementation through its annual long-range plan that has been structured around the LCP since the May 2010 annual Town Meeting warrant. The Long Range Plan is updated on an annual basis with input from Town Boards, Committees, and Town Staff. The purpose of the Long Range Plan is to annually project the future needs and identify the primary issues and projects for the coming year and report this to Town Meeting as provided for in the Town Charter. Several of the items found in the Long Range Plan are also voted on at Town Meeting. A copy of the 2023 Long Range Plan can be found here: www.sandwichmass.org/DocumentCenter/View/7601/Long-Range-Plan---May-2022-Update-PDF

As noted in the Capital Facilities section, the 5-year update for the Town's Financial Policy Manual commenced in 2022 and will include the upcoming fiscal year's capital budget and a five-year projection of capital needs and expenditures that details their estimated costs, descriptions, and anticipated funding sources. This 5-year update should incorporate, and be tied to, the LCP action plan to coordinate funding for needed community infrastructure priorities to support growth and redevelopment in appropriate areas.

The Select Board will include implementation of proposed regulatory changes recommended by the LCP. The LCP will continue to be the framework to align the Select Board's Long Range Plan with the LCP vision and goals. The Planning Board will play a key role in implementing the LCP, particularly those elements related to land use policy and bylaw revisions recommended by the LCP. Monitoring the implementation of the LCP and reporting to the community will be the responsibility of the Director of Planning and Development.

To assist in understanding the process by which the Town will implement action items, a diagram depicting the relationship between the LCP, the Strategic Plan and the Capital Improvement Plan can be found below.

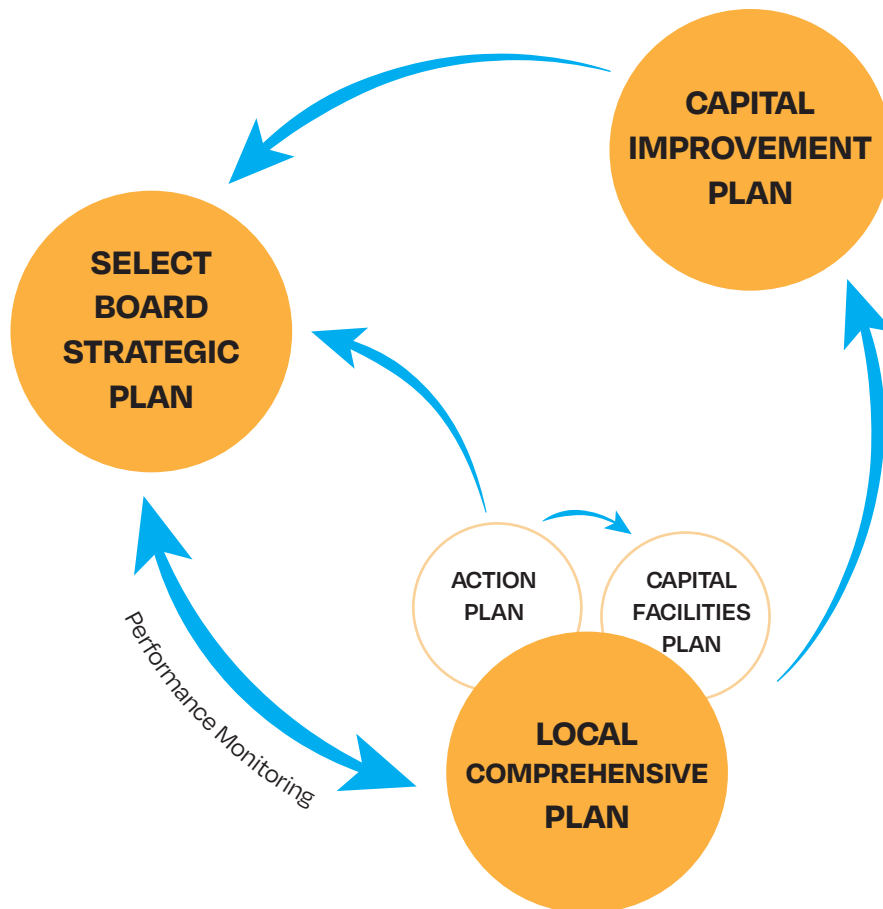
The Long Range Plan assigns timeframes and parties responsible for undertaking actions to ensure that the LCP is successfully implemented. The Director of Planning and Development presents a report on the implementation of the LCP on an annual basis. Monitoring LCP implementation is an integral part of that annual process.

