



# Local Comprehensive Plan Committee In-Person Meeting Agenda

Monday, May 15, 2023 at 3:30 pm

Truro Town Hall  
Select Board Chambers  
24 Town Hall Road  
Truro, MA 02666  
[www.truro-ma.gov](http://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: May 3, 2023
- ◆ Outstanding Minutes: None

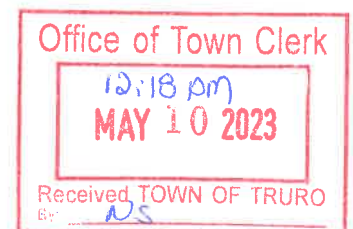
### Planner Update

### Review and Discussion of Existing Conditions:

- ◆ Land Use
- ◆ Climate Mitigation
- ◆ Economic Development
- ◆ Water Resources

Next Meeting Date: Tuesday, May 23, 2023 – Truro Public Library, Community Room

### Adjourn



## **Local Comprehensive Plan Committee**

Meeting Minutes for 5/03/2023

**Committee members attending:** Mara Glatzel, chair, Ellery Althaus, vice-chair, Chris Willes-Clark, Raphael Richter, Kait Blehm, Susan Areson, Select Board Representative, Anne Greenbaum, Planning Board representative, Barbara Huggins Carboni, town planner/land use counsel.

The meeting was called to order at 3:40 pm.

Susan Areson motioned to approve minutes from 4/19/2023. Anne Greenbaum seconded. Anne, Ellery, Kait, Mara, and Susan voted aye. Raphael and Chris abstained.

Discussion focused on:

- LCP Public Forum for feedback on goals, objectives and action plans is tentatively scheduled for June 15th from 5-7pm. The committee considered the need for food and childcare in order to maximize public turn-out.
- Draft goals and objectives in the following areas: C3-Community Systems-Housing, T-2 Community Services, N-2-Natural Systems-Wetland Resources, N-2-Natural Systems-Ocean Resources, N-3-Natural Systems-Wetland Resources, N-4 Natural Systems-Wildlife and Plant Habitat, N-5-Natural Systems-Open Space.

Members agreed to schedule the next meeting via email.

Kait moved to adjourn. Anne seconded. All present voted aye.

The meeting was adjourned at 5:50 pm.

Respectfully submitted, Kait Blehm

## Land Use – Truro Today

### Background

Truro is characterized by its small town, historic character and includes an abundance of natural resources. Approximately 75% of Truro is designated as the Cape Cod National Seashore (the Seashore, or “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 centered 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. These small historic village centers 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.

### Historic Development Patterns

The Town has historic roots related to the native peoples of Cape Cod (Paomet), a name that still refers to the area around the town center of Truro. The northern portion of Cape Cod was first discovered by the Pilgrims in November of 1620, as they sailed into Cape Cod Bay and anchored in present day Provincetown Harbor. Historically, the lands of Truro served the Pilgrim population well, as it provided fresh water (Pilgrims Springs), a cache of maize (Corn Hill), and a place to camp out for the evening (Pond Village). The Pilgrims encountered a group of local Native Americans from the Paomet Tribe, and later traveled to Plymouth, leaving the Paomet population behind. Over the course of its history, the establishment of the modern railroad, Route 6, CCNS, and post WWII development has shaped Truro into the community that it is today.

Following WWII, prosperity, mobility, and road improvements to Route 6 led to a wave of resort, cottage, cottage colony, and single to multi-family residential development. As noted above, Truro’s identity as a scenic destination was reinforced by the creation of the CCNS. The period from the 1940s through 1970s saw the development of dozens of modern summer houses throughout Truro. Today, Truro is challenged with navigating appropriate development that is consistent with the community’s needs while maintaining its small-town character.

