



Part II.

Inventory and Assessment

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3. Natural Resources

Introduction

Tisbury's natural resources are critical to the Town's sense of place and character. They should be protected as resources in their own right and for their economic, environmental, and social benefits to the Town. These benefits include visual, recreational, and aesthetic qualities; wildlife habitat; and hazard mitigation. Natural resource systems are not confined to within Tisbury; as such, they should be viewed and stewarded in a way responsive to both their local and regional context. Tisbury's Open Space and Recreation Plan (OSRP) provides detailed environmental inventories and more information on the conditions of the Town's natural resources.

Existing Conditions

SOILS

The dominant soil type in Tisbury is Carver, defined by the Soil Conservation Service as a well-drained loamy, coarse sand. This soil can support residential and commercial development, though it can pose challenges to groundwater quality due to its inadequate filtering of septic effluent (Map 3.1 Soil Drainage Class). Due to the limited presence of steep slopes and preponderance of easily worked soils,

Tisbury's landscape presents few development constraints. This condition helped to promote rapid development during the 1980s and early 2000s.

WATER RESOURCES

Watersheds and Surface Waters

Tisbury is located within the Tisbury Coastal, Tashmoo Pond, and Lagoon Pond watersheds, which drain to Vineyard Haven Harbor and Vineyard Sound, Lake Tashmoo, and Lagoon Pond, respectively (Map 3.2 Water Resources). These surface water bodies provide critical environmental, recreational, and economic resources and benefits to Tisbury and are integral to the Town's character.

Each of Tisbury's major surface water bodies has water quality impairments (and accompanying Total Daily Maximum Loads (TMDLs))¹ that the Town is working to address. As wastewater is the primary source of pollution—especially nitrogen—the Town is developing a Comprehensive Wastewater Management Plan (CWMP), which will encompass a multi-year phased assessment and planning process, to evaluate pollution reduction options and access funding for water quality infrastructure. The Town completed the Needs Assessment, the first phase in the CWMP, in 2022. The Needs Assessment identifies pollutant sources, loadings, and areas of need for improved wastewater disposal solutions. A primary consideration is Tisbury's limited wastewater service area and reliance on on-site septic systems. Tisbury's soils are mostly loamy coarse sand, which is highly permeable and well-drained soil and does not filter and treat nitrogen and other pollutants effectively before they enter local water bodies.

What is a TMDL?

TMDLs are critical tools for restoring and protecting the water quality of degraded water bodies. A TMDL specifies the maximum allowable amount of a pollutant that can enter a water body so that the water body will meet water quality standards for that pollutant. The TMDL also sets a pollutant reduction target and allocates the pollutant load across different sources. This allocation can then be used to identify control actions that will help achieve the applicable water quality standards.¹

Vineyard Haven Harbor is a 47-acre harbor that serves as the primary transportation center for ferry and barge traffic to the island. Owen Little Way Beach and Owen Park Beach are both located within the harbor. Eastville Point Beach is also located within the harbor on the Oak Bluffs side of Beach Road. The harbor is impaired due to bacteria pollution, which can result in closure of shellfisheries and beaches and has a pathogen TMDL. Sampling at the two beaches during the 2021 season exceeded the enterococcus bacterial standard twice each, with only one event associated with a rainstorm.

Lake Tashmoo is a 270-acre embayment that opens to Vineyard Sound. Lake Tashmoo was previously a freshwater estuary but was permanently opened and armored by the U.S. Army Corps of Engineers after

¹ "Overview of Total Maximum Daily Loads (TMDLs)," US EPA, last modified November 30, 2022.

the hurricane of 1938.² As a now coastal estuary, Lake Tashmoo supports shellfisheries and recreation and boating activities. The Tashmoo Beach at Lake Tashmoo is located coastward of Herring Creek Road on the Sound. Development around Lake Tashmoo has contributed to nitrogen loading and bacteria contamination, with pollutants from controllable sources primarily originating from septic systems, and there is a nitrogen TMDL in place.³ Other controllable pollution sources include stormwater runoff, agriculture, fertilizer, and the wastewater treatment facility and landfill. Additional pollution sources of local concern include waterfowl and boats. The area around Lake Tashmoo is zoned residential and regulations are intended to limit excessive development. Districts 3A and R50 have the largest minimum lot size requirements in Tisbury at 3 and 1.15 acres, respectively. *(Additional information about the Town's zoning and land use regulations can be found in the Land Use chapter).*

Lagoon Pond is accessed via the harbor and supports shellfishery (including hatcheries), boating, and other water recreation activities. As with Lake Tashmoo, Lagoon Pond is impaired for nitrogen and has a TMDL. Primary controllable sources of pollution are septic systems, stormwater runoff, agriculture, and fertilizer.

Water Supply and Aquifers

The Martha's Vineyard Regional Aquifer underlies the majority of Tisbury and, as a Sole Source Aquifer, is the only viable source of public drinking water for communities on the island. The aquifer is recharged through rainwater and other surface water that infiltrates the ground. Current withdrawals from the aquifer do not exceed the capacity of natural processes to recharge, therefore, the primary concern is protecting groundwater quality. The soils in the Sole Source Aquifer are well-drained with a high level of transmissivity, leaving it vulnerable to high threat land uses. Possible sources of contamination include pollutants in stormwater runoff from developed and agricultural areas and improperly maintained residential septic systems. According to the CWMP Needs Assessment, "the levels of all monitored contaminants, including nitrogen... are well below regulatory thresholds." This includes per- and polyfluoroalkyl substances, more commonly known as PFAS, which are long lasting chemicals found in many products (e.g., households and personal care products, food packaging, fire extinguishing foam) that may contribute to harmful health effects.⁴

Tisbury operates three drinking water supply wells in the aquifer (Map 3.2 Water Resources). The Town's Zoning Bylaw establishes a Groundwater Protection District overlay to protect water quality by regulating uses that may be potential sources of pollution. Tisbury also owns extensive aquifer protection landholdings around the Town's wells. *(Additional information about the Town's water supply and aquifer can be found in the Public Facilities chapter).*

² Tisbury Planning Board, *Tisbury Open Space and Recreation Plan* (March 2019), 34.

³ Town of Tisbury, *Comprehensive Wastewater Management Plan Phase I – Needs Assessment*, (April 2022), 14.

⁴ "Our Current Understanding of the Human Health and Environmental Risks of PFAS," U.S. Environmental Protection Agency, last accessed February 2023, <https://www.epa.gov/pfas/our-current-understanding-human-health-and-environmental-risks-pfas>.

Inland Flood Hazard Areas

The Federal Emergency Management Agency (FEMA) updated its flood hazard mapping of Tisbury in 2016. Flood zones are categorized as Zone AE (1% annual chance of flooding or 100-year flood), Zone VE (coastal areas with a 1% annual chance of flooding), or Zone X (0.2% annual chance of flooding or 500-year flood). Most of the floodplain areas in Town are within the VE zones, or coastal high hazard areas, because they are subject to damaging, high-velocity wave action during storms (Map 3.3 FEMA Flood Hazard Area).

Areas of concern within the floodplain are Vineyard Haven Harbor, Tisbury's commercial district and an important fuel storage and transportation hub for the island, the War Veterans Memorial Park, Lagood Pond, portions of Main Street at West Chop, from Lake Tashmoo to West Chop around James Pond, areas bordering Lake Tashmoo, Smith Brook, and Passamaquoddy Avenue. The area from Lake Tashmoo to West Chop is a Coastal Barrier Resource Unit, which is a designation established by the Coastal Barrier Resources Act (CBRA) of 1982 to restrict development in coastal barrier areas that provide important buffers during coastal storms.⁵ To disincentivize development of these protective areas, most federal expenditures, including National Flood Insurance Program (NFIP) policies for new or substantially improved buildings, are prohibited within CBRA units.

Areas within Zone X include Cranberry Acres, Smith Brook, Page Way at Lake Tashmoo, between Main Street and Golf Club Road at Squantum Avenue, between Main Street at the Tisbury Town Beach at Owen Little Way, at Vineyard Haven Harbor, and at the neck of Hines Point.

All critical facilities and infrastructure in the floodplain identified in the Dukes County Multi-Jurisdiction Hazard Mitigation Plan Update (2022) are listed in Table 3.1.

Table 3.1. Critical Facilities & Infrastructure in the FEMA Floodplain

Site Name	Facility/Infrastructure	Flood Zone
Tisbury Steamship Authority Ferry Terminal	Ferry Terminal	AE (1% annual chance)
Tisbury Harbor Master Office	Government Office	X (0.2% annual chance)
Packer Fuel Dock West	Fuel Storage	AE (1% annual chance)
Packer Fuel Dock East	Fuel Storage	AE (1% annual chance)
Eastville Breakwater	Infrastructure	VE (1% annual chance)
Lagoon Pond Road Bridge Culvert	Infrastructure	VE (1% annual chance)
Beach Road Seawall	Infrastructure	AE (1% annual chance)
Water Street	Infrastructure	AE (1% annual chance)
Beach Road	Infrastructure	VE (1% annual chance)
Lagoon Pond Road	Infrastructure	AE (1% annual chance)
Lagoon Pond Drawbridge	Bridge	AE (1% annual chance)
<i>Source: Dukes County Multi-Jurisdiction Hazard Mitigation Plan Update (2022)</i>		

⁵ "Coastal Barrier Resources System (CBRS)?", FAQ, FEMA, last modified February 5, 2020.

Additional facilities and infrastructure within the floodplain include the U.S. Post Office on Lagoon Pond Road and wastewater infrastructure (e.g., pump stations and generator) on Water Street and in the Steamship Authority lot.⁶

The Floodplain District overlay in the Town's Zoning Bylaw attempts to mitigate harm to human life and property by regulating development within FEMA floodplains (see Map X Zoning in *Land Use* chapter). Regulations in Zone AE prohibit development that results in any increase in flood levels (e.g., a no-rise requirement) in watercourses without an established regulatory floodway. Regulations in VE Zones prohibit on man-made alternation to dunes that would increase potential flood damage.

The Zoning Bylaw also establishes a Coastal District overlay to protect sensitive environmental areas and mitigate natural hazards—including flooding—in coastal areas. Generally, the Coastal District overlay applies to land below the 10-foot elevation above mean sea level and within 500 feet of mean high water of large, coastal water bodies. The overlay district allows for additional oversight over certain proposed non-residential structures and uses and additions to existing residential structures by the Board of Appeals. (*Additional information about the Town's land use regulations can be found in the Land Use chapter*).

Wetlands

Wetlands provide a variety of benefits to human and environmental systems. Wetlands recharge ground and surface water, store floodwaters and prevent erosion, filter pollutants, and provide rich habitat for plant, fish, and wildlife species throughout different stages of their life cycles. Tisbury is primarily home to marsh, wooded swamp, and salt marsh wetlands distributed along the coves of Lake Tashmoo and Lagoon Pond, at West Chop beach, and along Vineyard Sound (Map 3.2 Water Resources). Veterans Park in Vineyard Haven Harbor sits atop a filled wetland and was created in 1961, prior to the Massachusetts Wetlands Protection Act's passage.

Seagrass beds consisting mainly of eelgrass in Tisbury's shallow marine ecosystems are also important wetlands. In Tisbury, eelgrass beds are important for mitigating erosion by stabilizing sediment in shallow areas and attenuating the movement of water. They provide important habitat areas for Tisbury's shellfisheries, including the bay scallop. The Massachusetts Department of Environmental Protection (MassDEP) has mapped and monitored submerged aquatic vegetation since the early 1990s; mapping indicates that the extent of eelgrass beds in Tisbury has declined since 1995, in part due to water quality impairments, with significant beds remaining in Lake Tashmoo and smaller beds located in Vineyard Haven Harbor and along West Chop.⁷ Eelgrass beds were last detected in Lagoon Pond in MassDEP's 2010-2013 Phase 4 mapping following years of consistent declines; no eelgrass beds were detected during the agency's subsequent 2015-2017 Phase 5 mapping initiative.⁸

⁶ Martha's Vineyard Commission, Dukes County Multi-Jurisdiction Hazard Mitigation Plan Update (October 2021, amended May 2022), 248.

⁷ Ibid.

⁸ "MassDEP Eelgrass Mapping Project," MassGIS, November 2020.

In addition to regulations established by the Commonwealth Wetlands Protection Act, Tisbury's wetlands are further protected under the Town's Wetland Bylaw, which establishes the Conservation Commission's jurisdiction over activities within buffer zones of resources. For coastal wetlands—defined as coastal beaches, tidal flats, coastal dunes, barrier beaches, coastal banks, salt ponds, land containing shellfish, and land subject to storm flowage (i.e., the coastal floodplain)—and inland wetlands the Conservation Commission regulates activities within a 100-foot buffer zone of a resource. Specific regulations are established for each type of coastal wetland for water-dependent and non-dependent uses. The Wetland Bylaw also establishes provisions for activities in and within 100 feet of Lagoon Pond, Lake Tashmoo, or any resource area adjacent to the two surface water bodies to further protect water quality, water circulation, eelgrass beds, and other characteristics. *(Additional information about the Town's land use regulations can be found in the Land Use chapter).*

LANDSCAPES AND VEGETATION

Tisbury is in the Cape Cod and Islands ecoregion, a region characterized by sandy beach, grassy dune, bay, marsh, and scrubby oak-pine forest ecosystems.⁹ The globally rare sandplain ecosystem, characterized by treeless coastal communities of native grasses and herbaceous vegetation in sand and other dry, poor soils, is present on Martha's Vineyard, including in Tisbury.¹⁰

Inland, nearly all forestland on the island of Martha's Vineyard was harvested following European settlement for heating, construction, and farming purposes. Today, land once used for grazing and farming has reverted back to the pine and mature oak woodlands that once characterized the landscape. Large contiguous tracts of forestland can be found at the West Chop Woods Sanctuary, M.A. Phillips Preserve, and Wood Island, all managed by the Sheriff's Meadow Foundation.

There are few scrub or shrub fields and grasslands in Tisbury. The Tisbury Meadow Preserve, an approximately 84-acre Martha's Vineyard Land Bank property, is the largest contiguous tract of fields; the Land Bank leases out a portion of the property for agricultural use. The Town and Land Bank have also acquired forestland near Old Holmes Hole Road for aquifer protection purposes. There is little forestry activity in Tisbury with the exception of the Davis Property; this property is enrolled in the Chapter 61 program.¹¹

Chapter 61 programs offer a property tax break for landowners willing to commit to keeping some or all of their land undeveloped for a specified period of time. Three programs exist and focus on different land uses: forestry (Ch. 61), agriculture (Ch. 61A), and open space and recreation (Ch. 61B).¹¹

The Massachusetts Natural Heritage & Endangered Species Program (NHESP) documents the presence of plant and animal species protected under the Massachusetts Endangered Species Act (MESA) across the Commonwealth. Table 3.2 identifies plant Species of Conservation Concern (e.g., species protected

⁹ "U.S. EPA Ecoregions," MassGIS, July 1999, prepared by U.S. Environmental Protection Agency.

¹⁰ Natural Heritage & Endangered Species Program, Division of Fisheries & Wildlife, [Sandplain Grassland](#), (2016), 1.

¹¹ UMass Amherst and Massachusetts Department of Conservation and Recreation, [Chapter 61 Programs: Understanding Massachusetts Ch. 61 Current Tax Programs](#) (Revised 2018).

under MESA or of significant regional conservation concern) found in Tisbury. By protecting Species of Conservation Concern, Massachusetts communities can help ensure the long-term survival of rare and other native species and maintain a high level of biodiversity.

Table 3.2. Plant Species of Conservation Concern in Tisbury

Common Name	Scientific Name	MESA Category
American Sea-blite	<i>Suaeda calceoliformis</i>	Special Concern
Bicknell's Hawthorn	<i>Crataegus bicknellii</i>	Endangered
Bristly Foxtail	<i>Setaria parviflora</i>	Special Concern
Cranefly Orchid	<i>Tipularia discolor</i>	Endangered
Eastern Prickly Pear	<i>Opuntia humifusa</i>	Endangered
Grass-leaved Ladies'-tresses	<i>Spiranthes vernalis</i>	Threatened
Mattamuskeet Rosette-grass	<i>Dichanthelium mattamuskeetense</i>	Endangered
Saltpond Grass	<i>Leptochloa fusca ssp. fascicularis</i>	Threatened
Sea Lyme-grass	<i>Leymus mollis ssp. mollis</i>	Endangered
Sea Pink	<i>Sabatia stellaris</i>	Endangered
Source: Rare Species Viewer, MassWildlife Natural Heritage & Endangered Species Program, accessed October 2022		

Invasive plant species are a threat to biodiversity and can also have negative impacts on the fish and wildlife whose life cycles are tied to native vegetation. Phragmites and purple loosestrife have been found in wetland areas, including around Veterans Park (a filled wetland constructed over the course of 12 years and presented to the Town in 1964). There are also significant stands of Japanese Knotweed, Russian Olive, porcelain berry, and bamboo in areas across the community.

AGRICULTURAL LANDS

Prime farmland—land defined by the Natural Resources Conservation Service as having the best combination of desirable characteristics for food, feed, forage, fiber, and oilseed crop production—are primarily found south of State Road.¹² Tisbury has approximately 120 acres of agricultural land, most of which are located in the western Tisbury along State Road and west of Lake Tashmoo (Map 3.4 Agricultural Land and Farmland Soils). These agricultural lands are in close proximity to other conservation land or open space and provide some benefits to wildlife habitat and movement. Pilot Hill Farm, a 73-acre private farm, is a Chapter 61A property.

FISH AND WILDLIFE

Tisbury's beach, dune, bay, wetland, and forest habitats support a range of fish and wildlife species. Characteristic of many island environments, Tisbury (and Martha's Vineyard) has a lower diversity of species relative to mainland areas due to its isolation. Tisbury's barrier beaches and ponds provide important quality habitat to migratory shorebirds. Large, protected open space areas provide recreation opportunities for people and connect habitat, facilitating the movement of wildlife. Such areas include

¹² "Soil Data Access (SDA) Prime and other Important Farmlands," U.S. Department of Agriculture, Accessed January 2023.

the Carpenter Woods Preserve and West Chop Woods at West Chop, the M.A. Phillips Preserve and Emmet property at Lake Tashmoo, and the Land Bank and Tisbury aquifer protection lands in southwest Tisbury.

Table 3.3. Wildlife Species of Conservation Concern in Tisbury

Common Name	Scientific Name	MESA Category
Barn Owl	<i>Tyto alba</i>	Special Concern
Barrens Dagger Moth	<i>Acronicta albarufa</i>	Threatened
Chain Dot Geometer	<i>Cingilia catenaria</i>	Special Concern
Collared Cynia	<i>Cynia collaris</i>	Threatened
Common Tern	<i>Sterna hirundo</i>	Special Concern
Eastern Box Turtle	<i>Terrapene carolina</i>	Special Concern
Faded Gray Geometer	<i>Stenoporpia polygrammaria</i>	Threatened
Herodias Underwing Moth	<i>Catocala herodias</i>	Special Concern
Imperial Moth	<i>Eacles imperialis</i>	Threatened
Least Tern	<i>Sternula antillarum</i>	Special Concern
Melsheimer's Sack Bearer	<i>Cicinnus melsheimeri</i>	Threatened
Northern Long-eared Bat	<i>Myotis septentrionalis</i>	Endangered
Pine Barrens Zale	<i>Zale lunifera</i>	Special Concern
Piping Plover	<i>Charadrius melodus</i>	Threatened
Roseate Tern	<i>Sterna dougallii</i>	Endangered
Water-willow Stem Borer	<i>Papaipema sulphurata</i>	Threatened
Source: Rare Species Viewer, MassWildlife Natural Heritage & Endangered Species Program, accessed October 2022		

However, encroachment by human development, water quality impairments, invasive plants, colonization of open areas by tree and shrub growth, and rising sea levels can negatively affect fish and wildlife habitat. Table 3.3 lists wildlife species identified by the NHESP as Species of Conservation Concern in Tisbury.

The bay scallop, quahog, soft shell clam, blue mussel, and channeled whelk are commercially harvestable shellfish species found in Tisbury. The Massachusetts Division of Marine Fisheries (DMF) manages commercial and recreational saltwater fisheries and “opens” waters for shellfish harvesting based on sanitary surveys which assess whether shellfish are safe for human consumption given local water quality, pollution, and physical conditions. Shellfisheries may be closed as a result of temporary poor water quality and the presence of bacterial and/or viral contaminants, such as the fecal coliform bacteria.¹³ However, shellfish harvesting is prohibited in western Lagoon Pond at Lagoon Pond Road and lower Lake Tashmoo at Drew’s Cove.

¹³ “Learn about shellfish sanitation,” Massachusetts Division of Marine Fisheries, accessed November 2022, <https://www.mass.gov/service-details/learn-about-shellfish-sanitation>.

Tisbury finalized its shellfish aquaculture license regulations in 2019 to permit managed aquaculture operations complementary to existing marine and shellfishing activities in its waters. Aquaculture license applications are reviewed by the Tisbury Shellfish Constable, Harbormaster, and Conservation Commission, as well as other municipal bodies as necessary. Potential aquaculture sites are reviewed to ensure they comply with all applicable Commonwealth and local guidelines (e.g., they are not within an existing or historic shellfishing area or in an area with eelgrass present). Licenses must then be approved by the Tisbury Select Board and the Massachusetts Division of Marine Fisheries. The Town currently limits individuals to two licenses or no more than two acres, with new licenses limited to one acre. Aquaculture proponents cite the benefits of additional economic activity for the town, in addition to shellfish's water filtration benefits. Since 2019, three growers have received approval for aquaculture sites located in Lagoon Pond (three sites) and off of West Chop (one site). Conditions in Lake Tashmoo are less conducive for private aquaculture industry, and the Town has not approved aquaculture licenses for operation in the area. Aquaculture operators have largely focused on cultivating American oysters and bay scallops.

In Tisbury, the Shellfish Constable is responsible for enforcing local and state shellfish regulations, maintaining the shellfishery, and coordinating with other constables on the island. Public education is an important role of the constable, informing the public and media about any law changes, season openings, and areas open and closed to shellfishing.

Local Policies and Practices

In addition to the local regulations discussed earlier, there are additional local initiatives that enhance and protect the Town's natural resources.

Community Preservation Committee

Tisbury officially adopted the Community Preservation Act (CPA) in 2006 after Town voters approved it the year prior. A 3 percent local surcharge on property tax bills in Town and supplemental funding from the Commonwealth provides for CPA funds.¹⁴ The Community Preservation Committee guides the usage of CPA funds and is made up of appointed members representing the Town's various boards and commissions. The Town has used CPA funds extensively to advance open space and historic preservation, improve recreational facilities, and expand affordable housing. The Town spent approximately \$8,537,000 in CPA funding between April 2007 and June 2022, with the majority devoted to community housing (\$4,991,100) and historic preservation (\$2,242,100) projects. Recreation projects have received approximately \$916,100 in funding, while open space projects have received approximately \$187,700.¹⁵ Open space projects have received funding for land preservation, dredging, invasive species removal, and restoration activities, among other project types.

¹⁴ "Community Preservation Act," Massachusetts Division of Local Services, accessed November 2022, <https://www.mass.gov/lists/community-preservation-act>.

¹⁵ [Tisbury CPA Project History Completed Projects, April 2007 – June 2022](#), (August 2022).

Martha's Vineyard Land Bank

The Martha's Vineyard Land Bank is a public conservation organization created by island voters in 1986 that works to preserve land for habitat, recreation, agriculture, and other uses across the island. The Land Bank is funded via public surcharges on most real estate transfers on the island, with the buyer subject to a fee equal to 2 percent of the purchase price.¹⁶ Since its founding, the Land Bank has conserved approximately 3,960 acres, or 7 percent of total land area, on Martha's Vineyard.¹⁷ The Tisbury Land Bank Advisory Board is an advisory body to the Land Bank, which also maintains a Board of Commissioners with representation from all island communities and the Commonwealth.

Open Space and Recreation Committee

The Tisbury Open Space and Recreation Committee is the primary body tasked with maintaining and implementing the 2019 Open Space and Recreation Plan, which guides the management and protection of the Town's open space and recreation resources. The Committee also helps distribute public education information materials and organize community programs related to open space and recreation.

Stormwater Management

The Town's Department of Public Works (DPW) has worked closely with local and state partners and private consultants to develop stormwater management strategies to reduce runoff to local water bodies and mitigate stormwater-related flooding. Tisbury's Drainage Master Plan was completed in 2018 by Environmental Partners Group, Inc. (EPG) and includes a mapping and assessment of over 700 drainage structures, which will enable the Town to use Geographic Information Systems (GIS) to maintain a database of its drainage infrastructure, inform routine maintenance, and prioritize areas that experience drainage problems, such as Five Corners.

In coordination with MVC, Tisbury Waterways Inc., and the Massachusetts Department of Transportation, Tisbury completed an Impervious Cover Disconnection (ICD) Project in 2020 to create an integrated approach to stormwater management. In order to facilitate disconnection, or the prevention of "impervious cover runoff from flowing directly to surface waters," the ICD Project goal was to quantify the benefits (e.g., flood mitigation, nutrient and pathogen load reduction) of green infrastructure and other stormwater control measures to identify cost-effective solutions for implementation.¹⁸ The ICD Project includes concept designs for locally identified priority areas (which reinforce and supplement the priority projects identified in the Drainage Master Plan). *(Additional information about DPW's operations can be found in the Public Facilities chapter).*

Public education about stormwater is also a critical part of managing runoff and mitigating pollution. One popular, easy to implement strategy for stormwater education is using storm drain markings to

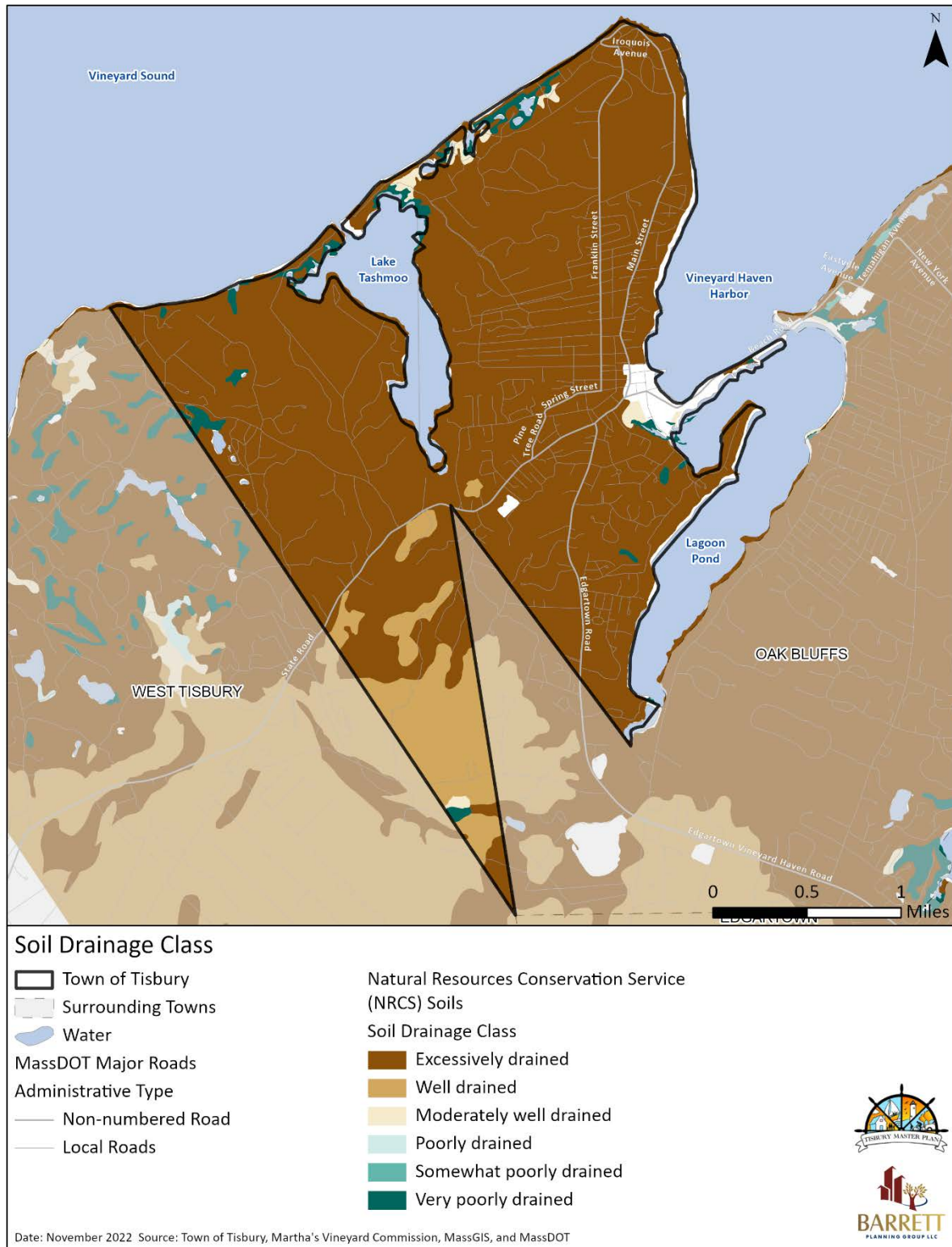
¹⁶ Martha's Vineyard Land Bank, Chapter 736 of the Acts of 1985.

¹⁷ "About the Land Bank," Martha's Vineyard Land Bank, accessed November 2022, <https://www.mvlandbank.com/about/about-the-land-bank>.

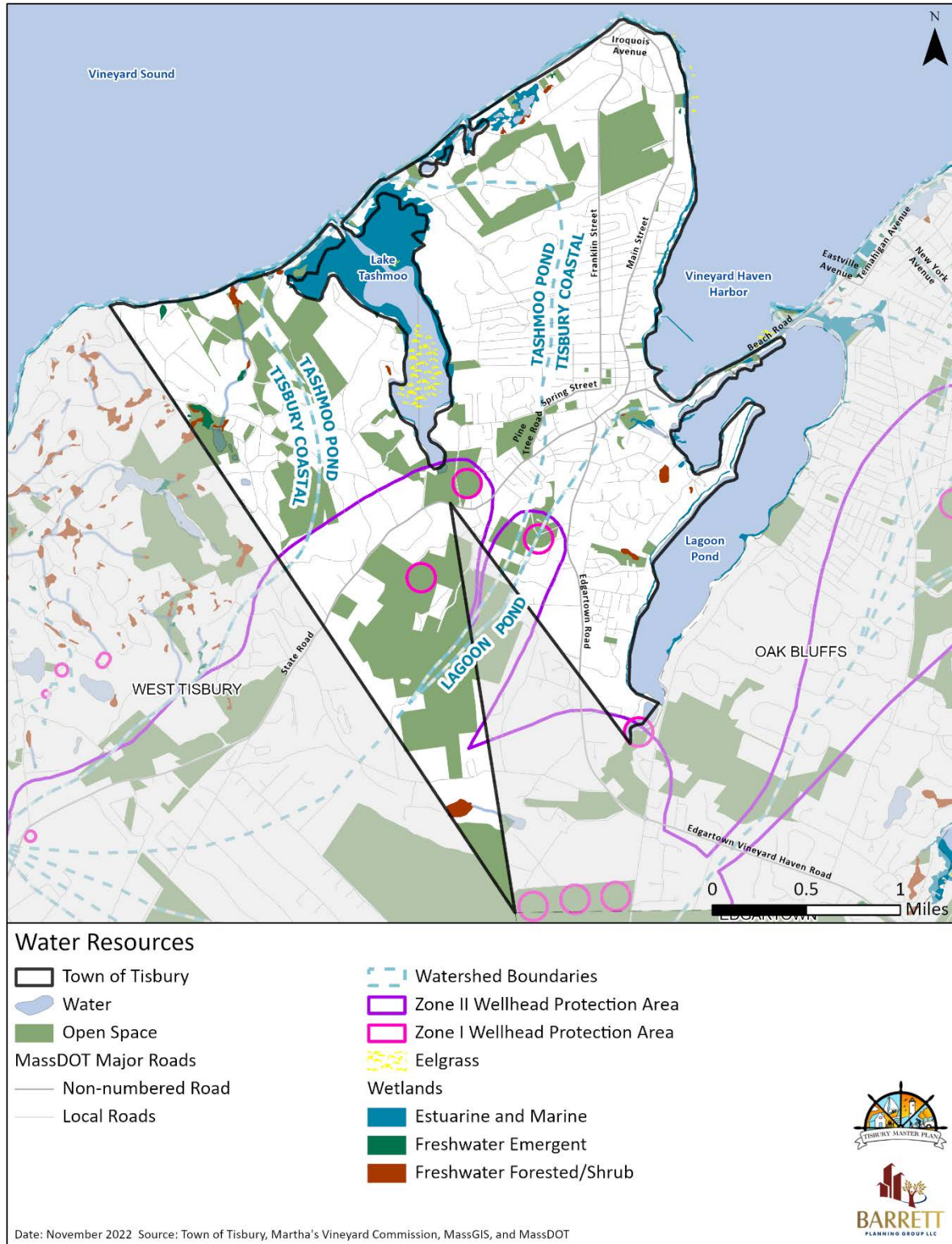
¹⁸ Paradigm Environmental, University of New Hampshire Stormwater Center, and Great Lakes Environmental Center, *Tisbury MA Impervious Cover Disconnection (ICD) Project: An Integrated Stormwater Management Approach for Promoting Urban Community Sustainability and Resilience* (March 2020), i.

raise public awareness about where stormwater goes. Many of Tisbury's catch basins feature eye-catching medallions to alert the public that dumping is prohibited and the catch basin drains directly to a waterway.

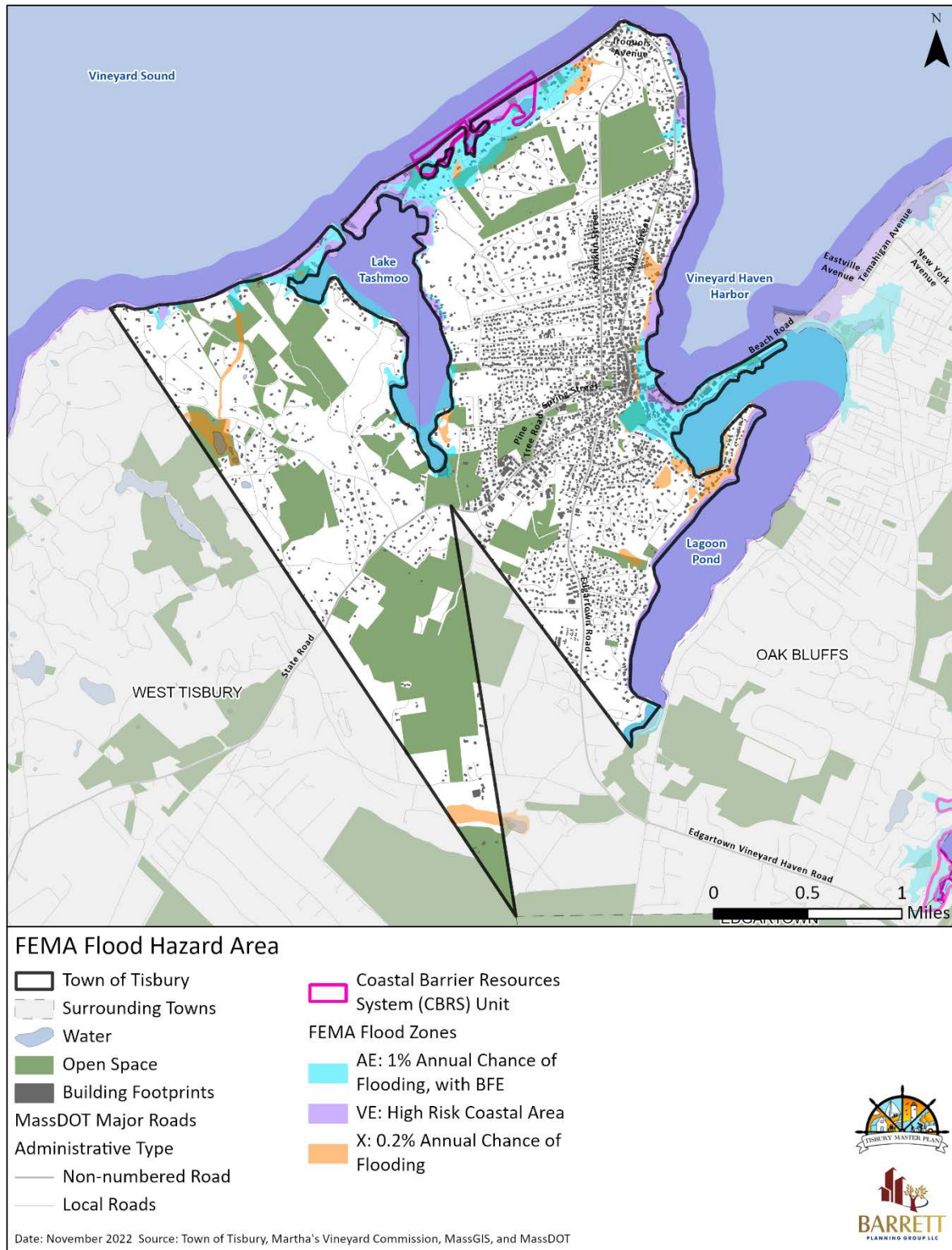
Map 3.1 Soil Drainage Class



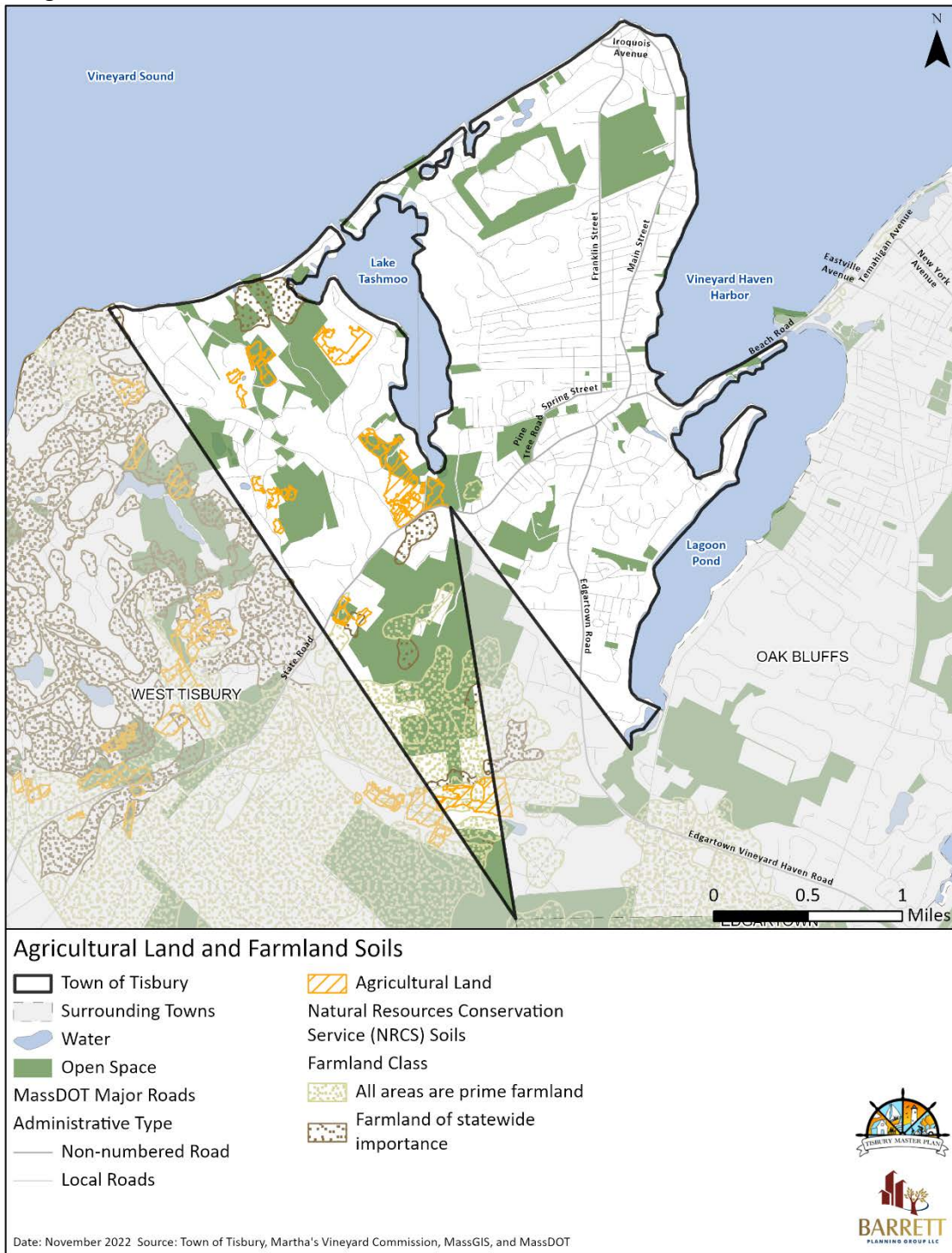
Map 3.2 Water Resources



Map 3.3 FEMA Flood Hazard Area



Map 3.4 Agricultural Land and Farmland Soils



4. Sustainability and Energy

Introduction

Being sustainable means Tisbury has the ability to meet the challenges of a changing climate, including sea level rise, increased frequency and intensity of severe storms, and extreme fluctuations in precipitation and temperatures. As an island community, Tisbury is uniquely affected by climate change. It must increase its resilience to the impacts it is already experiencing today and those it will experience in the future, which may be more costly and dangerous.

Building resilience also focuses on reducing the Town's contributions to climate change. Climate change is driven by human activities that release greenhouse gases into the atmosphere (e.g., burning of fossil fuels). This necessitates action to reduce Tisbury's contribution to greenhouse gas emissions. Therefore, Tisbury must assess its use of fossil fuels and reduce consumption and develop more energy efficient alternatives, both in its municipal operations and facilities and community wide.

Existing Conditions

CLIMATE PROJECTIONS

The following climate projections are identified by Resilient MA, the climate change clearinghouse for the Commonwealth, and the recently released Martha's Vineyard Climate Action Plan (2022). Climate projections are critical to enabling Tisbury to plan not just for the opportunities and challenges of today's environment but also for those of a future, changed environment.



Rising Temperatures

The presence and continued accumulation of heat-trapping greenhouse gases in the Earth's atmosphere increases surface temperatures. In the Martha's Vineyard basin, annual average temperatures are projected to increase from the current baseline by 2.4-5.2° Fahrenheit (F) by 2050, and 3.0-9.1° F by 2100. Maximum and minimum temperatures are both expected to increase, meaning Tisbury will experience hotter summers and warmer winters because of climate change. Annually, Tisbury may see 2-10 more days with maximum temperatures over 90° F by 2050, and as many as 41 more days by 2100.

