



Local Comprehensive Plan Committee In-Person Meeting Agenda

Tuesday, June 27, 2023 at 10:00 am

Truro Public Library
7 Standish Way
North Truro, MA 02652
www.truro-ma.gov

Open Meeting

Public Comment Period

The Commonwealth's Open Meeting Law limits any discussion by members of the Board of an issue raised to whether that issue should be placed on a future agenda. Speakers are limited to no more than 5 minutes.

Minutes:

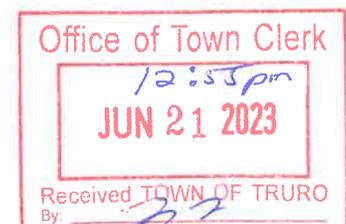
- ◆ Assignment of Today's Minutes
- ◆ Approval of Minutes: June 5, 2023
- ◆ Outstanding Minutes: None

Planner Update

Existing Conditions Draft

Next Meeting Date: Discussion

Adjourn



Local Comprehensive Plan Committee

Draft Minutes – June 5, 2023

Attending: Mara Glatzel – Chair, Raphael Richter, Chris Clark, Kait Blehm, Anne Greenbaum, – members; Barbara Carboni – Town Planner & Land Use Counsel

Not Present (excused): Ellery Althaus – Vice Chair, Susan Areson (Select Board Liaison)

-Chair called meeting to order at 15:40 at the Truro Town Hall Select Board Chambers.

-Public Comment – No Public Comment

-Motion to Approve May 15, 2023 minutes made by Member Greenbaum, seconded by Member Blehm. All voted in favor (5-0)

-Planner Update: Funding was found for the June 15 event.

-Chair updates: Feedback received from energy committee and historical committee. All feedback from this point forward on the draft plan will be reviewed and incorporated as appropriate into the next draft.

-Town Planner provided update on process for receiving feedback on the Plan from Town Department heads and a brief discussion of related timeline was had.

-Chair provided update on existing conditions report draft.

-June 15 event discussion

- 15 people registered so far

- Direct outreach to various organizations underway

- Layout and format of the outreach meeting. Logistics of printing materials etc

- The layout of the plan is laid out by the Cape Cod Commission

-Meeting is adjourned by unanimous consent at 17:02.

Respectfully Submitted,
Raphael Richter, Member

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CAPE COD COMMISSION (FOR EC CONTEXT)

From Anne

1. From LCP Guidance Document -Existing Conditions—An LCP needs to provide a basic inventory and overview of existing conditions and assets in the town. The existing conditions inventory and overview should guide the LCP’s discussion about future growth and development and resource protection in the town. Some examples of data to include are: population, housing units, significant community resources and assets (cultural, infrastructural, environmental), top employment sectors, median household income or other economic data, amount of open space in the community, beaches, pedestrian and bicyclist amenities.

The information from the CCC Guidance Document has me taking a fresh look at the organization & content of existing conditions so I’m going for a radical change

Current sections of Existing Conditions

- Community Design – Change to Background
- Town Governance – to be written
- Land Use
- Housing
- Economic Development
- Water Resources
- Climate & Coastal Resiliency
- Coastal Resiliency - combine with above
- Community Facility & Infrastructure

Suggested Reorg by Systems

- Background as intro

Truro

- Town Governance – to be written
- Community Support

Built

- Land Use
- Community Facility & Infrastructure

Community

- Housing
- Economic Development

Natural

- Water Resources
- Climate & Coastal Resiliency
- Coastal Resiliency - combine with above

DATA NOTE: Living in a small town can make getting accurate data challenging. We have reviewed and used various data sources with the goal of providing shared starting points for the various topics in this plan.

Everything in RED is from EDC report & needs to be credited

Everything in GREEN is from final version of HPP & needs to be credited

TRURO OVERVIEW

Population

- 2020 Census – 2,454 an increase of 452 22.5% from the 2,003 recorded in the 2010 census
- Summer Population Estimate - approximately 20,000 people (Town of Truro website)

Land Area

- Truro has a land area of 21 square miles (13,990.5 acres). The Cape Cod National Seashore (CCNS) accounts for 9,462.2 acres or 67% of land area in Truro, (EDC Report from Town Assessor Jon Nahas)
- Truro land area outside CCNS = 33% of 21 sq. mi. = 6.93 sq. mi

Population Density

- Truro including CCNS – 2454 people/21 sq miles/ = 117 people/sq mi
- Without CCNS - 2,454 people/6.93sq.mi /2454 = 354 people/ sq mi

Fiscal Data

- 2023 budget \$23,583,507 (warrant) + overrides of \$1,304,172 = \$24,887,679
 - \$601,122 FD
 - \$703,050 Sustainability
- 2023 tax rate Truro's Tax Rate for Fiscal Year 2023 is **\$6.54** / \$1000 for the Residential Class and **\$6.23** / \$1000 for the Commercial/Industrial and Personal Property Classes (Town of Truro Website)

People

Truro's population was 2,454 in 2020, a significant increase from the 2010 population of 2,003. The COVID-19 pandemic has impacted the population of the community, with more second-home owners residing in Truro full-time or spending more time out of the year in Truro, and a steep increase in housing costs. Therefore, previous predictions of declining population are now less than certain. Overall growth on the Cape in coming years seems more likely than the previously forecast decline.¹⁰ (Cape Cod Commission. "Covid-19 and a Changing Cape Cod."

<https://capecodcommission.org/about-us/newsroom/covid-19-and-a-changing-cape-cod/>

"Detailing data on Cape Cod's new homeowners."

¹ Cape Cod Commission. "Covid-19 and a Changing Cape Cod."

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Truro’s population is notably different from regional and statewide averages. A third of residents are over 65, most residents are white, most couples in the town do not have children, and three-quarters of the town’s households are made up of one or two people. (HPP)

The Cape Cod economy is highly tourism-based, and Truro is no exception. Over 15,000 people may inhabit the town on peak summer weekends, though by February, 20 percent of the town’s labor force is typically unemployed. There is a significant lack of middle-income households in the town, with a disproportionate share of lower-income and higher-income earners, and the median household income of \$68,914 is about \$30,000 less than the greater Barnstable area median income. (HPP P 25)

Truro’s population is getting older. Median age has risen steadily over the past thirty years, from 42.7 in 1990, to 45.7 in 2000 to 60.3 in 2020. Over this same period, the share of population under 24 has dropped 15% while the share of population over 65 has increased by 10%. The proportion of the working age population of 25-64 year olds has ranged between 57% and 61% within the past 30 years. (Truro Economic Development Plan EDP 2023)

Population Age Distribution in Truro

	2020	2000	1990
0-24	10%	21%	25%
25-64	60%	61%	57%
65+	30%	17%	20%
Median Age	60.3	45.7	42.7

Source: 2005 Local Comprehensive Plan, 2020 ACS

Physical Features

Truro has approximately 26 miles of tidal shoreline. This coastline is a major attraction and is used by residents and summer visitors for swimming, fishing, and walking, and recreation for all ages. The number of people enjoying these features is certainly higher during the summer months. Truro’s year round residents enjoy walks on the beach and through the rolling hills all year, watching sunsets on blustery cold midwinter afternoons and more. Key features of the coastal landscape include the ocean cliffs, High Head, Beach Point, and the Cape Cod Bay estuaries. The Pamet River runs across Truro from

near Ballston Beach on the ocean side to the bayside emptying into Pamet Harbor. As a result of the undulating topography and low vegetation and undeveloped landscape within the CCNS, Truro possesses perhaps the greatest amount of shoreline and broad sweeping views of the water among Cape towns. These unique community characteristics also make Truro particularly vulnerable to inappropriately sited and scaled development and/or infrastructure.

Truro's beaches are a significant resources. These include the oceanside Head of the Meadow which has both CCNS and Town of Truro beaches and 8 other town beaches Ballston, Coast Guard, & Longnook which are ocean side and the bayside beaches at Beach Point, Corn Hill, Fisher, Great Hollow, and Ryder. **The Town also has seven freshwater kettleponds.**²⁴ (EDC report)²⁴ **Truro Open Space Plan, 2015**

Placetypes DO WE WANT TO INCLUDE THIS? WE DON'T REFER TO PLACETYPES ANYWHERE. If we do, we need to include an explanation & maybe identify what is where. Then we could use the recommended strategies for each

History

Truro's Historic Development Patterns

Truro has a rich past, beginning with its settlement by the ancestors of the Wampanoag Nation. The Paomet people, members of the Nauset Tribe (now the Wampanoag Nation), fished and planted in temporary settlements and wintered in villages along Cape Cod Bay and fertile river valleys of the Pamet River. Truro's early development was focused on these two waterways with early centers of activity known as Pond Village and Pamet.

The pilgrims arrived in the northern portion of Cape Cod in November of 1620, as they sailed into Cape Cod Bay and anchored in present day Provincetown Harbor, and remained in the area for a time prior to traveling to Plymouth. The land that would become Truro was settled in the 1680s by descendants of the Pilgrims and other English men and women who arrived later in Boston and Salem.

During the 1700s, Truro was a town of pioneer whaling men. From about 1830 to 1855, Pamet Harbor was the center of a booming fishing industry, with more than sixty sailboats bringing in fish from the Grand Banks and other fishing spots.