### Existing Land Use

According to the U.S. Census Bureau, the Town has a total area of approximately 22 square miles. The population of Truro is 1,076 persons with a density of 51.4 people per square mile. Land use types within Truro were derived from the 2016 MassGIS Land Use Land Cover Dataset and the CCNS Boundary which was downloaded from the National Park Service’s Open Data Website (<https://public->

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[nps.opendata.arcgis.com/](https://nps.opendata.arcgis.com/)). According to the data, the CCNS accounts for approximately 9,540 acres of Truro’s 14,082 total acreage. A breakdown of additional land use types as of 2016 is included in Table 1, below.

MassGIS 2016 Land Use Types	Acres (Total)	Acres (Outside of CCNS)
Agricultural	59	59
Commercial	251	112
Industrial	38	38
Mixed Use (Mixed Use Other, Mixed Use Primarily Residential)	19	19
Open Land	1191	1143
Residential (Single Family, Multi-Family, Other)	2915	2396
Right-of-way	717	567
Tax Exempt	1791	100
Unknown	6406	17
Water	695	90
<b>Town Total</b>	<b>14082</b>	
<b>CCNS Within Truro</b>	<b>9540</b>	

Table X. Truro Land Use

Residential land use (single-family, multi-family homes, etc.) represents the Town’s greatest land use type, totaling approximately 2,915 acres out of the Town’s total 14,082 acres. Open Land represented the Town’s second highest land use type, totaling approximately 1,191 acres out of the Town’s 14,082 total acres. There are numerous beaches in Truro, including at least seven bay beaches (Beach Point, Cold Storage Beach, Corn Hill Beach, Fisher Beach, Noons Landing Beach, Ryder Beach, and Great Hollow Beach) and four ocean beaches (Coast Guard Beach, Ballston Beach, Head of the Meadow Beach, and Longnook Beach).

Commented [AK1]: (<https://www.truro-ma.gov/truro-beach-office>).

**Existing Zoning**

The Truro Zoning Bylaw consists of seven zoning districts including 1) Residential (“R”), 2) Beach Point Limited Business (“BP”), 3) Route 6A-North Truro-Limited Business (“NT6A”), 4) Truro Center Limited Business (“TC”), 5) North Truro Center General Business (“NTC”), 6) Route 6 General Business (“Rt6”), and 7) CCNS/Seashore (“S”). Four additional overlay districts have been established, including 1) Flood Plain, 2) Water Resource Protection, 3) Affordable Rental Housing, and 4) Solar Farm Overlay District.

R districts are intended to provide an appropriate space for housing, as well as safety, good access, and opportunity to enjoy the peace and beauty in Town. The BP district benefits the community by regulating the development of vacation cottages, cabin colonies, motor courts, or motels and hotels. Other business districts including NT6A, TC, NTC, and Rt6 districts are intended to provide space for non-residential uses such as professional or retail space, hotels, or restaurants, that may also be mixed with residences. The S district, as previously described, protects the CCNS, while the Water Resource Protection and Flood Plain overlay districts protect ground water and public water, as well as lands subject to flooding, tidal surges, and other natural hazards that may result in a public safety concern. Finally, the Solar Farm Overlay District provides protected land that can be utilized for renewable energy in the form of solar energy.

As stated in the 2022 Draft Truro Housing Production Plan, only 15% of Truro’s housing stock consist of rental units. Sally’s Way, Truro’s largest affordable housing development, is fully occupied and has a waitlist of over 200 families. Truro contains one R district which comprises most of the space outside of the CCNS area. In the R district, single-family dwellings are allowed by right. ADUs, duplexes and conversion of single-family units to apartments are allowed by special permit. Non-residential uses such as agricultural, fishing, educational, religious, municipal, and parts are permitted within the R district. Cottage colonies, cabin colonies, motor courts, hotels, and motels are not permitted in the R district. With a special permit, non-residential uses such as food trucks, (marine) research institutions, or solar arrays are permitted. In Truro’s business districts, single-family residential uses and ADUs are allowed by right. Cottage or cabin colonies are allowed by right in the BP, NTC, and Rt6 districts. Duplexes or conversion of single-family units to apartments are allowed in business districts by special permit. Industrial or manufacturing is only allowed by special permit in NTC and Rt6. Marine installations, research labs, and small engine repair uses are allowed by special permit in all business districts except TC. Within the S district, 78% of Truro’s Town Area is protected open space; certain uses such as fishing, agricultural, bed and breakfasts, religious, and education are permitted, however, variances within the S district are strict and limitations on development are stringent.