- The Planning Office will contact the appropriate departments on an annual basis to get an appraisal of where they are in meeting the action items.
- The Planning Department will ask if they have been achieved, if not where are they in the process, is the action item still

viable should a new action item replace it to help achieve the overall goal.

- The Planning Board will provide a written report to the Select Board giving the status of the LCP.
- The Select Board through Town Administration will incorporate the results into the Long Range Plan and 10 year Capital Plan which will appear in the annual Town warrant.

This will include publishing reports on implementation progress for the Select Board's internal use and reporting to the public on progress in achieving the community's goals. The Town will also provide the Cape Cod Commission this annual report to communicate progress on the LCP.



Supporting Plans and Regulations, Reports, Studies, and Presentations

Copies of all municipal plans, studies and reports can be found on the Sandwich Town website located at: www.sandwichmass.org/1560/Local-Comprehensive-Plan

Municipal Plans and Regulations

Title	Date
2021 Housing Production Plan	August 2021
2010 Housing Production Plan	February 2010
Cape Cod Climate Action Plan	July 2021
2021 Hazard Mitigation Plan	April 20, 2021
2016 Hazard Mitigation Plan	2016
Open Space and Recreation Plan	November 2018
Bikeways and Pedestrian Master Plan	June 2018
Municipal Vulnerability Preparedness (MVP) Plan: Community Resilience Building Workshop Summary of Findings	June 2018
Select Board 2018 Long Range Plan (Master Plan)	May 2018
Comprehensive Water Resource Management Plan (CWRMP) Executive Summary	2017
Complete Streets Policy	March 9, 2017
Cape Cod Commission Flood Area Design Guidelines	August 21, 2023
Scenic Road Bylaw and Planning Board Procedure	Amended May 5, 2003
Historic Preservation Plan	June 2002

Title	Date
Stormwater Management Program (SWMP)	June 2019
Beach Management Plan for Town of Sandwich Beaches	August 2013
Local Comprehensive Plan Update	February 2008
Pre-Disaster Mitigation Plan	August 2004
Historical Commission Strategic Plan	February 2021
2009 Local Comprehensive Plan	May 2009
Protective Zoning Bylaw	November 2018
Zoning Map	November 2022
Long Range Capital Plan	November 2012

Reports

Title	Date
Environmental Public Health Tracking (EPHT) Community Profile for Sandwich	April 13, 2022
Water Quality Report	2021
Greenhouse Gas Inventory and Methodology Report	February 2021
South Sandwich Community Design and Regulatory Framework Project: Report and Recommendations	October 31, 2019
Marina District Study Final Report	July 10, 2015
Pathways to the Future: Market Analysis for the South Sandwich Village Center	March 2010
Using Visioning in a Comprehensive Planning Process	2001
Public Workshops: Preserving Community Character	December 2021
Public Workshops: Cultural and Recreational Opportunities	December 2021
Public Workshops: Creating Economic Opportunities	November 2021
Public Workshops: Conserving and Preserving Natural Resources	November 2021
Public Workshops: Healthy, Livable Neighborhoods	October 2021
Community Rating System Progress Report	May 2017

Studies

Title	Date
Army Corps of Engineers Silver Jacket Study	2022
Climate Change Vulnerability (CCV) / Risk Assessment and Adaptation Study	August 2019
Investigation of Twelve Sandwich Ponds	March 2019
Park and Recreation Master Plan and Feasibility Study Sandwich Hollows Golf Club	November 4, 2014
Local Comprehensive Plan Visioning Survey Results	March 2021
Pay-As-You-Throw (PAYT) Program Case Study	May 2012

Public Presentation Slides

Title	Date
South Sandwich Community Design: Creative Approaches to Moderate Density	September 23, 2019
Select Board Meeting Coastal Projects Update	November 2018



Dexter Grist Mill