Shortly after the Civil War, Old Colony Railroad was extended to Provincetown, making the Outer Cape an accessible tourist destination. Transportation and access increased summer tourism and the development of resort destinations, located in the Highlands, Ballston Beach, Sladeville, Corn Hill and Whitmanville, as well as Beach Point. Post-World

War I prosperity and the advent of affordable automobiles increased Truro's accessibility as a tourist destination and ushered in the second phase of development from 1920 to WWII.

Following World War II, a new wave of prosperity and mobility, along with improvements to U.S. Route 6, led to a third wave of resort development along with development of dozens of Modern summer houses throughout Truro. Truro's identity as a scenic destination was reinforced by the creation in 1961 of the CCNS, which preserved approximately 74 percent of Truro's land from future development.

The North Truro Air Force Base was built in 1951 during the height of the Cold War to detect, identify, intercept, and destroy hostile aircraft. At its height, the base housed 500 civilian and military personnel who were a part of the local community. The base included about 50 homes, dormitories, a baseball field, bowling alley, basketball court and children's playground. Children of those stationed at the base attended Truro Central School. Some of those who were stationed in Truro stayed and others returned to Truro later in life.

The base was deactivated in 1985, and while the Air Force and Federal Aviation Administration still use the radar technology on the site, the rest of the property was transferred to the CCNS in 1994. The Seashore is in the process of demolishing most of the buildings on the site, though it still houses the Payomet Performing Arts Center and coastal research laboratories.

[INSERT PARAGRAPH ABOUT TRURO's culture of agriculture etc, entrepreneurial spirit etc]

Spirit of Truro

Throughout her history, Truro has been home to a variety of self-sufficient, community oriented people. From farmers, whalers, shell & fin fishers to artists, artisans, and small business owners of all kinds, Truro residents shared a culture of hard work, perseverance, ability to handle challenges and a willingness to do whatever it took to live in Truro. The generational values that have become an integral part of the fabric of Truro have for too long been unrecognized.

Key Issues Moving Forward

Truro's challenges over the next 5 to 10 years are about balance. How do we balance:

- o A variety of housing needs while protecting the environment
- o The rights of property owners and renters while addressing the impacts of climate change
- o Protecting our economic engine, the natural beauty of the region, while better providing services: medical, transportation, health, social, to our people
- o What else

TRURO SYSTEMS

Community Engagement

	Registered Voters	Voting	Voting %
ATM Spring 2023 ²	2021 ¹	383	17.5%
Spring 2022 ³ Town Election	2021 ¹	590	27%
ATM Spring 2022 ⁴			
2022 ⁵ – Town Election	2075	674	32%
Fall 2022 ⁵ – State Election	2075	1490	45%

¹ (from Truro Official Town Election Results Spring 2023)

² (from Truro website 2023 ATM actions

https://www.truro-ma.gov/sites/g/files/vyhliif9766/f/pages/2023-atm-roll-up-actions_1.pdf)

³from Truro Official Town Election Results

⁴ from Truro website 2022 ATM actions

https://www.truro-ma.gov/sites/g/files/vyhliif9766/f/pages/05312022-town-meeting-actions-2022_0.pdf

⁵from Truro Official Town Election Results

*"There is no power for change greater than a community discovering what it cares about."
– Margaret J. Wheatley*

Town Government Structure

Section 2 of the Truro Town Charter outlines our form of government. Listed first is the legislative branch – Town Meeting responsible for voting on the budget, changes to Town bylaws *and any other business which may properly come before it. (Truro Charter 2.1.1)* All voters registered in Truro may vote at Town Meeting. The Executive Branch is the 5 member Select Board responsible for setting policy while the Town Manager is responsible for the administrative functions and *who shall administer the day-to-day affairs of the Town in accordance with such goals, policies, or plans. (Truro Charter 4.2.1)*

Community Engagement

Community engagement is people working together to affect positive change. There are many types of engagement. Voting and serving on town committees are simply the most visible, Others include speaking at town meetings, helping others get to meetings, encouraging others to participate and helping remove barriers to participation. While voting is only one type of community engagement it is easy to measure. In the past two Town elections Truro had a voter turnout of 32% in 2022 and 27% in 2023. The turnout for the state election in fall of 2022 was much higher at 45%. At the 2023 Annual Town Meeting where critical decisions were made including the town budget, less than 18% of Truro voters showed up.

The number of volunteers who serve on Town Boards is another form of participation that is easy to measure. Truro is fortunate to have many dedicated volunteers, both voters and nonvoters. 170 volunteers fill 210 town Board, Committee and Commission seats. Only the Select Board members receive any compensation. Currently the Town does little if anything in terms of recognizing or celebrating volunteers.

Over the past 5 years community dialogue in Truro has become increasingly uncivil. Name calling, bullying behavior, lecturing, chastising, and more are too often part of civic discourse. These behaviors come from proponents of different points of view. The problem is shared and the solution too must be shared. In the summer of 2022 the LCPC asked people to answer several questions about Truro including What word or phrase best describes your vision for the future of Truro? The very last response was simply “Be Kind“.

Community engagement is focused on getting input from the community. Community education or information sessions are designed to provide information to the community. One easy way to tell whether a session is engagement or information focused is to look at who is talking most of the time. If it is Town Leadership/staff doing most of the talking it is not community engagement. For the most part, recently, the Town has not been doing community engagement in its community events. The LCPC has held 2 community engagement events. The participation level at both events was high with community members providing a wide range of input and feedback. When provided the structure and opportunity to contribute, Truro residents step up. These events are not difficult to conduct but they do require thoughtful, deliberate planning and outreach.

Recent Actions by The Town

The Select Board set the goal of developing a civility pledge for 2023 and then deleted the goal for 2024.

Key Issues Moving Forward

Change the way conversations on important issues happen.

Town Leadership must improve their communication & behavior.

BUILT SYSTEMS

LAND USE

Total Acres – 14,082 of which 9,540 are in the Cape Cod National Seashore (CCNS). The table below shows a partial breakdown of the land use.

MassGIS 2016 Land Use Types	Acres (Total)	Acres (Outside of CCNS)
Residential (Single Family, Multi-Family, Other)	2915	2396
Open Land	1191	1143
Commercial	251	112
Agricultural	59	59
Industrial	38	38
Mixed Use (Mixed Use Other, Mixed Use Primarily Residential)	19	19

Background

Approximately 67% of Truro is part of the CCNS, which contributes greatly to the Town's overall character. The pattern of development in Truro has been shaped by the presence of Route 6 and the CCNS as well as historic development related to the coastline.

Early development within Truro was focused on the Cape Cod Bay side and the fertile river valley of the Pamet River. Over time, small village centers were developed, including East Harbor Village (now known as Pond Village and North Truro), Truro Village (Truro Center), and a small village in southwest Truro along Bound Brook near the Wellfleet Town line. Pond Village and Truro Center continue to be the focus of community activity within the Town. Truro's villages are surrounded by predominantly single-family residential

development, with small commercial areas and industrial uses located along the western side of U.S. Route 6.

In addition to the substantial CCNS lands, Truro has been committed to the protection of its valuable natural resources for decades. In 1981, Truro and Cape Cod conservationists founded the Truro Conservation Trust (TCT) to acquire land to be held as open space. The TCT became the first land trust established on the Cape. It now owns 89 properties totaling approximately 300 acres and holds an additional 45-acres of Conservation Restrictions.

Existing Zoning

The Truro Zoning Bylaw consists of seven zoning districts including Residential, Beach Point Limited Business, Route 6A-North Truro-Limited Business, Truro Center Limited Business, North Truro Center General Business, Route 6 General Business, and CCNS/Seashore. Rather than a distinct geographic area, the Residential District is defined as anything not in another district. Four additional overlay districts have been established, including Flood Plain, Water Resource Protection 3) Affordable Rental Housing, and Solar Farm Overlay District. **(see Truro Zoning Map attachment ?)** The zoning bylaw stipulates uses allowed in each of the seven districts and when special permits are required.

- o Route 6A North Truro Limited Business district is intended to provide space for professional offices in an otherwise residential district (6,576 square feet) *need to recheck the sq ft # in here*
- o Truro Center Limited Business district is intended to enable and foster the mix of retail businesses and restaurants together with single-family homes historically characteristic of this village (3,157 square feet).
- o Beach Point Limited Business district is intended to enable, define, and control the traditional vacation cottages and other activities in this area, together with any conversions of cottage or cabin colonies, motor courts, motels or hotels (72,988 square feet).
- o Route 6 General Business district is intended to enable, define, and control the establishment of larger businesses as well as residential housing, in this high-visibility part of Truro (80,811 square feet).
- o North Truro Center General Business district is intended to foster larger businesses as well as hotels and restaurants together with residences, while protecting the small- town flavor of this historic center (1,500 square feet).

The town's existing zoning regulations guide the size and shape of development through dimensional regulations that pertain to all districts. In particular, the minimum lot size requirement has resulted in a suburban pattern of development throughout the

developable areas of Town. This requirement is 33,750 square feet in all districts except the Seashore District which has a minimum lot size of 3 acres

Existing Land Use

Land use types within Truro were derived from the 2016 MassGIS Land Use Land Cover Dataset..Residential land use (single-family, multi-family homes, etc.) represents Truro's greatest land use type, totaling approximately 2,915 acres. Open land represented the Town's second-highest land use type, totaling approximately 1,191 acres. There are numerous beaches in Truro, including at least seven Bay beaches and four ocean beaches.