**Commented [SR2]:** Town Assessor’s office should confirm percentages discrepancies in various reports

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 of 33,750 square feet in all districts has resulted in a suburban pattern of development throughout the developable areas of Town.

Dimensional Requirement	All Districts *
Minimum lot size	33,750 sq ft
Minimum lot frontage	150 ft
Minimum front yard setback	25 ft
Minimum side yard setback	25 ft
Minimum building height	2 stories; 30 ft
Lot Shape	For any lot created after April 30, 2004, the portion of the lot connecting the frontage with the front line of any building site shall not be less than 50 feet wide, as measured between opposite sidelines.
*With some provisions laid out in the code.	

Table X. Dimensional Requirements under Truro Zoning

**Report on Trends**

Truro’s location on the Outer Cape with one primary access route and presence of the CCNS makes it extremely fragile and vulnerable to the forces of nature and adverse impacts from population growth and inappropriate development. According to Truro’s 2022 Draft Economic Overview, Truro’s year-round population has increased by 25% over the last ten 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.

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Most of the land use in Truro is residential, and the R district accounts for approximately 30% 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 workforce and employees, which in turn, has significant effects on development and employee retention. In combination, 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.). Today, Truro is evaluating its economic development strategy, with specific attention to foster business-friendly environments.

The 2012 American Community Survey indicated that 771 households had a 2012 median household income of \$81,964 and mean earnings of \$84,640. In 2015, close to 40% of the households were earning less than \$50,000. According to Truro’s 2022 Draft Housing Production Plan, Truro currently has 601 households, which is 170 less than the amount in 2015. In 2022, however, the average median income is \$68,367, and the median sale price of a single-family home in Truro in 2022 is almost \$1.4 million. An individual or family would need to earn almost \$375,000 annually in order to afford a home. In today’s times, individuals and families seeking to purchase a home would need to earn more than three times of their current earnings, and the data indicates that there is a growing and insurmountable gap between income and sales price of homes in Truro. This gap is inequitable and unattainable for many.

Commented [AK3]: According to Truro’s 2015 Open Space Plan

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. Vacation rentals, cottages, inns, restaurants, and other comprise the largest industry segment in Truro, leisure and hospitality.

**Recent Actions by the Town**

Certain uses such as new duplexes, cottages or cabin colonies, and hotel (NTC and Rt6)/motel (BP, NTC, and Rt6) are permitted or permitted by special permit in these districts. The town adopted an affordable rental housing overlay district in [redacted] that allows affordable units through a special permit.

Commented [AK4]: @Town to confirm

More recently, in 2019, Town Meeting voted to authorize the Truro Select Board to acquire an approximately 70-acre property, known as the Walsh Property. The Select Board was authorized and directed to create the Walsh Property Community Planning Committee (WPCPC) to reach consensus on future uses of the site including housing.

**Key Issues Moving Forward**

The Town has implemented specific land use controls and protected open space to 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

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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 Town’s future housing needs while continuing to meet other community goals of protecting water quality, natural resources, and community character.

## **Climate Mitigation**

### **Background**

As noted in the Executive Summary of the July 2021 Cape Cod Climate Action Plan (CCCAP), climate change is an unprecedented global challenge that is transforming Cape Cod. Rising seas and changes to the coastline are the most dramatic evidence of climate change, but a changing climate is also impacting 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 State-wide 50% reduction in carbon emissions by 2030, and a State-wide 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 the Town’s efforts to become a Massachusetts-designated Green Community. A Massachusetts Department of Energy Resources (DOER) program created by the Green Communities Act of 2008, the Green Communities program provides financial and technical assistance to help communities reduce energy use and costs by implementing clean energy projects. In 2019, the Truro Selectboard also established a Climate Action Committee and completed a town-wide Greenhouse Gas (GHG) inventory in 2021 including municipal, residential, institutional, and commercial sectors.