Rising temperatures and a higher incidence of extreme heat events have diverse impacts on the community. They can reduce air quality and lead to heat-related illnesses (*See Community Health*). They also contribute to drought conditions and will likely increase demand on drinking water resources. Tisbury's agricultural community, representing eight out of 32 land-based farms on the island could face crop damage and shifting growing seasons among other impacts.¹⁹ Harmful algae blooms are driven by nutrient pollution and warm water temperatures, which already occur in Lake Tashmoo, Lagoon Pond, and Vineyard Haven Harbor on occasion and may become more frequent with extended days with warmer temperatures. Harmful algae blooms create poisonous marine biotoxins, and when molluscan shellfish eat the toxic algae, it can remain in their systems and cause illness, even death, in humans and other mammals that eat them. At the same time, tick-borne diseases and the spread of invasive species are commonly facilitated by rising temperatures (*see Community Health chapter*). Finally, rising temperatures mean increased risk of wildfire. While there has not been a major wildfire on Martha's Island since 1965, MVC's mapping of the wildland urban interface²⁰ includes much of Tisbury, with the exception of Vineyard Haven Harbor and surrounding residential areas.²¹ A wildland urban interface community hazard assessment evaluates factors that have the potential to mitigate or exacerbate wildfire risk to a community (e.g., ingress and egress routes, defensible space, building construction, vegetation, available water sources). The assessment conducted as part of the Dukes County Community Wildfire Protection Plan rates Tisbury's wildfire risk as high.²² Specific factors that contribute to Tisbury's high wildfire risk include limited ingress and egress routes around Lake Tashmoo, limited water access around Lake Tashmoo, narrow road widths, and the use of combustible building, fencing, and decking materials. Wildfires within the wildland urban interface have the potential to occur with little warning and cause substantial loss of life and property.

Rising Sea Surface Temperatures and Ocean Acidification

The oceans absorb heat, causing surface temperatures to increase. The oceans are also important regulators of carbon dioxide (CO₂) and take up some CO₂ that would otherwise become concentrated in the atmosphere. The average sea surface temperature in the Atlantic Ocean has already increased 0.74° F between 1950 to 2009 and is expected to increase 1.8-5.4° F by 2100. While these numbers may sound inconsequential, even small increases like these can have dramatic impacts on ocean ecosystem

¹⁹ Kim Lundgren Associates, [*Martha's Vineyard Climate Action Plan*](#) (June 2022), 64.

²⁰ The wildland urban interface is defined by the [*U.S. Fire Administration*](#) as "an area where human development meets or intermingles with undeveloped wildlife and vegetative fuels that are both fire-dependent and fire-prone."

²¹ "Wildland Urban Interface," U.S. Fire Administration, accessed November 2022, <https://www.usfa.fema.gov/stories/wui-report/index.html>.

²² SWCA Environmental Consultants, Dukes County Community Wildfire Protection Plan, (2021), 36-37, E-1-3.

health. Moreover, climate change models project faster rates of sea surface warming in the Northeast as compared to the global average. The ocean's pH level has decreased by approximately 0.1 units, and it is expected to continue to become more acidic in the future.

Rising sea surface temperatures and ocean acidification can lead to declines in pond water quality, loss of habitat for fisheries, changes in fish migration patterns, and changes to shellfish life cycles and growth rates. Similar to rising temperatures, changes to ocean characteristics can also lead to the increased potential for marine and aquatic invasive species. All together, these impacts can negatively affect commercial and recreation fishing.

Sea Level Rise

Sea level rise is driven by two primary factors: the melting of polar ice and the expansion of warmer waters. Sea levels on Martha's Vineyard have risen approximately six inches since 1970, and the rate of local sea level rise is expected to outpace the global rate due to local subsidence (the settling of the land into the ocean). The MVC's recommended sea level rise projections also suggest that rising sea surface temperatures will cause an accelerated rate of sea level rise in the latter part of this century. MVC's recommended sea level rise projection and models estimate a 0.6-foot increase by 2030, 1.5-foot increase by 2050, 3.2-foot increase by 2070, and 5-foot increase by 2100. Map 4.1 Projected Sea Level Rise shows the potential extent of Mean Higher High Water (the average high tide mark) as influenced by future sea level rise.

Higher sea levels will also lead to more nuisance flooding—commonly known as “sunny day flooding”—of low-lying areas during routine high tide events. The island is projected to experience 35-135 nuisance flooding days per year by 2050, up from 3-7 per year in 2020.

Sea level rise and associated nuisance flooding may increase beach and dune erosion, especially during storm surges. Damage to coastal property and infrastructure should be expected; public drinking water wells may be affected by saltwater intrusion. Additionally, inundation may lead to the loss of salt marshes. Areas most affected by projected sea level rise are located in downtown Vineyard Haven and along the Vineyard Sound coastline (Map 4.2 Projected Sea Level Rise: Downtown Vineyard Haven and Map 4.3 Projected Sea Level Rise: Vineyard Sound Coastline)

Changes in Precipitation Patterns

Shifting climate patterns will affect the amount, frequency, and timing of rainfall and snowfall. These projections are variable, with the winter season expected to see anywhere from 4% less to 14% more precipitation by 2050 and 1% less to 24% more by 2100. Annually, the number of consecutive dry days (e.g., days that have less than 0.004 inches of precipitation) during the summer season are expected to increase by up to four days by the end of the century.

Warmer and wetter winters may increase the risk of tick-borne diseases, and increased dampness and mold can lead to associated health problems. More intense and frequent precipitation can also increase stormwater runoff and inland flooding. On the opposite side of the spectrum, sustained periods of dryness can increase drought and wildfire risk.

Extreme Storm Events

Climate change and its associated effects can also create more extreme and frequent storm events. Future hurricanes are expected to produce more rain and may have higher wind speeds, and some evidence suggests that nor'easters will also experience increases in frequency and intensity. Extreme storm events have the potential for widespread damage to environmental, infrastructural, and social systems that may persist long after a storm event has passed. Anticipated impacts can include increased erosion of beaches and dunes, increased coastal flooding from storm surge, increased stormwater runoff and inland flooding, and damage to infrastructure, such as power lines. As Tisbury and the other island communities have experienced, hurricanes and tropical storms do not need to make landfall in the area to cause damage. Hurricane Sandy made landfall in New Jersey but still caused severe local damage from storm surge and high winds, prompting Dukes County to be included in a federal disaster declaration. Since the beginning of the 21st century, four tropical storms or extratropical storms have made landfall in New England.

VULNERABILITIES TO CLIMATE CHANGE AND NATURAL HAZARDS

The following vulnerabilities were identified during Tisbury's 2018 Community Resilience Building workshop as part of the Municipal Vulnerability Preparedness (MVP) Program and the MVC Climate Action Task Force's 2020 Annual Report.

Buildings and Infrastructure

The Martha's Vineyard Climate Action Plan (2022)—written by MVC in coordination with all six island communities, the Wampanoag Tribe, and community partners—summarizes the main climate change challenges to buildings and infrastructure island wide:²³

1. "Damage to coastal roads and infrastructure from stronger and more frequent storms, sea level rise, and higher storm surge.
2. Increased tidal flooding to coastal roads and infrastructure (including wastewater, water, communications).
3. Damage to ferry and harbor infrastructure and increased ferry cancellations from extreme weather, causing an inability to get off-Island for medical and other needs, as well as supply chain disruptions.
4. Loss of access to critical facilities such as the Martha's Vineyard Hospital and Steamship Authority due to coastal storms, storm surge, and flooding."

²³ [*Martha's Vineyard Climate Action Plan*](#), 64.

In Tisbury, many buildings and infrastructure highly exposed to coastal hazards are located in and around Vineyard Haven Harbor, including the Woods Hole, Martha's Vineyard, and Nantucket Steamship Authority (SSA) terminal, the Packer Barge Dock, and various fuel storage facilities. Important regional roads and coastal armoring infrastructure that provide protection to landward areas are also located in this area, such as the Eastville Breakwater, Beach Road (an access road to the Martha's Vineyard Hospital in Oak Bluffs) and Seawall, and Lagoon Pond Road and Drawbridge. By 2070, the 3.2-foot sea level rise projection shows much of Vineyard Haven Harbor as permanently inundated. FEMA flood mapping does not currently account for future sea level rise, so the geography of flood risk in Tisbury will shift over time.

The Steamship Authority is a prime example of a key service to the island that is in harm's way. While the authority feels their docks and berths are prepared for higher water levels, the surrounding roads and support buildings are a weak link with roads already flooding quickly in normal rainstorms and at highest tides.

*Master Plan Committee
Stakeholders' Meeting, 10/24/2022.*

Areas Vulnerable to Coastal Flooding Due to Storm Surge

In combination with more intense and frequent storms and sea level rise, Tisbury can expect coastal flooding due to storm surge to worsen over time. Coastal flooding regularly occurs at properties along the Vineyard Haven Harbor waterfront in the Steamship Authority/Five Corners/Beach Road area, and along Lagoon Pond Road. Stormwater drainage in this area can back up and cause flooding in Vineyard Haven Harbor due to storm surge and more routine high tide events. Many key pieces of infrastructure, such as the Vineyard Haven Ferry Terminal, Tisbury Police Department, Post Office, the planned Vineyard Wind operations and maintenance facility, and Beach Road causeway, are within this area and at risk of failure due to flooding. Moreover, Vineyard Haven Harbor lacks protection from northerly storms.

The Massachusetts Department of Transportation (MassDOT) has estimated the extent of future coastal flooding accounting for sea level rise (Map 4.4 Estimated Future Coastal Flood Risk).²⁴ In 2030, much of Vineyard Haven coastward of Main Street and Causeway Street, including Beach Road and Lagoon Pond Road would be inundated (Map 4.5 Estimated Future Coastal Flood Risk: Downtown Vineyard Haven). Low-lying areas along West Chop and around Lagoon Pond and Lake Tashmoo would also face flooding (Map 4.6 Estimated Future Coastal Flood Risk: Vineyard Sound Coastline). Tisbury's northwestern coastline along Vineyard Sound would also experience substantial flooding, particularly along Chappaquonsett Road and Herring Creek Road, and around the Mink Meadows Golf Club. In 2050, areas along Hines Point Road would be inundated by coastal flooding, cutting off access to Cedar Neck, as well as areas around Lake Tashmoo's shoreline and along the Vineyard Sound coastline.

²⁴ This MassDOT mapping is titled "Statewide Coastal Transportation Systems Estimated Coastal Flood Exceedance Probabilities and Depths."

Areas Vulnerable to Inland Flooding Due to Heavy Rain

The stormwater network can back up during heavy rain events, whether from too much stormwater flow, debris, or storm surge/high tides entering pipes from the ocean. Flooding frequently occurs at Five Corners, Main Street/Union Street, Delano Road, Lagoon Pond Road, Spring Street/West Spring Street, and Grove Avenue. Stormwater runoff caused from heavy rain events is a major cause of pollution in coastal waterbodies and can negatively affect aquatic and marine life. Additionally, coastal waterbody pollution hinders the economic wellbeing of the Town, which depends on tourism from fishing, boating, swimming, and recreating near the shore, as well as a developing shellfish industry.

Areas Vulnerable to Coastal Erosion

The rate of coastal erosion in Tisbury is relatively stable; approximately one foot of erosion occurs along headland and moraine sediment shorelines each year.²⁵ West Chop and Vineyard Haven Harbor, which are northeast-facing, experience higher rates of erosion. One section of West Chop has experienced a highly visible rate of erosion, receding nearly 400 feet since 1897.²⁶ Developed areas and coastal infrastructure, especially installations that interfere with natural depletion and accretion of sediments, are especially vulnerable to erosion in Tisbury. The Eastville breakwater is too short to be sufficiently protective of Vineyard Haven Harbor and Beach Road, an important transportation route. Beach Road is also particularly vulnerable to overtopping and undercutting—when erosion wears away material at a feature’s footing to create an overhang susceptible to collapse. According to the Dukes County Multi-Jurisdiction Hazard Mitigation Plan Update (2020), there are 48 homes near bluffs, mostly along West Chop and Lagoon, that may be especially exposed to the impacts of coastal erosion. The plan also identifies the Lake Tashmoo inlet as vulnerable and providing insufficient protection against storms and erosion due to its current configuration.

The Town has explored options to increase the wave attenuation benefits of the Eastville breakwater and jetty to provide additional shoreline protection to critical areas within Vineyard Haven Harbor.²⁷ However, modeling of the proposed extensions found that they would not provide sufficient protection to critical areas, including Beach Road and east of the Steamship Terminal.

Power Utilities

Island power utilities are most vulnerable to high winds from hurricanes and coastal storms (i.e., nor’easters). Such events (and even smaller high wind events) can bring high, sustained winds and gusts that down power lines, and downed trees and other debris can delay responses to power outages. Most of Tisbury’s electrical wires are above ground and the community has experienced widespread power outages during high wind events in the past. Power outages during nor’easters, which commonly occur during colder months, can result in a dangerous lack of home heating capacity. Other health impacts of

²⁵ Massachusetts Coastal Erosion Commission, *Report of the Massachusetts Coastal Erosion Commission, Volume I: Findings and Recommendations* (December 2015), 3-4.

²⁶ The Trustees of Reservations, *State of the Coast* (2021), 13.

²⁷ Applied Coastal Research and Engineering, *Evaluation of Coastal Processes and Storm Impacts to Support Resilient Planning and Mitigation Strategies for the Vineyard Haven Harbor Shoreline* (July 2020), 77-83.

power outages may be related to a lack of refrigeration for food and medicine and loss of power needed for cooking or sanitary purposes.

Supply Chain Vulnerabilities

As an island community, Tisbury relies heavily on ferry service for goods and services delivery and transporting people for work, recreation, and other purposes. Major categories of ferry freight are mail, fuel, food, and building materials. The SSA runs the only year-round passenger service out of Vineyard Haven Harbor and is the most heavily used passenger and freight service. Aside from the SSA ferries, other modes of transport are tug and barge, licensed private ferries, and commercial aircraft. Most barge traffic to the island docks at R.M. Packer's Wharf. Truck traffic, transported to the island via ferry, delivers goods to major retail locations or terminals throughout Martha's Vineyard. Petroleum and other fuel products are delivered by barge, and SSA ferries also carry tank trucks to enable efficient last mile delivery service. As measured during peak summer season in 2006, approximately 32 percent of truck trips carry food, and 8 percent carry fuel.²⁸

The Vineyard Haven SSA Ferry Terminal is the only year-round terminal on Martha's Vineyard, and shutdowns of passenger and freight service result in disruptions island wide. They cause cascading impacts on the transport of food, fuel, other materials, and skilled workers are delayed or canceled. During a March 2018 Nor'easter, the SSA was forced to halt passenger and freight services for two days, just a small fraction of the over 1,700 weather-related boat cancellations between 2018 and 2020.²⁹

Vulnerable Populations

Climate change and natural hazards can disproportionately affect vulnerable populations, as these communities are often more exposed to hazards and lack resources or face barriers to accessing resources to help prepare for, withstand, and recover from chronic and acute climate stressors. Vulnerable populations are commonly conceived to include racial and ethnic minorities, people who are economically disadvantaged, the elderly, and those with limited English language proficiency, among other characteristics. *See Community Health.*

ENERGY

Tisbury is heavily dependent on energy resources generated off-island, as are the other communities on Martha's Vineyard. All fossil fuel products (e.g., gasoline and propane) are delivered via barge and ferry to the island. This dependence on off-island energy resources represents a three-fold conundrum: Tisbury is highly vulnerable to supply chain disruptions that prevent the regular delivery of fuel products used for transportation, home heating, and other needs; residents absorb the costs of transporting energy resources, contributing to high costs of living, while money leaves the community; and reliance on off-island fossil fuels contributes to the ongoing climate crisis and its impacts on Tisbury.

In recognition of this energy challenge and through the advocacy of the Vineyard Sustainable Energy Committee, a joint committee of the island's local Energy Committees has adopted a non-binding

²⁸ Martha's Vineyard Commission and the Joint Transportation Committee, [*Martha's Vineyard Transportation Plan \(MVTP\) 2015-2050 DRAFT*](#) (June 2015), 97.

²⁹ [*Martha's Vineyard Climate Action Plan*](#), 37.

resolution in support of increasing local energy self-sufficiency and reducing dependence on fossil fuels. Using 2018 energy use and emissions data as its baseline, Tisbury will seek to reduce its fossil fuel use by 50 percent by 2030 and 100 percent by 2040. Tisbury will also work to increase the fraction of its energy use derived from renewable sources by 50 percent by 2030 and 100 percent by 2040.

Current Supply

As measured in the 2018 baseline, the Martha's Vineyard communities used 945 gigawatt hours (GWh) of energy and emitted approximately 270,000 metric tons of CO₂ across three categories. Table 4.1 shows the breakdown of energy use and emissions by category. Most of the energy consumed and emissions generated can be traced to transportation sources, such as driving and ferries.

Table 4.1. Energy Use by Martha's Vineyard Communities		
	Energy Use	Emissions
Transportation (cars, ferries, planes, boats)	45%	44%
Heating and hot water (oil and propane)	32%	28%
Electricity	23%	28%
<i>Source: Martha's Vineyard Climate Action Plan (2022).</i>		

Renewable energy is a growing source of electricity, currently generating 43 percent of the island's electricity from a mix of wind, solar, and hydroelectric sources.³⁰ Much of this renewable energy comes from off-island sources. On-island sources of renewable energy are primarily small wind turbines and solar systems.³¹

Local Policies and Practices

TISBURY CLIMATE COMMITTEE

The Tisbury Climate Committee was established in 2021 to support the Town's work on energy and climate matters. Specifically, the Committee works to increase the Town's and its residents' resilience, sustainability, safety, and health across social, economic, and environmental sectors. The Committee acts as Tisbury's representatives on various energy and climate related stakeholder groups, including MVC's Climate Action Task Force and Climate Resilience Committee, and was involved in the creation of the Martha's Vineyard Climate Action Plan (2022).

MUNICIPAL VULNERABILITY PREPAREDNESS PROGRAM

Tisbury became an MVP community after receiving a Planning Grant to complete its Community Resilience Building workshop in 2018. Town stakeholders developed high priority action items to build resilience to identified climate hazards, which will inform the Town's planning efforts. Tisbury is eligible for future rounds of MVP Action Grant funding to complete climate resilience projects. Tisbury successfully applied for Action Grant funding in Fiscal Year 2020 with the other Martha's Vineyard

³⁰ Ibid, 70.

³¹ "Energy," Martha's Vineyard Commission, accessed November 2022, <https://www.mvcommission.org/energy>.

communities to develop an island wide adaptation strategy. The Martha's Vineyard Climate Action Plan was released in mid-2022.

DISTRICT PLANNING

Tisbury has also engaged in district planning focused on downtown Vineyard Haven, one of the Town's most vulnerable areas, to develop more detailed adaptation scenarios in response to sea level rise and other coastal hazards. In 2017, adaptation strategies for downtown Vineyard Haven were prepared by a graduate student and local advisory committee. The project reviewed phased responses over time based on three primary adaptation strategies: protection, which involves strategies to mitigate hazards and prevent their impacts (e.g., using seawalls to prevent coastal waters from inundating inland areas during storms); accommodation, which involves adjusting physical and institutional environments to enable normal functions during temporary disruptions from hazards (e.g., elevating structures to accommodate temporary floodwaters below); and retreat, which involves relocation away from hazardous areas. Specific adaptation strategies included elevating critical structures and roads and hardening coastal infrastructure.

The Town engaged the consulting firm Applied Coastal Research and Engineering, Inc. (ACRE) in 2019 to undertake a feasibility assessment and conceptual design report for shoreline management strategies in Vineyard Haven Harbor after receiving funding through the Massachusetts Office of Coastal Zone Management's Coastal Resilience Grant Program. The project identified areas within downtown Vineyard Haven that are particularly susceptible to flooding and/or help channel floodwaters inland through elevation mapping, flood simulations, and hydrologic and sediment transportation analyses. The initial 2020 study evaluated multiple measures to improve coastal resiliency, with a 2021 study further expanding on possible adaptation strategies. ACRE identifies three shoreline management strategies to increase resilience over the course of the project's 50-year planning horizon: a harbor shoreline dune, elevation of critical Beach Road sections, and elevation of critical Lagoon Pond Road sections and adjacent areas. A final study is ongoing.

The Town is also engaged in outreach to the Steamship Authority regarding the planned remodeling and replacement of the existing terminal building to make it more resilient to current and future coastal hazards. The Steamship Authority's recent improvements to its Woods Hole facility on the mainland already includes design features to make it more resilient to sea level rise.³²

REGIONAL HAZARD MITIGATION AND CLIMATE ADAPTATION INITIATIVES

The Town also actively participates in regional initiatives to build resilience, especially in coordination with MVC. Tisbury participated in development of the Dukes County Multi-jurisdictional Hazard Mitigation Plan (2020) and Community Wildfire Protection Plan (2021). More recently, Tisbury participated in the development of the Martha's Vineyard Climate Action Plan (2022), which was funded through the MVP Program. Various Town staff, members of boards and committees, and residents sat on the plan's steering committee and thematic working groups or participated in activities. Tisbury will continue to actively participate on various subcommittees and planning meetings as MVC and the communities work on implementation and progress tracking of the plan. Moving forward, the Climate

³² Martha's Vineyard Climate Action Plan, 37.

Action Plan provides a shared framework for Tisbury and the other Martha's Vineyard communities to pursue adaptation strategies.

ENERGY EFFICIENCY

Since 2012, Tisbury has participated in the Massachusetts Department of Energy Resources' (MassDOER) Green Communities Designation and Grant Program, which provides competitive grant funding and technical assistance. As a designated Green Community, Tisbury is committed to achieving a 20% municipal energy reduction and must meet five criteria related to zoning for and permitting of renewable energy and complementary facilities, municipal energy consumption, vehicle fleet, and new construction. The Town has competed successfully for several Green Communities grants.

Tisbury has met many of the Green Community requirements. It adopted the Massachusetts Stretch Energy Code to better emphasize energy performance in its building code. Additionally, to satisfy the municipal energy consumption criterion, Green Communities must establish an energy use baseline inventory for its municipal buildings, lighting, and vehicles and adopt an Energy Reduction Plan to guide energy reduction measures. Tisbury has completed energy audits of its municipal buildings, including the Tisbury Police Station and Tisbury Elementary School. The Town also evaluates opportunities to incorporate renewable energy into municipal building upgrades. The proposed addition to the Vineyard Haven Public Library includes solar renewable energy and fundraising for the capital improvements is currently underway. As required by the vehicle fleet criterion, Tisbury adopted a Fuel-Efficient Vehicle Policy+, which will help guide electrification of its fleet. The Tisbury Climate Committee helps coordinate the Town's energy efficiency initiatives.

Tisbury is a member of the Cape Light Compact (CLC), a municipal energy aggregator jointly operated by 21 Cape Cod, Martha's Vineyard, and Dukes County municipalities.³³ Under the 1997 Massachusetts Restructuring Act, the Compact is empowered to purchase power on behalf of its customers and implement local energy efficiency programs. The Compact offers competitive electricity pricing and, as a green aggregator, the Compact offsets excess electricity consumption with Renewable Energy Certificates (RECs), a tradable commodity representing a defined amount of energy generated by a renewable energy resource, to provide a "100% renewable product" to its customers.³⁴ Customers can opt-in to the Compact's Local Green program, which matches either 50% or 100% of their energy usage with Massachusetts Class I RECs from local renewable energy sources. The Compact offers resources to improve energy efficiency to their customers' homes and businesses. The Compact also provides energy efficiency assistance to its member communities, especially related to the requirements of the Green Communities program. For example, the Compact worked in coordination with Tisbury to complete LED upgrades of the Town's streetlights.³⁵

³³ "About Us," Cape Light Compact, accessed November 2022, <https://www.capelightcompact.org/about-us/>.

³⁴ "Green Aggregation," Cape Light Compact, accessed November 2022, <https://www.capelightcompact.org/green-aggregation/>.

³⁵ "Energy Efficiency for Municipalities," Cape Light Compact, accessed November 2022, <https://www.capelightcompact.org/municipal/>.

RENEWABLE ENERGY

Tisbury is exploring local renewable energy options for solar generation. The Tisbury Climate Committee is focused on pursuing Town-owned solar generation on Town buildings and property, including the Senior Center and new Tisbury School Building. The Committee is also helping prepare for the planned purchase of the solar field at the Town landfill.

Massachusetts is positioning itself to be a leader in the developing offshore wind industry and is supporting the planning for, leasing, and development of several wind projects south of Martha's Vineyard. Vineyard Wind, an offshore wind development company, is constructing a 62-turbine wind energy project 15 miles south of Martha's Vineyard.³⁶ Two submarine cables will link the project to Barnstable, and an onshore substation in Hyannis will serve as the connection to the local energy grid.³⁷

Efforts to transition Martha's Vineyard to local, renewable energy resources and keep the benefits of renewable energy development within the community have made great progress. Vineyard Power, a nonprofit, member-owned cooperative formed in 2009, signed a Community Benefit Agreement (CBA) with Vineyard Wind in 2015. CBAs are legal agreements that community groups and developers voluntarily enter into and "[stipulate] the benefits a developer agrees to fund or furnish, in exchange for community support of a project."^{38, 39}

The Vineyard Power/Vineyard Wind CBA includes "local job creation [and] the construction of an operations and maintenance facility in Vineyard Haven harbor" in Tisbury.⁴⁰ Once completed, Vineyard Wind's Vineyard Wind 1 and Park City Wind projects will generate enough energy to power over 800,000 homes and businesses. The Martha's Vineyard Climate Action Plan (2022) identifies key benefits that offshore wind development will bring to Martha's Vineyard more generally:⁴¹

1. "Over \$15 million in infrastructure investments, including a resilient port on Vineyard Haven's working waterfront.
2. 50 year-round local jobs at an offshore wind operations center generating \$75 million in economic development over 15 years.
3. \$25 million in funding to facilitate the transition to a more resilient and equitable 100% renewable community."

³⁶ "Vineyard Wind I," Vineyard Wind, accessed February 2023, <https://www.vineyardwind.com/vineyardwind-I>.

³⁷ Ibid.

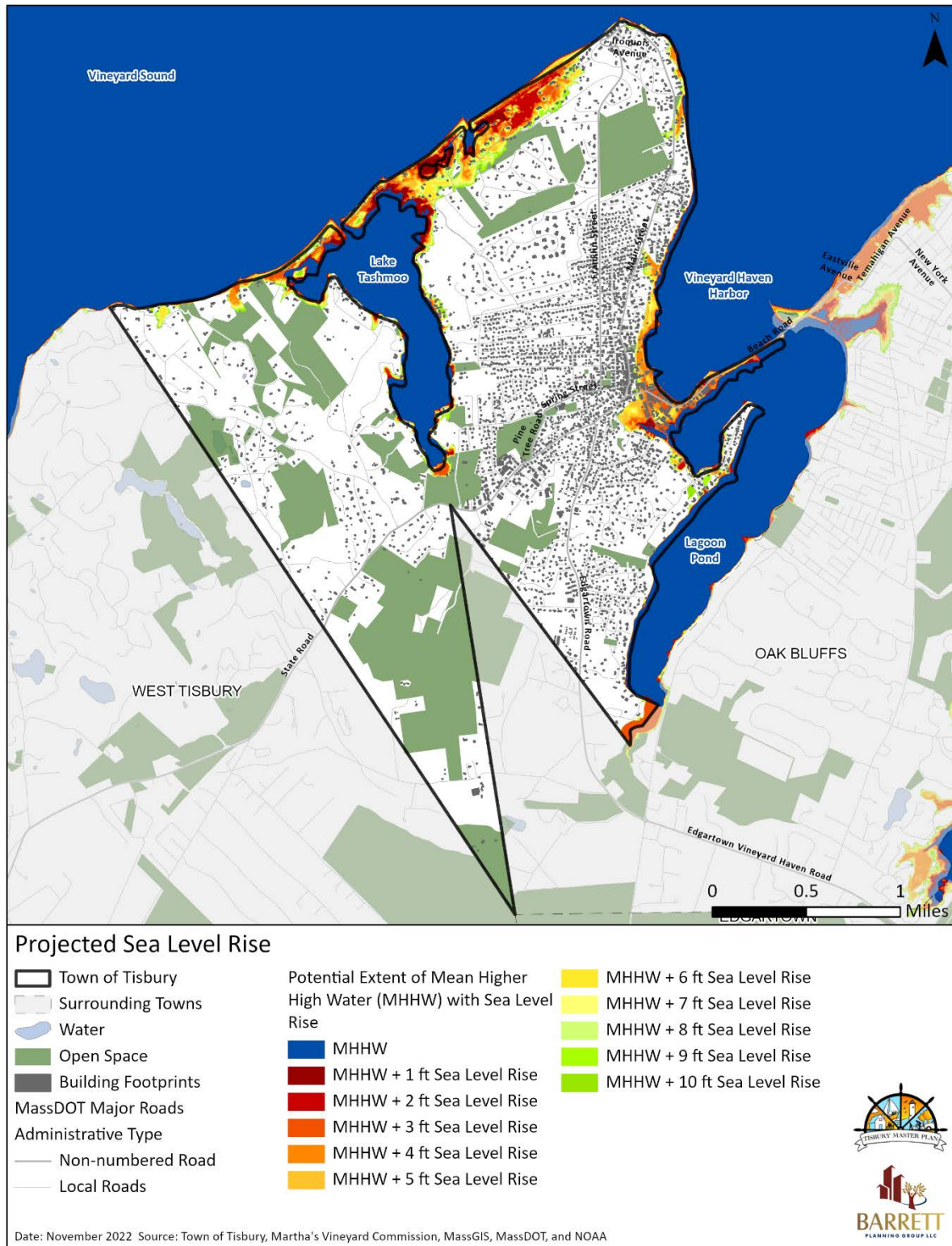
³⁸ "Community Benefit Agreement (CBA) Toolkit," U.S. Department of Energy Office of Economic Impact and Diversity, accessed November 2022, <https://www.energy.gov/diversity/community-benefit-agreement-cba-toolkit>.

³⁹ Noah Asimow, "[Vineyard Wind Proposes Plan to Redevelop Tisbury Marine Terminal](#)," Vineyard Gazette, August 28, 2021.

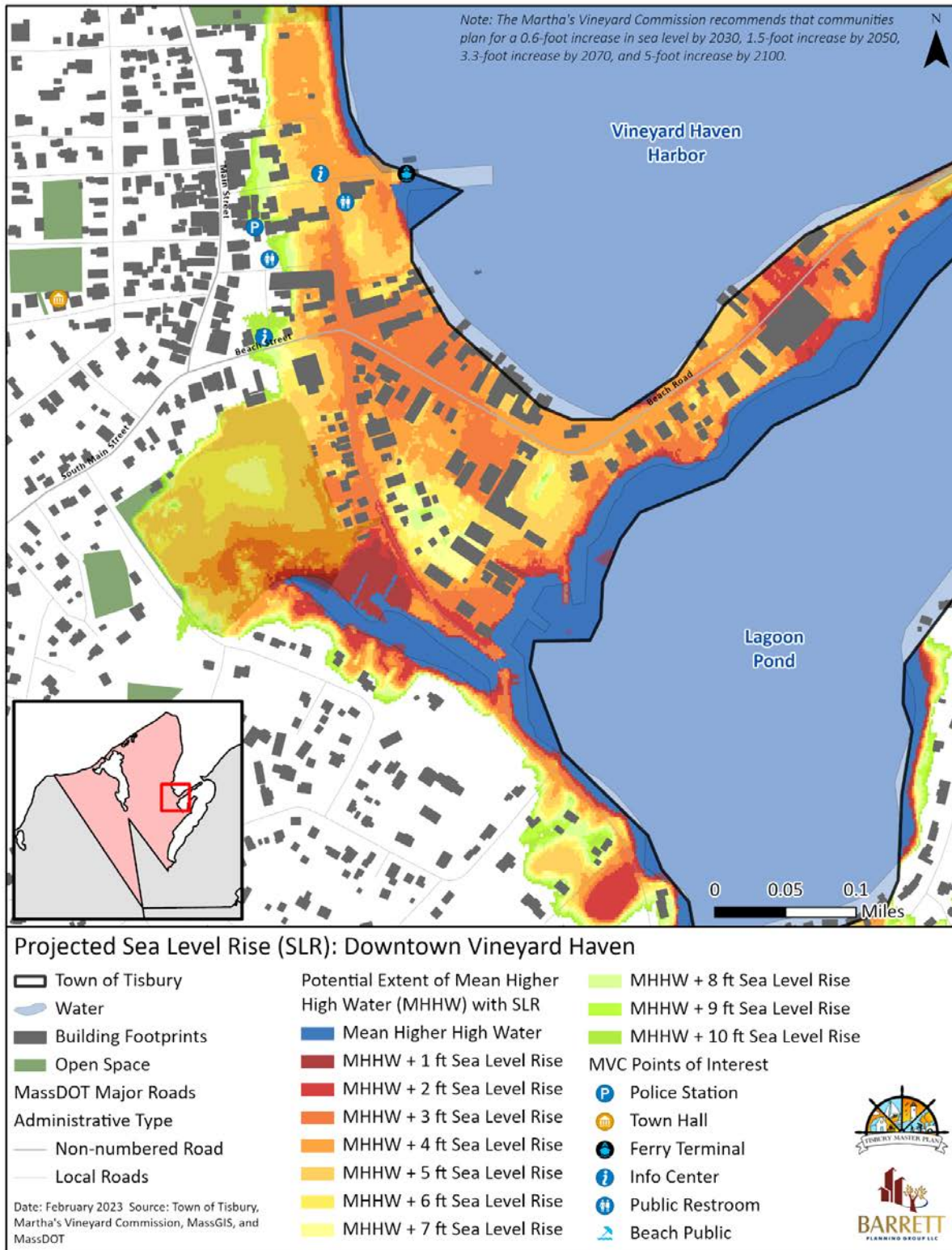
⁴⁰ "Vineyard Power," Vineyard Wind, accessed November 2022, <https://www.vineyardwind.com/community-partnership>.

⁴¹ [Martha's Vineyard Climate Action Plan](#), 70. (Internal citations removed).

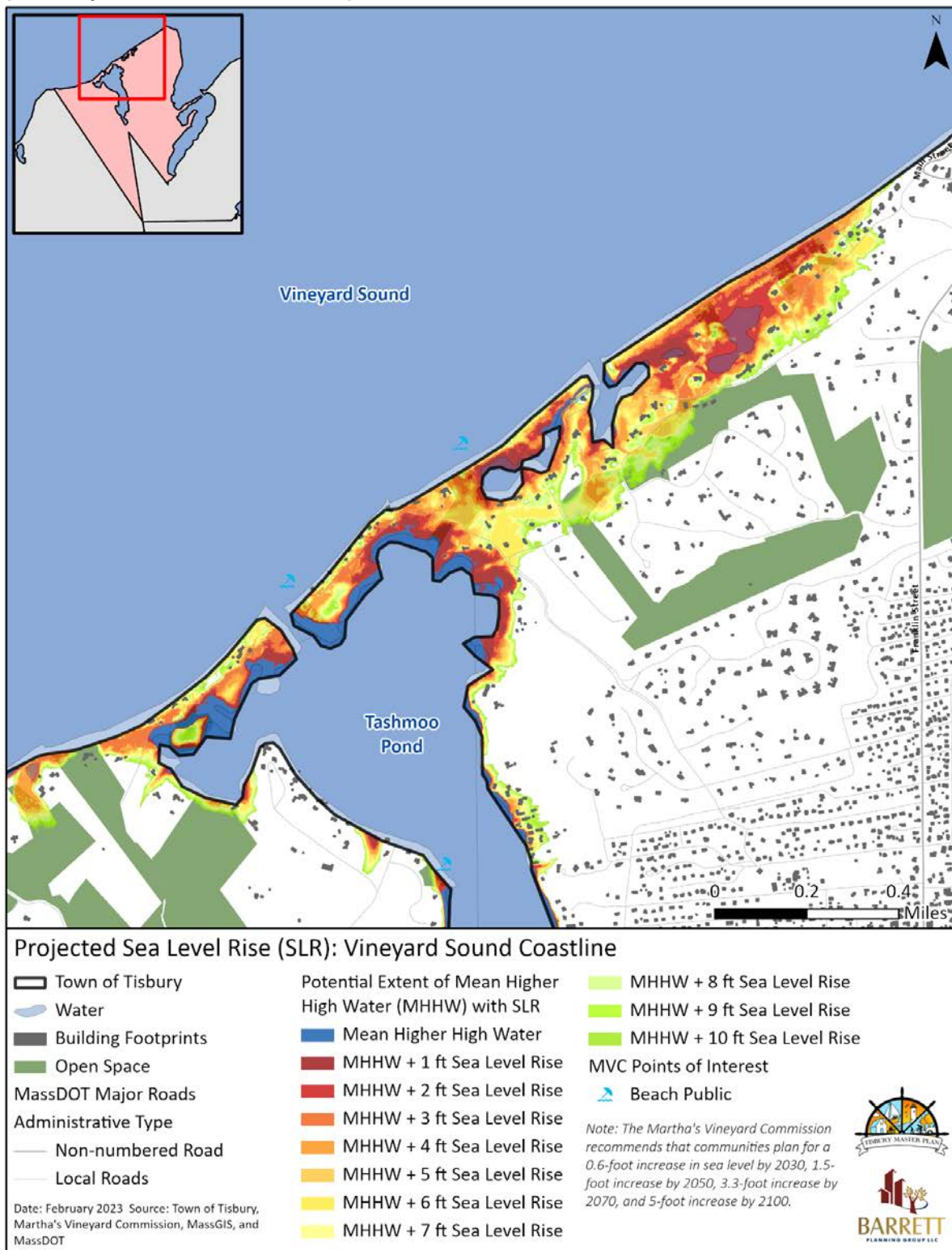
Map 4.1 Projected Sea Level Rise



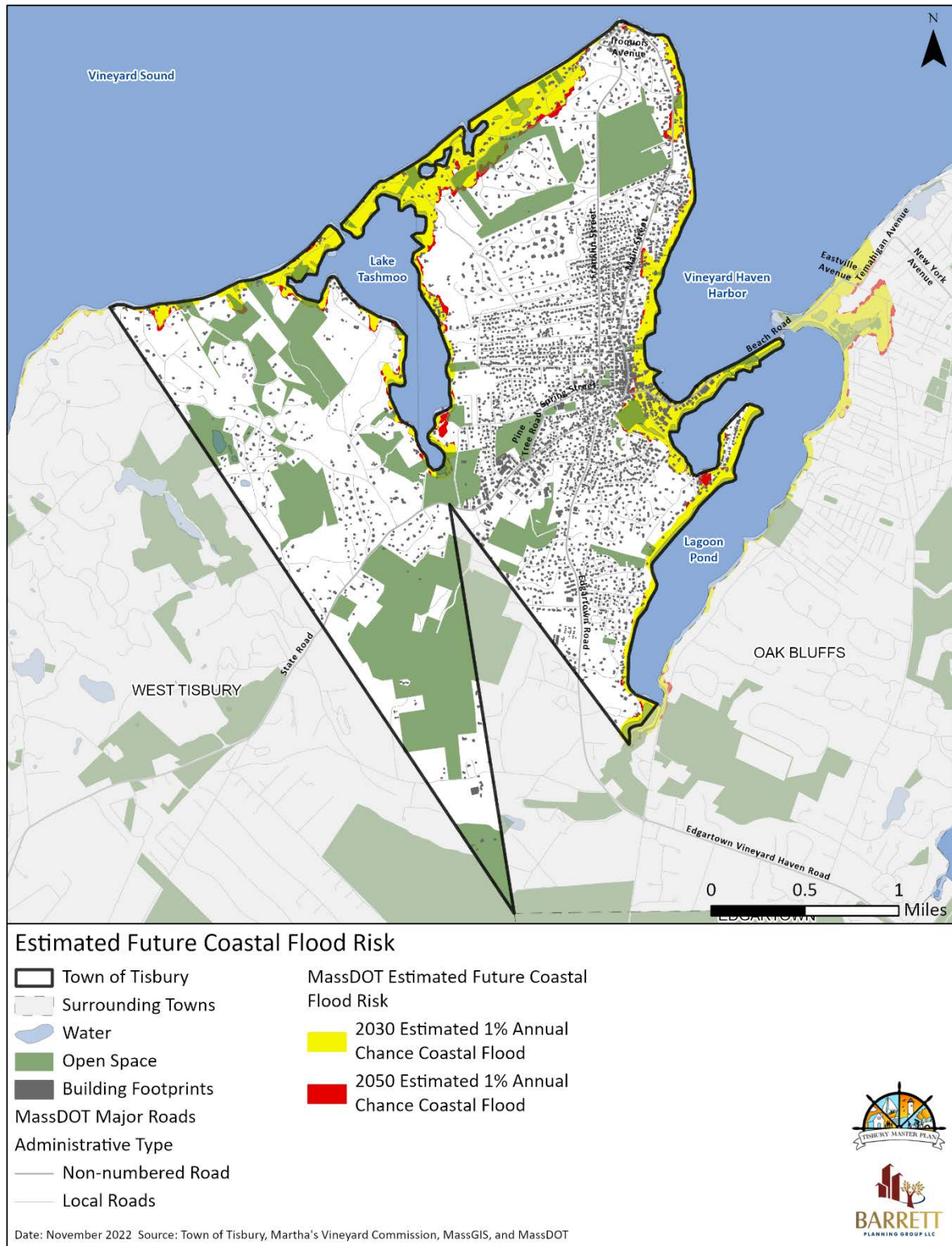
Map 4.2 Projected Sea Level Rise: Downtown Vineyard Haven



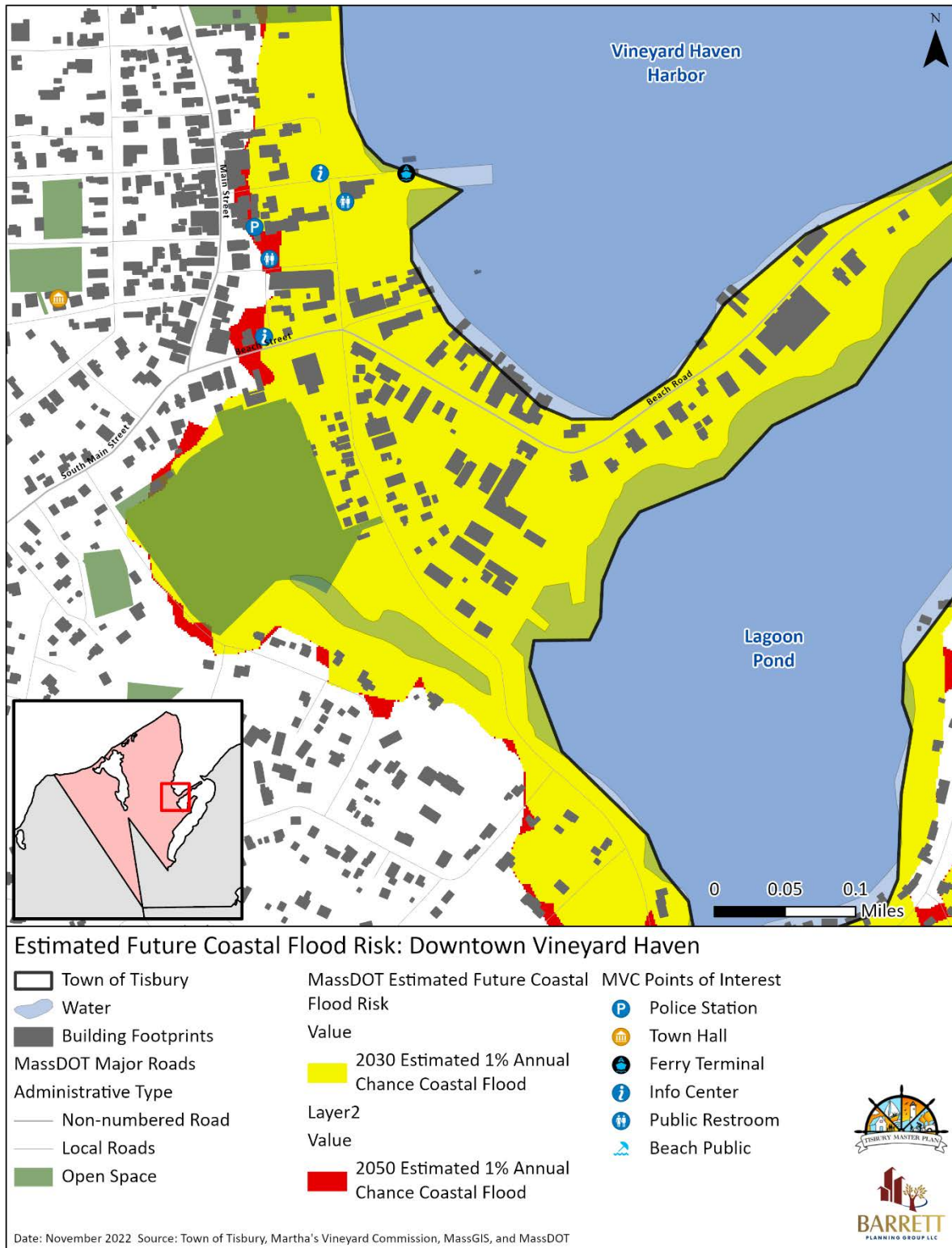
Map 4.3 Projected Sea Level Rise: Vineyard Sound Coastline



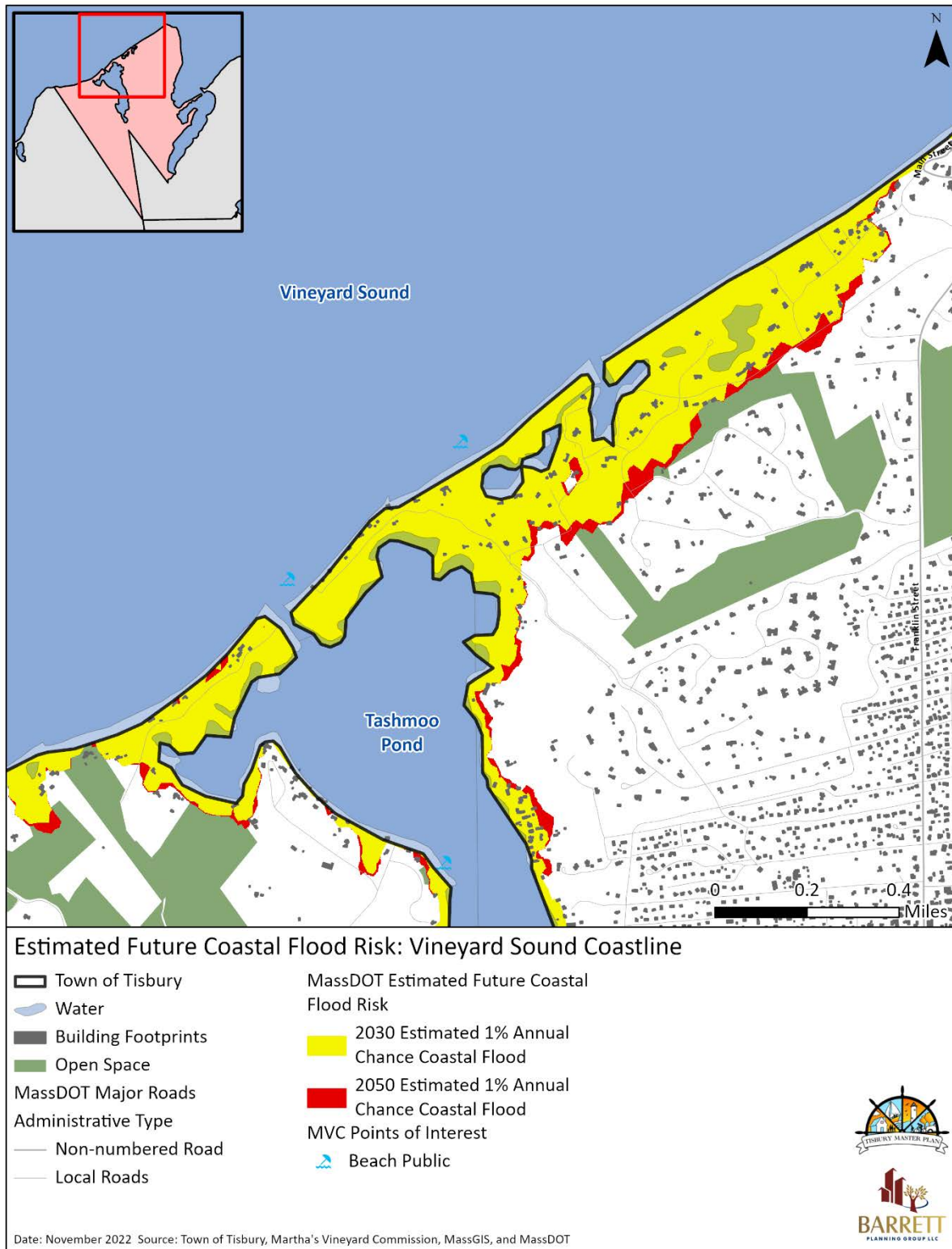
Map 4.4 Estimated Future Coastal Flood Risk



Map 4.5 Estimated Future Coastal Flood Risk: Downtown Vineyard Haven



Map 4.6 Estimated Future Coastal Flood Risk Vineyard Sound Coastline





5. Land Use

Introduction

Tisbury is a town with very little land, only about 6.5 square miles, and climate change threatens to reduce the total further through coastal erosion and sea level rise. Despite its small size, the Town has a diverse set of development patterns and land uses including a dense village center, agricultural land, and a variety of housing types. It is vital that the Town has a clear and thoughtful vision for land use planning, balancing the needs of a sensitive coastal environment and a growing population that requires housing and services.