Open Space

Truro currently has many open space and recreation resources protected from development – the result of long-term efforts by residents, town officials, and volunteers to protect natural resources, conserve open space, preserve habitats and provide recreational opportunities for residents and visitors. Truro's draft 2023 Open Space and Recreation Plan(OSRP) provides a detailed summary of the status of public and private parcels. (insert link)

Insert some info from OSRP on current status – goals don't belong here.

Open space contributes in many ways economically and financially to the Town. Despite its historic economy focused on the farming and fishing industry, Truro's economic base today relies heavily on tourism and retirees, and the service and construction businesses required for their support. More information is contained in the Economy section in Community Systems

[insert map of protected open space]

Current Trends

Truro's year-round population has increased by 25 percent over the last 10 years, while the summer population has increased almost seven-fold, up from 15,000 to 20,000 people. The increase in seasonal population places stress not only on the Town's natural resources and recreation facilities, but also on its infrastructure.

Most of the land use in Truro is residential, and the residential district accounts for approximately 30 percent of the total land area. The high cost of housing and lack of affordable housing in Truro has made it extremely difficult to attract, support, and retain workers, which in turn, has significant effects on development and employee retention. Truro has a significant aging population many of whom would like to remain in Truro as they age but currently there are no appropriate housing options.

Truro is investigating planning and zoning initiatives aimed at trying to increase affordable rental and owner year-round housing.

Does this belong here? Today, at least 29 businesses in Truro are associated with construction trades; many tradespeople operate within the R district under Truro's Home Occupation Bylaw. Approximately 20 local growers supply local markets and restaurants, with many growers also engaging with food assistance programs on the Outer Cape. Truro includes four wholesale trade businesses and ten retail trade businesses. Leisure and hospitality – including vacation rentals, cottages, inns, restaurants – make up the largest industry segment in Truro.

Recent Actions by the Town

The 39-unit Cloverleaf development, a 40B rental complex on Highland Road, was approved by the zoning board and construction is expected to begin in 2024 or **2023?** Density at this site was accommodated by providing municipal water and an innovative alternative sewage-treatment plant. Community action resulted in the sewage treatment facility being held to higher standards than initially proposed in recognition of the need to protect the drinking water in nearby private wells.

In 2021 Town Meeting approved the creation of ADUs by right.

An ad hoc Economic Development Committee recently concluded a report on issues and strategies for improving the business climate in Truro.

An ad hoc committee is looking at ways to increase housing availability in Truro. The group includes the town planner and a representative each from the Select Board, Planning Board, Housing Authority and Zoning Board of Appeals.

The anticipated master plan for the Walsh Property and subsequent development will be an important step in addressing some of Truro's challenging issues.

Key Issues Moving Forward

Truro faces a challenge in balancing future housing needs with the need to protect water quality, natural resources, and community character. Providing municipal water in some areas and the use of innovative wastewater treatment facilities can help address this challenge.

Existing land use regulations and protected open space help minimize the impacts of future development on natural resources and protect the character of the community. At the same time, the 2022 Draft Housing Production Plan and draft Economic Development

Strategy recognize the critical need to evaluate policies and zoning bylaws that would support more housing choice.

Limitations on larger residential developments via zoning bylaws will continue due to the lack of wastewater and water infrastructure. However, consideration of appropriate locations for mixed-use and/or additional residential density with adequate water and wastewater infrastructure will be needed in order to meet the housing challenge.

Residents surveyed for this comprehensive plan are seeking more or expanded recreational opportunities in Truro, including pickleball and tennis courts, more pedestrian and bike-friendly areas, and a swimming pool.

COMMUNITY FACILITIES AND INFRASTRUCTURE

Background

Community infrastructure encompasses a variety of physical infrastructure, facilities, and buildings provided by municipalities that contribute to the quality of life and overall safety and health of a community. Despite its small year-round population, Truro possesses many community facilities and infrastructure assets that are cherished by residents and visitors alike. Community survey respondents expressed the need for additional social services and/or recreational facilities to support the needs of year-round residents.

Truro's community facilities include the Truro Community Center (Center) a 9,000 square foot facility that opened in 2009, Truro Central School, the Truro Public Library, Snow's Field and recreation area, The Center houses both the Council on Aging and Recreation and Beach Department. The structure include a multi-purpose room, gym with dividing door, youth room and kitchen. The Truro Food Pantry, located in the kitchen, is open to Truro residents two days a week. Puma Park Playground is behind the Community Center and include both accessible playground and outdoor adult fitness equipment. The Center provides facilities for Truro residents, full and part time as well as visitors to engage in a variety of programs; ranging from Pickleball to a weekly sewing group. The Library is a significant community resource all year. A recent addition has been an Edible Jungle. [get a good description of the library from kait!](#))

The Truro Public Works Department is responsible for maintenance and operation of Town facilities including the Transfer Station, parks, beaches, and utilities. The Department is charged with maintaining Town infrastructure that includes parking lots, 40 miles of paved roads, and maintenance of approximately 20 miles of highly traveled dirt roads. The Department is responsible for all Town buildings. The Truro Recreation and Beach Department manages a number of facilities including Snow's Field as noted above.

Community Needs

Bikepaths and sidewalks, wastewater treatment, and the expansion of broadband internet service were identified as key infrastructure needs that emerged from the October 2022 community visioning workshop. The LCP community survey also identified broadband access as a key infrastructure issue (nearly 55% of respondents), followed by town services and facilities (35% of respondents), and transportation and mobility (nearly 29% of respondents). The need for additional electric vehicle (EV) charging stations was also noted in comments received on the survey. Respondents supported the Town dedicating financial resources to develop community facilities and infrastructure, including resources to protect water quality (67%), wastewater treatment (34%), and other types of infrastructure (40%).

The demands on the Town to maintain or improve existing facilities and infrastructure while funding the development of new facilities and infrastructure to meet community needs is a key challenge facing the Town. As much of the Town's infrastructure is owned and controlled by entities other than the Town including the State (Route 6) and Cape Cod National Seashore, coordination and collaboration with neighboring towns, government agencies and other partners is essential to meeting the Town's future infrastructure needs. This section focuses on the issues of transportation, recreation facilities, and broadband internet access as high priorities.

Transportation and Mobility

U.S. Route 6 is the main highway to the Outer Cape north of the Orleans Rotary. In sections of Truro it is the only option and if blocked by an accident would cut off North Truro & Provincetown from the rest of the cape. Route 6 is a four-lane roadway through Eastham and North Truro. The remainder of Route 6 is a two-lane roadway with wide shoulders. Route 6 is heavily traveled throughout the year, especially in the summer months. Route 6A/Shore Road parallels Route 6 from North Truro to Provincetown and serves as an alternate scenic route along the Cape Cod Bay shore.

Limited public transportation to Truro is provided by the Cape Cod Regional Transit Authority (RTA) with a main stop at Highland Road on Route 6 and FLEX bus stops at various locations. Plymouth and Brockton Street Railway Company also provides bus service between Provincetown and Hyannis with stops in Truro and connections to Boston and Logan International Airport. The existing bus service does not meet the needs of workers, especially those in the hospitality industry who need to be at work early and/or come home very late. The Truro Council on Aging also provides van transportation services to Truro residents who are at least 60 years old and for adults with disabilities to destinations within Barnstable County four days a week to specific locations. Air transportation is available at Provincetown or Barnstable municipal airports.

Bicycle facilities in Truro consist primarily of shared use paths or narrow shoulders along existing roadways. A number of bike trails also exist within the Cape Cod National Seashore and in the developed areas of the town, including Head of the Meadow Bike Trail and a number of off-road, multi-use, unnamed trails. Along Route 6, Route 6A, Old County Road, and Castle Road, there is an on-street, shared bike path, which makes up a segment of the Claire Saltonstall Bikeway stretching 135 miles from Boston to Provincetown. The Town also has bike lanes along South Highland Road and Highland Road that are popular routes in the summertime between the oceanside and Route 6A/Shore Road. Truro has limited sidewalks and crosswalks, with no sidewalks that span both sides of the road.

Active Recreation Facilities

As noted in the Open Space section, the Recreation Department and community survey results recognizes the need for picnic areas, scenic walking routes, athletic fields and courts, hiking trails, and safe bicycle routes, not only for the citizens and visitors of Truro, but also to connect neighboring Outer Cape communities. The Town has no public courts (tennis, pickleball, basketball), and there is only one athletic field facility available to the public (Snow's Field), which could potentially be lost should the field area be needed by the Town for future water supply development. Meeting the needs of Truro residents for social services were also noted in the community survey results.

Broadband Access

According to a 2010 report prepared by the Truro Cable Advisory Committee indicates that the number of properties with access to broadband service today via Comcast is between 93 and 98 percent of 2,800 lots with buildings. The Committee estimated that there were between 65 and 198.5 lots, with a building of some kind, without broadband service. The lack of competition has been cited as one factor in less than robust internet service. In 2023, the Truro Cable and Internet Advisory Committee initiated a survey designed to more accurately determine gaps in internet service. Full broadband coverage is essential to future growth.