### **Current Status**

According to the CCCAP, transportation (55.5%) and stationary energy sources (39.2%) are the leading sectors for GHG emissions, accounting for 95% of the region’s emissions. Similarly, the Truro 2021 GHG inventory identified transportation (45%) as the leading sector for GHG emissions, followed by residential (31%) and electricity generation (22%). On-road vehicles, including passenger cars, light-duty trucks, motorcycles, and heavy-duty vehicles account for 78% of the transportation sector’s emissions. For the Cape Cod region, the average daily vehicle miles traveled (VMT) 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 in modes other than a personal vehicle, and the geography and development patterns of the region. Cape Cod, including Truro, is highly residential, with only 2-3% 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 tons<sup>1</sup>)

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

Truro’s per capita CO<sup>2</sup> 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 CO<sup>2</sup> 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 CO<sup>2</sup> emissions per 1000 sq. mi.

Emissions CO <sup>2</sup>	CO <sup>2</sup> per capita (in metric tons) <sup>1</sup>	CO <sup>2</sup> 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

<sup>1</sup>A 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%. 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 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

As noted above, the Truro Selectboard appointed a Climate Action Committee (CAC) 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 CAC completed a Town wide GHG inventory in concert with the Energy Committee.

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.

The Town’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. Through the Cape Light Compact, the Town of Brewster has a part-time energy manager who is analyzing the energy uses of the town and finding ways to save money and reduce dependency on fossil fuels as appropriate. Truro could pursue a similar approach to advance their work in this area. Truro could consider performing energy assessments on all municipal buildings and work with the Cape Light Compact to access available programs.

The Town 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% 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% of the loss replaced by development (buildings, driveways, parking lots, etc.). 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.

## Economic Development

### Background

This document summarizes the draft Truro Economic Overview dated June 2022 prepared by Ridley & Associates for the Town. This summary is designed to give a brief explanation of 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 address these issues.

Affordable housing 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.

### Current Status/Trends

#### Population and Race

Truro’s total population increased 23% from 2010 to 2020. Its white population increased by 16%, while its African American or Black population increased by 90%, Asian population increased by 60%, its American Indian and Alaska Native population increased by 25%, and all other categories increased by 189%.

**Commented [SR1]:** Confirm as different documents have slightly different percentages

	2020	%	2010	%	%Change 2010-2020
Total	2454		2003		23
African American or Black	74	3	39	2	90
American Indian & Alaska Native	5	0	4	0	25
Asian	16	1	10	1	60
White	2222	95	1911	97	16
Other	26	1	9	0	189

#### Population Age Distribution in Truro

The median age in Truro was 42.7 in 1990 and 45.7 in 2000. However, the median age increased significantly to 60.3 in 2020. There may be a correlation in this increase in median age due to the decrease in affordable housing, as younger populations and working populations are less likely to be able to afford the current market price of homes 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

#### Housing and Housing Affordability

The median home sales price in Truro rose 12.5% in 2020-21, from \$632,500 to \$711,250. Despite most of the employment in the region being directly related to tourism, most jobs in these industries pay lower

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wages, making it difficult for employees to afford to live on the Cape. Average weekly wages in Truro are \$1,035. The lack of availability of affordable housing is recognized as a major issue for the community.

%Median Household Income	MHI	Affordable House Price (% of median home value)
50	29,879	102,835 (21%)
80	47,086	176,683 (37%)
100	59,758	226,449 (47%)
120	71,709	276,644 (58%)

Table X. Affordable Housing Prices for Households Earning 50-120% of Median Income

The affordable house price for a Truro resident making the median household income of \$59,758 per year would be \$226,449. However, according to Coldwell Banker’s website, the median home price is currently \$1,535,000, which is 678% higher than the estimated affordable rate.

Industrial Economy

Truro had 119 business establishments in 2020, compared with 116 in 2010. Comprising 22% of businesses, leisure and hospitality is the largest business category, followed by transportation and wholesale and retail trade (17%), and professional and business services (17%).