Existing Conditions

RESIDENTIAL DEVELOPMENT

Single-family residences are the most common land use in Tisbury, as shown in Table 4.1. There is significant diversity within the “single family” category, from the historic mansions of West Chop to the relatively humble cottages built in the 1970s and 80s. Tisbury’s oldest homes are in downtown Vineyard Haven and along the coast up to West Chop.

Map 5.1 shows every tax parcel in Tisbury color-symbolized according to the assessor's primary use codes. Residential parcels of any type make up most of the Town's land area (about 53 percent). About one-quarter of the Town's area is taken up by open space, a broad category that includes protected conservation land, agricultural properties, and outdoor recreation space such as golf courses. Less than 80 acres are devoted to commercial activity.

The densest residential development has taken place between Vineyard Haven and Lake Tashmoo. Homes here are relatively small and close together, including many lots with multiple houses. Much of the western half of Tisbury is undeveloped, and most residential development there consists of larger single-family homes on large lots that are largely left forested. The abundance of undisturbed land and lack of intensive development lend the area a rural character.

Table 5.1. Land Use Category by Area (by Tax Parcel)

Land Use	Acres	% of land	Land Use	Acres	% of land
Single Family Residential	1,593.2	41.9%	Other Residential Land	107.9	2.8%
Conservation	580.9	15.3%	Public Land	93.2	2.5%
Other Vacant	320.2	8.4%	Nonprofit & Religious	82.7	2.2%
Multiple Houses on Lot	314.2	8.3%	Commercial	76.4	2.0%
Vacant - Developable	235.6	6.2%	Vacant - Undevelopable	73.8	1.9%
Outdoor Recreation	157.6	4.1%	Utilities and Infrastructure	31.1	0.8%
Agriculture	119.8	3.1%	Two or More Units	16.5	0.4%
			TOTAL	3,802.9	100.0%

Source: Tisbury Assessor's Database, Martha's Vineyard Commission, 2022.

For parcels classified as residential, the assessor's information reported in Table 5.1 does not distinguish between year-round and seasonally occupied properties. Martha's Vineyard is an internationally renowned summer vacation destination, and even in a predominantly year-round town like Tisbury, about one third of all housing units are part of the seasonal market.⁴² The most common seasonal uses are second vacation homes and short-term rentals using online platforms such as Airbnb or Vrbo.

COMMERCIAL AND INDUSTRIAL DEVELOPMENT

Tisbury has a large share of the commercial development on Martha's Vineyard and therefore serves as a commercial center for the entire island. Many businesses are concentrated in Vineyard Haven to take advantage of the tourist traffic from the island's busiest port of entry. Vineyard Haven's commercial area is a walkable village center with narrow streets and a wide variety of retail, restaurant, and entertainment establishments largely catering to both tourists and residents. Important services for year-round residents include Stop & Shop (one of two major grocery stores in Tisbury), gas stations, a post office, and retail stores. Mixed-use development featuring both commercial and residential uses on

⁴² American Community Survey 5-Year Estimates, 2016-2020.

the same property is not common in Tisbury, but the mixed-use properties that do exist are concentrated in downtown Vineyard Haven, where they are allowed by zoning.

The Business 2 district is Tisbury's inland commercial area, located along State Road near the border with Oak Bluffs. The district contains an eclectic mix of retail, housing, restaurants, construction companies, and auto services, as well as Cronig's, Tisbury's other major grocery store. Retail is oriented toward traffic on State Road, but further back in the district, the roads become rough or unpaved and there are intensive auto and storage uses. The southern part of the district contains a large solar array and the Tisbury Park-n-Ride on Town-owned land.

Tisbury does not have an industrial zoning district and no parcels are officially classified under industrial uses, but there are two areas where some light industry has arguably developed. Parts of the B2 district set back from State Road have relatively intensive construction and auto uses, and portions of Beach Road along Vineyard Haven Harbor in the Waterfront/Commercial District have shipping and warehousing uses that lend the area an industrial dockside feel.

OTHER LAND USES: OPEN SPACE, MUNICIPAL, AND VACANT

The island-wide Martha's Vineyard Land Bank (MVLB) owns over 250 acres of permanently protected land in Tisbury, making it the largest steward of the Town's open space. Most of the MVLB's local holdings are in the western part of Tisbury, including Ripley's Field Preserve, Tisbury Meadows Preserve, and Wapatequa Woods Reservation.⁴³ In addition, there is a small amount of active agricultural land in western Tisbury, most notably Thimble Farm in the Town's extreme southern tip. The most significant outdoor recreation areas in Tisbury are its beaches and docks along the ocean, Lake Tashmoo, and Lagoon Pond. The Mink Meadows Golf Club also takes up a large amount of land to the north. The Town owns a relatively small portion of its conservation land, but there are several municipally owned parks, the most significant being Lagoon Harbor Park, Veterans Memorial Park, and Owen Park Beach, all in Vineyard Haven. Map 5.1 shows that most of the Town's land is concentrated in southwestern Tisbury.

Around 6 percent of the land in Tisbury (236 acres) is privately owned, vacant, and classified by the assessors as developable.⁴⁴ The parcels are scattered throughout town, and most are zoned for residential development.

Local Policies and Practices

ZONING DISTRICTS

Tisbury is divided into eight zoning districts, each with its own regulations about what types of land uses are allowed and dimensional standards that lots and structures must adhere to. A use may be allowed by special permit, which requires a public hearing by the Planning Board or Zoning Board of Appeals, or by

⁴³ "Martha's Vineyard Land Bank," Martha's Vineyard Land Bank, accessed October 2022, <https://www.mvlandbank.com/>.

⁴⁴ The Assessor's Office classifies land as developable or undevelopable based on a variety of factors including conformance to zoning regulations, so it is still possible for some "undevelopable" land to someday be developed.

right, which requires no special permissions. The Town's districts can all be classified as either residential or commercial districts based on the primary type of use each is designed to encourage. Map 5.2 shows the location of Tisbury's zoning districts and Table 5.2 lists each district by total size in acres.

Table 5.2. Tisbury Zoning Districts by Area

District	Acres	% of land	District	Acres	% of land
Residential 3A (R3A)	1,360.8	32.6%	Business 2 (B2)	125.9	3.0%
Residential 50 (R50)	1,262.7	30.3%	Waterfront/Commercial (WC)	41.0	1.0%
Residential 10 (R10)	653.7	15.7%	Business 1 (B1)	18.4	0.4%
Residential 25 (R25)	351.9	8.4%	<i>Lagoon Harbor Park*</i>	8.4	0.2%
Residential 20 (R20)	351.0	8.4%	TOTAL	4,173.8 ⁴⁵	100.0%

*Designated separately on the zoning map, but not established as its own district.

Source: Martha's Vineyard Commission

Residential Districts

Over 95 percent of Tisbury's land is zoned for single-family residential use (see Table 5.3). The Town's five residential zoning districts differ mainly in their dimensional regulations. Each district is named after its minimum lot size in square feet except for Residential 3A (R3A), where the minimum lot size is three acres. Districts with larger minimum lot areas have more intensive dimensional requirements in general; for example, the amount of lot frontage required ranges from 80 feet in R10 to 200 feet in R3A.⁴⁶

Table 5.3. Tisbury Zoning Bylaw – Selected Dimensional Regulations

District	Min. lot area (sf)	Min. lot depth (sf)	Min. lot frontage (ft)	Min. front setback (ft)	Min. side setback (ft)	Min. rear setback (ft)	Max. building height (ft)
Residential 3A (R3A)	130,680	200	200	50	50	50	21-35
Residential 10 (R10)	10,000	80	80	20	10	20	35
Residential 20 (R20)	20,000	100	100	20	15	20	35
Residential 25 (R25)	25,000	125	125	25	25	25	35
Residential 50 (R50)	50,000	150	150	50	35	50	35
Commercial Uses in Commercial Districts							
Business 1 (B1)	0	0	0	0	2	4	35
Business 2 (B2)	0	0	0	30	15	15	35
Waterfront/Commercial (WC)	0	0	20	20	4*	30**	28

⁴⁵ Total land area for Tables 5.1 and 5.2 differs due to methodology. Area calculations for zoning districts include roads, some water bodies, etc., where those for parcel-level data do not.

⁴⁶ The length of a lot boundary line along a road or way, important for assuring adequate access to the lot.

Table 5.3. Tisbury Zoning Bylaw – Selected Dimensional Regulations

District	Min. lot area (sf)	Min. lot depth (sf)	Min. lot frontage (ft)	Min. front setback (ft)	Min. side setback (ft)	Min. rear setback (ft)	Max. building height (ft)
Residential Uses in Commercial Districts							
Single-family (B1 & B2)	10,000	80	80	20	10	20	35
Multi-Unit (B2)	20,000	100	100	30	20	20	35
*4-foot minimum per side, but all sides must add up to at least 20 feet							
**50 feet if abutting tidewater							
Source: Town of Tisbury Zoning Bylaw							

Single-family homes, customary home occupations, the renting of rooms to three or fewer people, and one detached guest house (800 square feet maximum)⁴⁷ are allowed by right in every residential district. Multi-family development requires a special permit from the Planning Board in any district, but the minimum lot size required for multi-family is the same as would be required for the same number of single-family units.

Residential 10 (R10) is the highest-density residential area. The district makes up about 16 percent of Tisbury's residentially zoned land but contains just over half of its 2,438 residential lots. Mobile home parks are allowed in R10, but with a 10-acre minimum land area, the opportunities to develop one are extremely limited. Residential 20 (R20) and Residential 25 (R25) have few distinctive use regulations, differing from R10 largely in terms of allowed density. Along with R10, non-exempt agricultural activities like roadside farm stands require a special permit.

Residential 50 (R50) and R3A are the two largest zoning districts by area and the most rural parts of Town, and many agricultural and related uses, such as roadside farm stands, are allowed by right there. R3A has a large amount of undisturbed land and few municipal services (for example, most of the district is not served by Town water), and accordingly has the most stringent dimensional and environmental requirements of any residential district, as well as a unique cap on the rate of development in the area. Subdivisions of ten or more units can only construct one-tenth of the total residential structures per calendar year. The Planning Board may issue a special permit to as much as double the rate of construction and nonprofit developers are exempt.

All new development with more than one dwelling unit requires a special permit from the Planning Board. Two parking spaces per dwelling unit are required in every residential district for any type of housing, except for the Waterfront Commercial and Business 1 Districts which are exempt from minimum parking requirements.

⁴⁷ 800 square foot maximum in most districts; in R10, a 600 square foot maximum.

Commercial Districts

The Waterfront Commercial (WC) and Business 1 (B1) Districts together comprise the traditional village center and port of Vineyard Haven, while Business 2 (B2) is further inland along State Road. B1 begins northwest of the Five Corners intersection and contains Stop & Shop and many tourist-oriented galleries, gift shops, and restaurants. WC encompasses the ferry terminal, shipyard, and the entirety of the Beach Road corridor.

The WC District is divided into two subdistricts: the Waterside Management Area and Commercial Management Area. In the Waterside Area, most development is prohibited except for waterfront uses such as boat yards and docks. The Commercial Area allows all Waterside uses, plus retail, offices, and single-family dwellings. WC is also the only zoning district that allows mixed-use development incorporating both residential and commercial uses on the same lot. The first floor of a mixed-use structure must contain a commercial use but a dwelling unit may be located on an upper floor.

In B1, retail uses, offices, and light manufacturing by right. Residential dwellings and hotels are allowed by special permit from the Zoning Board of Appeals. In B2, all B1's by-right uses are also allowed, plus some others like large ground-mounted solar installations and food service establishments. More intensive uses that are prohibited in B1 such as lumber yards and auto yards are allowed by special permit, usually from the Board of Appeals. Multi-family developments of two or three units are allowed by right in B2. In both business districts, any use that is otherwise allowed that exceeds 3,000 square feet in area must receive a special permit from the Planning Board finding that the proposal will have minimal impact on the surrounding area.

Residential uses are allowed in all three commercial districts, although in B1 and B2 there are different dimensional standards for commercial and residential uses (see Table 5.3). B2 allows the creation of up to three units on a single lot, subject to meeting dimensional standards. Commercial uses have comparatively few dimensional restrictions: they do not have a minimum lot size or lot depth in any commercial district and no minimum frontage requirement in B1 and B2.

B1 and WC are exempt from minimum parking requirements. B2 requires one space per 150 square feet of office or retail, although the Zoning Board may allow a parking reduction of up to one-third when six or more spaces are required.

Tisbury's three commercial zoning districts define the boundaries of the study areas for the Commercial District Vision plans.

Overlay Districts and Other Zoning Regulations

Overlay districts are areas with supplementary regulations that apply in addition to the underlying zoning district. Tisbury has nine zoning overlays, all of which address either historic or environmental preservation (see Table 5.4). The locations of all overlay districts are shown on Map 5.3.

Table 5.4. Tisbury Zoning Overlays

District Name	Purpose/Details
Environment-Focused Overlays	
Coastal Districts (Including sub-zones: Shore Zone, Inland Zone)	<i>To prevent flood damage, maintain water quality, assure adequate water supply, prevent pollution, promote wildlife habitats, assure the maintenance of cultural and historic sites and values, preserve and enhance the character of the views, prevent damage to structures, land and water as a result of erosion, promote economic development of fisheries and related industries, and maintain and enhance the overall economy of the island.</i> This district applies to areas within ten feet of mean sea level or within 500 feet of a large body of water.
Marine Districts and Designated Channels	Many Marine Districts and Designated Channels are established in water bodies across Tisbury, but there are no regulatory implications to this designation described in the bylaw.
Groundwater Protection District	<i>The purpose of this... district is to promote the health, safety, and general welfare of the community by ensuring an adequate quality and quantity of drinking water, to preserve and protect existing and potential sources of drinking water supplies, to conserve the natural resources of the town; and to prevent contamination of the environment.</i> This overlay is superimposed over the R10, R20, R50, R3A, and B2 Districts. A special permit is required for any use that renders more than 15 percent or 2,500 square feet of any lot impervious.
Wild and Scenic North Shore District	<i>To protect the wild and scenic natural beauty of the District from undue visual intrusion; to allow the unimpeded natural processes of littoral drift to occur, providing continuous beach nourishment along the length of the North Shore; to protect wildlife habitats; to prevent obstruction to navigation, throughout the District; to protect against storm damage that may be caused or exacerbated by inappropriate development; to allow economic development of fisheries and related industries.</i>
Floodplain District	This overlay includes all special flood hazard areas within the Town of Tisbury designated as Zone A, AE or VE on the Dukes County Flood Insurance Rate Map. Its purpose is to ensure that new development is designed to minimize flood damage and provide adequate drainage.
Historic-Focused Overlays	
Tisbury Island Road Districts	<i>To allow for safe access and travel along the roads, and to protect the visual character diversity of landscape and historic features of the journey along the roads.</i> Located along parts of State Road, Lambert's Cove Road, and Edgartown-Vineyard Haven Road, this overlay regulates the removal of stone walls, road access, and the height of structures near the road.
Special Ways Districts	<i>The Special Ways designation protects old cart paths and trails that are cultural and historic links to the community's past, recreational resources for the enjoyment of the outdoors, a conservation resource to accommodate and promote non-motorized forms of travel, links to other trails and roads, and spaces of quiet beauty.</i>

Table 5.4. Tisbury Zoning Overlays

District Name	Purpose/Details
	There are two Special Ways Districts: Red Coat Hill Road and Shubael Weeks Road.
Scenic Roads Districts	<i>Any repair, maintenance, reconstruction, or paving work done with respect to the designated Scenic Roads shall not involve or include the cutting or removal of trees, or the tearing down or destruction of stone walls, or portions thereof, except with the prior written consent of the Planning Board, after a public hearing.</i> The public portion of Lambert's Cove Road is the Town's only Scenic Roads District.
Historic District	William Street Historic District is established in the Zoning Bylaw but has its own separate regulations. The William Street Historic District Commission must approve any changes to the exterior of structures in the district to preserve local architectural heritage.
Source: Town of Tisbury Zoning Bylaw	

Lagoon Harbor Park, a Town-owned piece of open space along Beach Road between Lagoon Pond and Vineyard Haven Harbor, is shown on the Town's official zoning map as a zoning district but is never officially established as such in the zoning bylaw. The bylaw contains specific regulations for each of the three tax parcels that make up Lagoon Harbor Park, an approach that is typically discouraged as parcel-by-parcel zoning regulations could potentially be considered illegal "spot zoning."

Other Regulations

Cluster Development is an alternative type of residential development that minimizes the disturbed area on a property by allowing for more flexibility in design and dimensional regulations. The Planning Board may grant a special permit for a cluster development on a site of at least ten acres that also has enough area to support the proposed number of units for a conventional development. The lots created must individually meet the dimensional requirements of the R10 District.

Accessory apartments are small dwelling units subordinate to a larger, existing primary dwelling on the same site. In Tisbury, one per lot is allowed by special permit from the Zoning Board in any district but R3A and the Coastal Overlay District. Accessory apartments must be located within the existing structure and must be smaller than 600 square feet or 40 percent of the existing habitable area. Only one parking space is required per unit, as opposed to two for any other type of dwelling. Finally, if the accessory apartment is subject to an affordable housing restriction or used for a caregiver, it may take up to 50 percent of the existing structure.

LOCAL CAPACITY

Both the Planning Board and Board of Appeals are responsible for issuing special permits, depending on which district a project is in and the specific proposed use. The Planning Board is responsible for Site Plan Review, a process by which the Board can regulate the design, layout, and built character of a development that is allowed by right.

The Zoning Bylaw establishes a Site Plan Review Board to provide advisory input on most applications for any permit type (including building permits), with few exceptions for minor projects that do not involve significant alterations. This board also is charged with administering rules and regulations for the Coastal District, Tisbury Island Road District, and the Waterfront Commercial District.

As of 2022, Tisbury does not have a Town Planner. The Building Inspector functions as the primary staff liaison to the Planning and Zoning Boards.

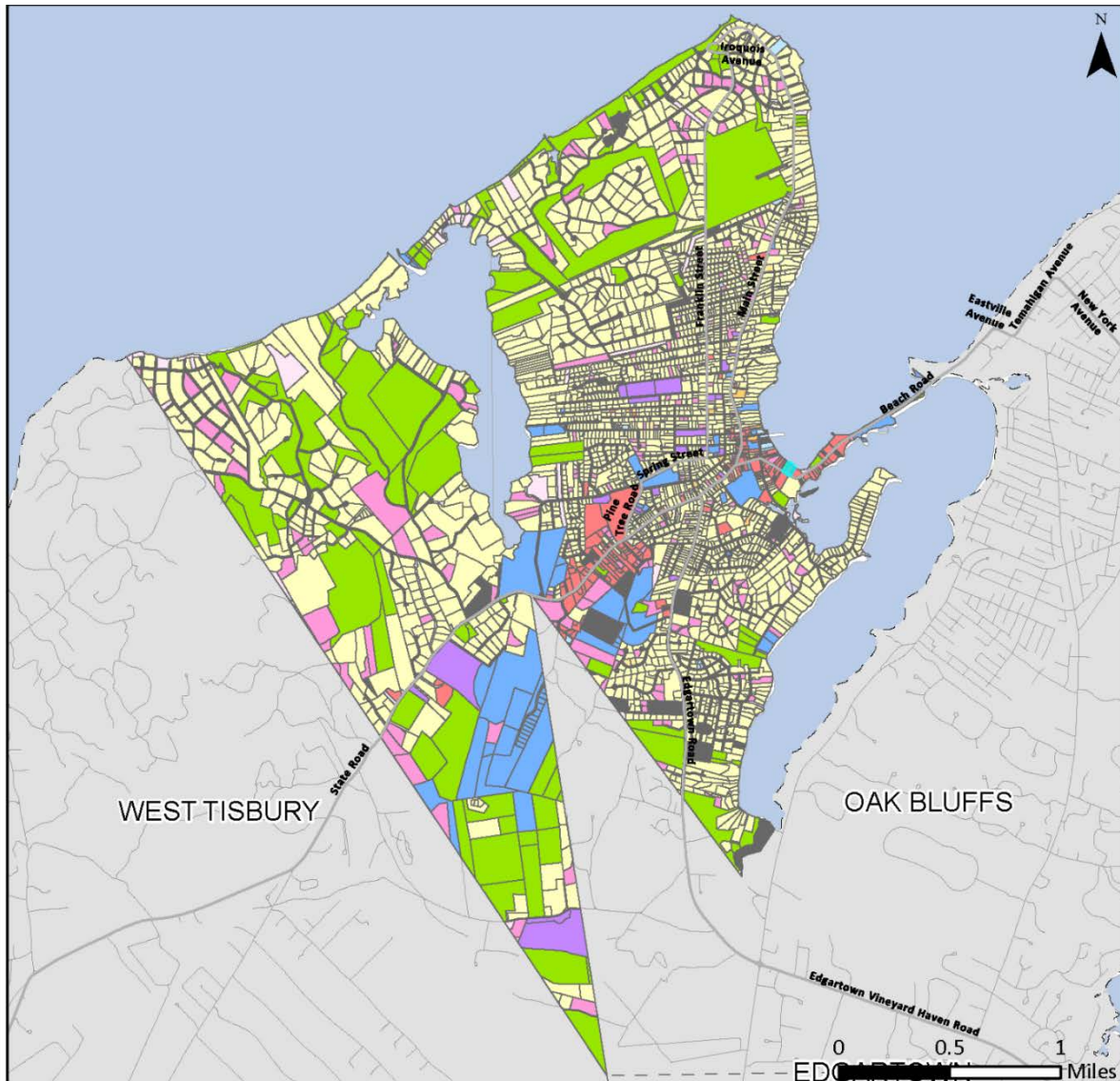
Unlike in most Massachusetts municipalities, certain areas of land use policy on Martha's Vineyard may be subject to regional regulation and review by the Martha's Vineyard Commission (MVC) in addition to local approvals. Towns may also submit a nomination to the MVC to create a District of Critical Planning Concern (DCPC) for "an area that is important to more than one town on the island or to the island as a whole,"⁴⁸ where the Town may then create special regulations for the area. Vineyard Haven Harbor and Lagoon Pond are the DCPCs located at least partially in Tisbury.

The MVC also plays a role in regulating individual projects that meet the definition of Developments of Regional Impact (DRI). Developments may be classified as a DRI "because of their magnitude or the magnitude of their effect on the surrounding environment, are likely to present issues of significance to more than one municipality."⁴⁹ The MVC holds a public hearing on each DRI to determine whether the benefits of the proposal outweigh the detriments and whether it is consistent with existing plans and regulations. The Commission may impose conditions on a DRI as opposed to outright approval or denial.

⁴⁸ Martha's Vineyard Commission, *Districts of Regional Planning Concern*, accessed October 2022, <https://www.mvcommission.org/dcpcs>.

⁴⁹ Martha's Vineyard Commission, *Developments of Regional Impact*, accessed October 2022, <https://www.mvcommission.org/dris>.

Map 5.1 Land Use by Parcel

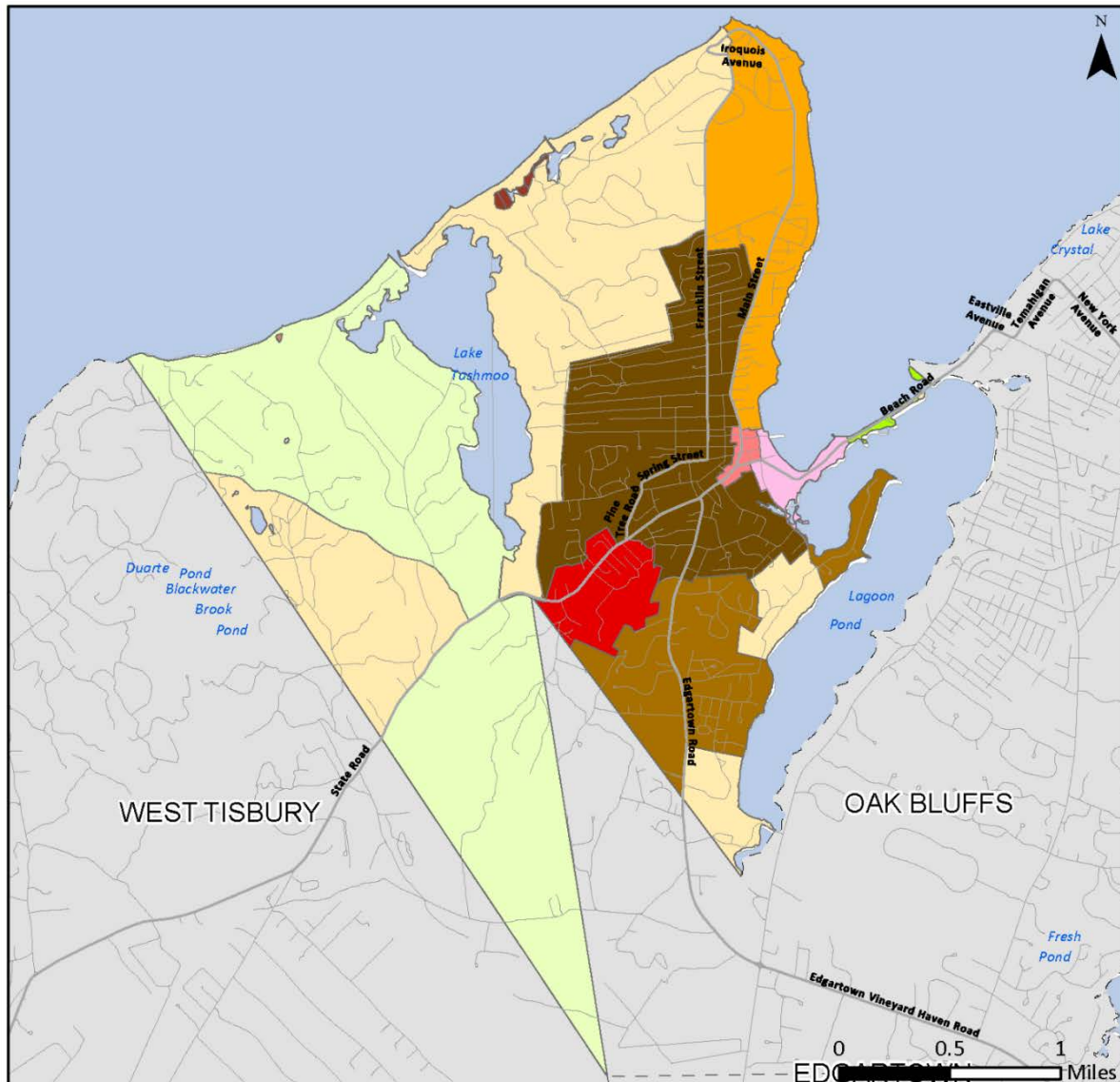


Map 5.1: Land Use by Parcel

- | | |
|-------------------|-------------------------------|
| Interstate | Open Space & Agriculture |
| U.S. Highway | Other Government |
| State Route | Residential - 3 or more units |
| Non-numbered Road | Single-Family Residential |
| Local Roads | Two-Family Residential |
| Water | Vacant - Developable |
| Surrounding Towns | Vacant - Undevelopable |
| Commercial | Vacant Land - Developable |
| Infrastructure | <all other values> |
| Mixed-Use | |
| Municipal | |
| Nonprofit | |

Date: January 2023 Source: Town of Tisbury, Martha's Vineyard Commission, MassGIS, and MassDOT

Map 5.2 Zoning Districts

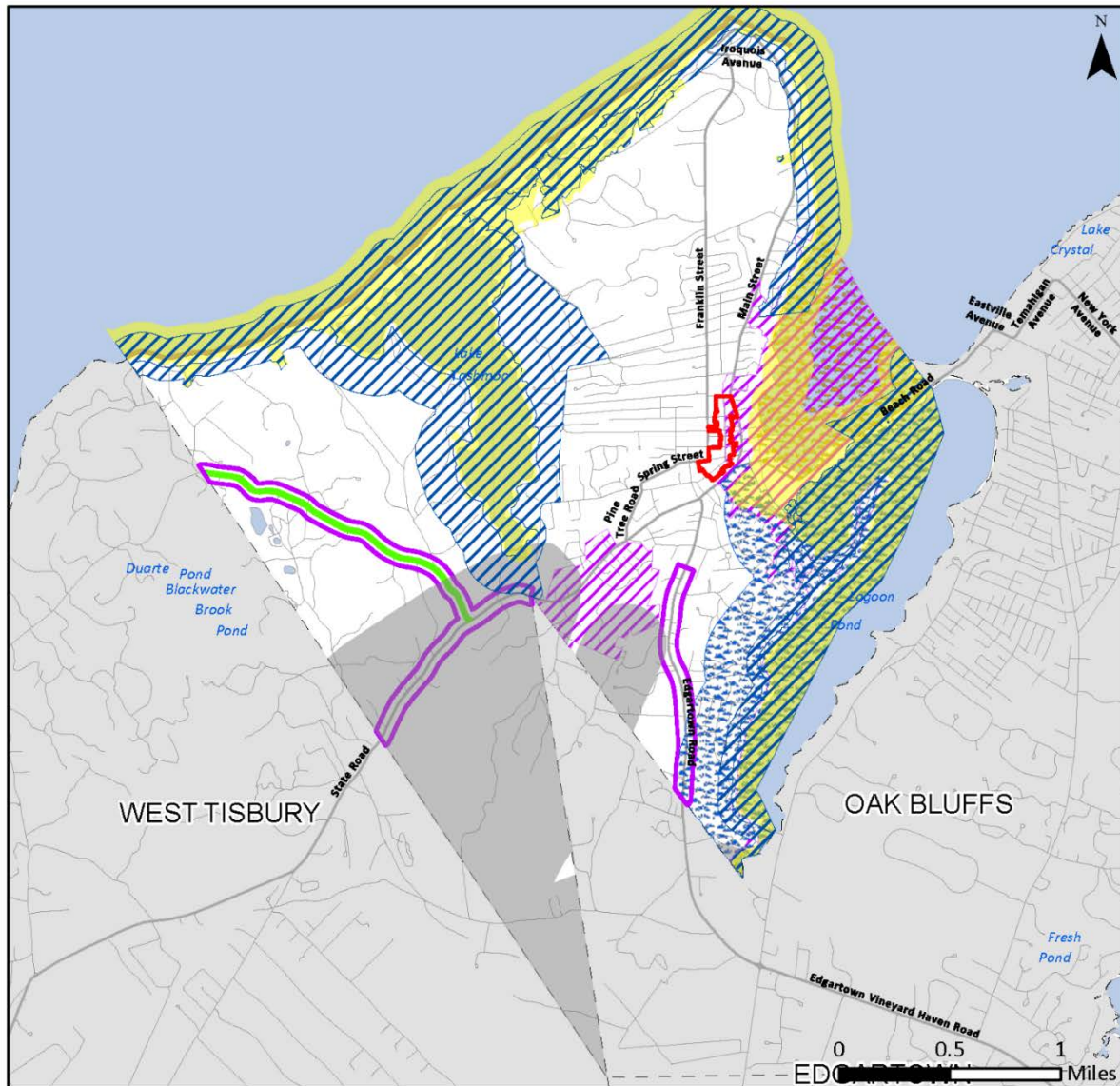


Map 5.2: Zoning Districts

 Residential 10	 State Route
 Residential 20	 Non-numbered Road
 Residential 25	 Local Roads
 Residential 50	 Water
 Residential 3A	 Surrounding Towns
 Business 1	
 Business 2	
 Waterfront Commercial	
 Lagoon Harbor Park	

Date: January 2023 Source: Town of Tisbury, Martha's Vineyard Commission, MassGIS, and MassDOT

Map 5.3 Zoning Overlays



Map 5.3: Zoning Overlays

- | | |
|--|-------------------|
| Coastal District | State Route |
| Floodplain District | Non-numbered Road |
| Groundwater Protection District | Local Roads |
| Historic Districts | Water |
| Island Roads District - Major Roads Zone | Surrounding Towns |
| Lagoon Pond District | |
| Scenic Roads | |
| Special Sanitary Control District | |
| Vineyard Haven Harbor District | |
| Wild and Scenic North Shore District | |

Date: January 2023 Source: Town of Tisbury, Martha's Vineyard Commission, MassGIS, and MassDOT



6. Open Space

Introduction

Open Space in this plan includes any parcel of land that is managed for conservation, recreation, or environmental protection. Open space and parks make important contributions to the quality of life in a community providing places for public life and contributing to the community's distinctive character. Open space also serves important environmental functions providing wildlife habitat, contributing to stormwater management, and helping to maintain water quality.⁵⁰

Existing Conditions

Much, but not all, of the open space in Tisbury is protected in perpetuity from future development. Certain properties held by the town, if no longer needed for a public purpose, could be declared surplus and sold. Some of the town's open space is privately owned and is protected temporarily through limited conservation easements.⁵¹ The Open Space and Recreation Committee looks forward to addressing long term protection of Tisbury's town parks and open spaces as part of this Master Plan.⁵²

⁵⁰ Tisbury Planning Board, *Tisbury Open Space and Recreation Plan* (March 2019), 53.

⁵¹ Ibid.

⁵² Town of Tisbury Annual Report (2021), 107.

STEWARDSHIP AND COLLABORATION

Tisbury residents value their access to parks, water bodies, and natural areas. According to the U.S. Census Bureau the town of Tisbury has a total area of 19.1 square miles, of which 6.5 square miles is land and 12.6 square miles is water. Of the 6.5 square miles of land, over 22 percent is open space and recreation land.

The Town's open space stewardship and conservation is coordinated and guided by its current State approved 2019 Open Space and Recreation Plan (OSRP). An Open Space and Recreation Committee was established in 2020. Guided by a seven-year action plan, the Committee continues to serve in an advisory capacity to the Select Board and works to implement the town's OSRP.

Table 6.1 lists Open Space by Level of Protection and shows three parcels totaling 144.7 acres with no open space protection. Two of the parcels comprise Mink Meadows Golf Club and the other parcel is the St. Augustine Church Tot Lot. Seventeen parcels totaling 48.9 acres have limited open space protection and are located mainly in the downtown and waterfront areas and include cemeteries, school playgrounds, parks and recreation department land, beach areas and access ways, and Lagoon Bridge Park (see Map 6.1). Tisbury contains 113 parcels totaling 838.8 acres of open space protected in perpetuity. The vast majority of parcels protected in perpetuity are located in the west and southwest parts of town and consist of town-owned water supply land, land trust properties, land bank, DCR State Forest land, as well as private properties with Conservation Restrictions.

Table 6.1. Open Space Level of Protection

Level of Protection	# of Parcels	Total Area (ac)
None	3	75.1
Limited	17	48.9
In Perpetuity	113	838.8
<i>Source: MassGIS Data: Protected and Recreational Open Space, August 2022.</i>		

Table 6.2 illustrates Open Space by Primary Purpose and shows that 52 percent of open space is conservation land, followed by 21 percent as water supply land.

Table 6.2. Open Space by Primary Purpose

Primary Purpose	# of Parcels	Total Area (ac)
Recreation and Conservation	16	129.4
Conservation	62	497.8
Historical/Cultural	6	31
Recreation	12	97.8
Water Supply	37	206.8
<i>Source: MassGIS Data: Protected and Recreational Open Space, August 2022.</i>		

Open Space classified by owner type can be found in Table 6.3 and illustrated in Map 6.2. Municipally owned land accounts for 28 percent of open space parcels, followed by 26 percent for both Martha's Vineyard Land Bank and a consortium of land trusts. That leaves the remaining 20 percent of open space owned by state, non-profit, and private owners.

Table 6.3. Open Space by Owner Type

Owner Type	# of Parcels	Owners	Total Area (ac)
Public Non-Profit	28	Martha's Vineyard Land Bank	254.1
State	2	DCR-State Parks & Recreation	36.1
Land Trust	30	Vineyard Open Land Foundation; Sheriffs Meadow Foundation; The Nature Conservancy	254.0
Municipal	59	Town of Tisbury Water Dept.; Parks & Rec. Dept.; Conservation Commission; MV Public Schools Dept.; Cemetery Commission	272.2
Non-Profit	3	St. Augustine Church; Island Housing Trust; Hebrew Center	4.0
Private	11	Private owners; Mink Meadow Association	142.4
<i>Source: MassGIS Data: Protected and Recreational Open Space, August 2022.</i>			

MAINTENANCE

Tisbury does not have the staffing and committee resources of larger towns. Managing the town's open space and recreation resources is the responsibility of two departments. The DPW oversees maintenance and improvements of town properties and reservations for group activities and private events. The Facility Department oversees the maintenance of buildings and structures at town parks. Non-profit conservation organizations manage their individual properties and volunteer groups and committees have worked to develop and implement improvement plans at individual parks. The upkeep of open space and recreational facilities covers a broad range of activities, including mowing and landscape maintenance, clearing litter and debris, and repairing damaged equipment and facilities.

EDUCATION AND PUBLIC AWARENESS

The Open Space and Recreation Committee continues to work with partners to establish and promote public knowledge of open space resources and existing pedestrian and bike routes.

Created by Sheriff's Meadow Foundation, the free TrailsMV mobile app features easy-to-read maps and highlights over 100 conservation properties open to the public. The new and improved TrailsMV includes trail maps and descriptions for each property, along with excursions, informational articles and alerts, event listings, and photographs.

CONNECTIVITY

Town parks and open spaces are unevenly distributed throughout the town and not equally accessible to all residents. The neighborhood between Franklin Street and Lake Tashmoo and the neighborhoods south and east of State Road contain Tisbury's largest year-round population but are distant from town

recreation areas. There is a strong desire to develop a safe pedestrian and bike network to connect the open space lands and parks.⁵³

In 2021, The Martha's Vineyard Commission created walking tours in GIS StoryMaps that are accessible online, that allows anyone to take a self-guided tour from Vineyard Haven to West Chop or through the southeast side of Vineyard Haven along Lagoon Pond Road.⁵⁴

The Land Bank has worked to establish a new trail from the Bare Hill Preserve to Old Sailors Burying Ground Cemetery and has implemented a walking/biking path along Herring Creek Road toward the Tashmoo Town beach. The Land Bank has a Memorandum of Understanding (MOU) with the Town of Tisbury to maintain these trails and paths.