Recent Actions

Public Water Supply

As noted in the Water Resources section, Truro continues to coordinate with the town of Provincetown in managing the shared public water supply system. The current 2010 Inter-Municipal Agreement provides a framework to sustainably manage the system. This Agreement requires the development of a safe yield analysis to “coordinate withdrawals” for the “protection of streams and wetlands thereby protecting and preserving the Pamet Lens”. The Agreement also requires that both towns develop forecasts for future water

supply demands. The two towns are conducting meetings in 2023 to coordinate these efforts.

In 2023, Horsley Witten completed an analysis of water demand for the Town, incorporating anticipated future development of the Clover Leaf residential development and future buildout of 250 homes on the Walsh property, acquired by the Town in 2019. The memorandum estimated an additional demand of 172,843 gallons per day. The memorandum examined two potential locations for a water storage tank in the Town of Truro and selected the Walsh property with a high point at elevation 138 for an elevated water storage tank site. The total budget for the water tank construction is estimated at between \$9.3 million dollars and \$11.7 million dollars.

Wastewater Management

As noted in the Water Resources section, Weston & Sampson completed a Water Resources Management Plan (2018) that addressed both drinking water and stormwater issues. The Plan identified a number of private drinking water wells with elevated nitrates, likely impacted by nearby septic systems. It also identified several stormwater runoff sources including drainage from Route 6 as well as several direct outfalls to the Pamet River system.

More recently, the Town contracted with Scott Horsley, Water Resources consultant to assist in the development of a water resources management framework. This framework is intended to coordinate and integrate water supply, wastewater, and stormwater initiatives. GHD has also been retained to begin the development of a Comprehensive Wastewater Management Plan (CWMP). The town is currently evaluating wastewater management options, including both centralized wastewater collection and treatment systems as well as decentralized, on-site septic systems. This decentralized approach will require upgrades to existing cesspools and septic systems and proper siting of both septic systems and wells using an improved protection zone based upon groundwater flow directions.

Public Works Siting Feasibility Study

In 2023, Weston and Sampson completed a feasibility study for the siting of a new Public Works facility in Truro. The Town's Public Works facility is currently operating out of buildings ranging from 40 - 70 years old in a facility that does not meet current codes. The Department has seen increased responsibility for maintaining Town infrastructure with additional equipment purchased over time. However, the facility itself has not increased in size, resulting in a large portion of the vehicle fleet stored outdoors, impacting vehicle life expectancy, maintenance costs and operations. The feasibility study included examination of four potential sites and screening analysis of the parcels, including the Walsh property. Costs to design and construct the facility are estimated at approximately \$29.6 million dollars.

Bike and Pedestrian Accommodations and Safety

In 2016/17, the Cape Cod Commission completed an Outer Cape Bicycle and Pedestrian Master Plan Final Report for the National Park Service. The purpose of the Outer Cape Bicycle and Pedestrian Master Plan (OCBPMP) is to create a framework for an interconnected bicycle and pedestrian network linking the towns of Wellfleet, Truro, and Provincetown with the Cape Cod Rail Trail (CCRT), CCNS, and other destinations within the three communities. The plan provides a recommended primary route for extending the CCRT from its terminus in South Wellfleet through Truro to Provincetown, as well as a list of secondary routes within each community that connect to popular destinations. MassDOT is currently designing a separated shared use path from Wellfleet to Truro on Route 6 where feasible. The project is currently in the preliminary design phase. The proposed scope will fill some segments of the primary, or "spine" route, that will ultimately extend the Cape Cod Rail Trail from its current terminus in South Wellfleet to Provincetown. In coordination with the secondary routes, it will connect bicyclists and pedestrians to community destinations and link together popular bicycle routes and trails in the region. The network balances an efficient and direct route through the region with a wider range of travel experiences through scenic and natural areas that characterize the Outer Cape towns.

As noted in the Open Space section, the Truro Bike & Walkways Committee completed a community survey in 2022 to obtain input on bicycle and pedestrian needs and key safety concerns for bicyclists and pedestrians. A lack of dedicated bike lanes, sidewalks in downtown and beach areas, and specific improvements including crosswalks and/or pedestrian signals were among top priorities identified in the survey.

Key Issues Moving Forward **some of these are strategies farther than just identifying challenges**

The provision of adequate water supplies to meet current and future needs will be a critical component of the Town's infrastructure needs for the foreseeable future. The development of an integrated Water Resources Management Plan and Comprehensive Wastewater Management Plan should be top priorities for the Town to allow for the creation of greater housing density to meet the needs identified in the 2022 draft Housing Production Plan.

The Town should continue to implement the recommendations of the Outer Cape Bicycle and Pedestrian Master Plan to provide local connections, pedestrian signals, and crosswalks to address key safety concerns identified by the bicycle safety survey. Additional recreation facilities are being considered for the Walsh property including ballfields, walking trails and other recreational amenities that could also provide a connection to existing trails within the CCNS. Additional recreational needs identified in the draft 2022 OSRP should also be pursued by the Town.

To address regional infrastructure needs for improved internet access, the Town should also work with Internet service providers, regional agencies and the OpenCape Corporation to improve the reliability of internet service and broadband to all users in Truro.

COMMUNITY SYSTEMS

CULTURAL HERITAGE

Background

Paomet

Truro's culture and heritage has its origin with the Paomet people. Truro has recently started actively recognizing, supporting and honoring the past and current contributions of the Paomet people and their descendants.

Truro' Historic Character

Truro has two designated National Register of Historic Places Districts (NRDIS): the Truro Highlands Historic District, and the First Congregational Parish Historic District. Truro Highlands includes approximately 15 historic buildings along Highland Light Road, while First Congregational Parish includes approximately 36 historic structures in Snow Cemetery along 1st Parish Lane. While most of Truro's historic buildings/structures fall within these Districts, many notable historic structures and landscapes exist throughout the Town including the Edward Hopper House and landscape; and properties within the CCNS, including the Highland House, Highland Light Station, and the Dune Shacks Historic District.

Truro's wealth of historic resources from the 18th through 20th centuries was documented in a multi-phase effort from 2009-2013 by the Truro Historical Commission to create a comprehensive community-wide historic properties survey. As a result of field survey, research, and National Register eligibility evaluations, 54 individual properties and eight (8) historic districts with 545 contributing properties included in the comprehensive survey were recommended as eligible for the National Register.

The Truro Historic Commission created a self driving tour and booklet of significant historic/cultural sites in Truro. (Insert link)

Over the past decade Truro has enjoyed the growth of a Caribbean, primarily Jamaican community. They continue the Truro tradition and need to work 2 or 3 jobs to be able to live in Truro.

Recent Actions by the Town

In recent years, Community Preservation Act funds were awarded to:

- to update the CPA-funded 2009-2013 Community-wide Historic Survey to document 20th century properties, including Truro's important Mid-20th Century Modern Houses
- Build a Wetu and create the three sisters vegetable garden in collaboration with the Wampanoag Tribe, Truro Central School, and the Truro Historical Society.
- create a panel display celebrating the history of the fishing and fish-packing industry in Truro at Cold Storage beach
- study where memorials might be erected to honor native americans and what those memorials should be, application specified that native americans would be involved in the effort

The Truro Select Board in 2022 approved allowing free recreational beach access to native americans of any tribe. Members have to present a valid and current tribal membership card to the beach office.

Truro Historical Society in recent years has been creating permanent exhibits to celebrate Truro's history, including exhibits on Jobi Pottery, Truro's general store, etc.

2023 town meeting voted to officially honor Indigenous Peoples' Day instead of Columbus Day.

House Size Limitations in Seashore District & Residential District

In 2018, Town Meeting approved a zoning amendment to restrict the size of single-family homes built within the Seashore District, The following year, Town Meeting approved a similar house size limit in the Residential District.

Demolition Delay Bylaw

Truro is among many Cape Cod towns that have Demolition Delay bylaws that seek to prevent demolition of important historic buildings by requiring a waiting period before demolition can take place. The purpose of the delay period is to find alternatives to demolition. The Town adopted a demolition delay bylaw in 2007. The general bylaw was amended in 2017 to expand its purpose and provide a more inclusive definition.

Key Issues Moving Forward

Town is currently investigating the establishment of a town-wide cultural district and hoping that it will allow us to celebrate our cultural and historic resources including private non-profits like Castle Hill, Payomet, Truro Vineyard of Cape Cod.

A redesign of the Town Seal is overdue.

HOUSING

Total Number of Housing Units	3,001
Number inhabited full time	1,250

Background

Truro and the entire Cape are in the midst of a housing crisis. There is a rapidly growing lack of year-round housing that is accessible and affordable for those at low to middle and even upper-middle income levels. There is no housing designed to allow seniors to downsize and age in place in Truro. Seasonal housing for workers continues to be a major issue. Current challenges to housing include: an extreme lack of rental housing as well as homes for purchase, environmental constraints, restrictions on development in the National Seashore, and competing priorities.

The 2020 ACS estimates show that 78.2 percent of the total units in Truro occupied part time, often at least partially as vacation rentals. This has a significant impact on housing availability and affordability for full-time residents.