Regional Economy

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 a seasonal economy, and is very heavily focused on the tourism industry.

Land Use

As also noted in the Land Use/Truro Today section, Truro has a land area of 21 square miles (13,990.5 acres). The Cape Cod National Seashore accounts for 9,462.2 acres of 67% of land area in Truro, and much of this is federally owned. The Residential District accounts for 4,224.4 acres or 30% of land area. Approximately 195,791 square feet or 2% of land area in Truro is zoned commercial.

Commented [SR2]: Cross-check land use section numbers

**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 by undertaking the following:

- Local Comprehensive Plan – The Town Select Board has appointed a citizen committee to oversee the process of updating the Truro Local Comprehensive Plan which will seek to “generate consensus on a host of issues that confront the Town such as affordable and community housing, land use, sustainability and environmental protection... to produce a final plan that... will be regularly used to inform the direction of Town administration

and services.” This LCP update seeks to incorporate and references the economic development goals and actions of the Economic Development Committee.

- Walsh Property – In 2019, a Town Meeting authorized the purchase of the 70-acre Walsh property for general municipal purposes. The Town Select Board has appointed a committee to “lead a community wide process... to engage a wide range of Truro residents in developing plans for the use of the property to be presented at a future town meeting for approval.”
- Highland Center and Cape Cod National Seashore – The Highlands Center at Cape Cod National Seashore is a science, arts, and educational center occupying the former North Truro Air Force Station. Since the Seashore acquired the 100-acre property in 1994, it has adaptively reused six buildings, has made numerous infrastructure improvements, and spent over \$1.2 million for building demolition. The Center involves “an interactive community of artists, scientists, and educators pursuing their work in a national park setting.”

### **Key Issues Moving Forward**

#### *Affordable Housing*

Affordable housing 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, which restricts business activity. It is not realistic to expect workers to travel from Eastham or Provincetown for a job in Truro. This has created an employee shortage that has impacted the ability of local businesses to maintain their operations, and has severely restricted their ability to expand.

Potential solutions to address the affordable housing crisis could include building affordable housing in appropriate locations, such as the Cloverleaf and Walsh properties, and to increase mixed-use development. The Town could increase the use of the Town’s Accessory Dwelling Unit (ADU) Bylaw, expand access to loans for ADUs, and create a tax on home sales over \$1 million to fund affordable housing development. Efforts could be made to augment incentives to second homeowners to rent their houses year-round and to create laws governing the year-round use of condos as a source of housing. Mobile homes at campgrounds may also be considered to provide additional workforce housing.

#### *Support for Local Businesses*

Many local businesses have stated 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 forego 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. It recently has 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. Lastly, 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.

The employee shortage could be partially offset by utilizing Truro’s part-time volunteer community to support businesses and local non-profit organizations. The national visa program should be expanded. Truro also has a new childcare voucher program for residents and could evaluate making this option available to non-residents who work in Truro. A database should be created consisting of service providers who are willing to serve Truro’s local businesses, so business owners have a resource to look to when they need support (e.g., Seasonal Connect). The Town could also designate more area to be 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.

*Inadequate Internet and Cellular Infrastructure*

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 2020 Covid-19 Pandemic.

The Select Board’s goals include preparation of a letter to the Cape Cod Commission requesting funding and support to resolve the infrastructure deficiency, and to provide an accurate report of the inadequacy of Internet services in Truro.

## Water Resources

### Background

The Town of Truro is blessed with extensive and valuable water resources including 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 ecosystem services that support a broad range of aquatic habitats including finfish and shellfish.

The sensitivity and vulnerability of the hydrologic system can best be envisioned as a lens or bubble of fresh water that literally floats on underlying saline waters and bordered by the marine waters of Cape Cod Bay to the west and the Atlantic Ocean to the east (see figure 1).