The Town is working in collaboration with the Sheriff's Meadow Foundation on a plan for a connected network of trails through Tisbury and is working with the MVC Bike Pedestrian Committee and local Tisbury bike enthusiasts, to create an inventory of "quiet streets" that might be used to create a bike network connecting town parks and link to broader island-wide bike routes.⁵⁵

PARKS AND RECREATION

The Town does not have a recreation program. Currently, children are able to participate in island summer programs and there are island-wide adult recreation programs. In summer 2022, the Tisbury Open Space and Recreation Committee, in conjunction with the West Chop Club offered a tennis outreach program with free tennis lessons for Tisbury residents at the Lake Street tennis courts. This was successful and could continue to be offered in the future.

A citizen group (Friends of Owen Park) worked with the town planning board and DPW to research the park history, document site conditions, identify the needs of different user groups and convened residents to set goals for future park improvements. This group also completed a master plan for the park in 2017. Over the past year the friends group worked with the town planning board and DPW to implement improvements at the park including repairing the historic flagpole, planting two new gardens, relocating and leveling benches, repainting the band stand, and completed an accessible seating area at the top of the park. The volunteers in the citizens group will continue to partner with the Town DPW and the Vision Council to make park improvements and provide ongoing maintenance support. Currently, the Open Space and Recreation Committee guides park planning with public input through surveys and workshops.

Owen Park, Veterans Memorial Park, and Lake Street Park are recreational spaces managed by the Town Recreation and Parks Department. Owen Park has a bandstand, beach, dock, playground, public restroom and showers. Veterans Memorial Park has athletic fields, basketball courts, a sand volleyball area, and restrooms and is also the site of the annual summer Beach Road Weekend music festival. Lake Street Park has a boat slip, dock, and tennis courts. New pickleball courts were proposed for Lake Street

⁵³ Tisbury Planning Board, [*Tisbury Open Space and Recreation Plan*](#) (March 2019), 68.

⁵⁴ "Tisbury – Self-Guided Tours," [*Dukes County GIS*](#), compiled by the Martha's Vineyard Commission (2021).

⁵⁵ Town of Tisbury Annual Report (2021), 94.

Park in 2022. The installation of new clay tennis courts at Church Street is underway and new pickleball courts are proposed for Lake Street Park. A comprehensive inventory of parks, beaches, and open spaces and their current conditions and potential improvements was completed as part of the Open Space and Recreation Plan.⁵⁶

WATERFRONT ACCESS

Greater waterfront access for both active and passive recreation was the top priority based on the community survey and public meetings that were part of the 2019 Open Space and Recreation Plan. Over 70 percent of the survey respondents noted the addition of a swimming beach as a top recreation need. There are three town owned properties with swimming facilities and one Martha's Vineyard Land Bank property where swimming is permitted. Most of the town's 15 miles of shoreline is held in private ownership without public access. A number of town streets that end at the water's edge are informally used for swimming by residents in surrounding neighborhoods. All of these beaches are small, several are difficult to access, and some give the appearance of being private.

In 2021, the Town improved the Owen Little Way Park parking lot, and with additional funding, the Town has plans to create an ADA compliant walkway from the parking area to the beach/water, and to add a bike rack and provide a picnic table. at the beach.

Improvements to public access at Lagoon Harbor Park are in an initial planning stage, as well as improvements along Lagoon Pond between Winds Up and the Town Landing, where the town park land will have public gathering areas and water access.⁵⁷

Local Policies and Practices

State and local measures are available to protect open space and recreation land, including:

- Land and Water Conservation Fund Protection – properties acquired with the receipt of grant funding through this program are afforded protection as parkland, essentially in perpetuity.
- Article 97 of the articles of amendment to the Massachusetts Constitution protects publicly owned lands used for conservation or recreation purposes. For a property to be sold, transferred, or converted to a different use, Article 97 requires a vote by the Conservation Commission, the Parks and Recreation Commission, a 2/3 vote at Town Meeting, and a 2/3 vote of the State Legislature in support of the disposition.
- Conservation restrictions, easements, and other deed restrictions can be used to limit future development.
- Chapter 61 – tax incentives can help protect forest, recreation, and agricultural lands by providing tax incentives to landowners who are willing to manage their lands for these purposes.

⁵⁶ Vision Planning Summary – Parks, Beaches, and Open Space, 2014.

⁵⁷ Town of Tisbury Annual Report (2021), 94-95.

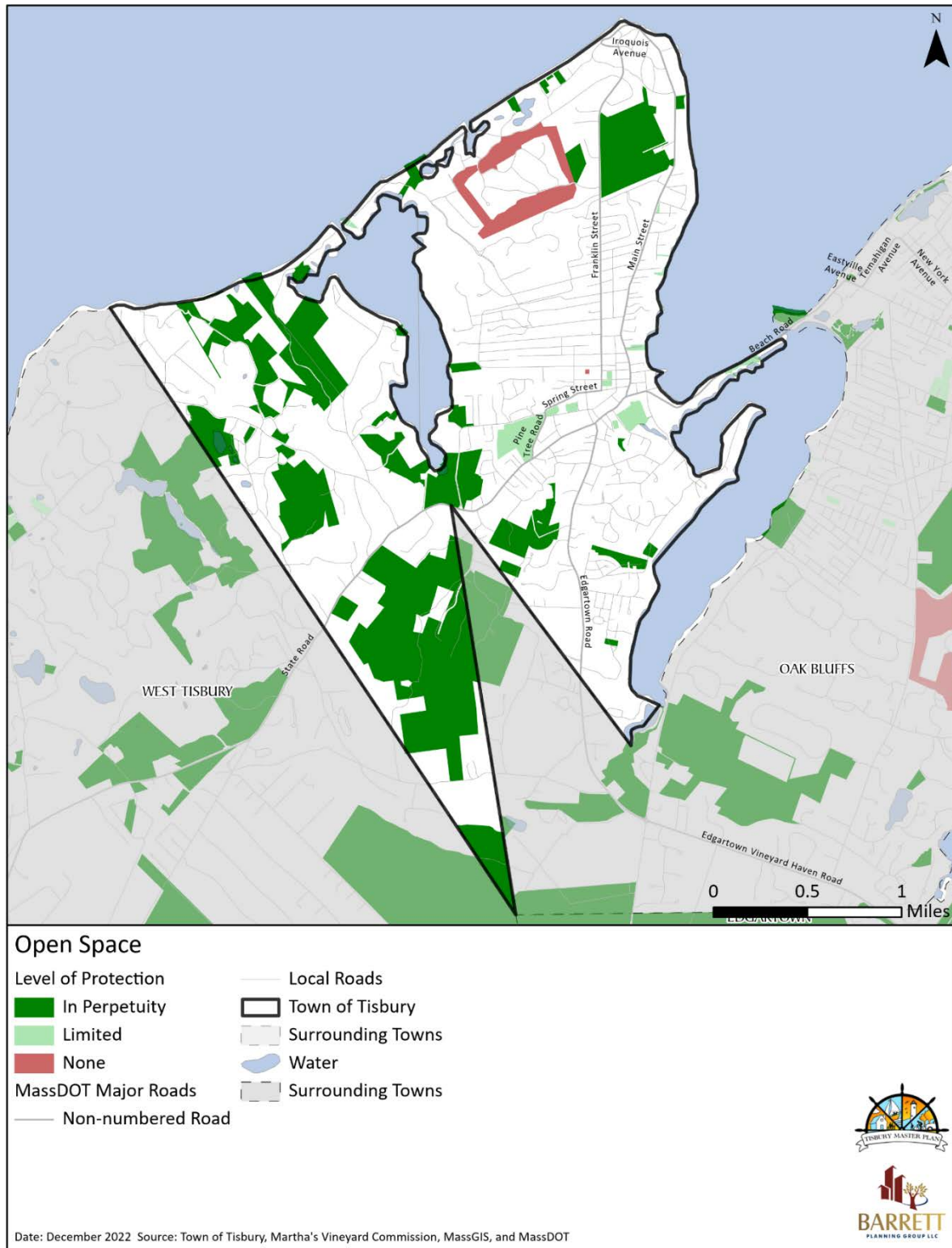
- Chapter 91 – lands that fall under the jurisdiction of Chapter 91 (Commonwealth Tidelands) must include provisions for public use and access.⁵⁸

In 2005, Tisbury adopted the provisions of the Community Preservation Act (CPA), which established a nine-member Community Preservation Committee (CPC) which receives applications for funding and makes recommendations to the Town. Tisbury has appropriated over \$11 million over the past fifteen years, FY 2006-2021. In 2021 the following CPC projects related to open space were completed:

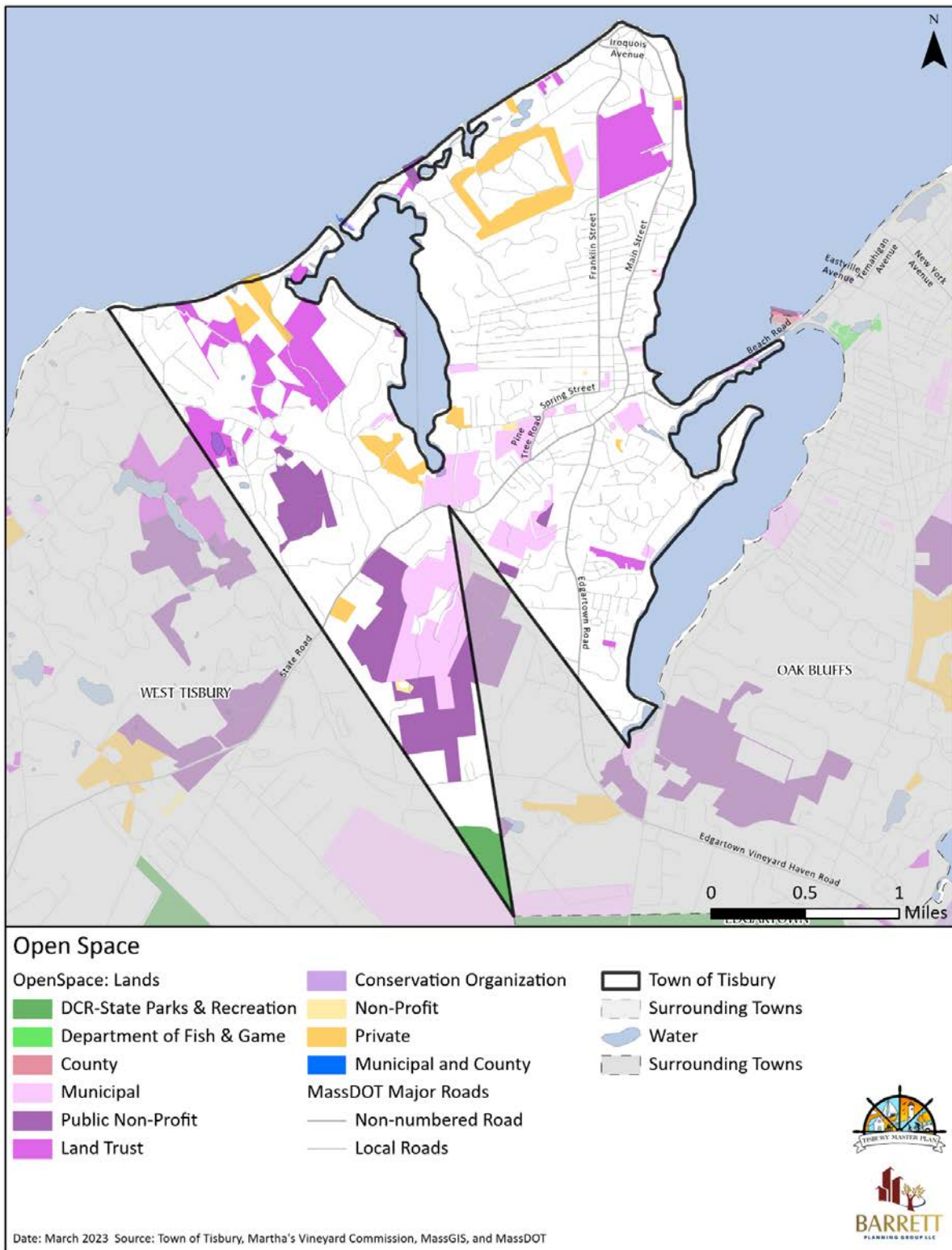
- Owen Park Upper Terrace Seating Area
- American Legion – Flagpole Pocket Park
- Veterans Memorial Park Parking Lot Upgrade and Handicapped Accessible Parking
- Amphitheater Accessibility and Safety Upgrade
- Tashmoo Waterworks Accessibility Study
- Town Benches – Purchase and Installation

⁵⁸ Tisbury Planning Board, *Tisbury Open Space and Recreation Plan*, March 2019, 54.

Map 6.1 Open Space by Level of Protection



Map 6.2 Open Space by Owner





7. Housing

Introduction

Housing is an essential part of every community, yet often it poses difficult and highly charged challenges. Since every household pays some type of shelter cost, housing serves as a community's socio-economic infrastructure and gatekeeper; the cost of housing plays a major role in determining who can live in a town.

Tisbury's year-round housing market operates under significant constraints. The pressures of the seasonal market mean that Tisbury residents must sometimes compete for housing with high-income visitors from across the country and world. Tisbury also has a lack of buildable area as one of the smallest municipalities in Massachusetts (only containing about 6.5 square miles of land area), where some areas

are already significantly developed. Other constraints include a rising cost of living, rising construction costs, and the Town's desirable and relatively isolated location on the island of Martha's Vineyard. Overcoming these obstacles and providing an adequate supply of safe, affordable housing to accommodate year-round residents will continue to be a significant challenge for the Town in the coming years.

Existing Conditions

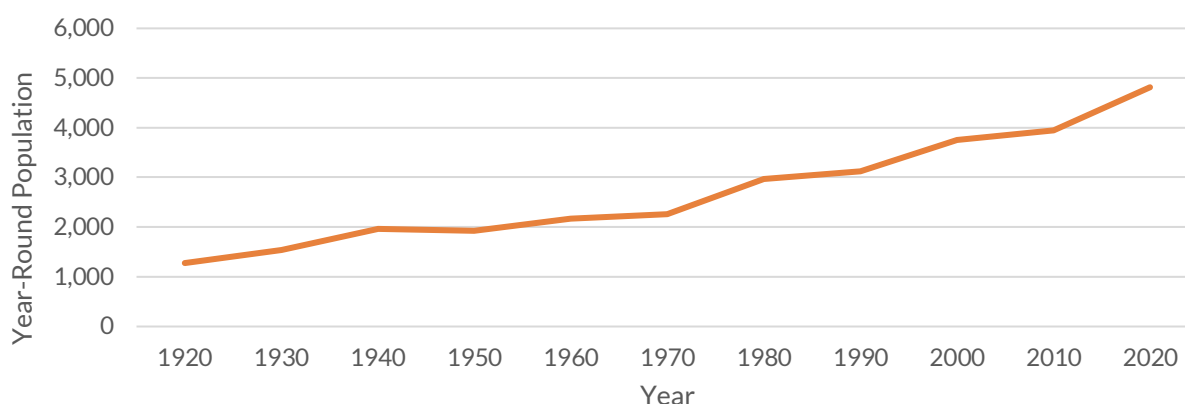
WHO LIVES IN TISBURY?

Demographics

Understanding Tisbury's housing inventory and housing market requires knowing who already lives here and how that population is changing. The Town's year-round population has been growing consistently for decades (see Figure 7.1), but according to Census 2020, a particularly sharp increase of 22 percent has occurred since 2010.

Figure 7.1. Tisbury Population Over Time

(Source: US Decennial Census 2020)



Tisbury is not only growing but also becoming more racially and ethnically diverse. Between 2010 and 2020, the proportion of White residents fell from 84 percent to 75 percent, but this is due to growth in other racial groups rather than an absolute decrease in the White population, which also grew. The number of residents identifying as "Two or More Races," more than quintupled. In the 2020 Census, Tisbury's proportions of minority racial groups exceeded the Dukes County averages in all cases but one, American Indian or Indigenous Americans.

Table 7.1. Population by Race

	Tisbury		Dukes County		Massachusetts	
	#	%	#	%	#	%
Total Population	4,815	100.0%	20,600	100.0%	7,029,917	100.0%
White	3,603	74.8%	16,321	78.2%	4,896,037	69.6%
Black	203	4.2%	813	3.9%	494,029	7.0%
American Indian	24	0.5%	214	1.0%	24,018	0.3%
Asian	49	1.0%	185	0.9%	507,934	7.2%
Native Hawaiian/Pacific Islander	0	0.0%	10	0.0%	2,301	0.0%
Other	228	4.7%	830	4.0%	496,731	7.1%
Two or More Races	708	14.7%	2,227	10.8%	608,867	8.7%
<i>Source: US Decennial Census (2020)</i>						

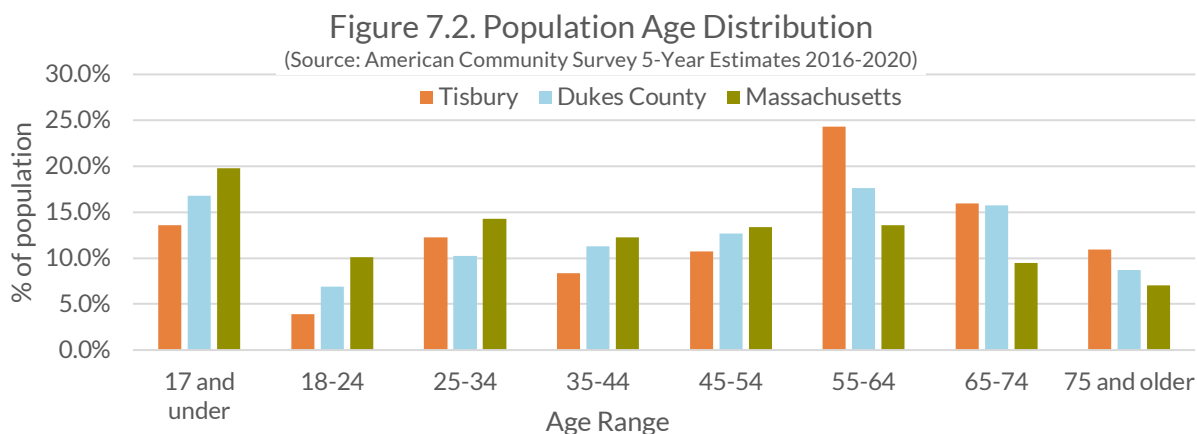
Federal policy defines “Hispanic” not as a race, but as an ethnicity. For Census purposes, respondents indicate whether they are Hispanic or not in addition to one of the races listed in Table 7.1. The 2020 Census counted 153 Hispanic Tisbury residents, or about 3 percent of the population. This is a slightly higher proportion than Dukes County (2.6 percent) but lower than the state average (12.6 percent). Most residents of Tisbury were not born in Massachusetts. The largest group was born elsewhere in the United States, and about 21 percent were born abroad (Table 7.2).

Table 7.2. Tisbury Population by Place of Birth

	#	%
Born in Massachusetts	1,545	37.4%
Born elsewhere in USA	1,705	41.3%
Foreign-born, naturalized citizen	481	11.6%
Foreign-born, not a US citizen	401	9.7%
Total Population	4,132	100.0%
<i>Source: American Community Survey 5-Year Estimates, 2016-2020</i>		

According to the American Community Survey 2016-2020 Five Year Estimates (ACS), most of the nearly 900 foreign-born Tisbury residents immigrated from South America. Brazil was the most frequently reported country of origin, while many residents reported being from Western Europe and the Caribbean, too. The official sources cited in this plan do not, however, account for undocumented migrants that may live in the community.

Tisbury’s population has aged significantly over the last decade. In 2010, about one-third of residents were aged 55 or older, and in 2020 it was estimated that residents over 55 were the majority. Figure 7.2 shows that Tisbury has a higher proportion of residents in the three oldest age groups than Dukes County or Massachusetts and a lower proportion of residents aged 24 or younger.



HOUSING INVENTORY

Vacancy and Tenure

Tisbury is commonly known as the Vineyard's year-round community, and according to the U.S. Census Bureau, most of the Town's housing units have indeed historically been occupied by year-round residents. Table 7.3 shows that in 2020, about two-thirds of the homes in Tisbury were occupied year-round, a higher rate than any neighboring town and higher than the Dukes County average.

However, compared to communities outside of the Cape and Islands region, a vacancy rate of one-third is very high. Most of the vacant units in Table 7.3 are occupied seasonally. If a home is not occupied when the decennial census occurs (every ten years on April 1), the Census Bureau considers the unit vacant. There are many different reasons a unit may be unoccupied, so the Census Bureau also estimates the types of vacancy in each community.⁵⁹ In Tisbury, an estimated 96 percent of vacancies are due to the seasonal market, with the remaining 4 percent awaiting sale or rent. Vacancies in the other Martha's Vineyard communities are also mostly due to the seasonal market, so vacancy rates are a reasonable proxy for the prevalence of seasonal units on the Vineyard.

Table 7.3. Vacancy Rates in Tisbury and Neighboring Communities

	Occupied Units		Vacant Units*		Total Units	
	#	%	#	%	#	%
Tisbury	2,139	66.3%	1,087	33.7%	3,226	100.0%
Edgartown	2,191	41.9%	3,043	58.1%	5,234	100.0%
Oak Bluffs	2,316	52.3%	2,113	47.7%	4,429	100.0%
West Tisbury	1,509	63.6%	862	36.4%	2,371	100.0%
Dukes County	8,932	51.0%	8,598	49.0%	17,530	100.0%
Massachusetts	2,749,225	91.7%	249,312	8.3%	2,998,537	100.0%

Source: US Decennial Census (2020)

*Vacant Units include all vacancies, not only units used for seasonal or vacation purposes.

⁵⁹ As of December 2022, data on vacancy type from the 2020 Census has not been released, so American Community Survey Estimates from 2020, also published by the Census Bureau, are used instead.

Map 7.1 shows vacancy rates by **census block group**. The Census Bureau uses block group geographies to report data in areas smaller than an entire city or town, e.g., in areas that often approximate neighborhoods or villages.⁶⁰ The block group containing West Chop is the only one with mostly seasonal units, and the block group centered on the State Road commercial area has the lowest vacancy rate at 25 percent. For homes that are occupied, Tisbury has the highest proportion of renter households in Dukes County, roughly in line with the state average (see Table 7.4). An estimated 39 percent of all households in Dukes County that rent their homes live in Tisbury. Nearly 80 percent of all households west of Lake Tashmoo own their homes (Map 7.2), whereas in Vineyard Haven, renters make up about 45 percent of households.

Table 7.4. Owners and Renters in Tisbury and Neighboring Communities

	Owner Households		Renter Households		Total Households	
	#	%	#	%	#	%
Tisbury	1,195	61.9%	737	38.1%	1,932	100.0%
Edgartown	1,069	73.8%	380	26.2%	1,449	100.0%
Oak Bluffs	1,331	71.1%	542	28.9%	1,873	100.0%
West Tisbury	712	86.9%	107	13.1%	819	100.0%
Dukes County	4,990	72.5%	1,897	27.5%	6,887	100.0%
Massachusetts	1,654,892	62.5%	992,088	37.5%	2,646,980	100.0%
<i>Source: American Community Survey 5-Year Estimates, 2016-2020</i>						

Tisbury has a relatively diverse housing stock for Martha's Vineyard, with about 12 percent of dwellings in multiple-unit structures compared to 8 percent across Dukes County. ACS estimates indicate that Tisbury has most of the Vineyard's supply of 3-to-4-unit buildings. However, the Town is still heavily weighted towards single-family homes compared to the state average of about 58 percent single-family homes.

⁶⁰ Census block groups are the next-smallest geographic division below the town level available for Tisbury used by the Census Bureau in data collection.

Table 7.5. Housing Units by Number of Units in Structure

	Tisbury		Dukes County	
# of units	#	%	#	%
1, detached	2,903	86.4%	16,312	90.5%
1, attached*	35	1.0%	266	1.5%
2	82	2.4%	774	4.3%
3 or 4	267	7.9%	366	2.0%
5 to 9	48	1.4%	153	0.8%
10 or more	25	0.7%	112	0.6%
Mobile Home or Other	0	0.0%	47	0.3%
Total Units	3,360	100.0%	18,030	100.0%

*Typically describes a condominium
Source: American Community Survey 5-Year Estimates, 2016-2020

Age and Location of Housing

The age of housing units can illuminate the local history of residential development and help in making assumptions about current conditions. Map 7.3 shows the year of construction for the principal residential structure on each parcel in Tisbury. Pre-twentieth century homes are concentrated in Vineyard Haven and West Chop, although historic properties can be found throughout town. Most housing units in Tisbury were constructed before 1980, but many of the houses in western Tisbury and other traditionally rural areas were constructed after 1980.

Figure 7.3 shows the year residential structures were built in Tisbury compared to Dukes County and the state as a whole. The Vineyard's housing stock skews newer than the rest of Massachusetts, with a large percentage of dwellings built between 1970 and 1999. Tisbury has a higher proportion of homes built before 1940 than Dukes County as a whole, while post-2010 Massachusetts has produced more units relative to its total existing stock than Tisbury or the Vineyard in general.

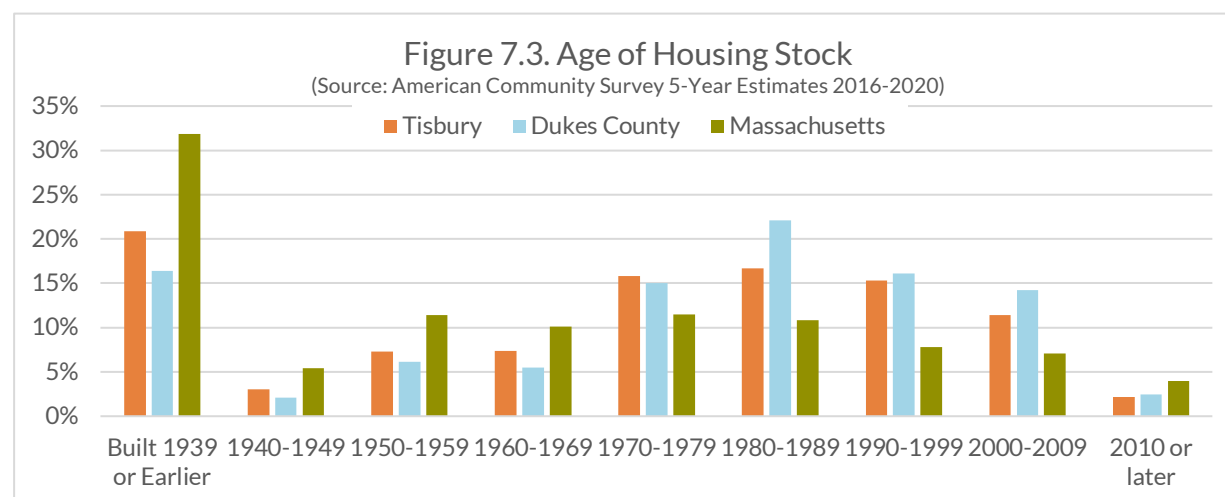


Table 7.6 presents a series of characteristics for Tisbury's single-family dwellings. The top half of the table reports Tisbury's single-family residential properties by year built.⁶¹ The "building to land value" in the far right column is a simple calculation where the assessed value of the structure on a property is divided by the assessed value of the underlying land. A ratio above 1.00 means that the building is worth more than the land it is situated on, and a ratio below 1.00 means that the land is more valuable. The further away the ratio is from 1.00, the greater the discrepancy between building and land value. A low building to land value ratio often indicates an increased likelihood that the existing building may be torn down and rebuilt, as an investor could increase the value of the entire property by modernizing (and usually expanding) the house.

Like the building to land value, the floor area ratio (FAR) is a simple ratio that compares the total floor area of a building to the area of the lot on which it is located. A high FAR means that a building is relatively large for its lot size. Older residences tend to be built on smaller lots and are larger on average than midcentury homes, correlating with higher FARs. The smallest houses, on average, are those built during the 1940s and 1950s and the largest are those built in the twenty-first century. Homes built between 1901 and 1960 have an average building to land ratio less than one.

The bottom half of Table 7.6 lists the same statistics as the top half, but the same single-family residential properties are instead divided by zoning district (zoning districts are discussed in detail in Chapter 5: Land Use; see Map 5.2). Most units are in the densely populated Residential 10 District, where homes are on average smaller than any other residential zone. Only the Residential 25 District has an average building-to-land ratio less than one, and Residential 50 and 3A districts have low FARs due to their large minimum lot sizes (see also, Table 5.3 in Chapter 5: Land Use).

Table 7.6. Selected Characteristics of Single-Family Housing Stock (by Parcel)

	# of properties	Avg. Building Area	Avg. Lot Area	Avg. Stories	Avg. FAR*	Avg. BtL**
By Year Built						
1900 or earlier	227	4,432	0.56	1.9	0.309	1.193
1901-1920	93	3,725	0.55	1.8	0.213	0.842
1921-1940	171	3,108	0.50	1.5	0.215	0.844
1941-1960	216	2,887	0.56	1.3	0.192	0.778
1961-1980	473	3,347	0.82	1.4	0.160	1.054
1981-2000	620	4,072	0.94	1.7	0.188	1.415
2001 or later	560	4,570	0.98	1.7	0.208	1.837

⁶¹ Other housing types are excluded because the characteristics shown in Table 7.6 are not easily comparable between different housing types, and as single-family makes up over 85 percent of the Town's housing stock it should be representative of larger trends.

Table 7.6. Selected Characteristics of Single-Family Housing Stock (by Parcel)

	# of properties	Avg. Building Area	Avg. Lot Area	Avg. Stories	Avg. FAR*	Avg. BtL**
By Zoning District						
B Districts	24	2,125	0.23	1.5	0.286	1.184
Residential 10	1,212	3,210	0.33	1.8	0.261	1.409
Residential 20	322	3,780	0.63	1.6	0.169	1.356
Residential 25	274	5,025	0.73	1.8	0.212	0.940
Residential 3A	148	5,490	3.09	1.6	0.063	1.181
Residential 50	380	4,805	1.69	1.6	0.091	1.214
Total Avg.	2,360	3,887	0.81	1.6	0.203	1.299
*Floor area ratio						
*Building to land value ratio						
Source: Tisbury Assessor's Data (2021)						

Housing Production

Local building permit data show how many new residential units are approved each year, even when some approved units have not yet been constructed. Table 7.7 shows the residential permits issued by the Tisbury Building Department between 2017 and 2021.

Table 7.7. Annual Building Permit Data

	Single Family Dwellings	Accessory Apartments	Multi-Family Dwellings	Mixed-Use Buildings	Demolition	Net Residential Structures*
2017	18	0	0	2	10	10
2018	18	55	0	0	4	69
2019	19	5	1	0	7	18
2020	17	5	2	0	15	9
2021	26	4	10	0	13	27
Total (2017-2021)	98	69	13	2	49	133
*Number of building permits minus number of demolition permits						
Source: Tisbury Building Department						

On average, just under twenty single-family units have been built per year since 2017, and there were frequently more than ten residential demolitions. Few multi-family dwellings are permitted, although many were approved in 2021.

AFFORDABLE HOUSING

Chapter 40B, the state's regional planning law, includes a provision for affordable housing development (Sections 20-23). The law assumes that if less than 10 percent of a city or town's housing is deed restricted as affordable for low- or moderate- income people, the town has not provided its regional "fair share" of affordable housing. State regulations define low income as a household with income at or below 80 percent of the Area Median Income (AMI) for the region in which they reside (see Table 7.8 for Dukes County income limits, determined by the US Department of Housing and Urban Development). In a development created under Chapter 40B, the rent or mortgage payment for low-income households cannot exceed 30 percent of their monthly gross income. For example, in Dukes County a family of three with a total annual income of \$85,150 would be considered low-income (80 percent AMI), and for them, the maximum affordable housing cost per month would be \$2,128. According to state guidelines, the deed restrictions required for SHI units must also require that the tenant or owners of the unit occupy that as their primary residence.

Table 7.8. Affordable Housing Income Limits by Household Size (Dukes County, 2022)

	30% (extremely low income)	50% (very low income)	80% (low income)	100% (median income)	120% (moderate income)
1-person	\$25,850	\$43,050	\$66,250	\$75,200	\$90,200
2-person	\$29,550	\$49,200	\$75,700	\$85,900	\$103,100
3-person	\$33,250	\$55,350	\$85,150	\$96,700	\$116,000
4-person	\$36,900	\$61,500	\$94,600	\$107,400	\$128,900
5-person	\$39,900	\$66,450	\$102,200	\$116,000	\$139,200
<i>Source: Dukes County Regional Housing Authority</i>					

Under Chapter 40B, developers proposing affordable developments may file a comprehensive permit to simplify and expedite local review. A comprehensive permit requires review only by the local Zoning Board of Appeals and can allow for many local regulations, such as zoning or a local wetlands bylaw, to be waived to promote the creation of affordable units. DHCD keeps an official count of affordable units in each community, called the Subsidized Housing Inventory (SHI). If SHI units make up less than 10 percent of a community's total year-round units, it is difficult for that community to deny a comprehensive permit.

Due to unique housing market pressures and high property values, Dukes County, along with Nantucket, has special permission from the State Legislature to create permanent deed restrictions for households with incomes up to 150 percent AMI. While income-restricted, year-round units above 80 percent AMI⁶² are an important part of addressing Tisbury's local housing needs, they do not meet the requirements for inclusion on the SHI.

⁶² Often called "community" or "attainable" housing depending on the context although these terms currently have no legal definition under Massachusetts law.

Tisbury's SHI is shown in Table 7.9. Notably, the way DHCD counts rental and homeownership units is different. For rental projects, if at least 25 percent of units are affordable per the Chapter 40B definition, every unit in the project may be counted on the SHI regardless of actual affordability.

Table 7.9. Tisbury Subsidized Housing Inventory (October 2022)

Name	Tenure	SHI Units	Expires	Comp. Permit?	Subsidizing Agency
Greenough House	Rental	6	Perp.	No	DHCD
Hillside Village	Rental	40	2025	No	RHS
Vineyard Village	Rental	12	2029	No	DHCD
Hillside Village III	Rental	5	2035	Yes	DHCD, HUD
Hillside Village II	Rental	10	2030	Yes	HUD
Love Housing Apartments	Rental	5	2042	Yes	HUD
Fairwinds	Ownership	3	Perp.	Yes	MassHousing, FHLBB
Kelsey Project	Ownership	1	2104	Yes	DHCD
Habitat for Humanity of Martha's Vineyard	Ownership	1	2106	Yes	DHCD
Lamberts Cove Road	Ownership	1	Perp.	Yes	DHCD
DMH Group Homes	Rental	8	N/A	No	DMH
Water Street	Rental	6	Perp.	Yes	DHCD
Lake Street	Rental	2	2110	Yes	DHCD
Greenwood Avenue	Ownership	2	Perp.	No	DHCD
Daggett Avenue	Ownership	1	Perp.	No	DHCD
Kuehn's Way ⁶³	Rental	20	Perp.	Yes	DHCD
Perlman House	Rental	7	Perp.	???	DHCD, MassHousing
Village Court Apartments	Rental	6	Perp.	No	DHCD
Total Units:		136	SHI Percentage:		6.9%
Source: DHCD					

Fifty-five SHI units (about 40 percent) are age-restricted rentals at a single site, Hillside Village, owned and operated by local nonprofit Island Elderly Housing Inc., and eight are group home units operated by the Massachusetts Department of Mental Health. This leaves families seeking low-income housing with

⁶³Initially the twenty Kuehn's Way units were mistakenly excluded from the SHI. As of writing the Town is working to correct the error.

comparatively few choices, and even fewer for those looking to own a home. Most of Tisbury's affordable units are rentals, with only nine deed-restricted homeownership units.

The deed restrictions on several SHI properties are set to expire within the next decade. However, all of these are owned and managed by established community nonprofits. Nonprofits will typically renew any expiring affordable housing restrictions, so Tisbury should not expect to lose units from the SHI over the lifetime of this plan.

The Island Housing Trust, an island-wide nonprofit specializing in the production of affordable housing using a community land trust (CLT) model,⁶⁴ has successfully completed nine of the projects in Tisbury's SHI, totaling forty-six affordable units (about 39 percent of the SHI). Their largest and most recent project is Kuehn's Way, off State Road, which was completed in 2022.

The IHT-developed units on the SHI are only a portion of housing the organization has created. The Trust has 22 units in Tisbury that are income restricted above the 80 percent AMI level- up to 140 percent AMI- and are therefore not eligible for inclusion on the SHI. For example, in addition to the two Lake Street units listed in Table 7.9, the project also created four units at 100 percent of AMI. The IHT participated in two more projects in Tisbury: Hanover House created 15 affordable units for Martha's Vineyard Hospital employees and a collaboration with Harbor Homes created a six-unit group housing opportunity for extremely low-income households. These are both valuable community assets that nonetheless are not counted on the SHI due to the targeted populations they serve.

In recent years, developers have shown interest in pursuing comprehensive permits for large-scale multifamily housing projects in Tisbury. In 2020, a developer submitted a comprehensive permit application for a 52-unit apartment project in Vineyard Haven on the site of the former Hinckley's Hardware, but the project was never realized and commercial uses have subsequently been proposed for the site.⁶⁵ In 2021, another developer applied for a 54-unit mixed-use comprehensive permit project at 386 State Road in the Business 2 zoning district (Island Cove Apartments), but this project is also on hold. MVC staff report that it is possible this project may move forward.

Tisbury has the highest number of affordable units of any Martha's Vineyard town, and accounts for over one-third of the total affordable units on the island. Still, the Town is dozens of units short of its 10 percent obligation, and there are many local housing needs beyond those defined by Chapter 40B (see "Housing Needs" section).

⁶⁴ A CLT is a nonprofit entity that can be used to create affordable housing while retaining ownership of the underlying land. Homebuyers purchase their homes but lease the underlying land from the CLT, removing the cost of land from the sale price of the unit and allowing the CLT to maintain affordability in perpetuity.

⁶⁵ Martha's Vineyard Commission, *Developments of Regional Impact*, accessed October 2022, <https://www.mvcommission.org/dris>.

HOUSING NEEDS

Income and Poverty

Tisbury has the lowest median household income (MHI) and highest poverty rates on Martha's Vineyard. Table 7.10 shows that the Town's MHI falls significantly below that of other Dukes County communities and the state.

Table 7.10. Median Household Income (MHI)	
Place	MHI
West Tisbury	\$98,843
Chilmark	\$98,417
Aquinnah	\$98,182
Oak Bluffs	\$90,313
Massachusetts	\$84,385
Edgartown	\$78,419
Dukes County	\$77,318
Tisbury	\$52,711
Source: American Community Survey 5-Year Estimates, 2016-2020	

In 2020 Tisbury was estimated to have a 4.3 percent family poverty rate and a 9.9 percent individual poverty rate (see Table 7.11).

Table 7.11. Income Below Poverty Level in Past 12 Months				
	Families		Individuals	
	#	%	#	%
Tisbury	43	4.3%	406	9.9%
Edgartown	34	3.3%	257	6.0%
Oak Bluffs	34	3.4%	329	7.1%
West Tisbury	0	0.0%	140	6.5%
Dukes County	127	3.1%	1,291	7.5%
Massachusetts	110,418	6.6%	653,454	9.8%
Source: US Decennial Census (2020)				

Households are considered housing cost burdened when they pay more than 30 percent of their total income for housing costs, including utilities. Table 7.12 shows HUD's estimates for housing cost burden among Tisbury households. About one-third of all Tisbury households are thought to pay more than 30 percent of their incomes for housing. The problem is less prevalent among homeowners, but hundreds of owner households still pay more for housing than they can afford.

Table 7.12. Housing Cost Burden by Household Tenure

	Owner Households		Renter Households		All Households	
Cost Burden as % of household income	#	%	#	%	#	%
less than 30%	725	72.1%	490	59.0%	1,215	66.2%
30%-50%	140	13.9%	115	13.9%	255	13.9%
Greater than 50%	140	13.9%	210	25.3%	350	19.1%
Cost Burden not available	0	0.0%	15	1.8%	15	0.8%
Total	1,005	100.0%	830	100.0%	1,835	100.0%

Source: HUD CHAS (2019)

Table 7.13 shows housing cost burdens affect households in different income ranges as well: at income levels below 30 percent of AMI, most households are housing cost burdened. Forty percent or more of households at the under 30 percent and 50 to 80 percent AMI levels are severely housing cost burdened, meaning that they pay more than half of their incomes in housing costs.

Table 7.13. Housing Cost Burden by Household Income

	< 30% AMI		30-50% AMI		50-80% AMI		80-100% AMI		> 100% AMI	
Cost Burden as % of household income	#	%	#	%	#	%	#	%	#	%
Less than 30%	155	42.5%	215	65.2%	215	53.8%	185	75.5%	455	92.9%
30%-50%	50	13.7%	100	30.3%	25	6.3%	60	24.5%	20	4.1%
Greater than 50%	160	43.8%	15	4.5%	160	40.0%	0	0.0%	15	3.1%
Total	365	100.0%	330	100.0%	400	100.0%	245	100.0%	490	100.0%

*Uses HUD's HAMFI definition
Source: HUD CHAS (2019)

Homelessness

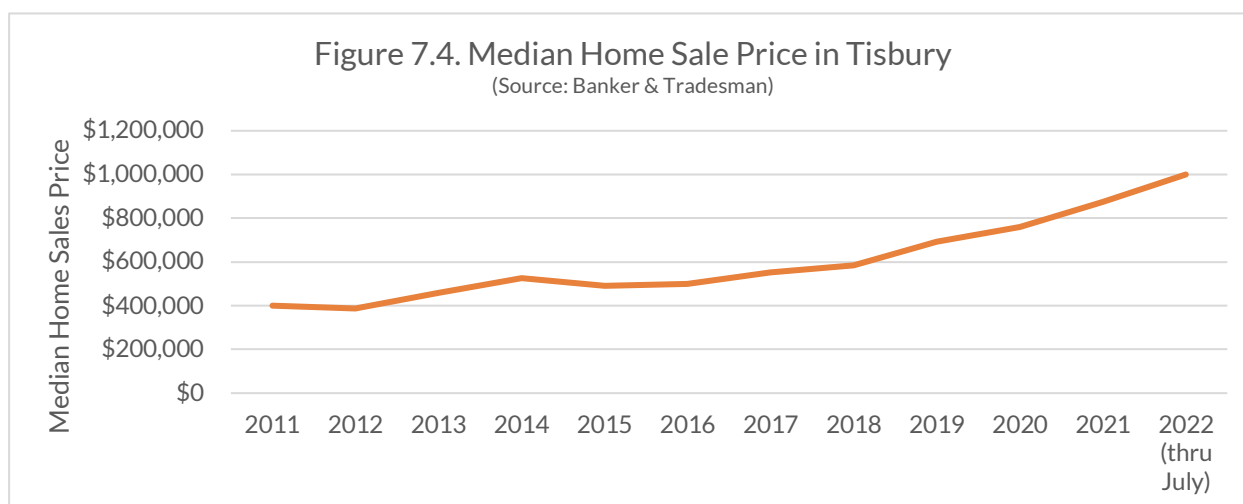
The Cape and Islands Regional Network on Homelessness conducts an annual point in time (PIT) count of people who are unsheltered or staying in an emergency shelter. In 2021, nine individuals and two two-person families were found to be living unsheltered in Dukes County. PIT counts can only offer a snapshot of a single day, however, and do not account for other types of housing instability, such as “couch surfing.” Harbor Homes MV, the primary local nonprofit dealing with homelessness, performed another count in their own facilities and counted 43 people in 2022, rising from 28 in 2020.⁶⁶

⁶⁶ Eunki Seonwoo, “Homeless count inches up on MV,” *MV Times*, (March 15, 2022).