Of the full-time occupied units, 90% are single-family homes and most were built between 1960 and 1999. The majority are owner-occupied and most housing units have more bedrooms than required for people in the household, implying the need for smaller units to help improve affordability. *Need citations for all this - this is from the HPP (mara)*

There are 120 condos that are occupied year-round, though it is not possible to determine whether they are rented year-round, owner-occupied, or rented year-round through a short-term rental platform. There are 431 other condos in Town that are allowed 3 season occupancy, not year-round.

Housing Burden

Housing costs have skyrocketed across the Cape since the COVID-19 pandemic, with the median price for a single-family home increasing from \$716,000 to \$897,000 between 2020 and 2021, according to Warren Group data. With these prices, the average Truro household would need more than twice their income to be able to afford the average house in the Town. About 27% of households (179 households) in the Town are paying more than 30% of their income on housing costs, and most of these are also earning less than 80% of the area median income. Although accurate rent data is difficult to obtain, the best information available suggests that the average rents in the town are out of reach for these lower- and moderate-income residents. Only about 2.9% of Truro's year-round units are subsidized affordable units, significantly less than the statewide goal of 10 percent. Wellfleet is at 2.58% but has more units in process than does Truro.

Truro is just completing our 2023 Housing Production Plan (HPP). It is important to keep in mind that the HPP focused on affordable housing. It does not look at other needs including seniors wanting to age in place in Truro. The 2023 draft housing production plan found that by 2035, Truro will need 175 rental units and 85 units for homeownership, totaling 260 units for residents up to 120% AMI. 30% of those housing needs are for a studio or 1 bedroom apartment, 50% are for two bedroom apartment, and 20% is for a 3+ bedroom apartment.

Currently, only 15% of Truro's housing stock is made up of rental units. This puts the Town in the category of a "rental desert" according to a study by the Joint Center for Housing Studies at Harvard University. (need citation) Truro's largest affordable housing development – Sally's Way – offers 16 units of rental housing. Sally's Way is fully occupied and more strikingly has a waiting list of more than 200 families.

For those wanting to purchase a home, the situation has grown increasingly untenable. When homes do become available the prices are very often too high to afford. There is a growing and insurmountable gap between income and sales price. The median sale price of a single-family home in 2022 is nearly \$1.4 million. To afford to buy a home at that price an individual or family would need to earn almost \$375,000 annually, however the median household income in Truro in 2020 was \$68,914. Individuals and families hoping to purchase a home would need to earn more than three times as much as they earn currently. (this is important point but we need the data to be from the same year to eliminate questioning)

It is reported in the 2023 draft housing production plan that anecdotally there are numerous illegal housing units in Truro, which are important to consider as part of the housing stock. However, the Town has not been able to officially count the units, so the true number of illegal units is unknown as of July 2022. It must be assumed that the

number of rental units in this report is an underestimate of the true number considering illegal units.

In looking at the overall housing need it is important to remember that we are looking at both current and new community members. Current members include those who are housing burdened, living in unsafe housing whatever their rent as well as seniors looking to age in place in Truro.

Recent Actions by the Town

Cloverleaf

In 2021, Truro issued a comprehensive permit to Community Housing Resource, Inc. to develop 39 units across several structures including an 11-unit building and several duplex townhomes on a four-acre town owned parcel. Following an appeal and legal process, the project is moving forward and will provide a variety of affordable units including 20 units at 80 percent AMI, eight units between 80 and 120 percent AMI, six market-rate units, and five flexible units.

Walsh

In April of 2019, Town Meeting voted to authorize the Truro Select Board to acquire the 69.9-acre Walsh property. Decisions about how the property will be used have not been finalized, though there is potential for the property to be used for housing as well as open space, recreation, and more. The Select Board appointed the Walsh Property Community Planning Committee (WPCPC), which is working on a master plan for the property to present to Town Meeting voters in Fall 2023.

At the 2022 Annual Town Meeting (ATM) the town voted to allow Accessory Dwelling Units (ADU's) by right.

Rental Assistance Program

At the 2023 ATM to Town voted to allocate a minimum of 60% of Community Preservation Funds to Community Housing.

Key Issues Moving Forward

With the critical need for housing, Truro should look at ways to provide density of development in certain areas in keeping with the natural environment and protection of

natural resources. Several possibilities might include the creation of overlay districts, cluster zoning, and smaller lot sizes for deed-restricted housing in areas that can also accommodate open space surrounding the lot. Potential zoning changes include allowing year-round housing affordable on undersized lots or lots requiring variances for such zoning issues such as frontage or setbacks.

The planning board is currently working on a bylaw that will allow building a duplex by right. It is expected to go before Town Meeting in Fall 2023.

Continued communication **and** collaboration with CCNS.

ECONOMIC DEVELOPMENT

The lack of affordable housing, workforce housing, repair/cleaning/trades services to support hospitality, and affordable childcare paired with supply chain difficulties presents continued challenges to economic development and business opportunities in Truro. As stated by a Truro business owner cited in the 2022 Draft Economic Development Plan, “there is no sense in talking about economic development if the Town does not tackle the housing issue” (Ridley & Associates, Inc.). Truro is evaluating its economic development strategies with specific attention to foster business-friendly environments.

Background

The draft Economic Development Plan prepared by Ridley & Associates for the town summarizes the current state of Truro’s economy and the challenges its residents, businesses, and workforce currently face so that the town can have an informed discussion to generate solutions to these issues.

Housing that is affordable is the most pressing issue that Truro’s economy currently faces, as it has negatively impacted many businesses’ ability to find and retain workers, which has in turn reduced hours and operation. In addition to the diminishing workforce, local businesses are unable to find support from both business services and the local government.

Outer Cape towns, including Truro, have smaller year-round populations, a higher percentage of undeveloped land due to the presence of the CCNS, and a higher ratio of housing units to year-round residents compared with towns in other Cape Cod sub-regions. As a result, these town economies experience the most significant seasonal changes in population, housing, and the seasonal tourism economy.

Many local businesses report that they currently face extreme difficulty attracting and retaining workers, especially younger and entry-level workers. Employee shortages have caused many businesses to reduce hours of operation, take on less work, reduce services

offered, and forgo innovations that would lead to growth, income, jobs, and spending in the local economy.

Current employees and business owners are concerned that there will be no one to replace them once they retire. In addition to the lack of affordable housing, an unpredictable visa process that offers too few visas has compounded the issue. There is also a lack of affordable childcare in the area, so working parents may be forced to travel longer distances or to reduce their hours.

Current Status/Trends

Cellular and internet service within the Cape Cod National Seashore in Truro is widely viewed as unreliable. The Cape Cod Commission's survey of second homeowners found that only two-thirds of respondents reported that their Internet service allows them to perform necessary tasks, while 22% of respondents reported their service causes some problems for the household, and 7% report the service is inadequate for necessary tasks. This problem has become more crucial now that access to broadband services supports many workers' livelihoods due to the increased number of remote workers following the pandemic.

Truro had 119 business establishments in 2020, compared with 116 in 2010. Leisure and hospitality make up the largest segment with 22 percent of businesses, followed by transportation and wholesale and retail trade, 17 percent), and professional and business services, 17 percent. (EDC report)

Current employees and business owners are concerned that there will be no one to replace them once they retire. In addition to the lack of affordable housing, an unpredictable visa process that offers too few visas has compounded the issue. There is also a lack of affordable childcare in the area, so working parents may be forced to travel longer distances or to reduce their hours.

It has recently been challenging to find services that support the hospitality industry (i.e., repair, cleaning, and/or trades services), so most businesses do not have timely access to the business support services they need to keep operations running smoothly.

Businesses are seeking clearer communication from the Town to properly represent themselves, as many business owners feel like they are not able to easily permit or license their businesses and they are not properly informed of or are able to weigh in on decisions that would greatly impact their businesses.

Cellular and internet service within the Cape Cod National Seashore in Truro is widely viewed as unreliable. The Cape Cod Commission's survey of second homeowners found that only two-thirds of respondents reported that their Internet service allows them to

perform necessary tasks, while 22 percent of respondents reported their service causes some problems for the household, and 7 percent report the service is inadequate for necessary tasks. This problem has become more crucial now that access to broadband services supports many workers' livelihoods due to the increased number of remote workers following the pandemic.

Recent Actions by the Town and Community Groups

The Town is undertaking an evaluation of development/land use/planning issues that will have a substantial bearing on economic development opportunities in the community. These include this Local Comprehensive Plan and the Walsh Property master plan.

The licensing department? **Do we have a licensing department** is starting to make more services for businesses and residents available online for easier access and processing.

The Select Board has written a letter to Barnstable County seeking AARPA funding to address the lack of broadband in certain areas of town, which poses public safety risks in addition to preventing business and educational opportunities in areas not served by broadband.

In the past three years, Town Meeting has approved a Pre-kindergarten program for children from birth to 4 years old. It is open to all Truro families, Truro employees and children of those employed by Truro businesses for at least 20 hours a week. Voters also approved providing Truro families child-care vouchers of up to \$7500 per child over age 2.

The town is seeking to expand recreation programming outside of school hours and during the summer season.

Key Issues Moving Forward

Housing

Housing that is affordable has been recognized by residents as one of the main drivers behind the economic challenges that Truro currently faces. The high cost of housing and the lack of affordable workforce housing are making it difficult to attract and retain employees. This includes both year round and seasonal housing. The resulting employee shortage has affected the ability of local businesses to maintain their operations, and has severely restricted their ability to expand.