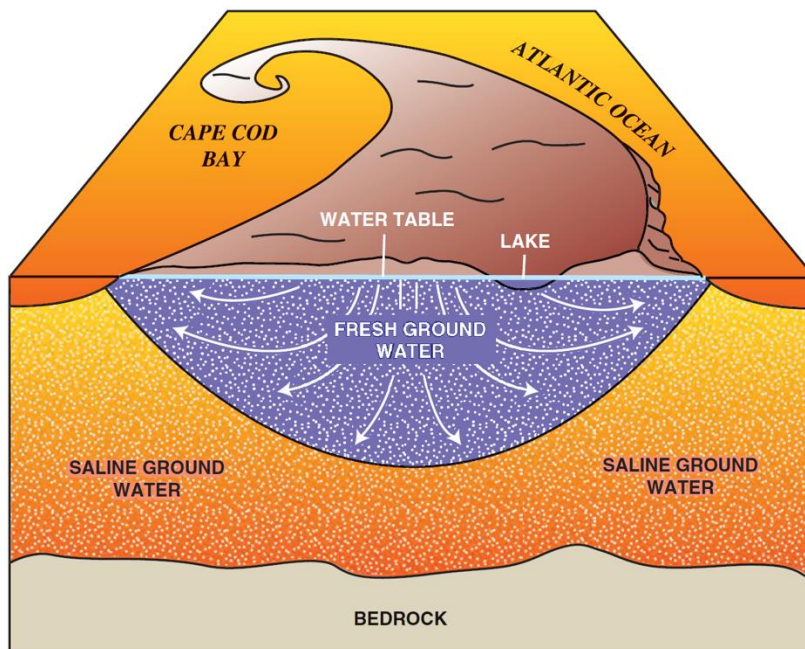


Figure 1 - Conceptual Cross Section (USGS)

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.

A water table map of the town of Truro shows elevations of the groundwater system and can be used to predict groundwater flow directions as perpendicular and downgradient to the contours (see figure 2). This map also shows the locations of the major public supply wells that provide public water to residents in Provincetown and Truro and the corresponding contributing zones known as Zone 2 areas.



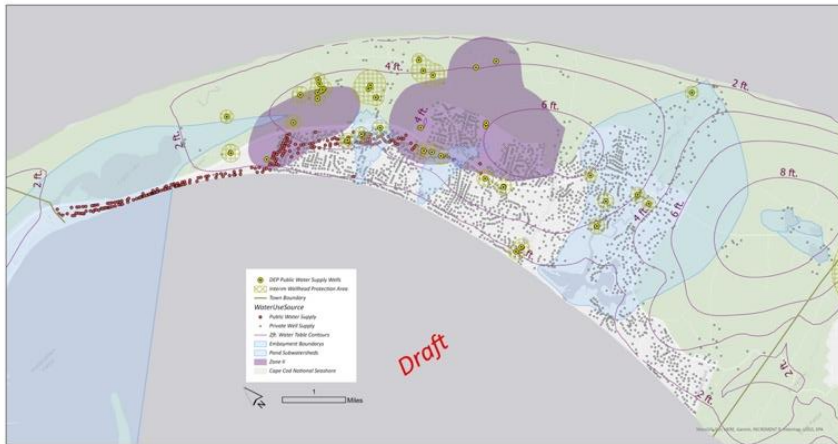


Figure 2 -Water Table Map and Zone 2 Areas (Cape Cod Commission)

The configuration of the water table divides the town into two distinct groundwater lenses identified by the concentric contours. 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 Chequesset lens is shared with Wellfleet and comprises the southern portion of the watershed to the Pamet River.

The amount and quality of freshwater is dependent upon withdrawals from wells and discharges (or return flows) from septic systems and stormwater runoff. It is primarily impacted by the consumptive use 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.

The public water system operated by the town of Provincetown withdraws groundwater from the Pamet lens via a series of public supply wells in Truro and provides drinking water to both communities. The public supply wells include Knowles Crossing, Paul D. Daley wellfield (formerly known as South Hollow) and the North Union Field. Another well, known as Air Force Base well 5 is within the Cape Cod National Seashore and no longer serves as a supply source. 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.

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.

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.