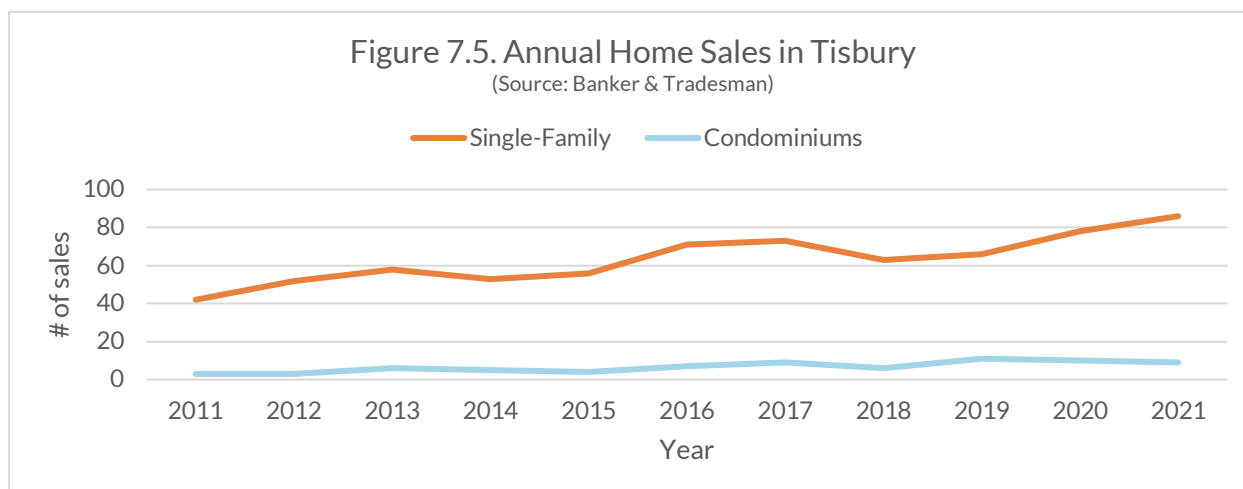
There is no year-round homeless shelter on the Vineyard, although Harbor Homes MV offers a temporary winter shelter on an annual basis and has several programs for housing individuals and families in need.

HOUSING MARKET TRENDS

Tisbury's housing market has become less affordable for middle- and lower-income households over time, and sale prices are still rising rapidly (see Figure 7.4). From 2011 to mid-2022, the median home sales price (including all housing types) in Tisbury grew from \$400,000 to \$1,000,000, an increase of 150 percent. Median sales prices for both single-family homes and condominiums have more than tripled since 2000, but median household income did not even double during the same period.⁶⁷



The volume of annual home sales in Tisbury reached its lowest point of the new millennium in 2009 due to the housing market crash of 2008 but has tended to rise since. The total volume of sales reached 136 in 2021, the highest since 2004. Single-family home sales have been particularly strong in recent years, reaching an all-time high of 86 in 2021 (see Figure 7.5), even while the median sales price was above \$900,000.



⁶⁷ US Census, 2000-2020.

SHORT-TERM RENTALS

In October 2022, there were 605 short-term rental properties in Tisbury registered with the state's short-term rental tax database, up from 439 earlier in March of the same year (a 38 percent increase), a rate of growth seen across the Vineyard. These 605 properties represent about 19 percent of all housing units in Tisbury (including both occupied and vacant/seasonal units). Some of this growth is likely due to existing rentals coming into compliance with the law, but there has been a noticeable increase in both the supply and demand for short-term rentals.⁶⁸ In the same October 2022 period, Airbnb and Vrbo listed a combined total of 229 active rentals, concentrated in downtown Vineyard Haven but found in all residential areas. According to industry data, the daily rate for a short-term rental in 2022 peaked in August at \$631 per day.⁶⁹ At the same time rates peaked, the Town's entire supply of short-term rentals was completely booked, which demonstrates the extremely high demand for these types of rentals in the summer. The pressure on the year-round housing supply from the in-demand short-term rental market is significant and likely growing.

RENTAL HOUSING DEMAND TRENDS

Rental housing is increasingly considered an important asset to economic development, particularly as it enables a community to attract or retain its younger labor force and others not interested in, or able to, afford homeownership in traditional single-family neighborhoods. To the extent that rental housing development can complement mixed uses in older commercial centers, it also represents an opportunity to upgrade underutilized properties. Younger households and empty nesters are able and willing, and often prefer, to live in areas that enable them to walk to restaurants, retail shops, recreational opportunities and even jobs. Employers are increasingly looking to communities that will enable their current and prospective employees to live and work close to the business location.

The average annual demand for rental housing by age group, income, and affordable rental rates has been analyzed for this master plan. By the consulting team's economist.⁷⁰ The objective is to assist Tisbury officials and residents in understanding residential development potential, and to target types of rental units, in terms of cost and size and amenities, to various age groups of potential renters, depending on the direction the Town may wish to take. For the purposes of this analysis, the market area is defined as the area within a 20-minute drive time of State Road and Edgartown Road. The 20-minute drive time area is consistent with the generally accepted view of the primary geographic area within which communities offer similar economic development attributes and constitute the competitive region for attracting jobs and households. This market area is shown graphically in Figure 7.6 below.

⁶⁸ Noah Asimow, "Island Sees Significant Uptick in Short-Term Rental Properties," *Vineyard Gazette*, (October 27, 2022).

⁶⁹ AirDNA, accessed October 22, 2022, <https://www.airdna.co/>.

⁷⁰ FXM Associates. FXM's model is distinctive in that it captures mobility within the market area as well as net new growth. Over 90 percent of expected demand for rental housing in most market areas in New England is generated by households already residing in the area, who are looking to change from owners to renters, upsize or downsize from the current unit, or change location for family or work reasons. FXM's model explicitly accounts for propensity to own or rent and frequency of moving by householder age and income.

Figure 7.6. 20-minute Housing Market Area

Source: EnvironicsAnalytics, Claritas *Spotlight Reports*, 2022.

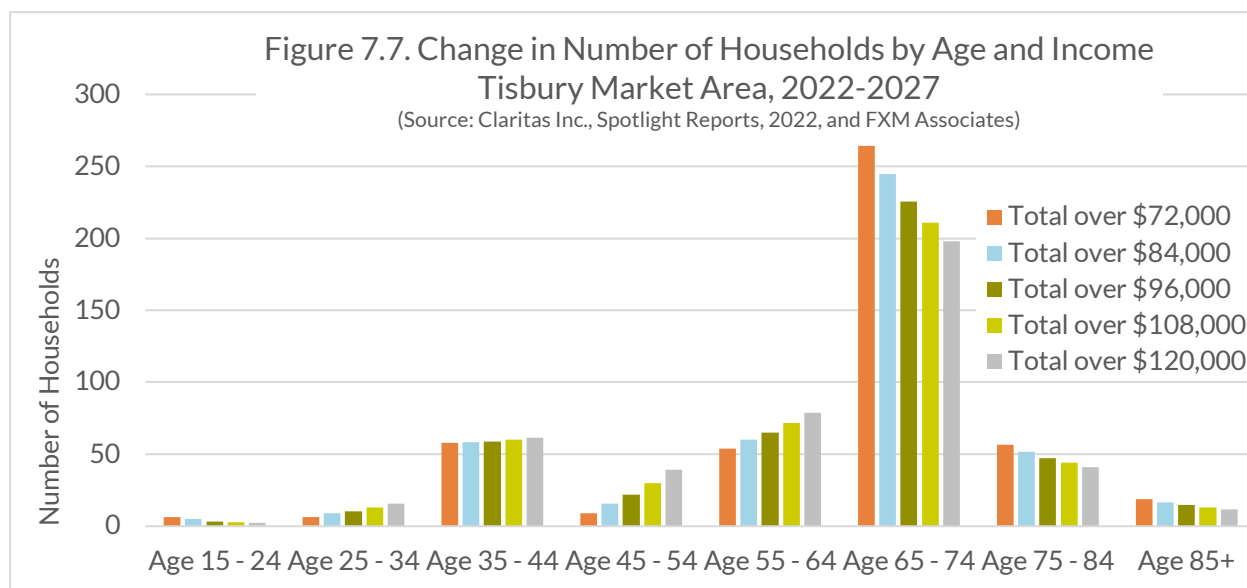
Data in Table 7.14 below provide an overview of population, households, and renters within the market area. Currently, about one-third of housing units within a 20-minute market area are renter-occupied.

Table 7.14. Housing Demand Context: Tisbury 20-Minute Market Area	
2022 Population	16,811
Households	7,642
Renter Households	2,569
% Renters	34%
Renters Moving in Average Year	197
% of All Households	2.6%
Median Household Income	\$80,508
<i>Source: Claritas Inc., Spotlight Reports, Demographic Snapshot, 2022 Estimates, and FXM Associates</i>	

The following demand assessment is segmented by age and affordable rents. Rent levels needed to support rehabilitation or new construction will vary depending upon the development costs of a specific project, which may include tax credits, favorable financing terms, land write-downs and other mechanisms to assure feasibility.

Households within the under-35 and 55-to-74 age groups are often targeted by developers for multi-unit and specialty rental housing, such as re-use of formerly commercial and institutional structures, because they are less likely to have school-age children and therefore more open to units with fewer bedrooms. They are also likely to be attracted to denser town and village environments that allow walking distances to restaurants and retail shops. Households in other age groups, however, also generate demand for housing within the market area, and this analysis assesses potential demand for all age groups.

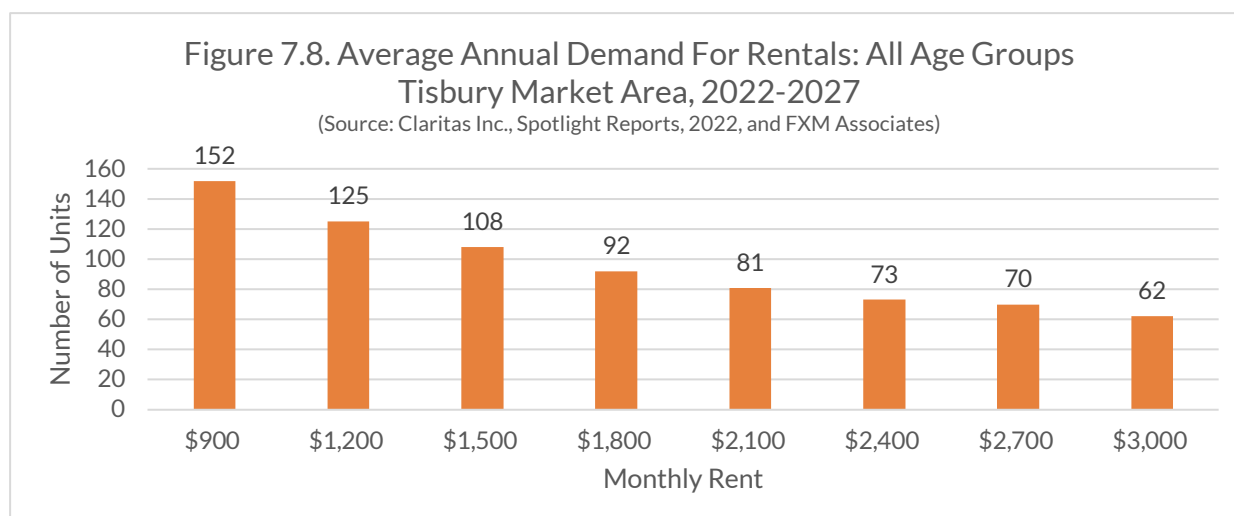
Figure 7.7 shows a key factor in estimating future rental demand: changes in households by age and income. These demographic factors heavily influence household decisions on whether to change housing situation and, if so, what will be affordable to them. The changes projected over the next five years in numbers of households by age and income are shown in the figure below. The incomes chosen are in the upper ranges, since these households could afford the rents necessary to support rehabilitated or newly constructed market-rate rental housing.



Particularly striking is the projection of changes in age cohorts in the market area over the next five years: the greatest gains across all five income categories are estimated to be in the age 65-to-74 cohorts, while the age category 45 to 54, typically a population segment at peak earning capacity, would gain very few households in all categories of income selected above. Young households, ages 25 to 34, barely register at any income level.

These projections provide an indication of robust ability to afford market rents in the age 65-to-74 category. Households in the income category over \$108,000 – who could afford rents up to \$2,700 per month – gain population and households in all age categories, indicating potential future demand for high quality rental housing for a variety of lifestyles.

Figure 7.8 translates these factors into average annual demand for all rentals by all age groups in the Tisbury 20-minute Market Area, taking into consideration affordability, propensity to move in any given year, and propensity to rent.



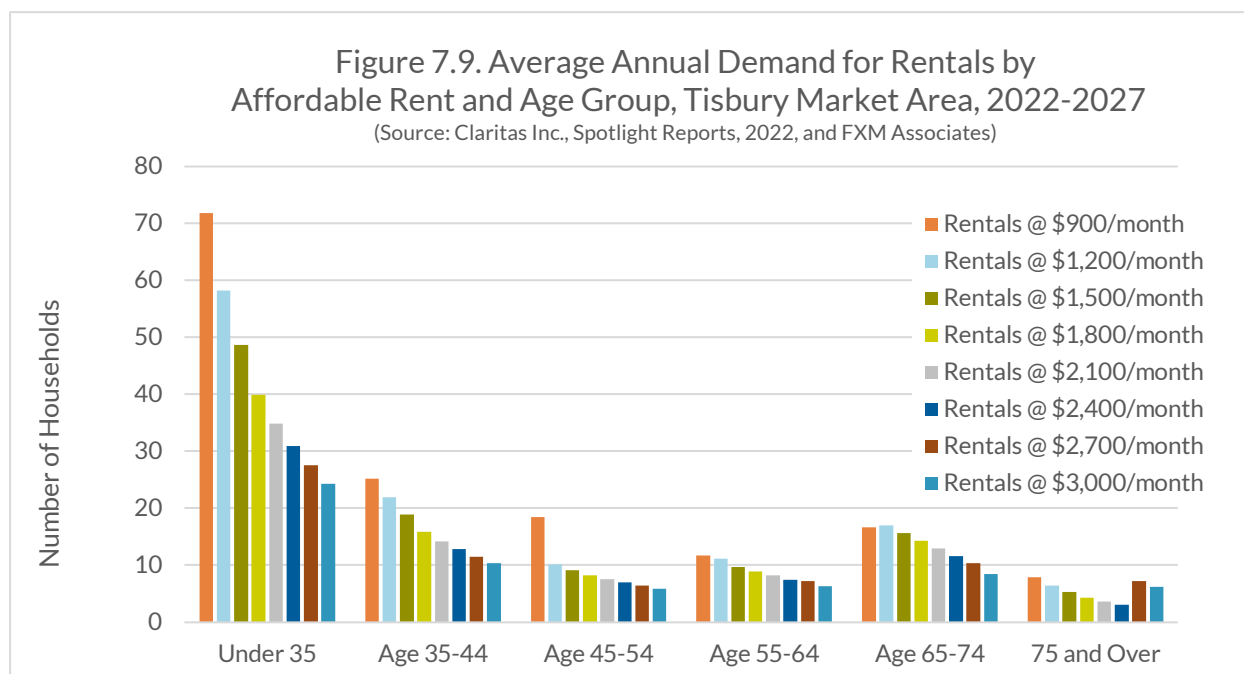
For example, of the total number of households, 152, expected to move to rental housing each year within the 20-minute market area and able to afford at least \$900 per month rent, approximately 92 would be able to afford monthly rents of up to \$1,800; 81 would be able to afford \$2,100; 70 would be able to afford \$2,700, and 62 rents at \$3,000.

As shown in Table 7.15 below, based on Tisbury's current share of rental housing in the market area, an estimated 22 households able to afford up to \$2,400 a month rent might be absorbed by additional rental development in a competitive rental property in Tisbury each year. Table 7.15 presents these estimates for each of the rental points shown in Figure 7.8 above. (Note that the figures in the demand columns are **not** additive. They are cumulative, with the "Rentals @ \$900" figure representing total estimated average annual demand in both Figure 7.8 and Table 7.15).

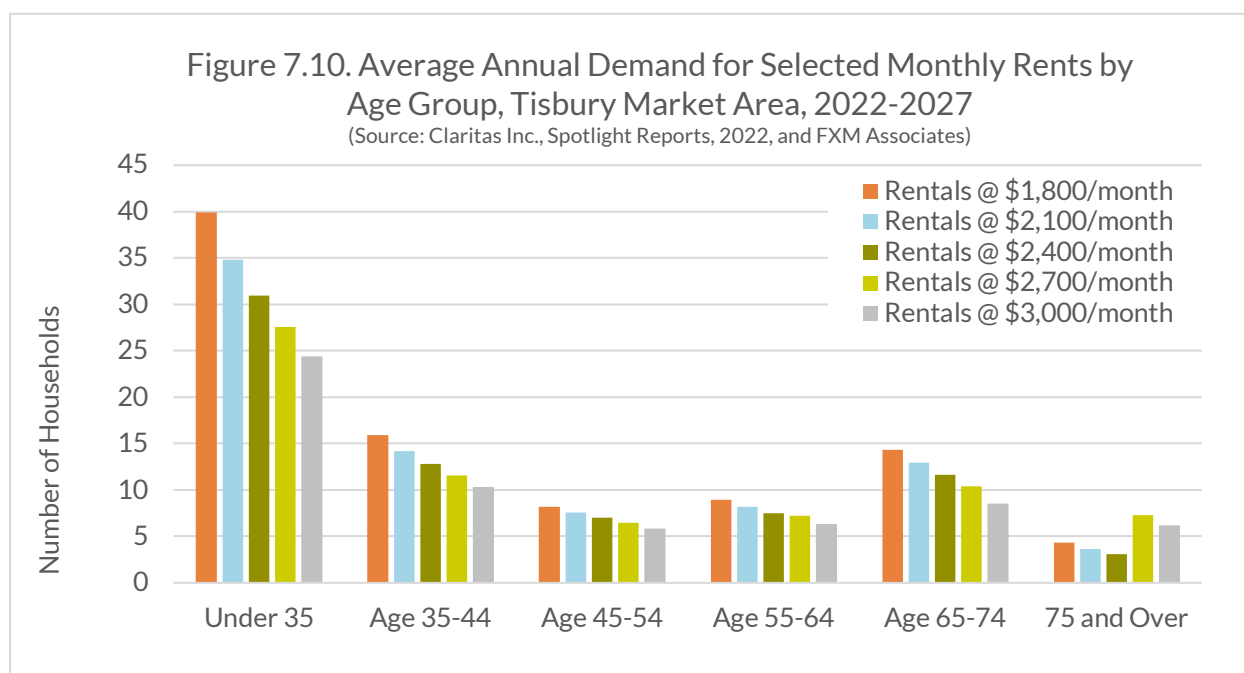
Table 7.15. Estimated Average Annual Demand for Rental Housing		
	Total Average Annual Demand in 20 min Market Area	Total Average Annual Demand in Tisbury
Rentals @ \$900	152	46
Rentals @ \$1,200	125	38
Rentals @ \$1,500	108	32
Rentals @ \$1,800	92	27
Rentals @ \$2,100	81	24
Rentals @ \$2,400	73	22
Rentals @ \$2,700	70	21
Rentals @ \$3,000	62	18
Source: Claritas Spotlight Reports, 2021, and FXM Associates		

The actual number of units that might be captured at these rental prices in a development or redevelopment project in Tisbury would depend on the quality and size of the units, site and building amenities, pricing, marketing, and other factors such as competing rental development in other towns.

The information in Figure 7.8 and Table 7.15 can be further broken down into age groups, which may be useful to marketing efforts based on the relative numbers of households by age group. Figure 7.9 presents these data by age group.



The graph reflects the greater propensity of younger households to rent and the frequency of their moving compared to older households, as well as the sensitivity of levels of demand to varying rental prices. Figure 7.10 offers the same kind of analysis, but with the data for rents in the upper ranges only.

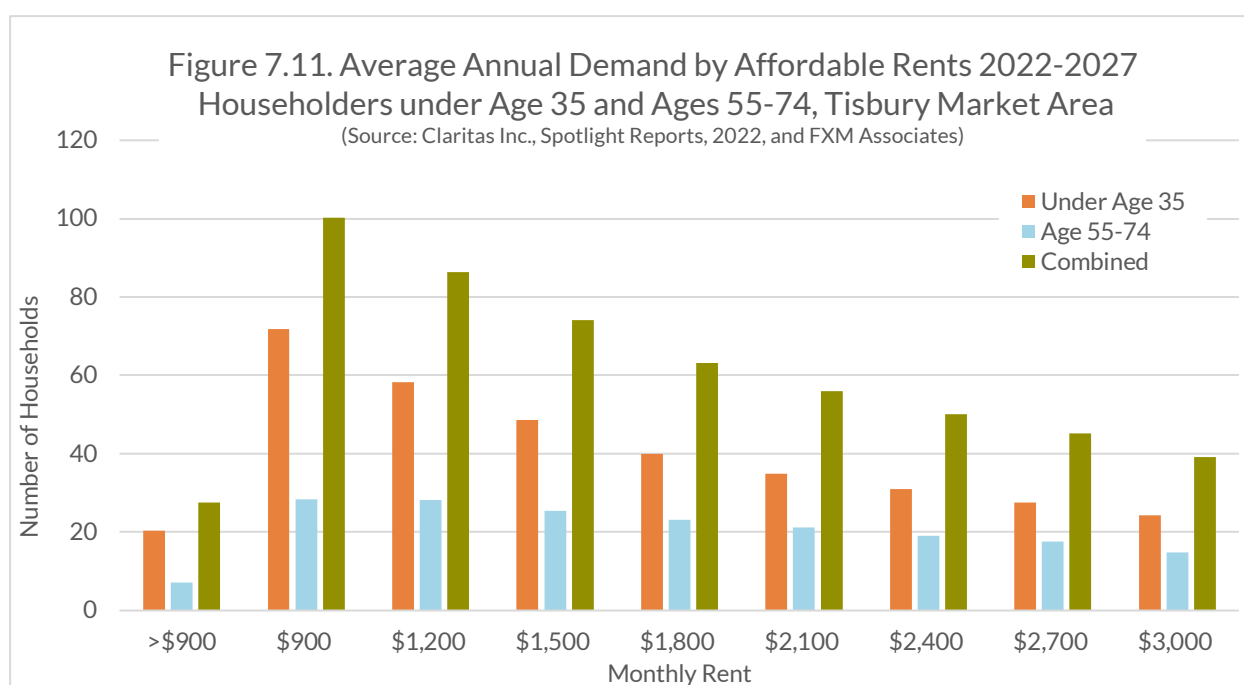


Some developers in recent years have targeted rental units to households under age 35 and age 55 to 74, who often mix well within the same developments. Both groups show a higher propensity to live within walking distance of retail stores, restaurants, and transit if possible. The number of younger

households in the Tisbury market area, however, is projected to experience very little growth over the next five years.

Conversely, as shown by the data in Figure 7.10 above, the baby boom generation households are growing in number within the 55 and older age categories, and these households have shown an increasing propensity to rent in recent years as they become empty nesters and sell their single-family homes for smaller, more manageable units. Others want to cash in the equity of their former dwellings because they need liquid income in the absence of the pensions enjoyed by prior generations of retirees. Many also continue to work part time.

Data in Figure 7.11 show the average annual demand by selected rental rates for the under 35 and 55- to 74-year-old householders, and their combined demand.



In order to assess the appropriateness of the rental categories used in the above demand analysis, an examination of actual rents on listings of available rentals within Tisbury's market area was undertaken. No rental listings on Martha's Vineyard appeared on Zillow.com at the times sampled, however. Since there are known to be rentals in the market area, local ads and agents, or word of mouth are likely more commonly used methods of recruiting tenants. In the absence of data for Tisbury's market area, average rents on available units on Cape Cod are shown in Table 7.16 below.

Table 7.16. Average Rental Listings on Cape Cod

1 BR	2 BR	3BR
\$ 1,708	\$ 2,511	\$ 3,149
Source: Zillow.com, March 2023		

Local Policies and Practices

LOCAL AND REGIONAL CAPACITY

The Town does not have any employees, full or part-time, whose primary responsibilities explicitly include addressing affordable housing issues. There is a lack of clear procedures for tasks such as updating the Town's Subsidized Housing Inventory at the municipal level.

Large residential projects, including comprehensive permits, are subject to review at the regional level by the Martha's Vineyard Commission (MVC) if they qualify as Developments of Regional Impact (DRI). The MVC must hold a public hearing to weigh the regional costs and benefits of a DRI and may impose conditions or deny an application.

In the spring of 2022, all six Martha's Vineyard Town Meetings voted to support the creation of an island-wide Housing Bank, modeled after the successful Martha's Vineyard Land Bank. The proposed Housing Bank legislation would create a 2 percent fee on real estate transactions over \$1 million, which would then be used by the bank to purchase property and facilitate the development of housing aimed both at low-income households below 80 percent AMI as well as middle-income households up to 240 percent of AMI. At time of writing the legislation is awaiting review and approval by the Massachusetts State Legislature.

Finally, there are several island-wide nonprofit and public agencies working on housing issues in addition to the Island Housing Trust and Island Elderly Housing Inc. discussed in the "Affordable Housing" section.

- Habitat for Humanity of Martha's Vineyard builds homeownership units across the island, sometimes in partnership with the IHT.
- The Dukes County Regional Housing Authority helps with affordable housing administration, such as running housing lotteries and managing 101 total affordable rental units.
- Harbor Homes MV provides services for local homeless individuals like emergency shelter in hotels and a congregate house in Vineyard Haven for those who have recently experienced homelessness.
- The Martha's Vineyard Commission employs an Island Housing Planner who provides support to towns, helps coordinate island-wide housing efforts, and interfaces with state decision-makers on housing issues.

ZONING REGULATIONS

Most of Tisbury's land area is zoned for residential development, and most residential zoning districts encourage the production of single-family homes (for a more detailed discussion of residential zoning in Tisbury, see Chapter 5, Land Use). In the Business 2 District (along State Road), up to three housing units may be allowed on a single lot without the need for a discretionary permit and in the Waterfront/Commercial District (in Vineyard Haven) the Town allows development with commercial uses on the first floor and a residential unit on an upper floor.

Tisbury's zoning bylaw (ZBL) has few provisions aimed explicitly at producing affordable housing units. The ZBL provides for "community housing," deed-restricted units for households in the 80 to 150 percent AMI range. Multifamily projects that include at least one-quarter community housing units and one quarter affordable units may waive most dimensional standards such as minimum lot size and setbacks.

Accessory apartments are small dwelling units subordinate to a larger, existing primary dwelling on the same site. In Tisbury, one per lot is allowed by special permit from the Board of Appeals in most residential areas, limited to an area of 600 square feet or no more than 40 percent of the existing dwelling's area. This can be increased to 50 percent when the accessory unit is subject to affordability restrictions. Accessory apartments are required to meet all dimensional regulations for the district in which they are located. Tisbury has many homes that were constructed prior to the first adoption of townwide zoning regulations in 1972 that may not conform with current regulations, limiting the areas where accessory apartments can be proposed.



8. Economic Development

Introduction

Economic development includes aspects of a community like its economy and the health of its tax base, as well as other issues and policies that affect an area's economic vitality, such as the attractiveness of its commercial districts and main streets, the ability of schools to educate the next generation of workers and citizens, the quality of local infrastructure, and the effectiveness of its government to support the needs of businesses and residents alike. Economic development is key to maintaining and improving a community's quality of life and its ability to attract and retain businesses and the customers and employees that come with them.

In a place like Tisbury, that means serving multiple communities and constituencies: the yearly surge of summer visitors attracted to the island's legendary beauty; the residents who call the island home and work to power the local economy; and the many businesses, self-employed people, and community institutions that operate both seasonally and year-round given Tisbury's role as the island's off-season hub and only year-round ferry port.

Existing Conditions and Trends

LABOR FORCE

Tisbury is the third most populous community on Martha's Vineyard, with 4,815 residents, according to the 2020 U.S. Census. Still, it has the island's second largest labor force and the highest labor force participation rate on the island at 66.8 percent (Table 8.1). Tisbury is commonly called the hub and only year-round economy on the island due to the presence of year-round ferry service by the Steamship Authority to the Port of Vineyard Haven from Woods Hole.

Table 8.1. Labor Force and Education

	Tisbury	W. Tisbury	Edgartown	Aquinnah	Chilmark	Oak Bluffs	MA	New England
Labor Force Participation	66.8%	51.6%	62.1%	56.4%	66.6%	65.8%	67.2%	66.3%
Unemployment	2.8%	0	3.7%	2.8%	5.2%	4.2%	3.4%	3.4%
Bachelor's Degree or more	38.1%	55.4%	39.2%	38.5%	56.1%	45.4%	44.5%	40.8%

Source: American Community Survey 5-year Estimates 2016-2020 via Social Explorer

In 2020, Tisbury had a comparable or lower unemployment rate than its island neighbors, at an extremely low average of 2.8 percent. This is lower than both the state and New England regional unemployment rate, 3.4 percent. Tisbury, however, does have the lowest higher education attainment on the island, with 38.1 percent of residents obtaining a bachelor's degree or more. This is lower than the state rate of 44.5 percent but still significantly higher than the national rate of 23.5 percent.⁷¹

In total, the 2020 American Community Survey 5-year Estimates (ACS) results show that 2,452 Tisbury residents are employed. Of those, only 49.8 percent work in the private sector, with 24.7 percent of all workers self-employed. This is compared to 65.8 percent of Massachusetts in the private sector, and 8.7 percent of workers self-employed at the state level. This high rate of self-employment is something Tisbury shares with its Vineyard neighbors, though the highest levels of self-employment are in Aquinnah (39.5 percent) and Edgartown (38.3 percent).

Age

With a median age of 55.9, Tisbury finds itself with a statistically older population than Dukes County overall (49) and two other large towns on the island. Edgartown has a median age of 45.2 and Oak Bluffs 43.8, the youngest municipality on the island. This is in comparison with the state's median age of 39.6 and New England's at 40.8. Twenty-seven percent of Tisbury residents are age 65 or older, compared to 22.6 percent in Oak Bluffs and 19.5 percent in Edgartown. Children under 18 represent 13.6 percent of the population, compared to 23.3 percent and 16.9 percent for Oak Bluffs and Edgartown respectively.

⁷¹ 2020 American Community Survey (5-Year Estimate)

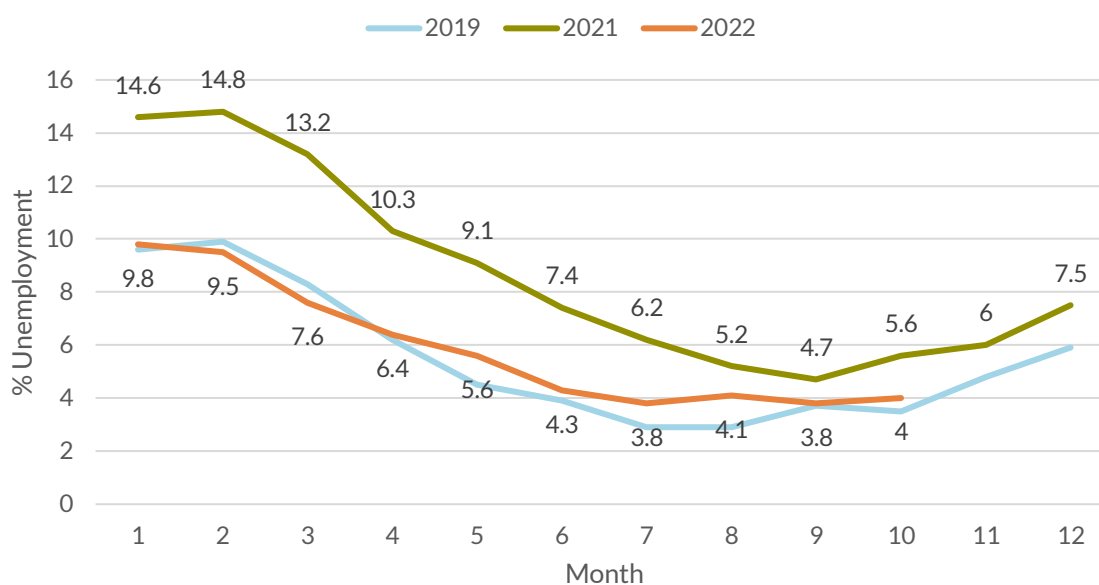
Unemployment Trends

Employment in Tisbury was deeply affected by the COVID-19 pandemic, with the unemployment rate skyrocketing to 30.7 percent in April 2020. Unemployment rates remained above their 2019 levels until 2022. Initial unemployment claims peaked the week of March 21, 2020, while continuing claims peaked the week of April 25, 2020, according to data from the Massachusetts Office of Labor and Workforce Development. Industry sectors that were especially impacted were Construction, Retail Trade, Administrative & Support, Waste Management & Remediation, and Accommodation and Food service.

Based on data from the Massachusetts Department of Economic Research, the unemployment rate in Tisbury typically peaks in January and February, before dropping during the busy summer months and rising again through the fall and early winter. The seasonal changes in employment can also be seen in the monthly unemployment rates, with the highest unemployment rates in the first few months of the year before dropping significantly during the summer months and rising again during the fall.

Figure 8.1. Tisbury Monthly Unemployment Rate

(Source: Mass. DER)



EMPLOYMENT BASE

Although ranking third in population, Tisbury has the second largest number of jobs on the island. It ranks behind Edgartown and slightly ahead of Oak Bluffs among all Dukes County towns in overall employment, with an estimated 4,382 jobs in 2021. Tisbury leads other Vineyard communities in Construction and in Health Care and Social Assistance jobs, and is second to Edgartown in Administrative Services, Finance and Insurance, Real Estate, and Arts, Entertainment, and Recreation jobs. Tisbury ranks third behind Edgartown and Oak Bluffs in Accommodation (hotels/motels) and Food Services (mostly restaurants) jobs.

Table 8.2. Dukes County Towns Ranked by Population and Employment

Rank	Town	Population	Rank	Town	Population
1	Oak Bluffs	5,341	1	Edgartown	4,564
2	Edgartown	5,168	2	Tisbury	4,382
3	Tisbury	4,815	3	Oak Bluffs	3,460
4	West Tisbury	3,555	4	West Tisbury	1,185
5	Chilmark	1,212	5	Chilmark	519
6	Aquinnah	439	6	Aquinnah	152
7	Gosnold	70	7	Gosnold	58

Source: US Census, 2020; Mass. Dept of Labor and Workforce Development, ES202 Reports; REIS 2021; and FXM Associates

Location quotients (LQ) are a helpful tool for evaluating strengths or weaknesses in employment and wages for a given jurisdiction compared to others. The LQs for Tisbury show certain sectors make up a larger share of employment and the economy in Tisbury compared to the state. This includes industries like natural resources and mining, which covers farming, fishing, and aquaculture, whose share of employment is 3.68 times larger in Tisbury compared to the state. In an average month, however, this sector employs only 40 people in Tisbury, yet it is a critically important source of livelihood for commercial fishermen on Martha's Vineyard. The construction LQ for Tisbury is 2.23 while for other services (like auto repair and personal care) it is 1.91, demonstrating the strength of these industries in Tisbury. Finally, the trade, transportation, and utilities sector, which includes activities like retail and grocery stores or warehousing and bus drivers, has an LQ of 1.31 while leisure and hospitality have an LQ of 1.39, both in line with conceptions of Tisbury as a tourism and service-centered economy.

LQs are calculated by finding what percentage of a focus geography's workforce is employed in any given industry and dividing that by the percentage of a comparison geography's workforce in any given industry. For example, an LQ score of 1 means that the two geographies have an equal percentage of their employment in a given industry. But an LQ score of 2 demonstrates that the focus geography has double the percentage of employment in a given industry versus the comparative geography.

Table 8.3. Employment by Industry and Location Quotients

NAICS	Industry	2021 Avg Monthly Employment	% of Jobs	LQ vs. MA
10	Total, All Industries	2,872	100.0%	1.00
101	Goods-Producing	408	14.2%	1.17
102	Service-Providing	2,464	85.8%	0.98
1011	Natural Resources and Mining	40	1.4%	3.68
1012	Construction	325	11.3%	2.23
1013	Manufacturing	43	1.5%	0.22
1021	Trade, Transportation and Utilities	630	21.9%	1.31
1022	Information	62	2.2%	0.75
1023	Financial Activities	109	3.8%	0.61
1024	Professional and Business Services	250	8.7%	0.49
1025	Education and Health Services	835	29.1%	1.02
1026	Leisure and Hospitality	349	12.2%	1.39
1027	Other Services	169	5.9%	1.91
1028	Public Administration	60	2.1%	0.52

Source: Massachusetts Department of Economic Research, ES-202

Overall, Tisbury has seen a steady increase in employment since 2016. Table 8.4 shows that some industry sectors are performing better than others, however. Goods-producing jobs like Natural Resources and Mining and Construction experienced a 30 percent or greater growth in the number of jobs. Service-providing jobs grew significantly slower and more unequally. Some industries, like Professional and Business Services or Leisure and Hospitality swelled over these five years. Meanwhile job numbers in other industries such as Information or Trade, Transportation, and Utilities dropped considerably on a percentage basis.

Table 8.4. Change in Employment by Industry, 2016-2021

NAICS	Industry	2016 Avg Employment	2021 Avg Employment	% Change
10	Total, All Industries	2,688	2,872	6.9%
101	Goods-Producing	322	408	26.7%
102	Service-Providing	2,366	2,464	4.1%
1011	Natural Resources and Mining	30	40	33.3%
1012	Construction	249	325	30.5%
1013	Manufacturing	43	43	0.0%
1021	Trade, Transportation and Utilities	766	630	-17.8%
1022	Information	81	62	-23.5%
1023	Financial Activities	95	109	14.7%
1024	Professional and Business Services	192	250	30.2%
1025	Education and Health Services	719	835	16.1%

Table 8.4. Change in Employment by Industry, 2016-2021

NAICS	Industry	2016 Avg Employment	2021 Avg Employment	% Change
1026	Leisure and Hospitality	284	349	22.9%
1027	Other Services	156	169	8.3%

Source: Massachusetts Department of Economic Research, ES-202

WAGES

Location quotients for wages allow an easy comparison against the state's and reveal that wages in Tisbury are a good deal lower compared to the state average. Table 8.5 shows the overall 2021 weekly wage LQ for Tisbury workers, which was 0.77 compared to the state's weekly wage. In some sectors, Tisbury wages were significantly lower than the state average. For instance, in Manufacturing, the average weekly wage for a Massachusetts worker was \$1,913. Yet in Tisbury, it was only 46 percent of that amount at \$876. In only three industries (Education and Health Services, Leisure and Hospitality, and Other Services) did the Tisbury weekly wage exceed the state average weekly wages. The largest wage LQ is for Leisure and Hospitality at 1.53, though this is still a low-wage sector, with workers earning \$986 weekly.

Table 8.5. Wage by Industry and Location Quotient

NAICS	Industry	Tisbury 2021 Average Weekly Wages	Wage LQ vs. MA
10	Total, All Industries	\$1,295	0.77
101	Goods-Producing	\$1,423	0.79
102	Service-Providing	\$1,274	0.76
1011	Natural Resources and Mining	\$793	0.57
1012	Construction	\$1,573	0.94
1013	Manufacturing	\$876	0.46
1021	Trade, Transportation and Utilities	\$1,092	0.86
1022	Information	\$1,134	0.39
1023	Financial Activities	\$1,532	0.48
1024	Professional and Business Services	\$1,368	0.53
1025	Education and Health Services	\$1,506	1.17
1026	Leisure and Hospitality	\$986	1.53
1027	Other Services	\$1,021	1.10
1028	Public Administration	No Data	NA

Source: Massachusetts Department of Economic Research, ES-202

While these figures provide a yearly picture for employment in Tisbury, it should come as no surprise that employment in a place like Tisbury is highly variable and seasonal. Figure 8.2 illustrates the trend in overall employment for all industries with a clear increase in jobs during the summer tourist season, though this trend is not as extreme for Tisbury's more year-round economy as it is for other larger

economies on the island like Edgartown or Oak Bluffs. Due to the impact of the pandemic on the last two years of employment trends, available data from 2019 data may provide a clearer picture of Tisbury's employment base and the seasonal fluctuations that occur here. Employment in Tisbury was lowest in February 2019 at 2,416 workers before peaking in July at 3,466, a 43.5 percent increase. By comparison, Oak Bluffs experienced an 88 percent increase between the lowest (March) and highest (August) months of employment while Edgartown saw a 139 percent increase between the lowest (February) and highest (July) months.