Support for Local Businesses

The town could increase areas zoned for commercial use, increase flexibility of health and zoning regulations to support business innovation, streamline the annual licensing and permitting process by making it accessible online, and increase opportunities for businesses to provide input in municipal decision-making.

Creating a database of service providers who are willing to serve Truro's local businesses would give business owners a resource for when they need support (e.g., Seasonal

Connect). Truro's part-time volunteer community could be recruited to support businesses and local non-profit organizations in need of staff.

Expanding the national visa program could be explored with federal representatives.

Inadequate Internet and Cellular Infrastructure should continue to be a focus.

Economic Development

NATURAL SYSTEMS

WATER RESOURCES

Background

The Town of Truro is blessed with extensive and valuable water resources - fresh and salt water. These include: high-quality drinking water, ponds, rivers, and coastal waters. They provide drinking water to the residents of both Truro and Provincetown, recreational opportunities for swimming and boating, and support a broad range of aquatic habitats including finfish and shellfish.

Fresh Water

Our fresh water comes from the Pamet and Chequessett lenses. These underground lenses are bubbles of fresh water floating on salt water underneath and are bordered by the waters of Cape Cod Bay to the West and the Atlantic Ocean to the east. (see figure 1) The majority of the town lies within the Pamet lens, which supports the public water supply wells and approximately half of the flow towards the Pamet River. The Chequessett lens is shared with Wellfleet and is the southern portion of the watershed to the Pamet River.

The public water system operated by the town of Provincetown withdraws groundwater via a series of public supply wells in Truro and provides drinking water to both communities. While Truro's public water system supplies all Provincetown residents, a relatively small number (approximately 600 properties) in Truro are connected. The majority of Truro residents rely upon on-site private wells for drinking water.

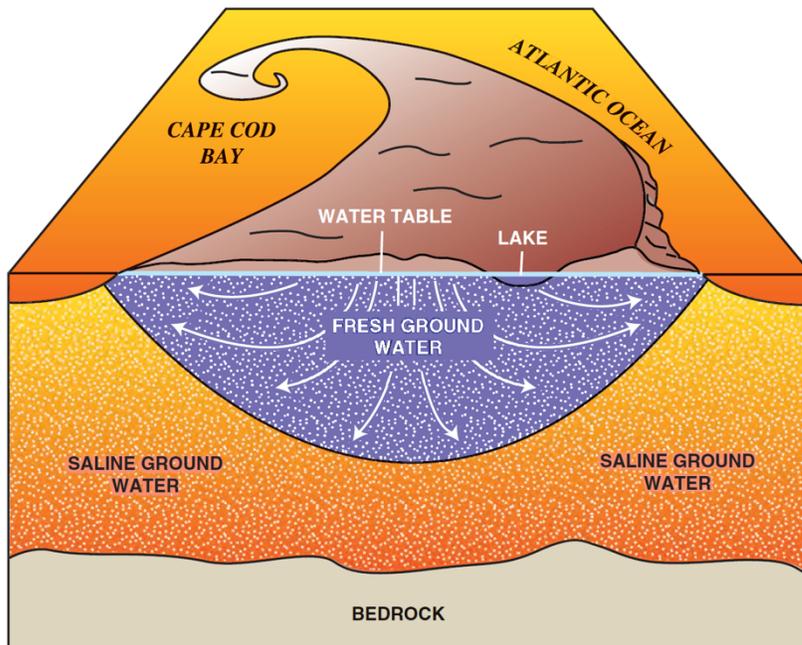


Figure 1 - Conceptual Cross Section (USGS)

Water enters the system via precipitation that infiltrates the land surface and recharges the underlying groundwater, then slowly flows through it at a rate of approximately one foot per day, ultimately discharging to freshwater ponds, the Pamet and Little Pamet rivers, and ultimately the ocean and Bay. *(what is the source for this)*

The amount and quality of freshwater is dependent upon withdrawals from wells, public and private and return flows from septic systems and stormwater runoff. It is primarily impacted by the consumption of the water – that which is physically exported out of the Pamet lens to Provincetown and local irrigation of lawns that is lost to evapotranspiration. Future growth and seasonal fluctuations in population and the coincident increasing needs for water supply and wastewater disposal coupled with climate change and sea level rise place stresses on the hydrologic system.

A water table map of the Town of Truro including the Public Supply Wells can be found in attachment ?

A series of freshwater ponds were formed as kettle-hole depressions in the landscape as a result of large residual ice features associated with the last glacial retreat approximately 15,000 years ago. These ponds are generally deep and of high quality. Most are located within the Cape Cod National Seashore and are protected by virtue of the Seashore's land development restrictions. Other ponds outside of the Seashore include Village Pond and

the Great Swamp and are more impacted by development. Pilgrim Lake, or East Harbor, lies at the town's northerly border with Provincetown and has exhibited water quality impacts associated with both wastewater and stormwater discharges.

The Pamet and Little Pamet rivers provide invaluable recreational and habitat values. Extensive shellfish resources reside in the Pamet Harbor area where the two rivers culminate. This estuarine system derives the majority of its water from groundwater discharges throughout its watershed.

Recent Actions by the Town

The town of Truro has undertaken a series of water resources studies dating to a 1985 Water Resources Protection Plan and a 2018 Water Resources Management Plan that addressed both drinking water and stormwater issues. The plan identified a number of private drinking water wells with elevated nitrates, likely impacted by nearby septic systems. It also identified several stormwater runoff sources including drainage from Route 6 as well as several direct outfalls to the Pamet River system.

More recently the town contracted with Scott Horsley, Water Resources Consultant to help develop a framework to coordinate and integrate water supply, wastewater, and stormwater initiatives. Truro is also working with Provincetown to forecast future water needs and to develop a Comprehensive Wastewater Management Plan (CWMP).

Representatives of six town boards are working with health, conservation, planning and public works staff to create a stormwater management bylaw, with assistance from the Cape Cod Commission. The bylaw will regulate sources of pollution in stormwater runoff including fertilizers, animal waste and parking lot runoff.

Truro has initiated a survey of stormwater outfalls – locations where untreated stormwater discharges directly to surface waters. This includes the mapping of outfalls and sampling of stormwater quality during rainfall events.

Key Issues Moving Forward

An integrated water management approach provides the opportunity to address water resources management challenges in a holistic and efficient manner. This can be accomplished by designing water supply, stormwater, and wastewater initiatives in concert as components of one system and one unified plan. An integrated approach evaluates groundwater, drinking water, ponds, rivers, wetlands, stormwater runoff, and estuarine waters as one interconnected hydrologic system. It can save significant funds associated with the infrastructure that will be necessary in the future.

Public Water Supply

Truro continues to coordinate with the town of Provincetown in managing the shared public water supply system that dates back to 1907 state legislation that authorized Provincetown to extract groundwater from Truro. The current 2010 Inter-Municipal Agreement, which runs through 2034, provides a framework to sustainably manage the system.

Wastewater

The town of Truro is currently evaluating wastewater management options. This will include both centralized wastewater collection and treatment systems as well as decentralized, on-site septic systems. The Beach Point neighborhood has been identified as a higher-density area that could be cost-effectively connected to the Provincetown municipal sewer system.

Private Wells and Septic Systems

It is probable that the town of Truro will continue to rely on private wells and on-site septic systems for the majority of its residents, due to the town's relatively rural nature and low density of settlement. The Truro Board of Health has required upgrades of any remaining cesspools to on-site septic systems by Dec. 31, 2023.

Stormwater

Route 6 has been identified as a significant stormwater source and mitigation will require close coordination with Massachusetts Department of Transportation (MADOT). The stormwater management bylaw will regulate sources of pollution in stormwater runoff including fertilizers, animal waste and parking lot runoff.

Pamet and Little Pamet Rivers

Truro is working to develop a water-quality assessment of the Pamet and Little Pamet River estuaries. This study will determine threshold/critical nitrogen levels and required reductions in nitrogen loading. Preliminary water quality studies suggest that the estuary is impaired due to excess nitrogen.

Walsh Property

The 69-acre Walsh parcel could serve as a future water supply site in addition to other uses. The northeastern portion of the parcel has been identified for potential expansion of the North Union wellfield. The southwest area of the site may serve as a cluster development area for affordable housing and other compatible uses. A neighborhood wastewater collection and treatment system is being discussed as a means to achieve both projects with a net water quality improvement.

CLIMATE AND COASTAL RESILIENCY

NOT REVISED

Background

As noted in the Executive Summary of the July 2021 Cape Cod Climate Action Plan (CCCAP), climate change is a global challenge that is transforming Cape Cod. Rising seas and changes to the coastline are the most dramatic evidence of climate change, which is also affecting every facet of Cape Cod's natural, built, and community systems.

According to the CCCAP, in 80 years, damage to Cape Cod's buildings and land lost to inundation could total to over \$30 billion dollars. The leading cause of climate change is the rate of carbon emissions produced by consumption of fossil fuels such as gasoline, diesel, and coal. In recognition of the climate emergency, in March 2021 Governor Baker signed into law an Act Creating a Next-Generation Roadmap for Massachusetts Climate Policy, which requires the Secretary of the Executive Office of Energy and Environmental Affairs (EEA) to set statewide and sector-specific sublimits every 5 years. The 2022 EEA Massachusetts Clean Energy and Climate Plan established an aggressive statewide 50 percent reduction in carbon emissions by 2030, and a statewide net zero carbon emissions target by 2050.