### **Recent Actions by the Town**

The town of Truro has undertaken a series of water resources studies dating back to a 1985 Water Resources Protection Plan by IEP, Inc. More recently, 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).

### **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 provides a framework to sustainably manage the system. Section 11 of 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”. Section 12 requires that both towns develop forecasts for future water supply demands. The two towns are planning meetings during 2023 to coordinate these efforts.

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. The Truro Board of Health is currently developing amendments to local health regulations to require upgrades to on-site septic systems to provide improved protection of private drinking water wells and surface water quality.

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. This is due to the relatively rural nature and low density of settlement throughout much of the community that makes centralized sewer collection systems uneconomic. This continued reliance on a 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 (see figure 3).

Stormwater: The town of 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. Route 6 has been identified as a significant stormwater source and mitigation will require close coordination with Massachusetts Department of Transportation (MADOT). A stormwater management bylaw is also being developed 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.

Pamet and Little Pamet Rivers: Truro has initiated conversations with the Cape Cod Commission and the Massachusetts Estuaries Project (MEP) to develop a study plan to complete 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.

Based upon numerous completed MEP reports throughout the Cape Cod region, septic systems (and cesspools) are estimated to contribute approximately 80% of the controllable nitrogen load. A new generation of enhanced innovative and alternative (EIA) septic technologies that utilize woodchip bioreactors are showing significant reductions (80 – 90%) in nitrogen loading and may provide a cost-effective solution.

Walsh Property: Truro has acquired a 69-acre parcel that could serve as a future water supply site as well as an affordable housing project. This project could serve as a model for how to achieve housing and water quality issues using sustainable, low-impact development principles.

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. This could be accomplished by including some of the neighboring homes currently utilizing on-site septic systems and cesspools within the Zone 2 area within the collection and treatment system to offset the new development. A preliminary nitrogen loading model shows a net reduction in nitrogen loading for the project.

# Town Health Regulation Private Well Protection Zones

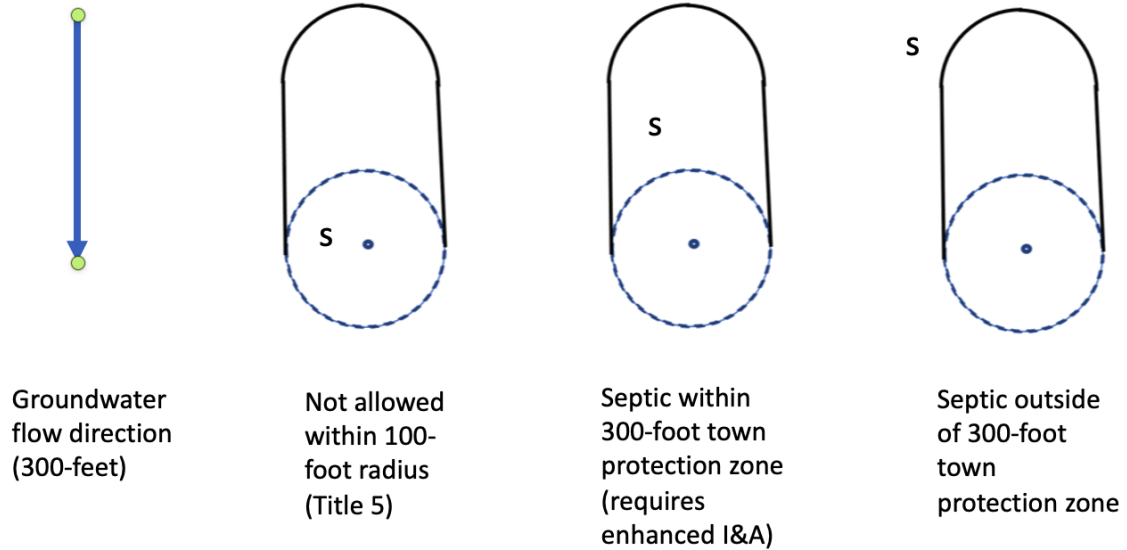


Figure 3 - Private Well Protection Zone