Figure 8.2. Tisbury 2019 Monthly Employment
(Source: Mass. DER)

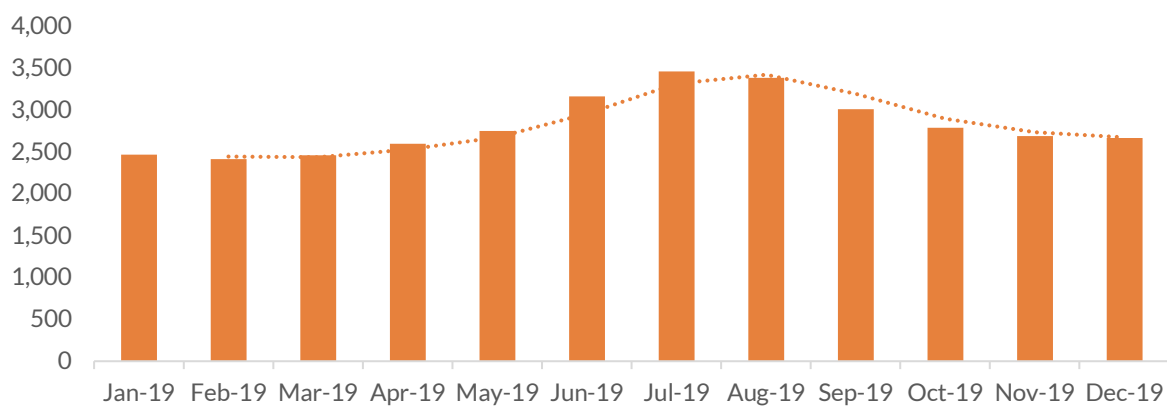


Figure 8.3. Oak Bluffs 2019 Monthly Employment
(Source: Mass. DER)

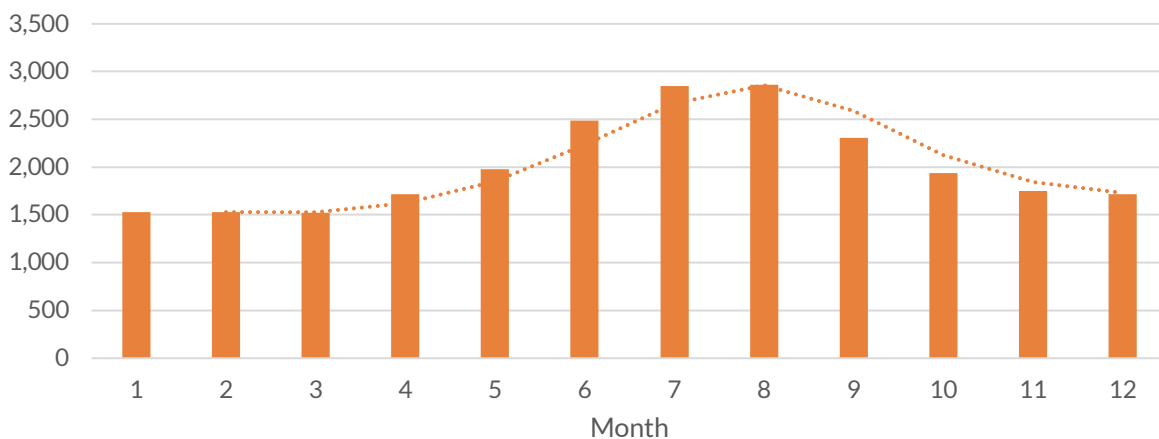
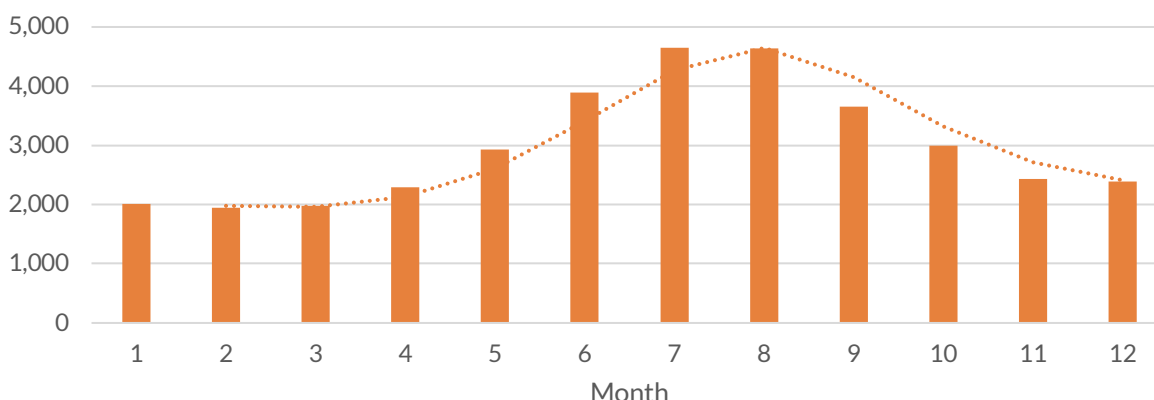
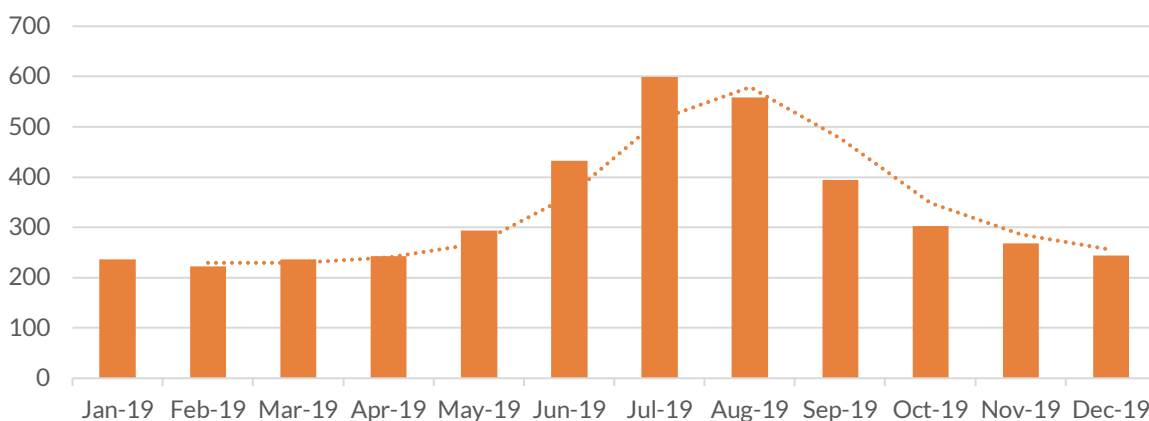


Figure 8.4. Edgartown 2019 Monthly Employment
(Source: Mass. DER)



Individual sectors of the Tisbury economy are still affected by the swing in seasonal employment, particularly sectors related to tourism. For instance, the Leisure and Hospitality sector faced a 169.8 percent increase in jobs between the low in February and the high in July. By July, leisure and hospitality represent 17.28 percent of all jobs in Tisbury, compared to the yearly average of 11.9 percent.

Figure 8.5. Tisbury Leisure and Hospitality Monthly Employment in 2019
(Mass. DER)



This variability in seasonal work has a significant impact on earnings in Tisbury. According to data from the 2020 American Community Survey (ACS), the median earnings for a Tisbury resident employed full-time, year-round are nearly 34 percent more than the generally employed population. This generally employed population includes those who work part-time, seasonally, or who work multiple part-time jobs. For some industry sectors, that gap is much larger. In the Construction industry, the median gap is 74.1 percent, while the General Services industry except public administration has a median earnings gap of 88 percent. The widest median earnings gap, however, is in the Finance and Insurance, Real Estate, and Rental and Leasing industry at 142 percent and the Health Care and Social Assistance industry at 299 percent.

Table 8.6. Tisbury Wages by Employment Type

Industry Sector	Median 2020 Earnings: General Civilian Employed Population	Median 2020 Earnings: Full-time, year-round, civilian employed population	Percent Difference
Construction	\$30,782	\$41,193	33.8%
Retail Trade	\$25,607	\$27,039	5.6%
Finance And Insurance, And Real Estate, And Rental And Leasing	\$16,923	\$40,938	141.9%
Professional, Scientific, And Management, And Administrative, And Waste Management Services	\$31,014	\$31,855	\$2.7%
Professional, Scientific, And Technical Services	\$31,895	\$31,260	(2.0%)
Administrative And Support And Waste Management Services	\$27,396	\$44,545	62.6%
Educational Services, And Health Care And Social Assistance	\$31,447	\$32,760	4.2%
Educational Services	\$30,448	\$21,778	(28.5%)
Health Care And Social Assistance	\$32,648	\$130,258	299.0%
Arts, Entertainment, And Recreation, And Accommodation And Food Services	\$31,324	\$41,042	31.0%
Accommodation And Food Services	\$33,000	\$41,042	24.4%
Other Services, Except Public Administration	\$24,504	\$46,064	88.0%
Public Administration	\$64,125	\$64,125	0%
Source: ACS 5-Year Est. 2016-2020. *This chart contains only entries where full data are available.			

While it is not surprising that full-time, year-round workers have a higher median income than part-time or seasonal workers, the breadth of the gap reveals significant disparities in the labor economy of Tisbury. For industries where the generally employed earnings outpace full-time, year-round earnings, this may indicate that workers in those industries are seeking multiple jobs – something not uncommon in high-cost geographies like Tisbury and Martha’s Vineyard.

COMMUTING

According to 2019 commuting data, from OnTheMap by the U.S. Census Bureau, most of Tisbury’s residents and workforce live and work on the island and are mainly employed in the Island’s economic centers. Tisbury has an inflow of 1,176 workers entering town for jobs, but an outflow of 1,599 residents leaving for jobs outside of Tisbury. Table 8.7 shows that of all the employed residents of Tisbury, about 24 percent of those residents also work in Tisbury. Meanwhile, 20.8 percent, 14.3 percent, and 9.3 percent of Tisbury residents work in Oak Bluffs, Edgartown, and West Tisbury respectively. Boston is the fifth largest employment destination for Tisbury residents, with 3.7 percent of residents commuting to the capital. Cape destinations like Barnstable and Falmouth both employ just over one percent of

Tisbury residents. Rounding out the top ten is New Bedford, with 1 percent of Tisbury residents journeying there for work.

Table 8.7. Tisbury Resident Top 10 Workplace Destination

Jurisdiction	Share of Tisbury Residents Work in:
Tisbury	23.8%
Oak Bluffs	20.8%
Edgartown	14.3%
West Tisbury	9.3%
Boston	3.7%
Chilmark	1.9%
Barnstable	1.2%
Falmouth	1.1%
Aquinnah	1.0%
New Bedford	1.0%
<i>Source: 2019 U.S. Census Bureau OnTheMap</i>	

Meanwhile, 29.8 percent of all workers in Tisbury also live in Tisbury, while 13 percent live in Edgartown, 11.5 percent in Oak Bluffs, and 8 percent in West Tisbury. The Cape is another significant source of Tisbury's workers, with four of the top ten worker home locations being Cape communities, including Falmouth (3.3 percent), Mashpee (1.7 percent), Barnstable (1.6 percent), and Bourne (1.3 percent).⁷²

Table 8.8. Tisbury Workers by Top 10 Home Community

Jurisdiction	Share of Tisbury Workers Reside in:
Tisbury	29.8%
Edgartown	13.0%
Oak Bluffs	11.5%
West Tisbury	8.0%
Falmouth	3.3%
Chilmark	1.9%
Mashpee	1.7%
Barnstable	1.6%
Boston	1.6%
Bourne	1.3%
<i>Source: 2019 U.S. Census Bureau OnTheMap</i>	

⁷² Other transportation focused data regarding Journey to Work times and commuting mode share will be discussed further in the transportation section, Chapter 10.

Historical Trends in Employment

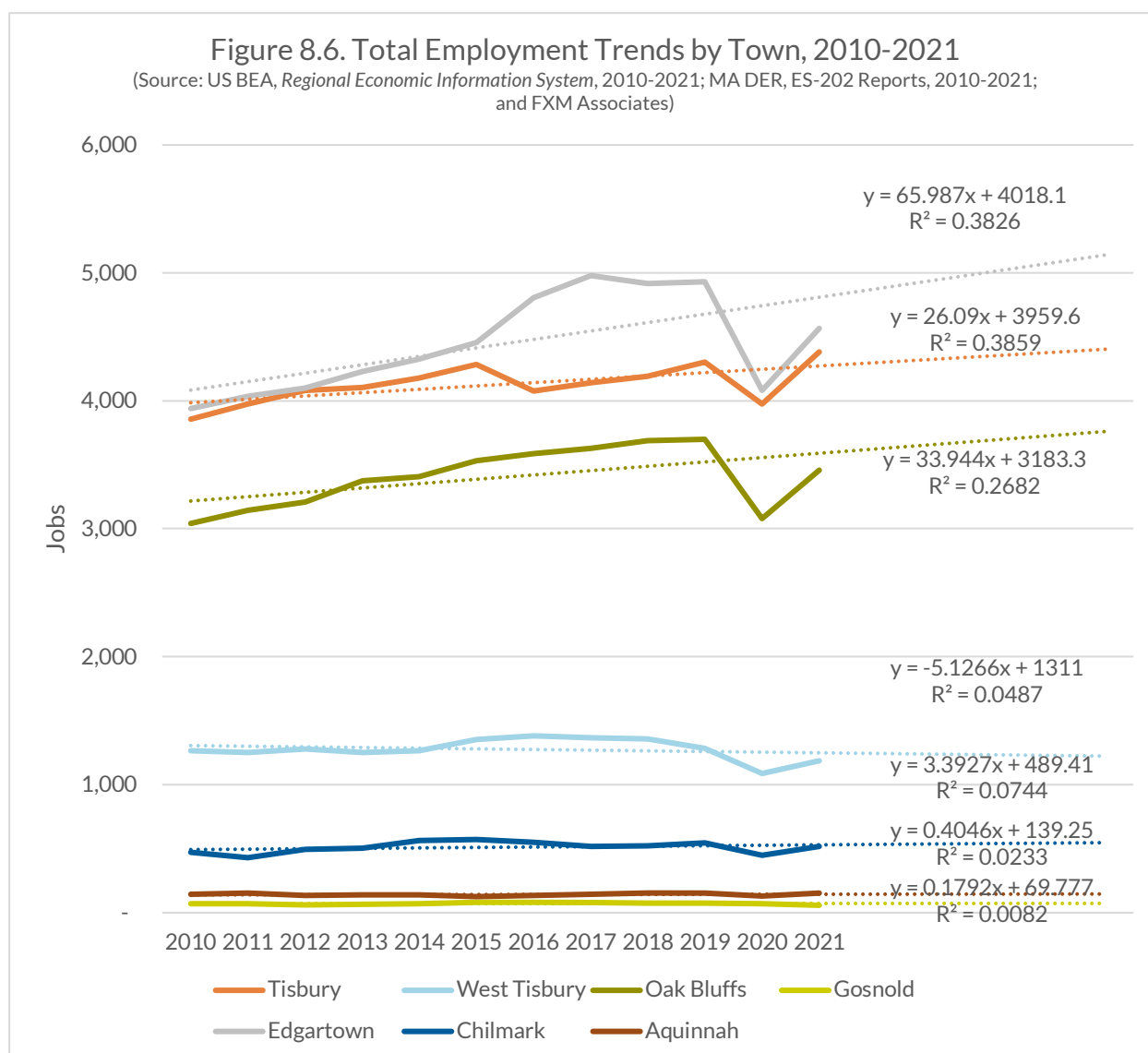
The measure most used for commercial market trends analyses is employment because jobs are a good indicator of the status and future direction of a given industry. Increasing employment indicates industries that are growing, whether through expansion of existing businesses or opening of new ones. Also, reasonably reliable historic data are readily available and can be used to project employment trends. The sources used here for the employment trends graphs are the US Department of Commerce, Bureau of Economic Analysis, *Regional Economic Information System* (REIS) and the ES202 reports from the Massachusetts Department of Labor and Workforce Development.⁷³ 2021 is the most recent year for which actual jobs data are available, so the projections shown are for only three years from 2023.

When using historical data to produce future projections, such as the least squares linear regression technique used here, it is important to consider the reliability of a given dataset. A statistic commonly used for this purpose is called the R^2 calculation and is presented alongside each projection given below. The closer the R^2 value is to 1, the better the predictive value of past performance. A limiting factor on 2026 projections is the influence of the 2020-2021 pandemic, which is still being felt in some sectors and which may also affect the R^2 values for employment projections. For example, a sector might have been showing strong growth since 2010 but the volatility introduced by the pandemic-related job losses could pull down the sector's projected growth and also lower the R^2 value of the projection. *Note that, because of the relatively small number of jobs in Tisbury and the other towns, the predictive value of history may be weak across all sectors.*

The following graphs display trends and projections for the Town of Tisbury and the surrounding towns of the Vineyard.

Figure 8.6 displays total employment in the seven towns of Dukes County.

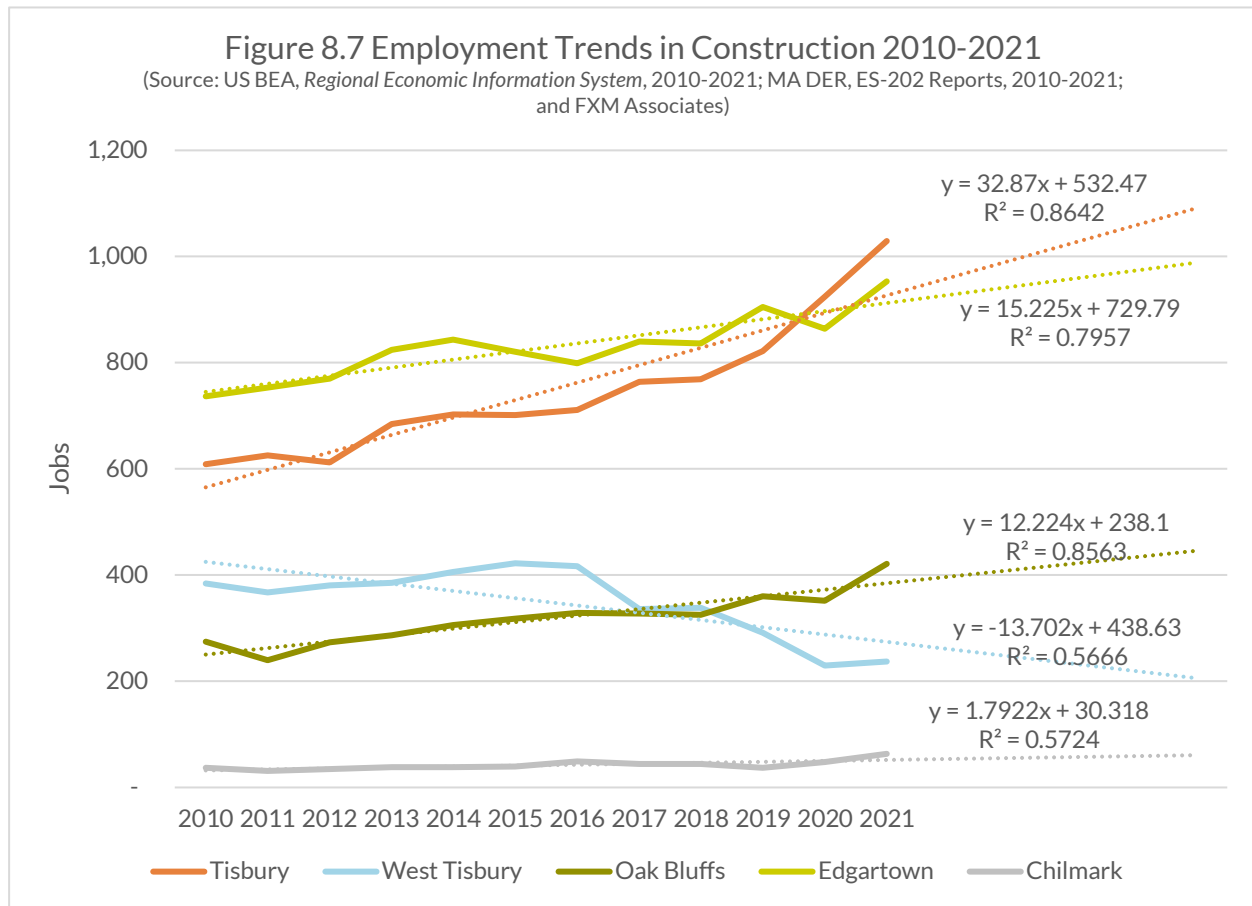
⁷³ These include estimated full and part time jobs with wages and salaries plus self -employment. Island-wide, proprietors (self-employed) account for almost half (48%) of all jobs according to the US Department of Commerce, Bureau of Economic Analysis, *Regional Economic Information System* (REIS). REIS data are not available below the county level and the Massachusetts Department of Labor ES202 data – the only publicly available source of jobs at the community level—do not include jobs held by self-employed persons. In order to estimate total jobs at the community level, we compared jobs overall and by sector at the county level and, using ratios between the more inclusive REIS data and ES202 data, apply those ratios to ES202- community level employment. We recognize this involves simplified assumptions, but it is a technique that FXM has used on many projects including legally scrutinized federal EISs and other peer reviewed analyses. REIS has the further advantage of including all full and part time jobs (including multiple jobs held by a single individual), so it is especially good at capturing activity in tourist-oriented economies where individuals may hold multiple jobs in or out of season. Another feature of REIS is that it is the only available source of employment based on actual tax filings with the IRS and is generally considered by economic professionals to be the most reliable data source at the county level.



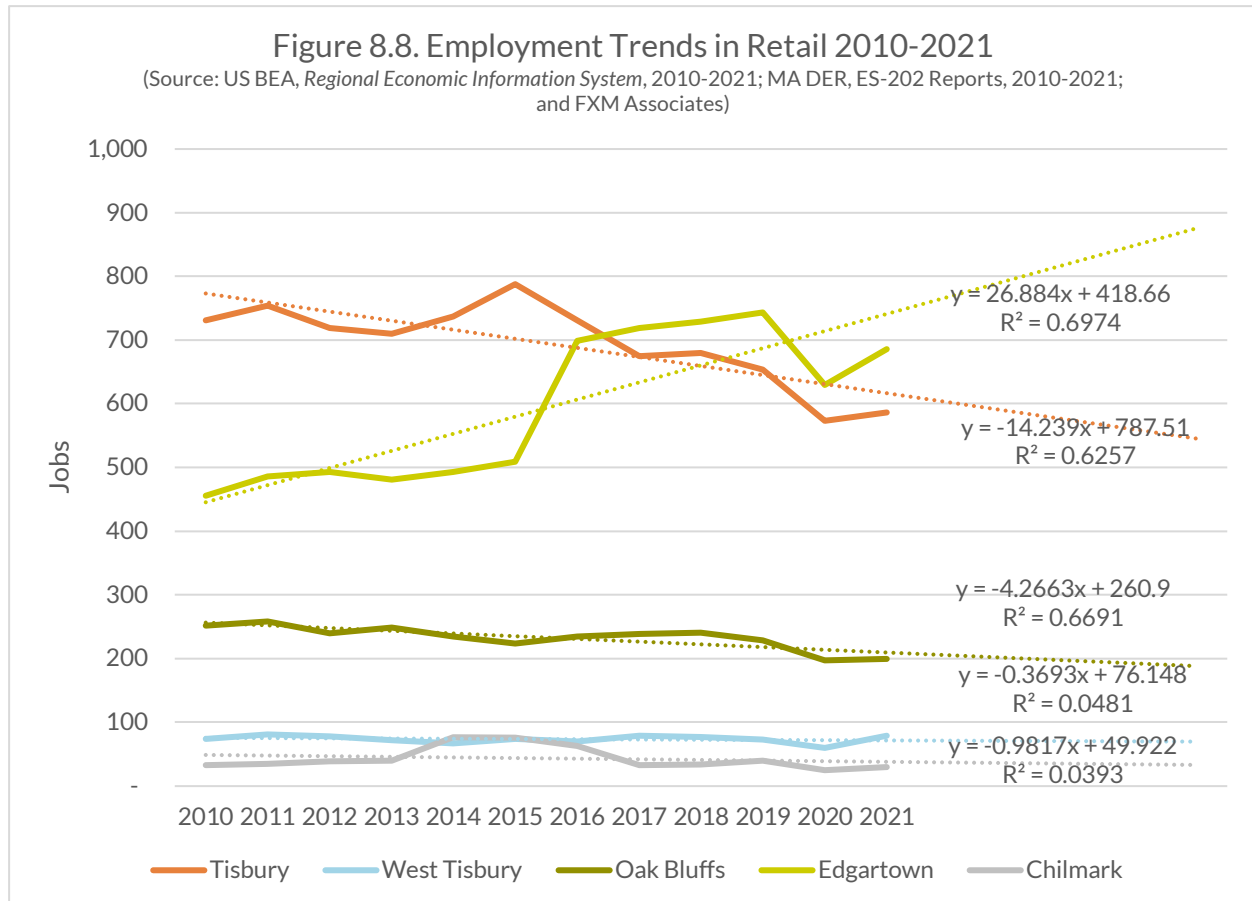
Edgartown and Tisbury have the largest numbers of employees, followed by Oak Bluffs, West Tisbury, and Chilmark. Gosnold and Aquinnah have the smallest. All towns except for the two smallest show a dip in jobs caused by the pandemic, but all except for Gosnold also show an uptick in 2021. Edgartown and Oak Bluffs do not yet show recovery to pre-pandemic levels, but the trend projections suggest they will. Tisbury has already exceeded pre-pandemic levels of total employment.

The following graphs delve into employment trends and projections by sector, which give an indication of which industries might be expected to grow or decline.

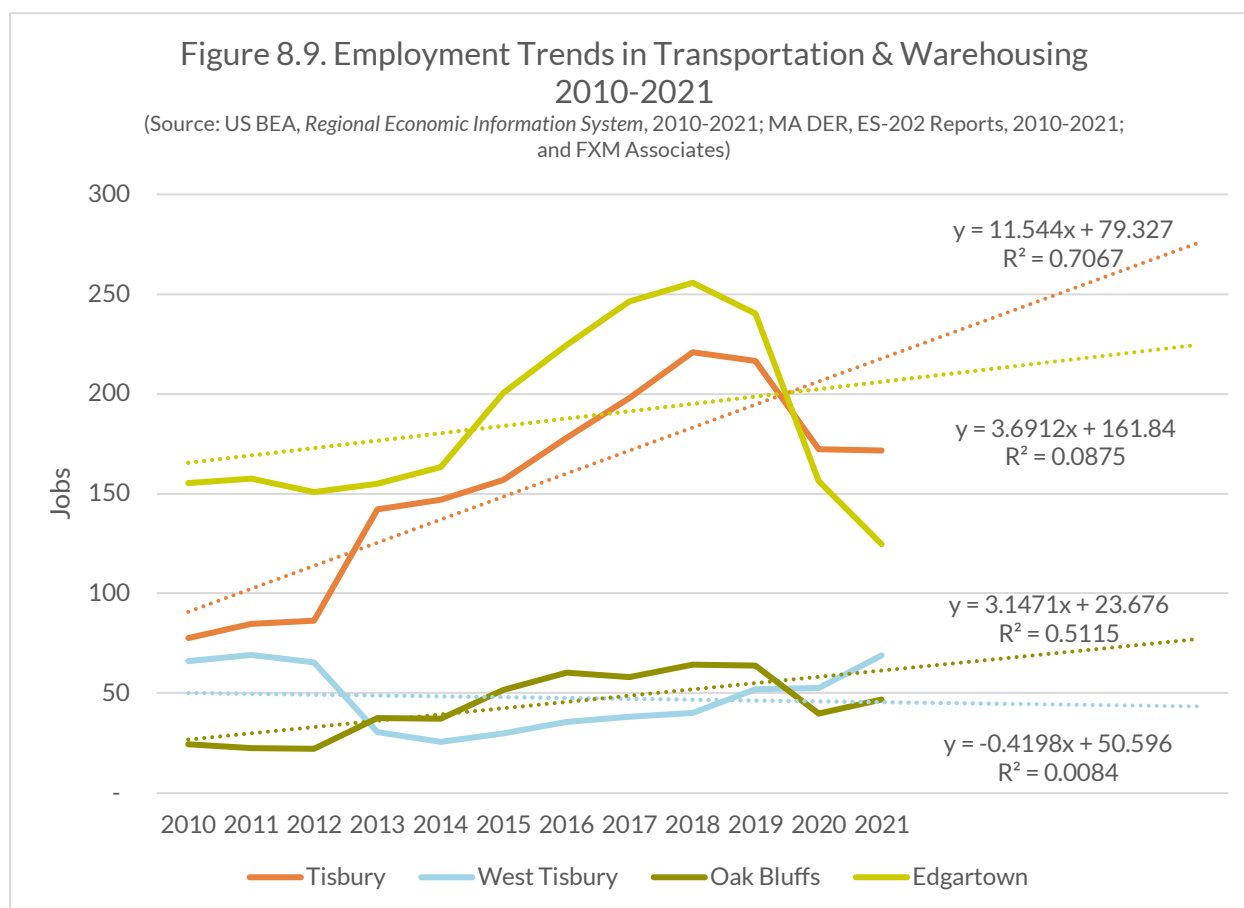
The Construction sector is the largest jobs sector in Tisbury and Edgartown (Figure 8.7), enjoying strong growth, which is projected to continue, with high levels of reliability. Construction in Oak Bluffs is also trending upwards, while it is in decline in West Tisbury. Construction growth in Chilmark is flat.



Retail Trade is the second largest sector on Martha's Vineyard behind Construction. Figure 8.8 shows that in Tisbury, it is exceeded only by the Construction and Health Care and Social Assistance, and Administrative and Waste sectors in 2021 employment, but Retail has been in decline, even before the pandemic. It is a growth sector only in Edgartown. (Note that the projected trendlines in West Tisbury and Chilmark are at a very low level of reliability, and the number of jobs is small.) There appears to be a post-pandemic rebound in effect through 2021.

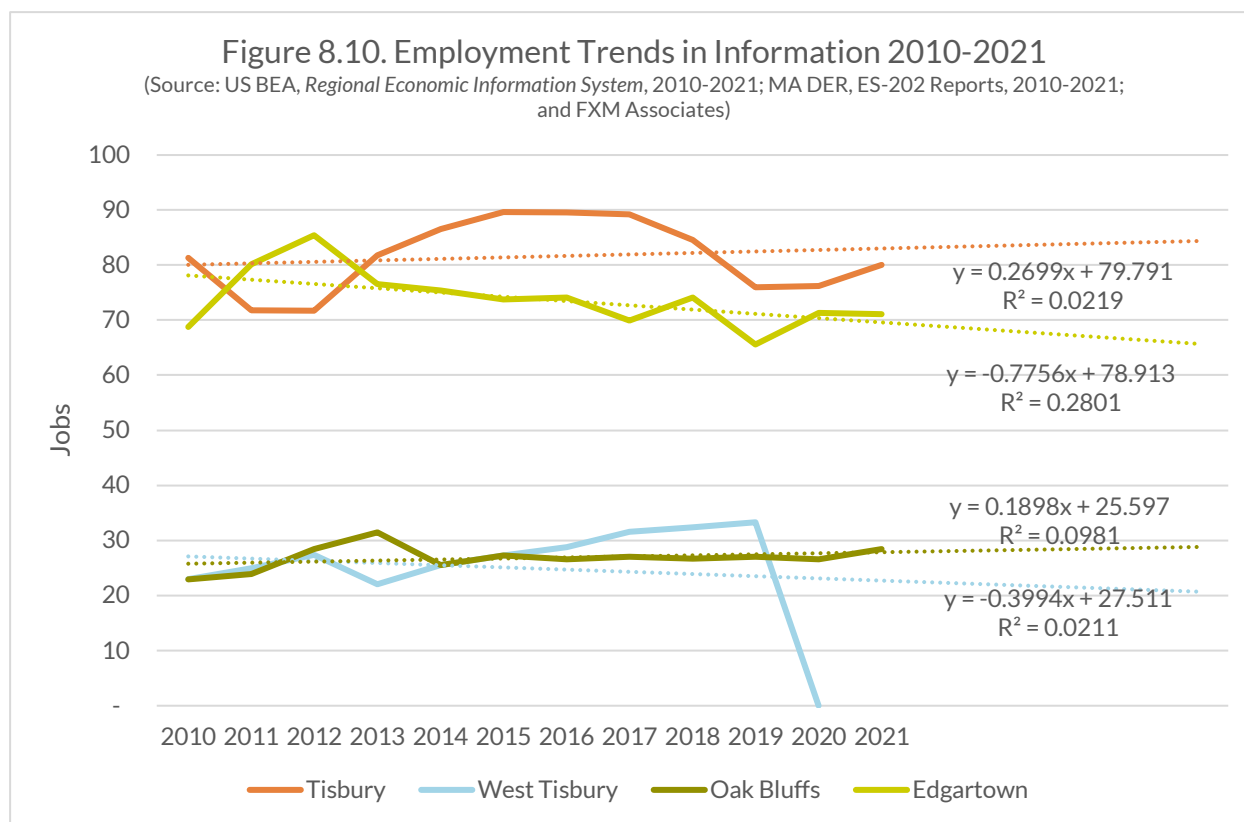


Transportation and Warehousing has an erratic history across the four towns in which job data are available. In Figure 8.9, Tisbury and Edgartown show marked decline since 2018 but the longer-term trends for Tisbury are favorable and the R square is good.

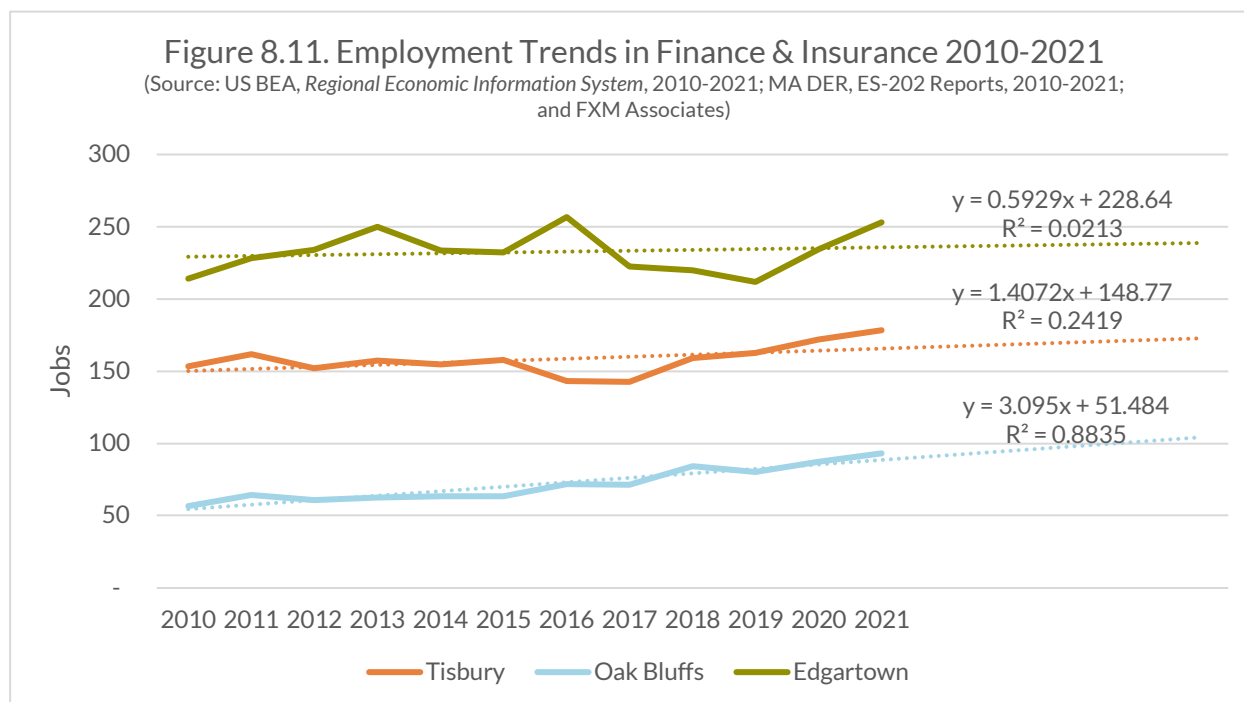


The next four graphs belong to a group of industries that could be characterized as Office-using. They include Information, Finance and Insurance, Real Estate and Rental and Leasing, and Professional and Technical Services. The ES-202 job numbers may be slightly lower than the actual, as they do not include self-employed persons who are often found in these sectors.

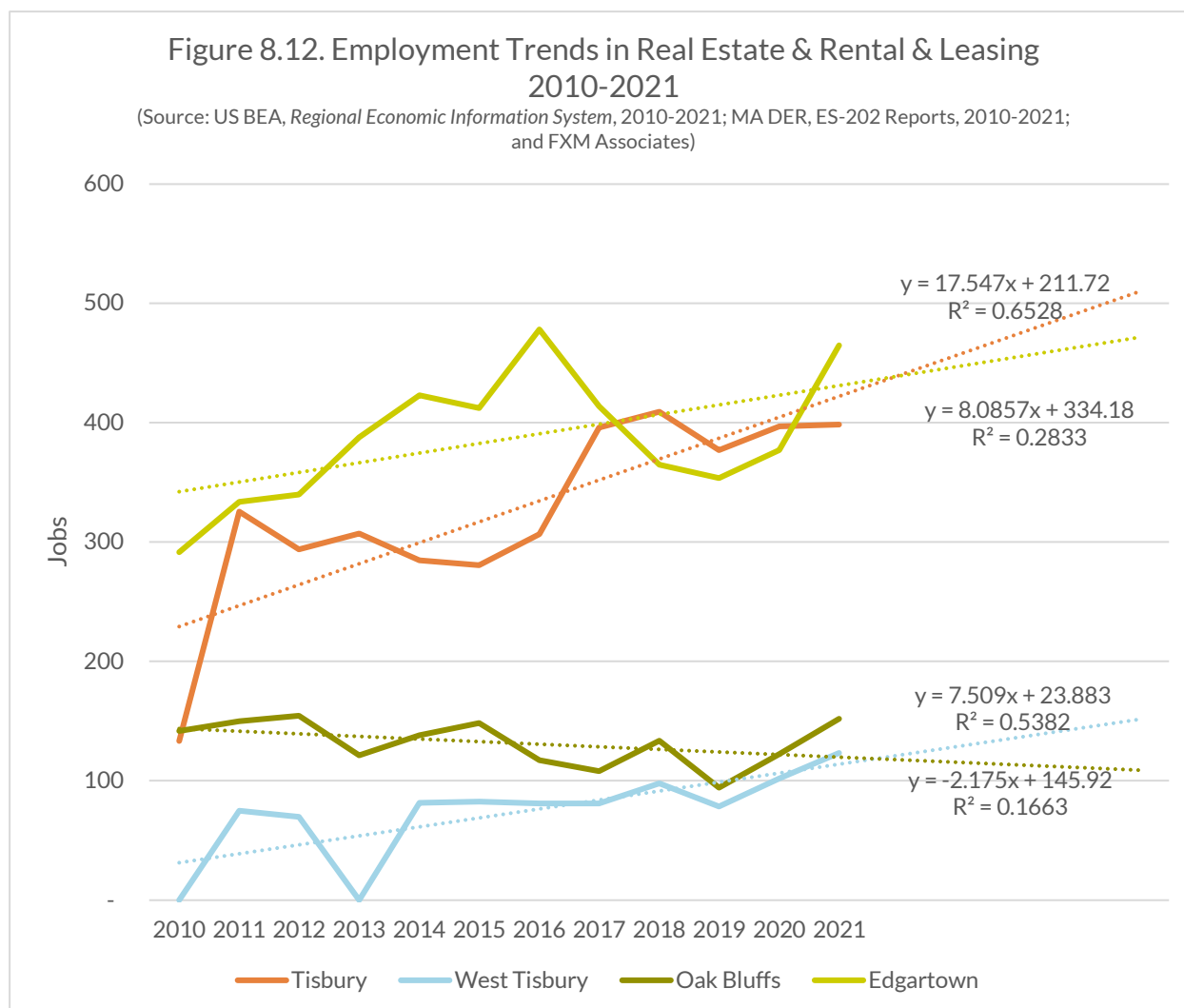
Figure 8.10 shows that the number of jobs in the Information sector is highest in Tisbury and Edgartown, but the sector has a small number of jobs in all towns. Tisbury's R2, however, is low so the projected trend is not very reliable, while Edgartown's projection is only slightly stronger. The post pandemic uptick in Tisbury is encouraging.



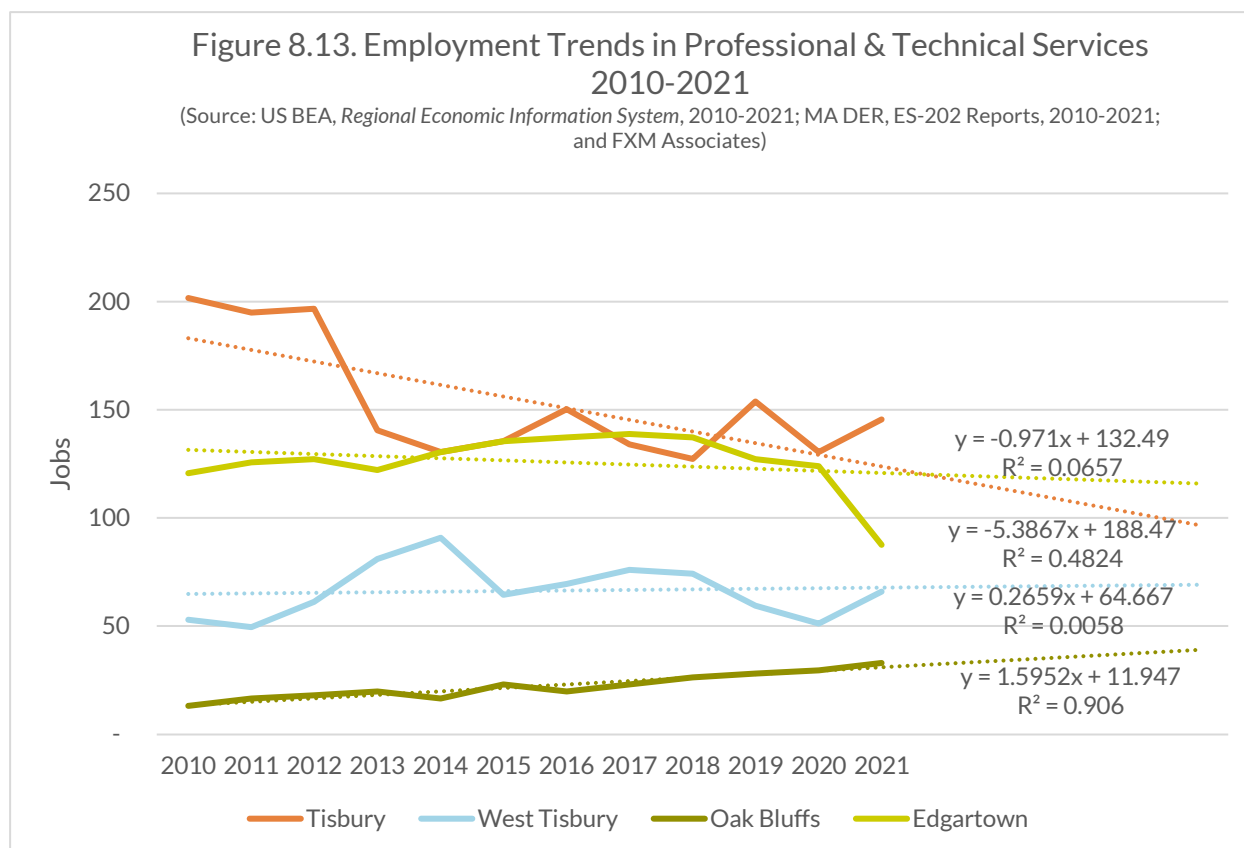
Only three towns have reported jobs in Finance and Insurance, shown in Figure 8.11. The sector has been increasing in jobs since the pandemic, which may be in part a reflection of remote work opportunities.



Historic job trends in the Real Estate and Rental and Leasing sector by town in Martha's Vineyard (Figure 8.12) have been highly variable, reflecting variability in the real estate industry but also the relative locations of real estate professionals (for example Oak Bluffs and Tisbury had the same number of jobs in 2010 but Tisbury has substantially more by 2021). The job trends are generally positive in Edgartown (the leading job location) and Tisbury with a relatively large number of persons working in this sector (full and part time jobs are included).



Employment in the Professional and Technical Services sector has been in decline in Tisbury, where the largest number of these jobs are located (Figure 8.13), and in Edgartown, although Tisbury's downward trend appears to have reversed since 2020. Edgartown's jobs have shown a sharp decline since the pandemic year 2020. These jobs in Oak Bluffs and West Tisbury show slightly positive trends, with Oak Bluffs at a very high R^2 of .91.