Truro has been a leader among Cape towns in the development of local energy and climate action policies designed to reduce the Town's contribution to carbon emissions and address the local impacts of climate change. Truro was among the first towns on Cape Cod to establish an Energy Committee in 2004. In 2011, the Energy Committee completed an energy audit and reduction plan for municipal uses as part of its efforts to become a Massachusetts-designated Green Community. This designation provides financial and technical assistance to help communities reduce energy use and costs through clean energy projects. In 2019, the town established a Climate Action Committee and completed a town-wide Greenhouse Gas (GHG) inventory in 2021 including municipal, residential, institutional, and commercial sectors.

Current Trends

According to the CCCAP, transportation (55.5 percent) and stationary energy sources (39.2 percent) are the leading sectors for GHG emissions, accounting for 95 percent of the region's emissions. Similarly, the Truro 2021 GHG inventory identified transportation (45 percent) as the leading sector for GHG emissions, followed by residential (31 percent) and electricity generation (22 percent). On-road vehicles, including passenger cars, light-duty trucks, motorcycles, and heavy-duty vehicles account for 78 percent of the transportation sector's emissions. For the Cape Cod region, the average daily vehicle miles traveled is high due to a number of factors, including miles traveled by second homeowners and visitors to the region, the relatively small proportion of trips other than in a personal vehicle, and the geography and development patterns of the region. Cape Cod, including Truro, is highly residential, with only 2-3 percent of the reported commercial and industrial building square footage in the state.

Based on the 2021 Town GHG inventory, Truro’s carbon dioxide emissions for the year equates to 25,786 metric tons, or 12.7 metric tons per capita (2019 data), as compared to the State’s 9.2 metric tons per capita (2017 data). These numbers include counts from the Town’s residential and commercial heating fuel, grid supplied electricity, motor vehicles, watercraft, and waste.

Results: Town-wide emissions of **25,786** metric tons¹)

Truro	US	Truro
Transportation	29%	45%
Electricity Generation	25%	22%
Industry	23%	-
Agriculture	10%	-
Commercial	7%	2%
Residential	6%	31%

Truro’s per capita CO² emissions are higher than the state as a whole but lower than the US overall. The inventory notes that Truro’s seasonal population skews the CO² per capita emissions. Truro’s relatively sparse pattern of development and the presence of the Cape Cod National Seashore that accounts for almost 70% of Truro’s land area, likely also contributes to the low CO² emissions per 1000 sq. mi.

Emissions CO ²	CO ² per capita (in metric tons) ¹	CO ² per 1000 sq. mi. (in million metric tons)
Truro (2019)	12.7	1.0
MA (2017)	9.2	8.1
US (2017)	15.8	1.4

¹A metric ton weighs 2205 pounds or 1.1 US tons

Recent Actions by the Town

Green Communities designation requires municipalities to outline how they will reduce their energy use by 20 percent. In 2011, the Town was one of the first Cape communities to receive this designation, opening it up to state funding opportunities. While the plan is

over a decade old, it provides short- and long-term goals the community is still pursuing, such as implementing planned replacements for Town-owned vehicles. [town staff/committees insert status/data on converting municipal vehicles to electric/hybrid, other Green Communities projects that have been completed]

Truro has taken several important planning initiatives to understand its contribution to GHG emissions. In 2019, the Town's Select Board charged the Energy Committee to investigate, study, and provide recommendations to the Select Board on the following:

- Energy consumption and energy efficiency of all Town-owned facilities and equipment
- Methods for conserving the use of all energy sources at Town-owned facilities
- Options for using alternative source of energy – e.g., land-based wind turbines, solar panels – at Town-owned facilities and equipment
- Work with the Building Committee on energy issues regarding the new construction/rehabilitation of Town-owned facilities

The Town also recognized the current climate emergency and approved a Climate Change Policy (Article 17) calling for net zero GHG emissions by 2050 on September 26, 2020.

Key Issues Moving Forward

The Truro CAC 2022/2023 has identified several priorities to help meet the Town's net zero 2050 goal, including: preparation of a Climate Action Plan that will inform the municipality, residents, and businesses on actions to address climate change; promoting electric vehicle (EV) charging stations for businesses; creation of a town staff position to help support CAC and Energy Committee efforts; improved outreach; and adoption of a specialized opt-in energy code.

As stated in the 2021 CCCAP, the two largest sectors in which Truro can reduce emissions in are the transportation and stationary energy sectors, which account for nearly 95% of all Cape Cod GHG emissions. According to data from in the Cape Cod Commission (CCC) GHG inventory, Truro has a total of 2,586 registered vehicles, or approximately 1.15% of the vehicles registered on Cape Cod. The Town's 2020 assessor registration data identifies that of these vehicles, only 14 are electric vehicles (EV). There is only one electric vehicle (EV) charging station at the Town Hall. A challenge for the Town is to reduce automobile dependence and provide alternatives to private automobile travel. The Town could pursue resources and programs to support development of additional electric vehicle charging stations in appropriate locations to help reduce local GHG emissions in support of State goals. The CCC created an online screening tool to identify areas in Barnstable County that may be appropriate for EV charging station locations that could be used as a starting point in identifying potential EV charging stations in Truro.

As noted in the Community Infrastructure section, Truro could also consider adopting a Complete Streets policy and prioritization plan, making the Town eligible for MassDOT funding to improve walkability and connecting residential neighborhoods to commercial areas and the Cape Cod National Seashore, thereby reducing GHG emissions from automobile trips. The Town should continue to work with other Outer Cape towns and the Cape Cod Regional Transit Authority to provide additional bus service and/or stops to the Outer Cape including Truro.

Truro's Climate Action Committee has established a goal to work with Cape Light Compact to promote energy audits with a goal to create a Town staff position to support the Town's efforts to mitigate climate change.

Truro could also consider pursuing adoption of small-scale community solar at appropriate locations. The CCC created an online screening tool to 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.

As a region, over 80 percent of Cape Cod's land area is already protected or developed, with over 90,000 acres of protected open space. Between 2001 and 2011, however, the Cape lost more than 2,300 acres of forest cover, with 70 percent of the loss replaced by development. Focusing future development in already developed areas of housing and economic activity can help maintain our region's ability to sequester carbon. The Climate Action Committee actions include developing guidelines with the Truro Planning Board to address clear cutting of building lots. Additional land conservation efforts can also sequester carbon by preserving undeveloped forested lands.

Truro and its committees could partner with the Cape Cod Commission on updating and strengthening local bylaws to better address coastal development and redevelopment with the goal of mitigating climate change by reducing the impacts of future development. 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 be pursued by the Town.

COASTAL RESILIENCY

NOT REVISED

Background

Truro comprises 26.3 square miles, of which 5.3 acres is water. Truro’s residents recognize the importance of the Town’s coastal resources to residents, visitors, and the local economy. Truro’s coastal resources provide access to a range of summer and year-round activities, including swimming, boating, commercial and recreational shellfishing, walking on the flats, watching sunsets, and other recreational activities. As described in the Town’s draft 2023 Open Space and Recreation Plan (OSRP), the Town’s ocean bluffs, bay side beaches, marshes, interior woodlands and freshwater wetlands all define Truro’s unique natural and coastal environment.

Truro’s eastern shore is directly along the Atlantic Ocean (the “outer shoreline”), and its western coastline is located along the Cape Cod Bay (the “inner shoreline”). The Atlantic side of Truro is largely a straight coastline, which gently curves towards the northeast direction as one moves toward the tip of the Cape Cod peninsula. The outer shoreline is uninterrupted with no harbors or inlets breaking through the wide sandy beaches and high dunes. There are four beaches along this shoreline, while the inner shoreline has narrower beaches and is interrupted by Pamet Harbor, twin jetties that line the mouth of the harbor’s channel, and seven groins that were built along Noons Landing Beach. Pamet Harbor is the only protected harbor and mooring area in Truro, with space for roughly 110 moored boats. The harbor is a straight inlet running west to east and turns to the south after approximately a third of a mile toward the Town’s dock and boat ramp and the Pamet Harbor Yacht & Tennis Club. The harbor inlet continues in an east to west direction, but quickly becomes too shallow for boat traffic, and is only navigable via kayak or canoe into Pamet Marsh.

The southernmost portion of Truro adjacent to the Town of Wellfleet is a designated Area of Critical Environmental Concern (ACEC). ACECs, as defined by the MA DCR, receive special recognition due to the “quality, uniqueness, or significance” of their natural and cultural resources. As such, the designation of Truro within an ACEC is indicative of the level of protection needed, via permitting, limitations, restrictions or other, to maintain and uphold its special resources (MA ACEC Program Overview, <https://www.mass.gov/service-details/acec-program-overview>).

[insert coastal resources map]

Current Status

Truro’s unique geography and location on the Outer Cape makes it easily susceptible to severe storms and the impacts of climate change. Truro’s coastline is subject to flooding, sea level rise, erosion, accretion, migration, and other environmental and natural phenomena. As noted in the 2023 draft Truro OSRP, the MA CZM Shoreline Change Viewer indicates that bayside erosion in Truro since the 1800s has averaged between 0.5 feet and 1.0 feet per year in most places, with the maximum exceeding 2.0 feet per year near the mouth of the Pamet River where tides and storms are more dramatic (Draft 2023

OSRP). High erosion rates within Truro are expected to continue and likely increase as increased sea levels, storms and storm surges, and climate change continue.