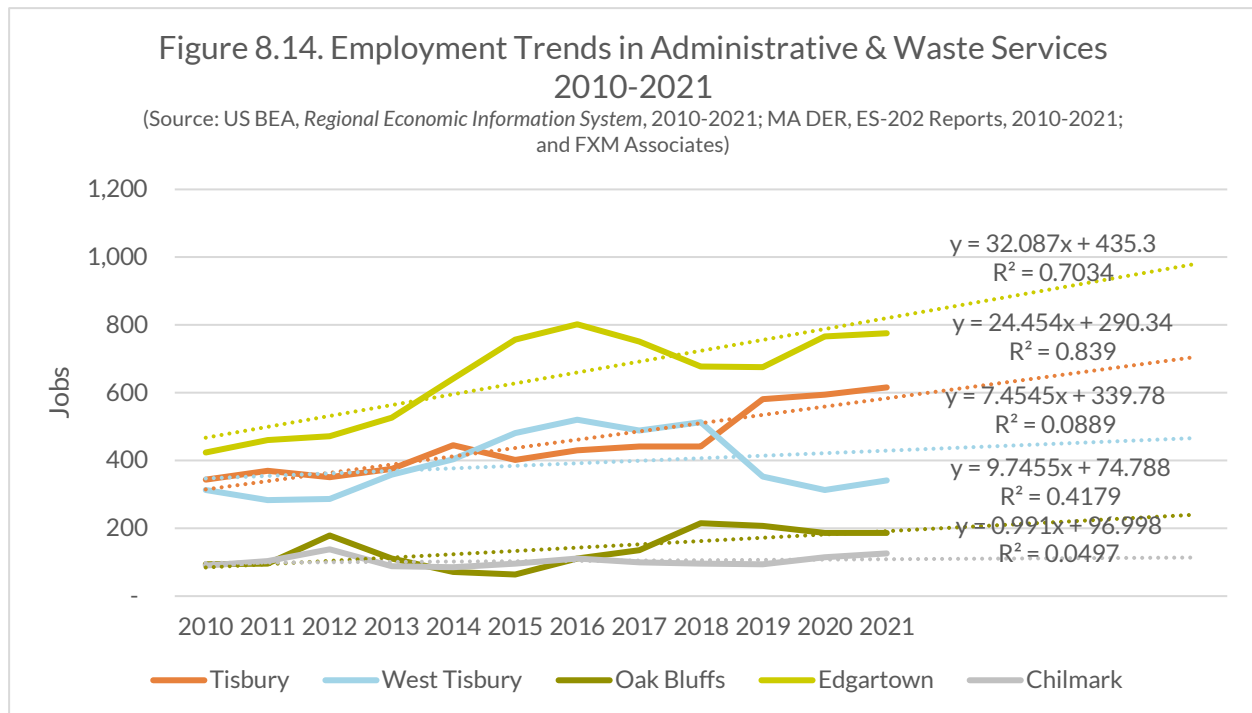


The Administrative and Support and Waste Management and Remediation Services sector is a large employer on Martha's Vineyard (Figure 8.14). The industry is defined as:

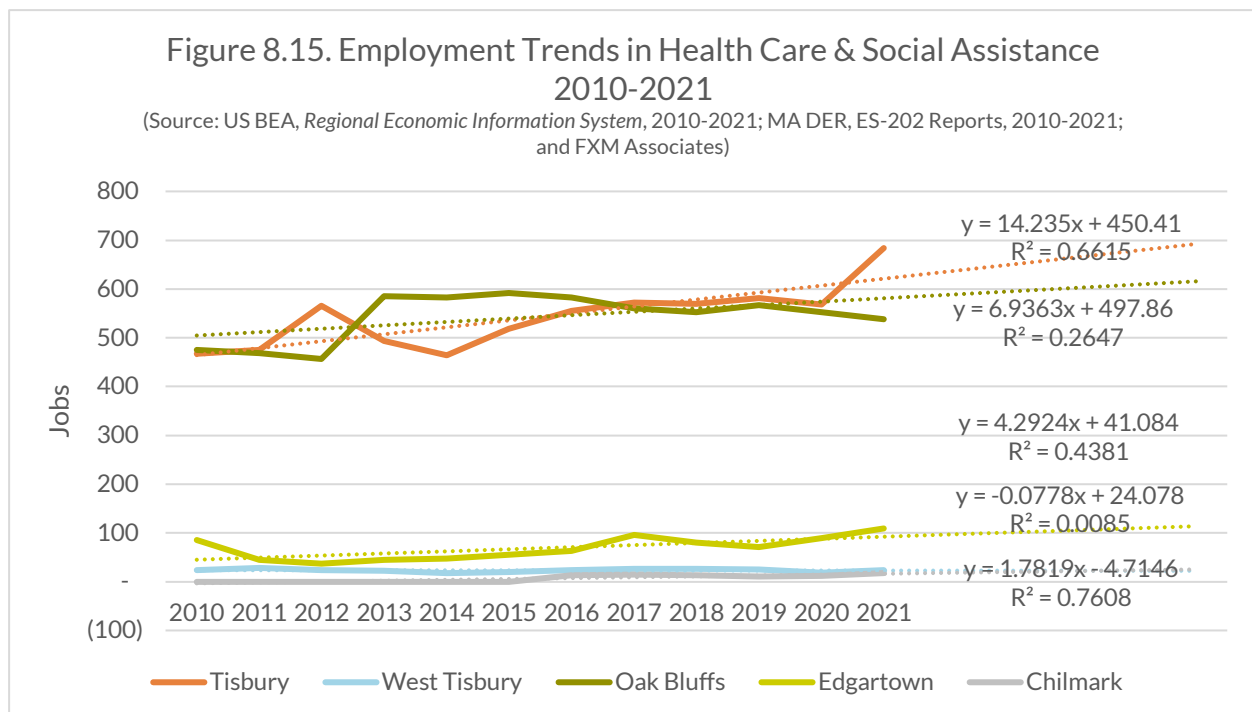
..establishments performing routine support activities for the day-to-day operations of other organizations....The establishments in this sector specialize in one or more of these support activities and provide these services to clients in a variety of industries and, in some cases, to households. Activities performed include: office administration, hiring and placing of personnel, document preparation and similar clerical services, solicitation, collection, security and surveillance services, cleaning, and waste disposal services.

North American Industry Classification System (NAICS)

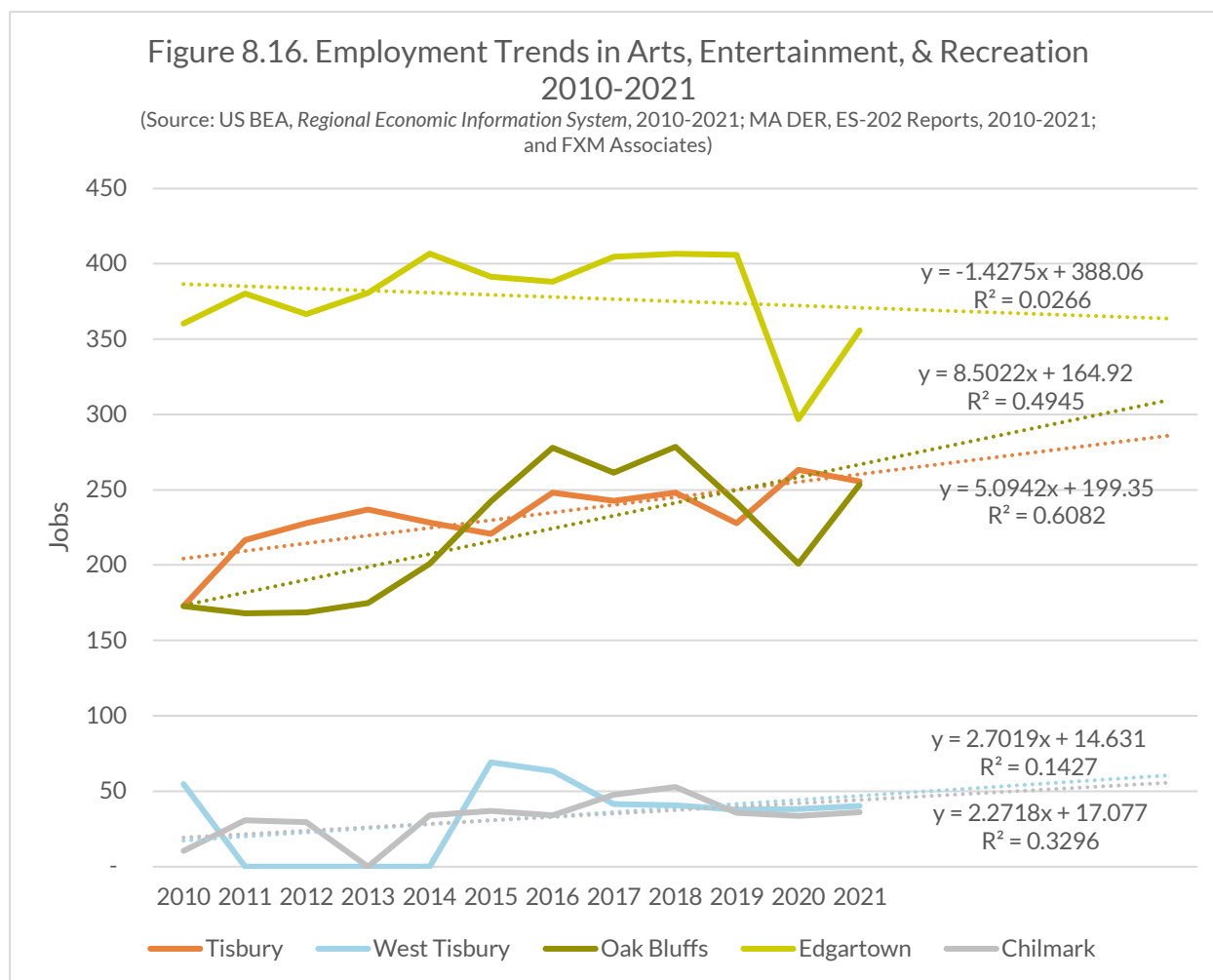
Tisbury's employment in this sector is growing, as is Edgartown's and Oak Bluffs', and is projected to continue to do so.



With nearly 700 full and part time jobs (including self-employed), Tisbury currently has the largest number of jobs in Health Care and Social Assistance (Figure 8.15). The steadily rising trendline for the next five years is at a high level of reliability. In Oak Bluffs, Martha's Vineyard Hospital contributes to the high employment numbers for this sector relative to the smaller town's employment in most other sectors.



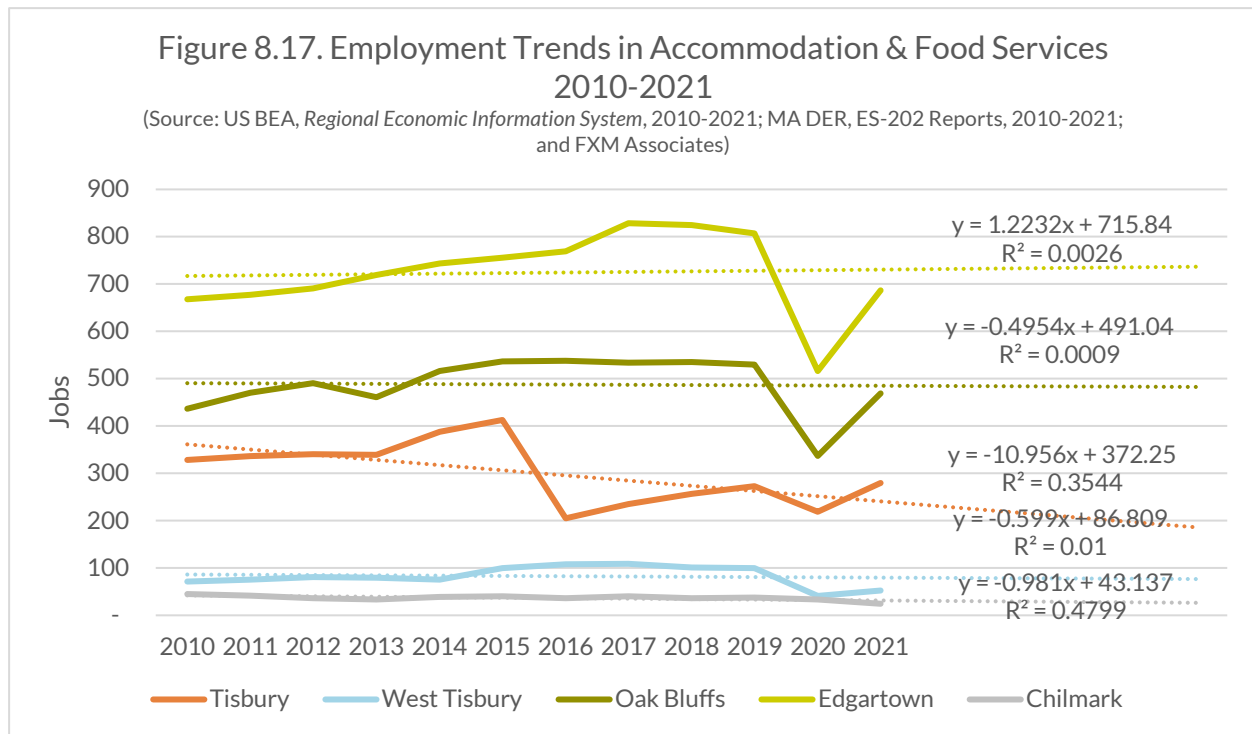
The Arts, Entertainment, and Recreation sector was among that hardest hit by the pandemic, although Figure 8.16 shows employment in Tisbury was less affected than that of Edgartown (highest number of jobs) and Oak Bluffs. Although the sector shows signs of rebounding in Edgartown and Oak Bluffs, its projection for future growth in Tisbury is based on steady historical performance as shown in the figure below. Both Edgartown and Oak Bluffs show signs of rebounding since pandemic.



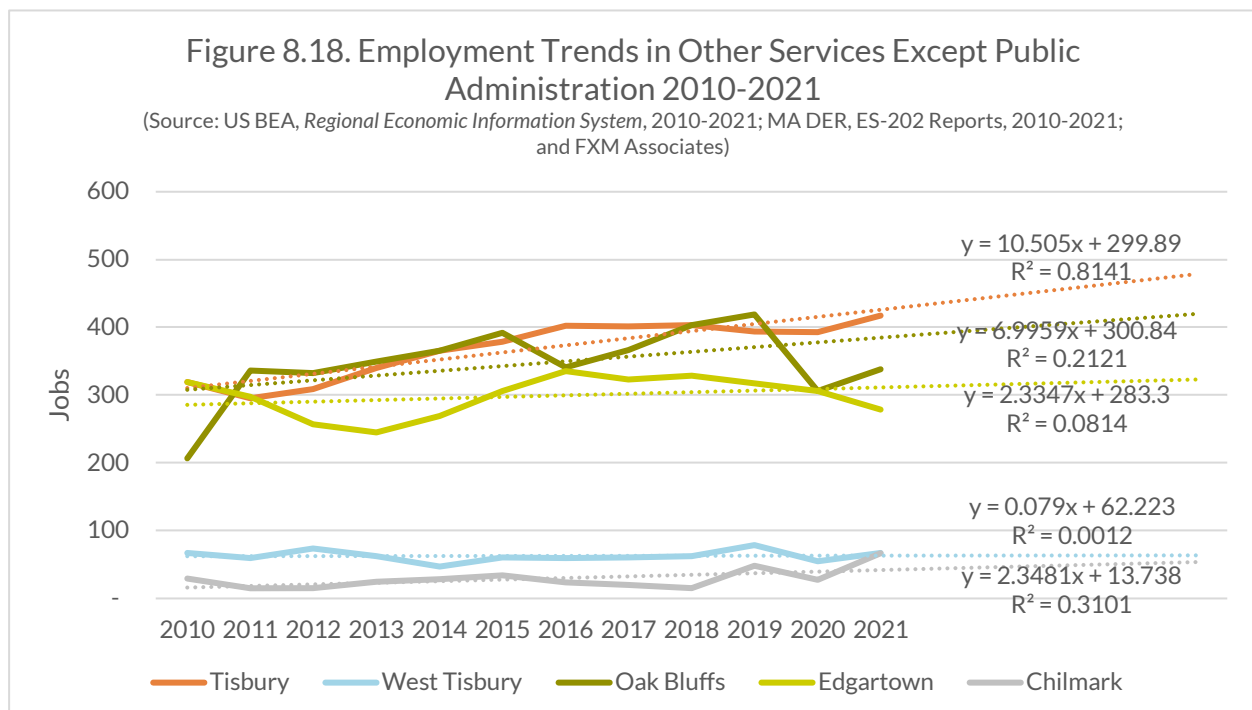
The Accommodations and Food Services sector include (1) entities that provide lodging or short-term accommodations for travelers, vacationers, and others and (2) those that prepare meals, snacks, and beverages to customer order for immediate on-premises and off-premises consumption.⁷⁴

The sector was also badly hit by the pandemic and employs more than twice the number of people as Arts, Entertainment, and Recreation. Tisbury, which ranks below Edgartown and Oak Bluffs in number of jobs, showed some recovery in 2021, but the sector has been in a decline which is projected to continue, as it is in all the towns except Edgartown (Figure 8.17). Depending on the degree of recovery, some of these declines may disappear in future years as the pandemic effect recedes.

⁷⁴ NAICS definitions for NAICS codes 72I and 722



Other Services (Except Public Administration) include repair and maintenance of a variety of equipment, such as automobiles, electronic equipment, commercial machinery, and household goods. Figure 8.18 shows trends in the sector have been steadily upward in Tisbury. Tisbury, Edgartown, and Oak Bluffs are projected to increase employment in the sector, following post-pandemic rebounds. Tisbury's high R^2 values suggest reliable growth prospects.



Implications for Demand for Commercial Space

The above employment projections, with their relevant caveats regarding reliability, can be translated into estimates of future demand for commercial space using industry norms for square foot per employee. Table 8.9 compiles these projections.

Table 8.9. Demand for Commercial Space			
	Dukes County		Tisbury
	2022 SF	Avg Annual Projected SF Demand	Avg Annual Projected SF Demand
Industrial	77,700	8,500	4,300
Retail	394,000	14,000	3,700
Office	49,000	9,900	2,300
Source: CoStar Property Information Services; US DOC Regional Economic Information System, MA Department of Labor, ES-202 Data Series; and FXM Associates			

These projections estimate average annual demand by major space type⁷⁵ based on county-level employment and space demand projections over the next 5-years. Tisbury's share is based on its current share of projected county-wide employment in each of the categories comprising demand for retail, industrial (manufacturing, wholesale, and transportation and warehousing) and office uses. This should be considered a conservative estimate since Tisbury (or any other community) could capture more than its current share of employment with investment in expanded or new construction in any of the major space categories.

Retail Opportunity Gap/Surplus

Another approach to assessing potential opportunities for expanding retailing is a retail opportunity gap/surplus analysis, a tool used by major retailers and chain restaurants to gauge market demand and competition within a specified geographic area. The analysis presents a snapshot of current consumer spending on various retail categories alongside actual retail store sales in those same categories within the same geographic area. Where expenditures by households in the market area exceed sales in that market area, a gap or opportunity exists for existing or new stores within the market area to "capture" more of those household expenditures. (This loss of potential sales is also called "leakage.")

Conversely, where market area household expenditures are less than actual sales categories, it indicates that stores in that retail category in the market area already attract consumer dollars from outside the market area, and opportunities for additional retail activity would be more limited.

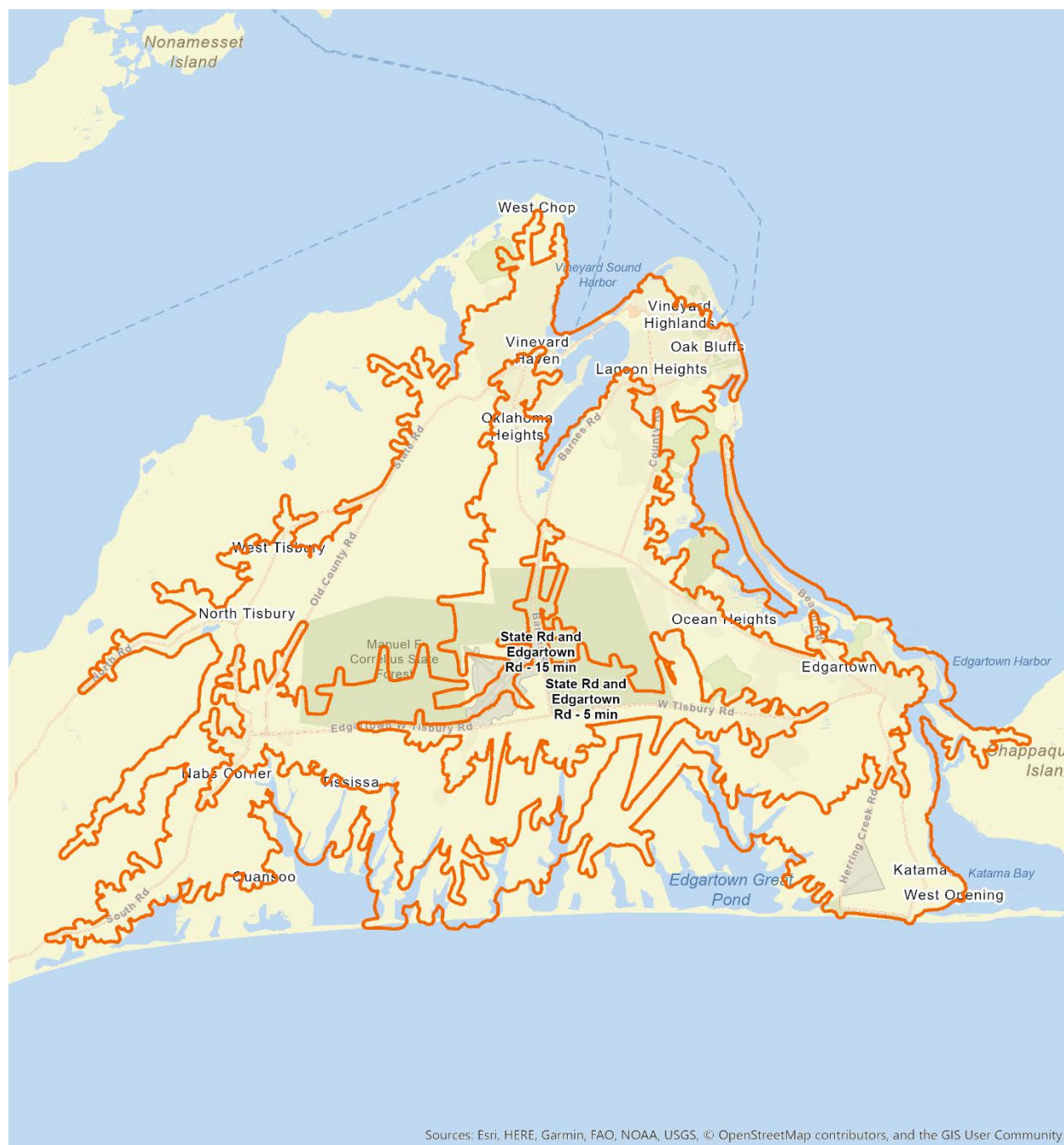
The retail gap analysis is a picture of current opportunities for retailers to newly locate or expand facilities based on a well-established principle drawn from many empirical studies showing that people

⁷⁵ CoStar's data for existing SF by major space type are considered reasonably reliable for county-wide estimates but not for estimates below the county level. The projected space demand is based on projected employment and not historical space inventories reported by CoStar.

will typically purchase goods and services within the shortest available walking or drive time from where they live. The principle applies to comparable and competitive goods, services, and pricing: there is no guarantee of success based strictly on location advantage, which simply presents the opportunity.

Retailers typically define market areas in terms of drive times, with a 15-minute drive time considered the maximum time consumers would be willing to drive for all but the largest stores and store types. Market support within a 5-minute drive time is considered the maximum time consumers would be willing to drive to smaller, convenience type retailers, and market demand within a 10-minute drive time is considered essential for most medium sized stores and restaurants. If a specific category of retail sales opportunity were shown for a 5-minute drive-time market area and held up at the 10-minute market area, then most retailers would consider market conditions favorable – from a demand standpoint – to locating or expanding a store within that market area.

Figure 8.19 below shows the areas encompassed by 5-, 10-, and 15-minute drive times. The 15-minute area covers most of Martha's Vineyard.

Figure 8.19. 5-, 10-, and 15-minute Drive Time Areas

The analysis examines demand for retail goods and services by the year-round population as estimated by the Consumer Expenditure Survey. These annual purchases may be made on- or off-island. In addition to the demand of on-island residents, retail and restaurant stores on the Vineyard sell their goods and services to seasonal residents and transient visitors. Total store sales, shown in Table 3 below, are estimated at \$543,000,000 in 2022, nearly \$200,000,000 or 58% more than year-round resident

demand (non-resident purchases represent 37% of total sales). As shown by the data in Table 5 below, in some sectors the proportion of total sales is much greater than the 37% overall surplus. These data indicate the importance of seasonal residents and visitors to island businesses. Many of these businesses could not function without the purchases of non-island residents. They are therefore providing goods and services to on-island residents -- whether year-round or seasonal -- they could not provide without the off-islander spending. This includes the indirect effects of the purchases made by seasonal businesses from year-round ones for materials and supplies. To maintain the goods and services they now enjoy, year-round residents need thriving seasonal as well as year-round businesses.

According to Claritas Spotlight Reports, a subscription data source widely used in the real estate industry and by professional analysts, within a 15-minute drive time of Tisbury (roughly island-wide) these expenditures totaled about \$344,000,000 (demand by island residents, including purchases at restaurants and other food services in addition to retail stores) in 2022, as shown in Table 8.10 below. For each drive time market area, overall retail and restaurant sales exceed the purchases made by households living within those drive times from the approximate center of the island (the intersection of State Rd and Edgartown Rd). Stores are pulling in sales from outside the drive time areas, so there is no overall gap in retail/restaurant supply, with the surplus shown in Table 8.10.

Table 8.10. Retail Opportunity/SurplusGap Market Overview

	5-min	10-min	15-min
Households	188	3,075	6,618
Total Retail and Restaurant Expenditures	\$ 10,758,227	\$ 163,003,922	\$ 344,390,965
Total Actual Store Sales	\$ 10,877,063	\$ 253,400,593	\$ 542,667,758
Retail Opportunity/Surplus gap	\$ (118,836)	\$ (90,396,671)	\$ (198,276,794)
<i>Source: Environics Analytics, Claritas Spotlight Reports, 2022, and FXM Associates</i>			

Notwithstanding these large surplus sales beyond local demand, a retail gap analysis suggests opportunities for existing or new retail stores in selected categories to capture about \$12,000,000 in sales currently leaked off island, potentially supporting about 30,000 square feet in expanded or newly constructed space. Table 8.11 presents the results of the comparison of spending and sales in selected retail store types, along with the translation of the gap, or “leakage,” into square footage which could support new or expanded businesses. Because the gaps shown are relatively small, they may be more useful as indicators or where existing retailers within the respective store types may have an opportunity to expand their current sales. (In practice, this area would be expected to capture only a part of the current sales leakage shown, some of which may be captured by stores outside the area or not recaptured at all.) All the selected gaps shown are for the 15-minute drive time, essentially the Vineyard overall. Purchases of goods made on-line by island residents are accounted for outside these data.

Table 8.11. Retail Stores Opportunity Gap Analysis

Retail Store	Selected Gap	Potentially Supportable Area (sq. ft)
Home centers (NAICS 44411)	\$ 8,174,716	16,954
Nursery, garden center, and farm supply stores (NAICS 44422)	\$ 1,195,045	4,170
Shoe stores (NAICS 4482)	\$ 1,506,555	4,214
Snack and non-alcoholic beverage bars (NAICS 722515)	\$ 1,123,955	4,656
Total	\$ 12,000,271	29,994
<i>Source: EnvironicsAnalytics, Claritas Spotlight Reports 2022; varied industry sources for sales per sq ft; FXM Associates</i>		

The analysis includes spending on Food Services, a separate NAICS category from Retail Trade, but one which is an important and growing component of economic development generally. It ranks sixth in employment in Tisbury. Figure 8.17 in the market trends section above shows that the broader sector, Accommodations and Food Services, has been a declining one in Tisbury. That the area is already a destination for eating from outside the drive time market area suggests that building on the current mix of restaurants, essentially to capture more seasonal spending now made off-island, may still be a productive economic development strategy.

Table 8.12. Selected Retail Surplus: Tisbury 15-Minute Market Area

	2022 Demand	2022 Supply	2022 Surplus	Surplus as % of Sales
All Retail	309,279,664	445,812,509	136,532,845	31%
Furniture and home furnishings stores (NAICS 442)	7,858,899	13,680,594	5,821,695	43%
Building material and garden equipment and supplies dealers (NAICS 444)	27,609,122	75,489,083	47,879,961	63%
Food and beverage stores (NAICS 445)	47,835,125	137,872,318	90,037,193	65%
Health and personal care stores (NAICS 446)	19,339,246	20,716,916	1,377,670	7%
Clothing stores (NAICS 4481)	8,121,514	30,303,569	22,182,055	73%
Gift, novelty, and souvenir stores (NAICS 45322)	889,695	19,783,212	18,893,517	96%
Art dealers (NAICS 45392)	793,466	30,636,038	29,842,572	97%
Full-service restaurants (NAICS 722511)	15,673,989	77,869,114	62,195,125	80%
<i>Source: EnvironicsAnalytics, Claritas Spotlight Reports 2022; FXM Associates</i>				

The retail gap analysis is used by developers, property owners and brokers to recruit tenants, and economic development professionals seeking to expand existing businesses and recruit new ones as part of an economic revitalization program (including mixed use development with residential uses, for example). All the caveats that would apply to successful stores anywhere – good maintenance and attractive premises, managed supply, competitive prices, good services, sufficient parking, and transportation access – apply as well to realizing potential gap opportunities.

CONDUCTING BUSINESS IN TISBURY

Tisbury has two main commercial nodes, the historic downtown core of Vineyard Haven, and inland along State Road. These are designated Business District 1 (B1) and Business District 2 (B2).⁷⁶

Business Survey Results

As part of the community outreach process for this Master Plan, the consulting team created a 24-question survey and distributed it to the local business community in Tisbury in November and December 2022. In total, the survey received 48 responses.

Fifty one percent of respondents both live and work in Tisbury, while 46.8 percent work in Tisbury but live in another community on the Vineyard. Just one person, 2.1 percent, worked in Tisbury but lived off-island. All the respondents were independent, locally owned businesses. Eighty-three percent said their sole location is in Tisbury while 17 percent operate multiple locations in Tisbury or elsewhere on the Island. Respondents represent a variety of industries. The largest industry groups are the clothing and retail trade at 18.8 percent, professional services at 12.5 percent, arts and entertainment and health services both at 10.4 percent, and hotel or accommodation at 6.3 percent. Twenty-five percent felt their business did not fit neatly into one category or another. Many of these businesses are long-time, local institutions, with 62.5 percent operating 20 years or longer, 16.7 percent operating between five and 10 years, and 10.4 percent operating between 10 and 20 years. About 6.3 percent have been open for 1-3 years or less and 4.2 percent between three and five years.

Of the 48 responses received, 41.7 percent said they are business owners who own their space, 25 percent are business owners who rent their space, 12.5 percent are home operated businesses, and 10.4 percent are commercial property owners. The remaining 10.4 percent are employees of a Tisbury business. In terms of rents, 58.3 percent of those who participated in the survey report that they own their own commercial space or otherwise do not pay rent. Of the 13 respondents who do pay rent, over half (53.8 percent) say they pay between \$21 and \$30 per square foot. Twenty three percent pay more than \$41 per square foot, 15.4 percent pay between \$31 and \$40 per square foot, and 7.7 percent pay between \$10 and \$20 per square foot. No one pays less than \$10 per square foot.

Survey results portray a mixed picture when it comes to vacancies. About 48.8 percent believe there is either little or no difficulty finding space when looking and that there are a typical number or many vacant spaces. Meanwhile 51.2 percent believe that finding space is either difficult or extremely difficult, with few or a low number of spaces available. But only 12.5 percent said they knew of a vacant space

⁷⁶ See also, Land Use.

immediately adjacent to them. On average, these business owners and operators are fairly concerned with vacant spaces in Tisbury: on a one-to-five scale, five meaning very concerned about vacant space, the average answer is a four. Many noted the vacancy of the Capawock Theatre and its neighboring building as particularly concerning and detrimental to the life of Vineyard Haven and Main Street.

While the Vineyard's economy is known to be seasonal, 82.9 percent of respondents operate year-round, while 19.1 percent operate seasonally. Of those that operate seasonally, nearly all operate during the summer season, but also during the shoulder season, especially the fall and into December. For 59.5 percent of businesses, summer remains their busiest season but still 28.6 percent say they have relatively even business throughout the year. One business said winter is its busiest season while another said fall and spring are the busiest. About 46 percent of businesses said that their primary customer base in Tisbury are locals, with 27 percent saying visitors and tourists are their primary customers, and another 27 percent saying that it is roughly evenly split between locals and visitors.

In terms of employment, about 50 percent of businesses employ between one and five workers and about 20 percent between six and ten workers, regardless of season. Larger businesses employing more than 10 are the remainder and employ the most during the peak season. While 31.8 percent of respondents said they were not looking for new employees, the 61.4 percent said they are experiencing some or significant difficulty hiring and retaining new workers. Many of the businesses placed recruiting and hiring better trained workers as their highest priority when asked as well, followed by Main Street beautification, improving environmental quality, transportation, and circulation. Attracting more tourism and visitors was the lowest priority.

Most, 41.7 percent, chose to situate their business in Tisbury because they already live there while 12.5 percent said the customer base attracted them to Tisbury and another 12.5 percent wanted to take advantage of the year-round ferry access. A third of folks gave various other reasons – such as simply finding the right space for their needs, or the business already existed in Town when they took ownership or control.

Overall, survey respondents are happy with operating a business in Tisbury, with 52 percent saying they are either satisfied or very satisfied with operating a business in Town. Twenty-five percent are somewhat satisfied, and 8.3 percent are neither satisfied nor dissatisfied. About 14.6 percent said they were somewhat dissatisfied or dissatisfied and no one said they were very dissatisfied. Many businesses did express concern, however, around well-known issues like parking and traffic (especially during the summer), high property taxes, affordable housing for workers, and strengthening Tisbury's competitive edge compared to other island towns to attract and keep businesses and visitors. The lack of effectiveness and efficiency by the local government is another item that many respondents noted and hope to see improve.

TAX BASE

In fiscal year 2021, the Town of Tisbury's budget stood at \$29.8 million, up 23.8 percent from FY 2017.⁷⁷ Per the Town's website, real estate property taxes support about 90% of the yearly operating costs of

⁷⁷ [*Review of Fiscal 2021 Operating Budget*](#), Town of Tisbury (2021).

the local government.⁷⁸ According to 2022 data from the Massachusetts Department of Revenue (DOR), residential property taxes represent 90 percent of the town's total property tax levy, commercial provides 7.6 percent, industrial 0.15 percent, and personal property 2.3 percent.⁷⁹

Table 8.13. Tax Levy by Class

Fiscal Year	Residential/ Open Space	Commercial	Industrial	Personal Property	Total
2019	\$22,994,161	\$2,214,562	\$44,250	\$547,872	\$25,800,845
2020	\$23,557,950	\$2,257,445	\$44,876	\$543,916	\$26,404,187
2021	\$23,978,334	\$2,213,113	\$45,205	\$562,325	\$26,798,977
2022	\$24,977,741	\$2,097,809	\$42,615	\$643,522	\$27,761,687
2019	89.12%	8.58%	0.17%	2.12%	100.00%
2020	89.22%	8.55%	0.17%	2.06%	100.00%
2021	89.47%	8.26%	0.17%	2.10%	100.00%
2022	89.97%	7.56%	0.15%	2.32%	100.00%

Source: DOR Municipal Databank.

There were 3,497 residential, commercial, and industrial properties representing a total value of \$3.14 billion in Tisbury in 2019.⁸⁰ Not all property is treated the same, however. Tisbury takes advantage of a residential exemption, meaning full-time residents can receive a discounted tax rate compared to seasonal residents. In FY22, the average property value in Tisbury is \$1,051,350, but 1,079 residents received an exemption of 18 percent on their properties. The Town set the 2022 property tax rate at \$8.70 per \$1,000 in value for residential property and \$8.12/\$1,000 for commercial, industrial, and personal property.⁸¹

Tax rates are often the first comparator used in fiscal analyses. As shown in the figure below, Tisbury ranks considerably higher in both residential rates and commercial/industrial/personal property rates than the other towns.⁸² Oak Bluffs is second, but its rates are much lower, similar to those in Aquinnah and West Tisbury. Tisbury's commercial tax rate is almost 59 percent higher than the average of the seven towns and 67 percent higher than the average residential tax rate. These differences might reduce Tisbury's competitiveness with surrounding towns in attracting business and residential development.

⁷⁸ "Primer on Tisbury Real Estate Taxes," Town of Tisbury MA, Accessed January 2023.

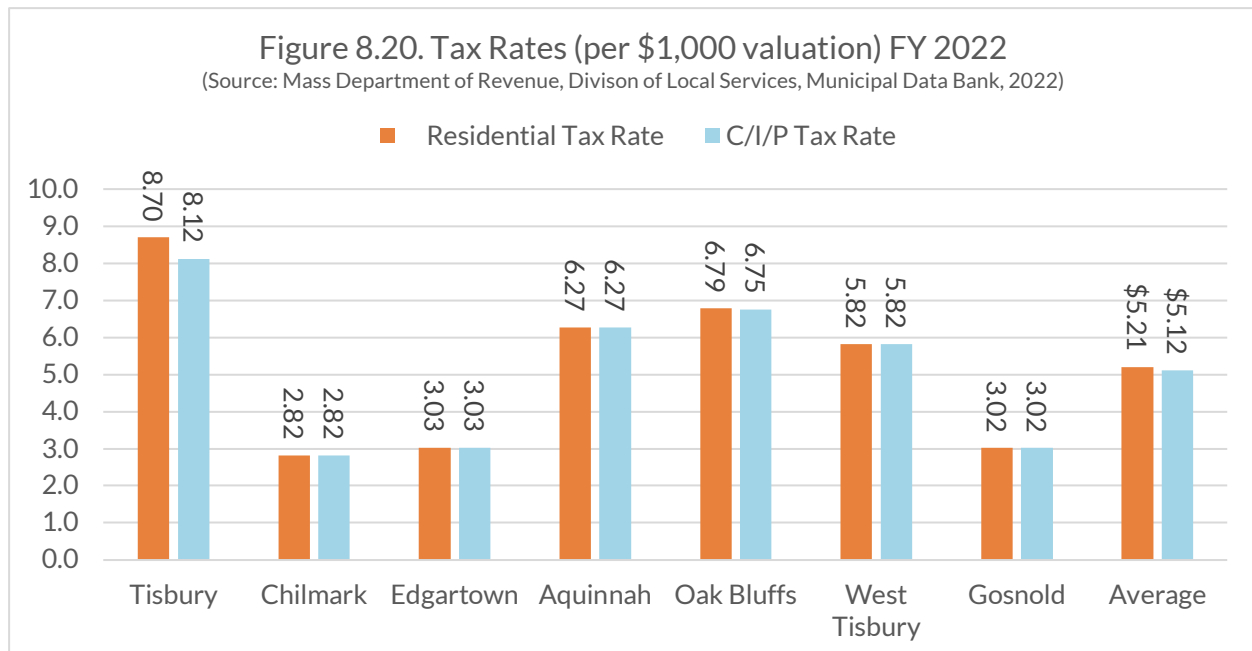
<https://www.tisburyma.gov/treasurer-collector/pages/primer-tisbury-real-estate-taxes>.

⁷⁹ "Tisbury: Tax Levy by Class," Municipal Databank, MA Department of Revenue Division of Local Services.

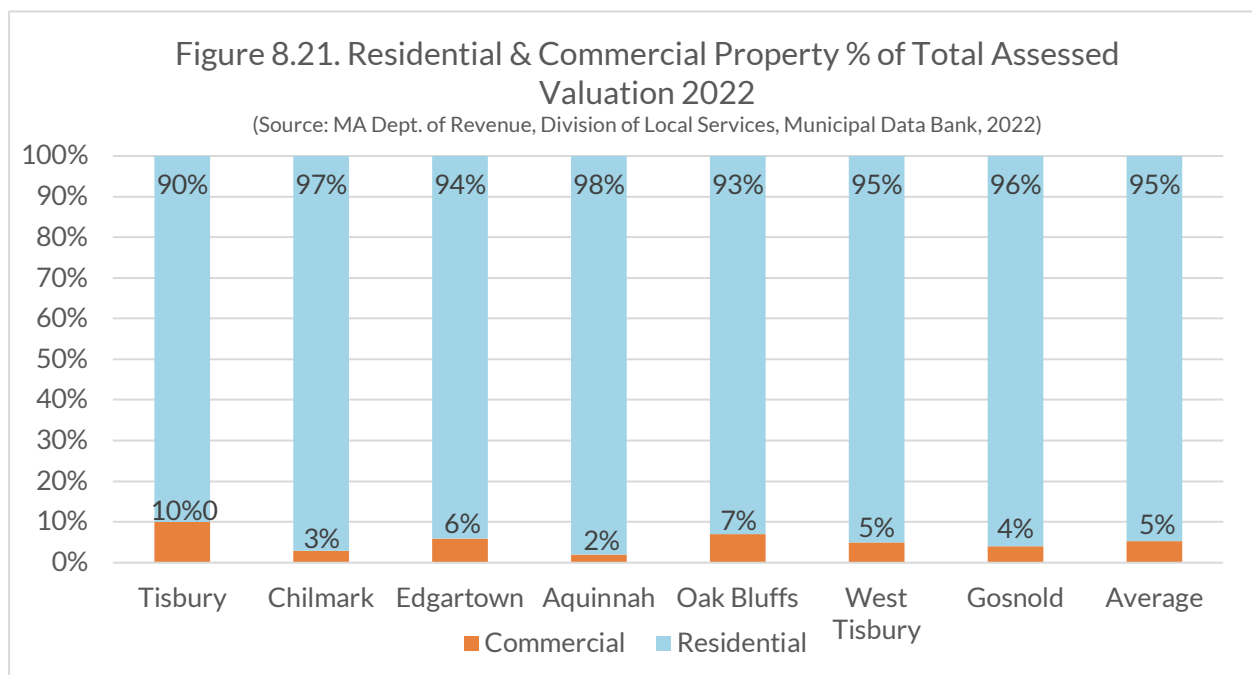
⁸⁰ "Real Estate for FY2019," *Town of Tisbury Tax Commitment Book*, Town of Tisbury (December 14, 2018).

⁸¹ "*Town of Tisbury Fiscal 2022 Residential Exemption History*," Town of Tisbury (2022).

⁸² Personal property assessments and tax levies account for less than 2% of assessed values and tax levies in any of the Vineyard towns and are not addressed here.



As shown in the following chart (Figure 8.21), 10 percent of the assessed value of all real property in Tisbury is commercial. This is the highest proportion for commercial of all the towns, and twice the average proportion.



All towns are heavily dependent on residential properties or revenues, as shown below. The tax levies track the valuations of real property shown in the previous chart. Of the seven, Tisbury derives the lowest proportion, 90 percent, of its total levy from residential real property sources and raises the

largest proportion, 10 percent, of its levy from commercial real property tax sources. The average of all the towns is 95 percent from residential and 5 percent from real property commercial tax sources.