Current Trends

Beaches on the outer shoreline continue to be impacted by major storms, storm surges, and flooding. As presented in the draft 2023 OSRP, over the last 25 years, about 100 feet of land has been lost from the parking lot at Head of the Meadow Beach. Other areas experiencing erosion that are visible to the community include the retreat of the bluff at Highland Light and dune at Ballston Beach. Storm surges and coastal erosion at Ballston Beach have resulted in severe overwashes that reach the upper Pamet wetlands (Draft 2023 OSRP). Although the Town has performed nourishment at both Head of the Meadow and Ballston beaches, the Town should be prepared for risk at all vulnerable locations within the Town.

There are multiple areas in the Town which are designated as flood hazard zones by FEMA. The entire Truro coastline is within the FEMA V-Zone where storm surge or direct wave action occurs where a storm has a one in one hundred (1%) chance of having such intensity in any given year. This zone contains the Pamet Harbor and Pamet River. There are also several locations within Truro that are classified as being FEMA A-Zones where standing water is expected from storms up to 100-year intensities, including parts of the Pamet River Valley, the area around Mill Pont Road, the Little Pamet River and its surrounding area, the area southeast of Ryder Beach, and the area along the Provincetown border connecting to Pilgrim Lake through East Harbor. There is potential for Route 6 to become inundated with stormwater, particularly along its northern section where it passes parallel to Shore Road along Noons Landing Beach, of which some sections are less than 10-feet above sea level.

The 2022 Massachusetts Climate Change Assessment Report identified coastal wetland degradation and coastal erosion from sea level rise and storm surge as having the greatest potential impact to the natural environment of Cape Cod. A review of the latest climate data developed for Massachusetts and a statewide assessment of potential climate impacts indicated that coastal wetland degradation, especially salt marshes, was ranked as one of the highest priorities for mitigation. It is estimated that Cape Cod will lose 300 acres of coastal salt marsh habitat by 2030.

Coastal erosion and sea level rise continue to be large causes for concern for Truro and its seaside property owners. According to the United State Geological Survey (USGS), the mean sea level has risen by roughly 1 foot in the past 100 years, which destroys beaches and dunes due to the increased range of wave action. The faster the sea level rises, the more the erosion rate increases, creating an immediate problem for coastal communities. With global warming comes an increase in storm intensity, which will reduce the interval at which a town experiences a 100 year storm event.

Recent Actions by the Town

In 2017, the Town prepared and approved a Hazard Mitigation Plan (HMP) to reduce damages resulting from natural hazards by implementing sustained actions to reduce or eliminate long-term risk to human life and property from hazards. Consistent with regional trends, the plan highlights two coastal-related natural hazards in Town: coastal erosion and flooding. The Town has also taken part in the Massachusetts Municipal Vulnerability Preparedness (MVP) Program, which is designed to provide a framework for municipalities to identify vulnerabilities and undertake actions to increase their resistance to natural hazards exacerbated by climate change. In 2019, the Cape Cod Commission prepared a joint summary of findings for Truro and Wellfleet with the communities identifying coastal erosion and flooding hazards that were also highlighted in the 2017 HMP.

As stated in the 2017 HMP and the 2019 MVP Summary of Findings, coastal shorelines — especially beaches, dunes, and banks — change constantly in response to wind, waves, tides, and other factors including seasonal variation, sea level rise, and human alterations to the shoreline system. Through the Shoreline Change Project at the Massachusetts Office of Coastal Zone Management (CZM), the ocean-facing shorelines of Massachusetts were delineated and statistically analyzed to demonstrate trends from the mid-1800s to 2009, including Truro. It was determined that the entire coastline of the planning area is vulnerable to shoreline change, and for Truro, the rate of shoreline erosion has been increasing since the 1800s. Storms in recent years have caused increased erosion on Truro's beaches, resulting in damage to homes, beach parking lots, and roads. Coastal erosion is measured as the horizontal displacement of a shoreline over a specific period, measured in units of feet or meters per year. Truro's long-term rate for coastal erosion is predicted to be 0.9 ± 1.4 feet per year, per the Massachusetts Coastal Erosion Commission.

Increased storm intensity has increased transportation of sediment along all of Truro's shores. Locations such as Pamet Harbor are of high importance to the Town, both recreationally and economically, and must be properly managed to balance its environmental needs with the commercial and recreational wishes of the community. While sediment accumulation is a naturally occurring process, Pamet Harbor inlet has been subject to dredging to maintain enough water depth for boats to safely access the mooring field. The Town plans to take aerial photographs of the area to monitor the effectiveness of the dredging, as well as conduct a thorough survey of the entire harbor area to determine any new offshore currents, the relocation of the harbor entrance by jetties, the public uses presently impeded, and any pollution emanating from parking lots and the surrounding roadways.

As per the 2017 HMP and 2019 MVP Workshop, the Town determined the following actions it could take as it pertains to Truro's shorelines:

- Revise the Town's Flood Plain Zoning* to incorporate cumulative substantial damage or improvement requirements and require buildings to be brought into compliance with flood protection standards earlier in their life cycle. The Town should also maintain permit history so when cumulative repairs and improvements equal 50% of the building value, the building must be brought up to current codes for floodplain development.
- Preserve, enhance, and restore natural mitigation measures within the floodplain, wetlands, beaches, and dunes.
- Develop policies that would provide for incentives for building above the floodplain. Develop policies that would allow for a waiver of application fees, provided construction is one or more feet above base flood elevations.
- Identify low-lying roads* and beach parking lots susceptible to erosion and develop and implement a plan to address road flooding problems and beach access issues.

Flood Plain Zoning

Since the 2017 HMP and 2019 MVP Workshop, the Town initiated the adoption of a new state model floodplain bylaw proposed by DCR for local adoption. The model shared with Town staff in 2020 included the minimum requirements to be in compliance with the National Flood Insurance Program (NFIP), required to enable continued access to flood insurance in communities like Truro. Truro's Zoning Bylaw was amended at April 2022 Town Meeting by adopting the Floodplain Overlay District. The purpose of this district is to ensure public safety by requiring all new construction landward of coastal high hazard areas, prohibits man-made alteration to sand dunes, and elevation of structures among other requirements (Town of Truro Zoning Bylaw, https://www.truro-ma.gov/sites/g/files/vyhlf9766/f/pages/zoning_bylaw_and_sign_code_as_of_2022_atm_-_final.pdf)

Low-Lying Roads

Low lying roads within Truro are especially prone to flooding due to combined environmental hazards including sea level rise, storm surge, and erosion. As an MVP-certified community, Truro became eligible for MVP action grant funding for implementation projects. In 2021, the Cape Cod Commission staff worked with multiple towns including Truro to examine vulnerabilities in the roadway network and identify adaptation alternatives. The CCC partnered with Woods Hold Group to complete a vulnerability assessment of roadways, bridges, culverts, etc. vulnerable to flooding from sea level rise and storm surge. A Low-Lying Roads – Truro assessment kicked off in 2021 and will conclude in 2023. High priority road segments in Truro include areas along Shore Road/Route 6A (Town and MassDOT Roadway), Shore Road and Commercial

Road/Route 6A, South Pamet Road, Old County Road, and Old Pamet Road and Truro Center Road. Analysis will continue through 2023 with potential roadway design solutions.

Key Issues Moving Forward

The Town has taken action to identify areas that are of high concern with respect to storm surge, erosion, wave action, and flooding. The Town should continue to advance regulations regarding future development of structures in these areas of high concern. As storm intensity increases with accelerated global climate change, the 100-year storm will only become more common with each year that passes, and exacerbate the likelihood of the aforementioned hazards, as the increase brings elevated levels of wave energy, increased flood water elevations, and higher sustained winds. Adaptation measures to directly reduce existing risks to the coastline should also be pursued. Protections such as sand dunes, will have to be elevated and strengthened, due to the anticipated increase of wave overtopping height and storm surge levels.

Groins and breakwaters could be considered as well to reduce wave action at specific locations and to trap sediment that would otherwise be transported down the coastline by strong currents. The downside of constructing such structures is that the public's perspective of Truro's naturally uninterrupted coastline would be altered. Additional feedback from Truro residents would be needed to determine if the need and desire for such structures are justifiable. The Town should continue to dredge Pamet Harbor, as it serves as an important economic asset, and if it should fill in with sediment, Truro would be left without an active port for commercial and pleasure crafts to dock. The Harbor should have bathymetric surveys conducted on a regular basis to monitor the sediment accretion.

The Town should continue utilizing available MVP funds for resiliency projects and should continue seeking funding from federal, state, and local sources to address coastal hazard improvement projects. Funding sources should be considered to cover costs from permitting, surveying as well as public outreach and education efforts. Public outreach and engagement will be a key component to ensure the public is informed and supports potential improvements. Finally, the Town should continue to develop and implement new policies and plans to address coastal resource issues. The adoption of the new floodplain bylaw sets a great example and can be utilized as the Town considers future bylaw development.