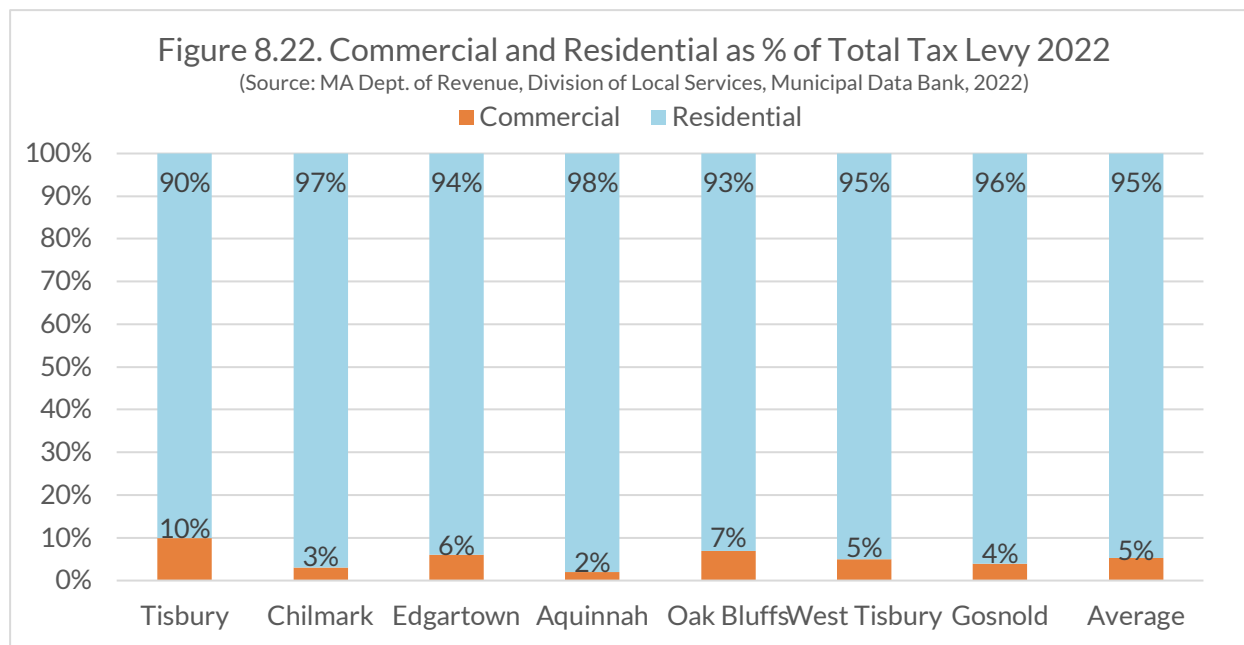
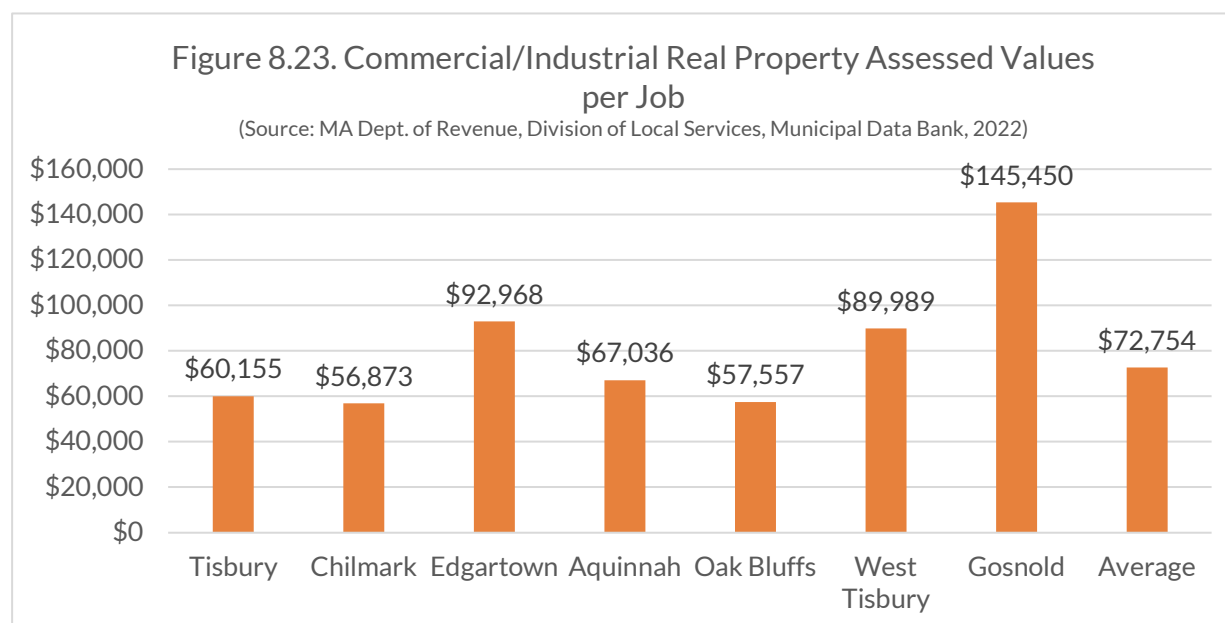
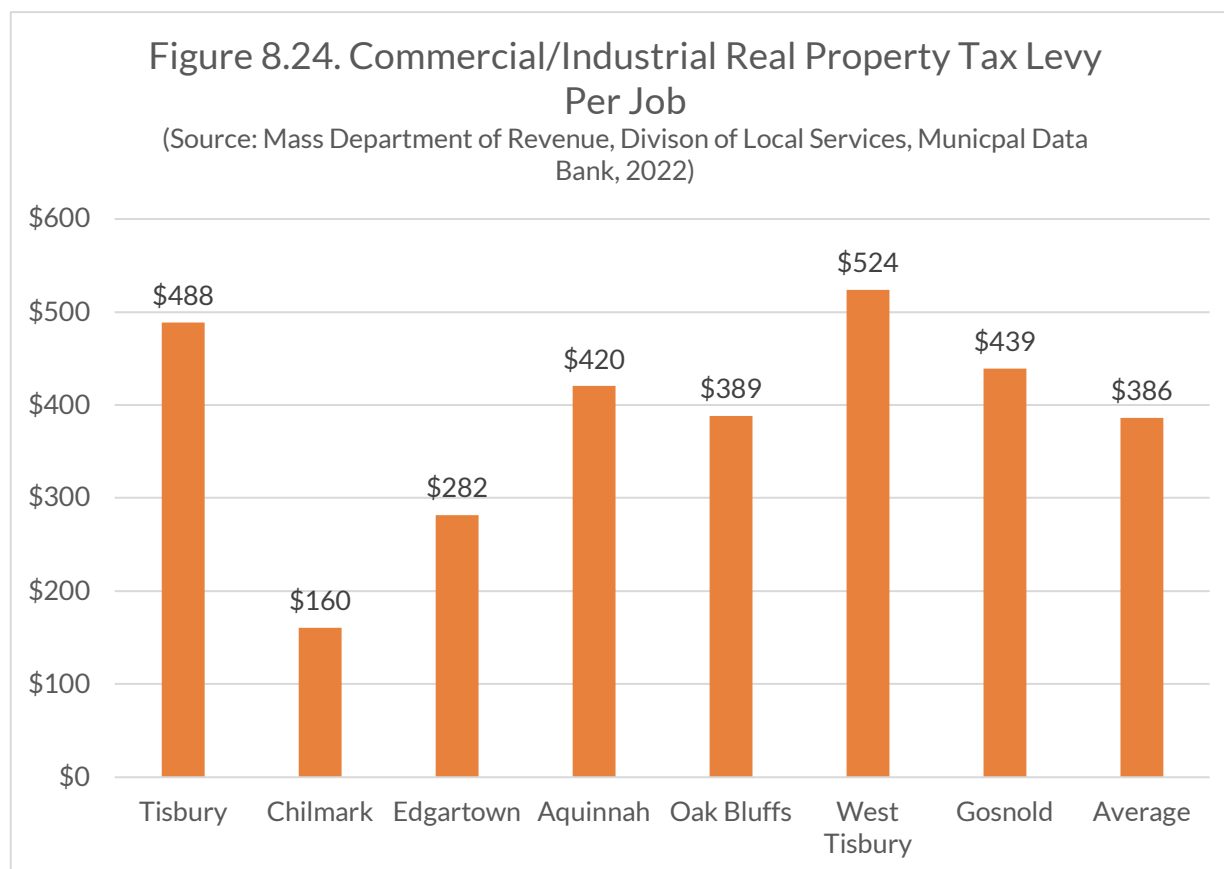


Figure 8.23 shows commercial real property valuations on a per job basis show different variations across towns. Tisbury's Commercial/Industrial valuations per job are the second lowest of the towns, 21 percent below the average for all Vineyard towns.



From a per job tax standpoint, Tisbury is the second most expensive business location behind West Tisbury, with commercial/industrial real property tax levies 26 percent higher than the average of all

Dukes County communities (Figure 8.24), even in spite of 26 percent lower than average assessed values per job. This reflects Tisbury's higher tax rates.

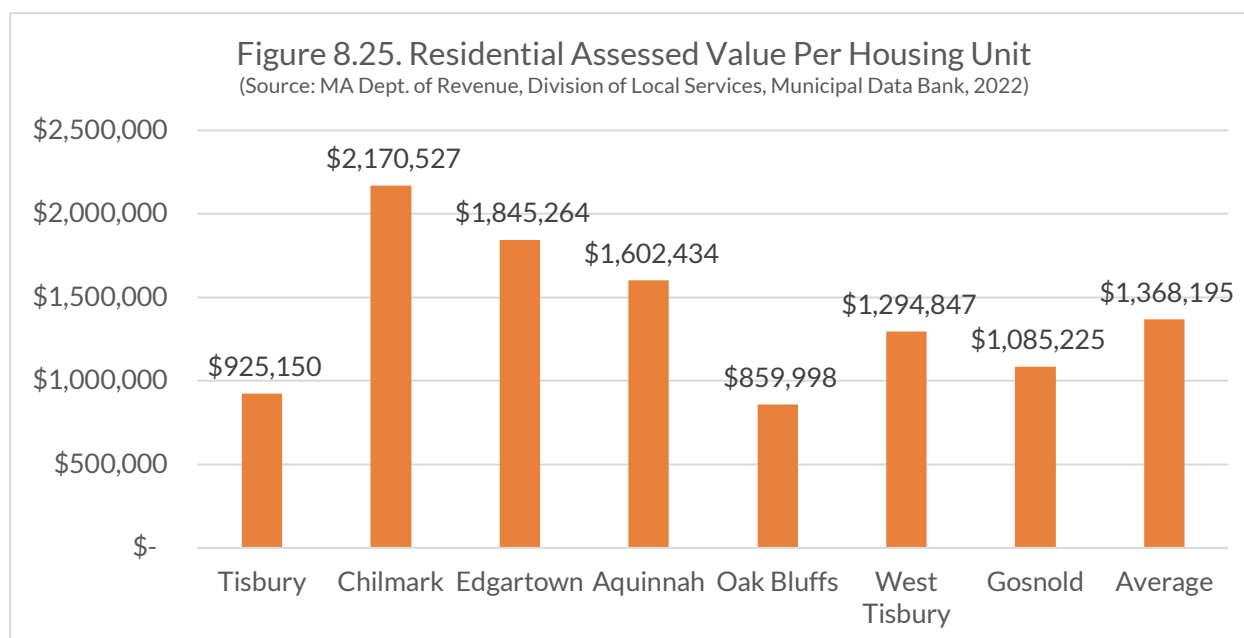


All the towns on Martha's Vineyard have substantial non-resident property owners, consistent with the seasonality of its economy. Table 8.14 below shows the relative vacancy rates across the towns. Vacancies classified as such by the census include seasonal homes (not occupied year-round) which are assumed to comprise most of the units classified as vacant. Tisbury and West Tisbury have the lowest proportion of seasonal homes, based on vacancy data. The majority of properties in Chilmark, Edgartown, Aquinnah, Oak Bluffs, and Gosnold are classified as vacant year-round.

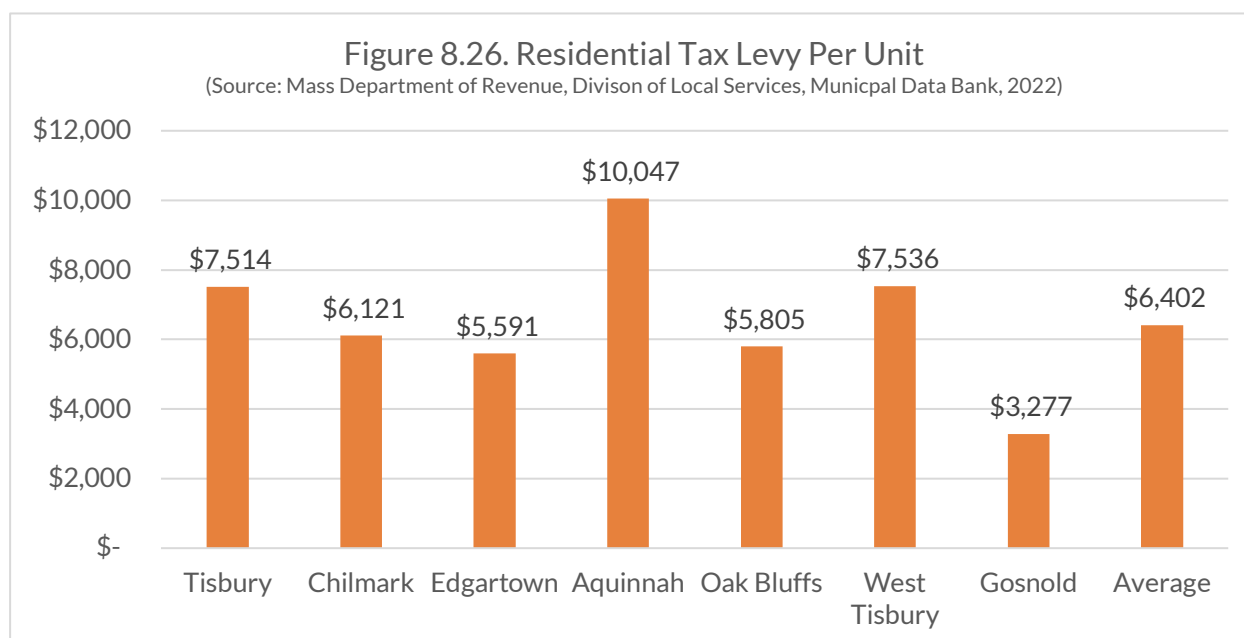
Table 8.14. Housing Units, Occupied and Vacant

	Tisbury	Chilmark	Edgartown	Aquinnah*	Oak Bluffs	West Tisbury	Gosnold*
Total:	3,226	1,574	5,234	523	4,429	2,371	211
Occupied	2,139	538	2,191	161	2,316	1,509	37
Vacant	1,087	1,036	3,043	362	2,113	862	174
% vacant	34%	66%	58%	69%	48%	36%	82%
*Claritas data used in absence of Census data							
Source: U.S. Census, 2020; EnvironicsAnalytics Claritas Spotlight Reports, 2022; FXM Associates							

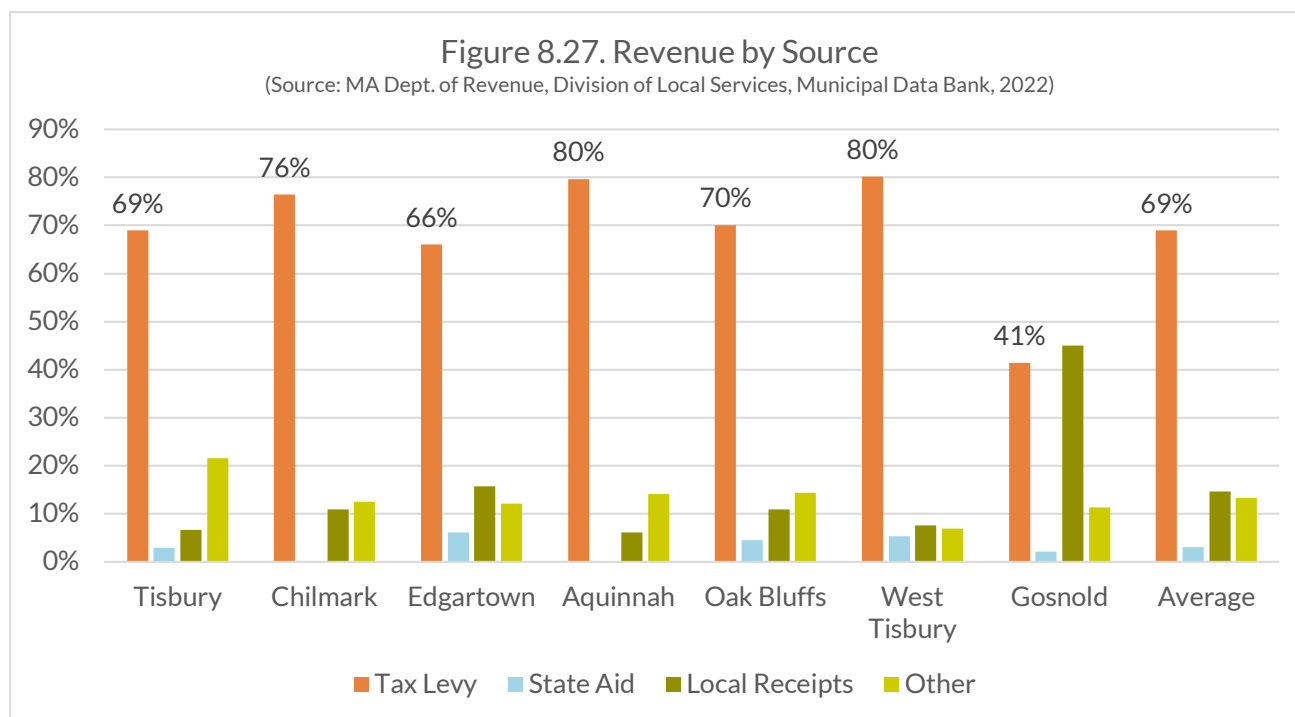
To account for both seasonal and year-round property, assessed values per housing unit are shown in the following chart. Of the seven towns, Tisbury has the second lowest assessed value per unit. Five of the towns exceed \$1 million in residential assessed value per unit.



Despite the second lowest average assessed values per unit, shown in Figure 8.25 (32 percent below average assessed values), residential property owners in Tisbury are paying the third highest average tax levies per unit (17 percent above average). Residential levies per unit are shown in the figure below (Figure 8.26). Here, Tisbury ranks third from the top, only slightly lower than West Tisbury. This reflects Tisbury's higher tax rate.



Looking at revenues by source (Figure 8.27), Tisbury ranks fifth in the proportion of its budget that comes from the tax levy, as shown in the table below, and first in the proportion that comes from the CPA, Enterprise Funds, and “other” sources. Aquinnah and West Tisbury derive the largest proportion of their budgets from this source. Among the towns, Edgartown and West Tisbury rank first and second in the proportions of state aid budgeted, 6.1 percent and 5.3 percent, respectively. Gosnold derives most of its budget from Local Receipts (include excise taxes, occupancy taxes, fees, charges, etc.).



WORKFORCE DEVELOPMENT

Martha’s Vineyard Regional High School (MVRHS), which serves the secondary education needs for Tisbury and other island communities, offers several career and technical education as well as co-op pathways to students for careers in automotive technology, carpentry, culinary arts, early childhood development and education, health assisting, horticulture, marketing, and maritime sciences. Currently, Martha’s Vineyard lacks an institution of higher education on the island, including a community college. In 2022, the Martha’s Vineyard Center for Training and Education (MVCET) created a pilot program called the Martha’s Vineyard Community College Consortium (MVCCC) to provide better education access for islanders by partnering with other regional community colleges. According to MVCET, this is in response to concerning outcomes from MVRHS: 55 percent of the class of 2020 either never enrolled in college or have dropped out. Of the 2018 graduating class, just 37 percent obtained a degree (two or four year) within six years of graduation.⁸³ MVCCC offers select course credits that can be applied toward degrees at Massachusetts public institutions as well as toward career certificates.

⁸³ “MV Community College Consortium,” MVCET, Accessed December 2022, <https://mvcet.org/mvccc/>.

WATERFRONT CONSIDERATIONS: VINEYARD WIND 1 OFFSHORE WIND PROJECT

Vineyard Wind is currently building the nation's first utility-scale offshore wind energy project fifteen miles south of Martha's Vineyard. The Vineyard Wind 1 (VW1) project will consist of an array of 62 wind turbines that will generate 800 megawatts (MW) of electricity. The development and construction of the project will proceed in three phases: Development, Construction, and Operations and Maintenance (O&M). The Development phase is complete, and the Construction phase is underway, with the first turbine scheduled to begin operation in Q4 2023.

The O&M phase will begin once the first turbine is producing energy, although Vineyard Wind and its partner Vineyard Power have begun hiring and training a workforce in anticipation of this milestone. O&M is the longest phase, extending throughout the life of a wind farm: approximately 25 years. The turbines, foundations, cables, and other components are inspected regularly during the O&M phase, and any necessary repairs or upkeep are performed. Additionally, the environmental impacts of the OSW farm are monitored during this period. Vineyard Wind and the turbine manufacturer will jointly maintain the OSW farm during the five-year warranty period.

Vineyard Wind O&M Support Facility

Vineyard Wind is constructing an O&M support facility at 69 Beach Road in Vineyard Haven. The O&M facility will be approximately 14,440 ft² and will serve as the central location for the primary maintenance activities, including office space, storage of spare parts, maintenance equipment, other materials, and parking. The facility will also serve as the hub for all the primary and back-office support of the O&M activities, including planning, training, procurement, and any additional activities as they arise in the operation of the VW1 project.⁸⁴

Tisbury Marine Terminal

Vineyard Wind's O&M support facility is part of a larger O&M system that includes the expansion of the Tisbury Marine Terminal (TMT) at 91 Beach Road and the development of a helicopter hangar at Martha's Vineyard Airport. The TMT project, currently under construction, includes two primary components: 1) expansion and alteration of the northern section of the Tisbury Marine Terminal to accommodate an O&M facility, and 2) improvements to the existing terminal operations in the northern section of the terminal that will continue to serve TMT operations, including a marine terminal with transfer and storage facilities.

The O&M facility is designed to service wind farms of up to 1,600 MW (the VW1 project is 800MW). The project will also require dredging, a new 186 ft steel sheet pile bulkhead constructed along the landward side of the berthing area, a new 38,821 ft² pile-supported pier deck landward of the berthing area, and a new 283 ft steel bulkhead that will run along the southern edge of the pier deck.⁸⁵

⁸⁴ [*DRI #81-M3 Vineyard Wind Maintenance Building MVC Staff Report – 2022-7-7 UPDATED*](#), Martha's Vineyard Commission, Revised July 2022.

⁸⁵ [*DRI # 277-M Tisbury Marine Terminal Expansion MVC Staff Report – 2021-7-27 DRAFT*](#), Martha's Vineyard Commission, (July 2021).

Economic Benefits

Developing, constructing, operating, and maintaining Vineyard Wind's O&M operations will require workers drawn from a diverse range of occupations that represent a wide distribution of skill and educational levels, ranging from white collar jobs such as managers and engineers to blue collar jobs such as marine transportation and warehouse workers. These steady and well-paying jobs will positively impact the Martha's Vineyard economy, which experiences severe seasonal fluctuations in employment due to its largely tourism dependent economy. Adding long-term and high-quality year-round employment will significantly increase the number of opportunities for local workers to obtain currently unavailable stable sources of full-time year-round income.⁸⁶

Vineyard Wind, along with its partner Vineyard Power, has set a goal of hiring 100% on-island employees within five years of the start of operations.⁸⁷ Apart from constructing the facilities, the developer estimates the creation of 56 jobs, including 12-year-round onshore jobs, 24 year-round offshore jobs, and 20 seasonal offshore jobs. Salaries are estimated to range from about \$79,000 to \$128,000.⁸⁸

Because OSW is a new industry in the United States, there is not a ready pipeline of OSW workers to immediately fill many of these positions. However, most of the onshore O&M positions require skills that are easily transferrable from other on-island occupations. In addition, while offshore O&M workers such as turbine technicians and marine transportation workers requires more comprehensive training, the required skills are also transferable from current island occupations such as the marine trades, radio, cellular, and tower equipment installers & repairers, electric/electronic repairers, commercial and industrial equipment operators, industrial machinery mechanics, and machinery maintenance workers.⁸⁹

Other Economic Benefits; Indirect and Induced Economic Impacts

The O&M facilities will primarily be constructed by union workers. While it is unlikely that new jobs will be created during construction, local spending by construction workers on items such as food and beverages and purchases made by the construction companies on materials, fuel, and other items on will support additional economic activity.

Local businesses will be further supported once O&M begins as a result of year-round employee purchases on everyday items such as rent, food, healthcare, fuel, and childcare. Workers will also pay taxes that directly and indirectly support local government such as property, excise, and sales taxes. Business-to-business benefits (i.e., indirect effects) will primarily be created from purchases made on items that support the back-office operation such as office supplies and rent. Larger components that support the wind farm will likely be produced offsite and transported to the island. Overall, the Public Policy Center estimated in 2017 that the indirect and induced effects of O&M activities on Martha's

⁸⁶ [*Proposed Vineyard Wind Offshore Wind Energy Project: Estimated Contribution to Employment and Economic Development*](#), Public Policy Center at UMass Dartmouth and Vineyard Wind, (December 2017).

⁸⁷ [*DRI 699 Tisbury Marine Applicant response to MVC memo 3-19-21 Re: Combined Supplemental Information Provided through March 19, 2020*](#), Martha's Vineyard Commission, (2021).

⁸⁸ [*DRI #81-M3 Vineyard Wind Maintenance Building MVC Staff Report – 2022-7-7 UPDATED*](#), Martha's Vineyard Commission, (Revised July 2022).

⁸⁹ [*DRI 699 Tisbury Marine Applicant response to MVC memo 3-19-21 Re: Combined Supplemental Information Provided through March 19, 2020*](#), Martha's Vineyard Commission, (2021).

Vineyard would generate \$5,889,000 additional sales in the Southeastern Massachusetts economy, with a portion of those additional sales occurring on Martha's Vineyard.⁹⁰

⁹⁰ *Proposed Vineyard Wind Offshore Wind Energy Project: Estimated Contribution to Employment and Economic Development*, Public Policy Center at UMass Dartmouth and Vineyard Wind, (December 2017).



9. Public Facilities

Introduction

Having access to adequate services and facilities is necessary for public health, well-being, and safety of residents, businesses, and visitors. The Town of Tisbury provides a public school system, a municipal sewer system, solid waste disposal, public safety and emergency services, library services, and senior resources; and maintains the municipal buildings and infrastructure needed to provide these services. Quality public schools are critical for attracting families and raising a civically engaged next generation, and Town-owned buildings provide centers for civic engagement and house day-to-day municipal operations and administration. The enhancement and maintenance of these services and facilities is critically important to support town residents and business owners, institutions, and visitors in their everyday needs.

Existing Conditions

MUNICIPAL UTILITIES

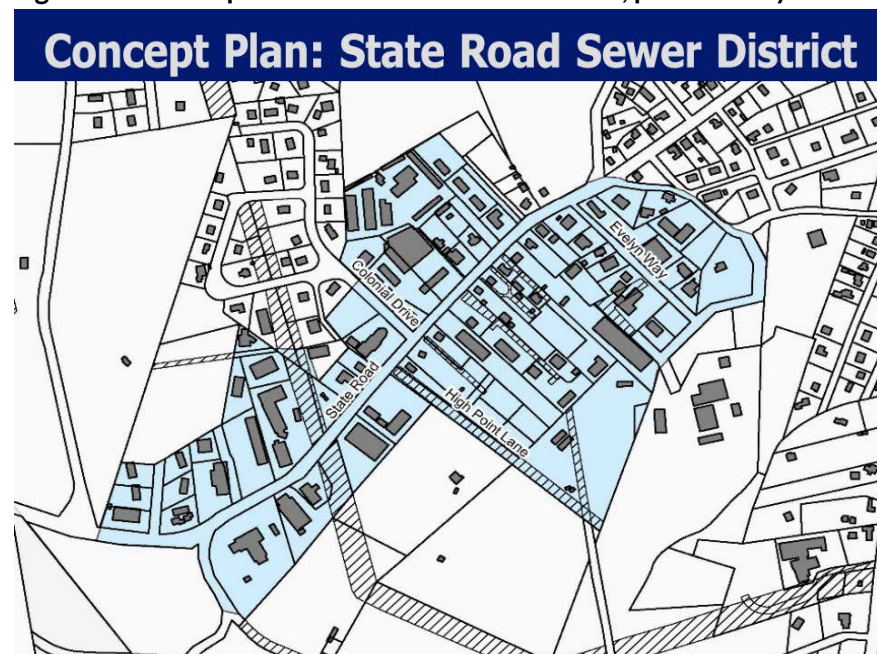
Wastewater. Tisbury's sewer system was installed in 2004 to mitigate the effects of septic systems on Lagoon Pond and Vineyard Haven Harbor. The existing sewer system is located primarily in Downtown Vineyard Haven between Main Street, Water Street, Lagoon Pond Road, and Beach Road, shown in

Figure 9.1. The sewer system has approximately 130 sewer connections to residential and business structures served by both gravity flow sewer and low-pressure sewer force main.⁹¹

The Tisbury Wastewater Treatment Facility (WWTF) at 155 High Point Lane is approved for a maximum daily flow of 104,000 gallons per day (gpd). It discharges into two leaching fields at the Department of Public Works (DPW) building at 115 High Point Lane and behind the Tisbury Emergency Services Building. The division has three vehicles in good condition. Recent wastewater projects include the Wastewater Grease Trap Policy of 2018, the installation of a sludge processing centrifuge in 2013, and installation of effluent filtering drum filters in 2014. The Town plans to connect the Harbormaster's office to the sewer system to assist with pump outs.

The Town is expanding the Sewer Service Area on State Road to the B2 district, where development is currently constrained by wastewater disposal limitations, as shown in Figure 9.1. The expansion will advance the Town's goal of reducing nitrogen discharges to Lake Tashmoo. The proposed district will serve 72 parcels, with a combined flow of 18,000 gpd.⁹² The expansion will require minor modifications to the wastewater treatment facility including an aeration system, decant system, and mixers. The Town can accommodate up to an additional 36,000 gpd of wastewater flow with only the minor modifications described, but any more than that would require significant expansion to the wastewater plant. The department planned to request bids in 2022 on the State Road sewer expansion project.

Figure 9.1. Concept for State Road Sewer District, produced by Environmental Partners (2018)



The DPW Wastewater Division operates and maintains the WWTF under the direction of the Wastewater Superintendent. In August 2022, the division had four full-time staff, including an

⁹¹ "Wastewater," Town of Tisbury, Department of Public Works, (March 17, 2022), accessed December 2022. <https://www.tisburyma.gov/wastewater>

⁹² Environmental Partners, Sewer Advisory Committee: State Road Sewer District Information Session, (2018).

administrative assistant and the plant operator.⁹³ The department has expressed difficulty filling vacant positions due to lack of housing for potential workers. Massachusetts requires that wastewater personnel have a wastewater license, which is time consuming to obtain.

In 2021, the Town began developing a Comprehensive Wastewater Management Plan (CWMP), aimed at assessing town needs, identifying alternatives, and drafting an action plan for the next 20 years. The plan is expected to identify priority wastewater projects for the Town and the plan will allow the Town to access funding programs like the Clean Water State Revolving Fund and the Islands Water Protection Fund.⁹⁴ According to town staff, in the next 20 years, the Town will likely need to build a new wastewater plant and continue expansion of the sewer system to reduce nitrogen to acceptable levels for water quality protection, called the total daily maximum load (TDML). The Town's ability to manage wastewater contributes to the housing supply and commercial expansion in town as well as the water quality of Lake Tashmoo, Lagoon Pond, the Harbor, and ultimately, drinking water systems. The demand for dense housing options and increased development is constrained by the limited existing sewer capacity.

Drinking Water. Tisbury Water Works provide public drinking water to the densely developed eastern side of Tisbury. It serves 2,550 active accounts, 89.5 percent of which are residential. The average daily demand (ADD), the amount of water consumed daily per account, is 261 gallons. This translates to a per capita usage of 110 gallons per day, well above the state's goal of less than 65 gallons per capita per day.⁹⁵

Table 9.1. Summary of Water Usage 2017-2020

	Commercial	Town	Residential	Total Active Accounts
Accounts	240	23	2,287	2,550
Percent of Accounts	9.4%	0.9%	89.7%	
Percent of Usage	15.5%	1.7%	82.8%	
Average Day Demand (ADD) (gpd)	466	536	261	280
Median Day Demand (gpd)	232	178	177	178

Source: Comprehensive Wastewater Management Draft Needs Assessment, 2022.

Drinking water comes from three wells, the Sanborn, Tashmoo, and Manter Wells, which draw groundwater supplied by the island of Martha's Vineyard's sole source aquifer, replenished from rainwater, snowmelt, lakes, ponds, and streams. Along with the three wells, an emergency interconnection exists with the Oak Bluffs Water District on Edgartown Road, ensuring the water supply remains constant.

⁹³ Town of Tisbury, *Employee Personnel Report*, (2022).

⁹⁴ Town of Tisbury, *Comprehensive Wastewater Management Plan Frequently Asked Questions*, (2021).

⁹⁵ Town of Tisbury, *Draft Comprehensive Wastewater Management Plan Needs Assessment*, (2022).

- **The Sanborn Well**, off of Edgartown Road, is a 220-foot-deep gravel packed well, in operation since 1952. The well is capable of pumping 950 gallons of water per minute (gpm).
- **The Tashmoo Well**, on West Spring Street, is a 219-foot-deep gravel packed well in operation since 1965. The well is capable of pumping 850 gpm.
- **The Manter Well**, located off Old Holmes Hole Road, is a 215-foot-deep gravel packed well, online since 2004. It is capable of pumping 1,000 gpm.

In 2020, Environmental Partners completed a Water Distribution System Capital Improvement Plan. The report found the Town's three well fields have sufficient capacity to meet maximum daily demands for the next fifteen years. The Town does not forecast drinking water supply and services as a constraint on development in the region. The Plan found the Town has a current deficit of distribution storage of approximately 260,000 gallons and undersized water mains.

Prior to distribution, water is treated, then pumped into the 350,000-gallon water storage tank located on High Point Lane, from which it flows using gravity to homes and businesses.

A Groundwater Protection Overlay District, added in 1999, protects Tisbury's three well fields. According to the most recently available annual Water Quality Report from 2020, the levels of contaminants in Tisbury are all well below the Maximum Contaminant Levels (MCL).⁹⁶ While continual water testing has found levels of contaminants including nitrogen and Per- and Polyfluoroalkyl Substances (PFAS) well below regulatory thresholds, MassDEP considers the sole source aquifer susceptible to contaminants due to high threat land uses within the Water Supply Protection Area including several users of pesticide, hazardous materials storage, residential underground storage tanks, the Tisbury Town Landfill, and Carroll's Trucking on Edgartown Road.⁹⁷ Town-wide reliance on septic systems resulting in nitrogen emissions has been raised as an issue with potential future impacts on town drinking water.

In 2018, Tisbury Water Works moved to a new building at 400 West Spring Street, which is in great condition. Water Works staff includes the Water Superintendent, an Assistant Water Superintendent, and the Administrative Assistant. The department is overseen by an elected Board of Water Commissioners.

Solid Waste Management. The Department of Public Works contracts with Bruno's Rolloff, Inc. for residential recycling and trash pick-up in town. Bruno's provides solid waste management services for all towns on Martha's Vineyard and picks up trash weekly and recycling bi-weekly curbside or in yard.⁹⁸ Tisbury residents purchase trash and recycling stickers annually at either the DPW building or at Cronig's Market. Residents can also drop waste off at the landfill at the DPW complex. The DPW landfill accepts general trash, furniture, brush, leaves and grass, household goods, bicycles, auto parts, and paper, glass, and plastic recyclables. To use the landfill, residents must purchase a permit annually, and

⁹⁶ Tisbury Water Works, *Tisbury Water Works: 2020 Water Quality Report*, Town of Tisbury, (2021).

⁹⁷ Town of Tisbury, *Draft Comprehensive Wastewater Management Plan Needs Assessment*, (2022).

⁹⁸ Bruno's Rolloff, *Tisbury Residential Trash & Recycling*, schedule, (2022).

then pay for each drop off.⁹⁹ All items except recyclables incur a charge, and all waste except organic material is transported from the landfill.

The Oak Bluffs Transfer Station at 16 Pennsylvania Avenue in Oak Bluffs is also available to Tisbury residents for an additional charge.

According to the DPW, trash and recycling is shipped off island on a regular freight boat to New Bedford where it is transported domestically. To reduce the cost of shipping waste off island, the Town, in partnership with Bruno's, strives to reduce waste through recycling of large bulk items like furniture, bicycles and auto parts. The Town does not have a town composting program or composting site, though a regional site has been considered. While the Town does not have a swap shop, Tisbury has several secondhand stores that are very successful at allowing residents to donate underused items and acquire items secondhand.

TOWN BUILDINGS

The Town owns eleven public buildings that house all its basic municipal services. Table 9.2 lists these buildings and their location and provides a summary-level assessment of their condition in 2022, as described by town staff members. The conditions assessments are described further in the narratives that follow.

Table 9.2. Summary of Active Town Buildings

Building	Address	Condition
Town Hall	51 Spring Street	Needs Improvement
Town Hall Annex	66 High Point Lane	Needs Improvement
Tisbury Water Works	400 W Spring Street	Very Good
Tisbury School	40 West William Street	Currently under Construction
Emergency Services Building	215 Spring Street	Good
Library	200 Main Street	Needs Improvement
Police Department	32 Water Street	Good
Department of Public Works Building	115 High Point Lane	Needs Improvement
Tisbury Senior Center	34 Pine Tree Road	Adequate
Natural Resources (Harbormaster & Shellfish)	19 Owen Park	Needs Improvement

Police Station

The Police Department headquarters is located at 32 Water Street. The Department's stated mission is to "work together with residents and visitors to provide safety, security and enhanced quality of life within [the] community." To do so, the Department has four divisions: the Detective Division, the Patrol Division, School Resource Division, and the Traffic Division.¹⁰⁰ The Detective Division investigates

⁹⁹ Town of Tisbury, *Town of Tisbury Local Drop Off Fee Schedule*, (July 1, 2022).

¹⁰⁰ "Divisions," Tisbury Police Department, accessed February 2023, <https://www.tisburypolice.org/divisions>.

crimes by a formal process of information review, including review of field reports and investigations by patrol officers, victim statements, and witness statements. Cases range from minor to serious offenses. The Patrol Division is the most visible part of the Police Department and responds to emergency and non-emergency calls. The officers also work within the community in varying roles including as part of the Martha's Vineyard Drug Task Force, with the Council on Aging, with the Youth Task Force, and the schools. The School Resource Division works within schools to monitor the safety of the school grounds and assist in school lockdown procedures. The school resource officer also assists in bullying and threat cases, family issues, and liaisons between the Elementary School and the High School. The Traffic Division works to direct traffic, enforce parking regulations, and assist with ferry related traffic at the Steamship Authority. The division is busiest during the summer months.

In 2022, the department has 14 full-time officers, including the Chief, with three unfilled but budgeted positions for full-time officers. The department also has one part-time officer, and one full-time non-sworn position responsible for parking and traffic control. Six other part time seasonal traffic and parking officers join the department in the summer season. The department has a full-time administrative assistant. According to the Chief, the staffing levels are generally sufficient. Minor staffing concerns are attributed to the increased need for traffic enforcement and staff disinterest in working overtime. Tisbury's role as the island's year-round port, coupled with its mostly year-round resident population, can be seen in the comparatively large number of calls the Police Department responds to each year (approximately 14,000).

Police Department personnel report that the calls they receive are similar in nature to the calls off island, with less frequency of serious calls. Frequent call types include minor to major vehicle crashes, domestic violence, and alcohol and drug-related calls for service. While the department is primarily responsible for criminal investigations and cases, the police also mediate neighbor disputes. As a matter of routine, when staffing is available, the police respond to ambulance runs (typically illness and minor injuries) and fire calls (typically alarms). The police also offer complimentary services, such as car lock-out or flat tire assistance.

The police station, built in 1997, is in fair to good condition. It is large enough to accommodate the police functions and it does not need major repairs, but it does have several deficiencies: minor water damage, a second-floor reception area that sometimes causes confusion to visitors, and a hard-to-reach attic storage area accessible only by a ladder. The Police Department has seven vehicles, including two hybrid vehicles, and one motorcycle in fair to good condition. The department keeps up with routine maintenance on the vehicles. The Police do not have a boat and respond to water-related calls in partnership with the Harbormaster. The Police Department recently became certified with the Massachusetts Police Accreditation Commission, and the next step is full accreditation involving full review of all policies, procedures, the building, and security of records. Recently, the department has partnered with the Harbormaster to have police officers ride on the Harbor patrol boat to give a public safety presence in the busy Tisbury waters and to allow for the police to quickly respond to search and rescue operations.

As a result of resident complaints, the police have worked to increase traffic calming measures with the installation of speed feedback signs, funded from the police budget. Currently, the Police Department is

not pursuing body cameras in the department due to the logistical burden. Six members of the department have recently undergone a nationally certified boating and seamanship training program with the Coast Guard. All new officers are required to go through the 22-week police academy. Every year the police go through in-service training. Staff also attend specialty trainings on topics including school resource, sexual assault investigations, drug investigations, background investigations, and grant applications.

Fire & Emergency Response

Fire and Emergency Response are both located at 215 Spring Street in a ten-year-old building in good condition with minor issues. The building includes three bunk rooms, a walk-in safe haven, a small conference room, a computer room, and offices, along with a training room that doubles as a community room for voting and community meetings. The garage where the department parks emergency vehicles is attached to the building and has six bays. While the building is new and in generally good condition, emergency response staff noted a few minor building issues. The garage lacks air conditioning or dehumidification, so it becomes very hot during the summer. An HVAC system upgrade is needed as well as replacement of flooring. The garage roof has mold and sometimes leaks, attributed by staff in part to the solar installation on the roof. At ten years, the building is due for repainting and minor repairs.

The Fire Department is led by the Chief and the Deputy Chief and is staffed by an administrative assistant and over 40 volunteer firefighters. The department has experienced staffing challenges in recent years. The department staff have trouble keeping up with the summer influx of calls. Recent short-term rental regulations requiring fire inspection have added work to the department, as the Fire Chief and Deputy are responsible for these. The department's heavy reliance on volunteers in the summer means volunteers are driving through high traffic areas while responding to calls. The number of volunteer firefighters has been increasing. The department is currently upgrading the program used to coordinate volunteer firefighters to include additional public outreach functionality.

The department has three engines, a ladder truck, a medium duty rescue truck, a forestry truck, a hazmat truck, a high-water truck, and a small boat. The vehicle fleet is in good condition, and the number of vehicles is sufficient to meet the fire and emergency response needs of the Town. Most calls to the Fire Department are related to alarm system malfunctions. The number of calls has increased over the past ten to fifteen years. Older residents are unable to turn off fire alarms on their own, and the department forecasts a continued increase in calls as the older population on the island increases for non-emergency alarm calls and emergency calls. Response times in the winter are five to nine minutes, and in the summer fifteen to twenty minutes.

The Fire Department has an Insurance Services Office (ISO) 3 rating, which, as a volunteer fire department, is as low as they can go. The best rating a town can receive is a 1, and the worst is a 10. ISO examines fire department standards of practice and the ISO score a town receives affects the cost of property insurance in the community.

The Emergency Response Department provides emergency medical services 24/7, 365 days a year. The EMS Director leads the department. As of summer 2022, the department has three full-time paramedics and a full-time EMT. Per diem workers and volunteers fill the remaining shifts not covered by full-time

staff members. During the summer, the department relies on seasonal EMTs, mostly students, to cover shifts. When students go back to school, the department loses roughly 40 EMTs, down to around fifteen volunteer and per diem EMTs and three per diem paramedics.

The department has two advanced life support ambulances, one staffed ambulance, and one backup ambulance. The primary ambulance is three years old and in good condition. The backup ambulance is ten years old and will likely need to be replaced in two to three years. One of the full-time staff members checks the tires, oil, fluids, doors, and windshields monthly. The department also has a response vehicle in very good condition.

The department has seen a dramatic increase in calls over the past three years, from about 600 calls per year with 420 requiring transport to 750 calls per year, with around 600 transports. They have seen an increase in the number of calls involving falls by older adults and mental health incidents. The department has also seen an increase in critical calls where an external debriefing team is called to help staff members process a traumatic event. In the summer, the department receives more trauma calls while in the winter, they receive more calls involving older adults. With the aging population on the island, Emergency Services has seen an increase in calls that require lifting older adults and have increased the number of staff responding to a 911 call from two to three staff. The number of calls received has become steadier throughout the year as the population has aged and with more people working from home on the island during the off-season. The department increased staffing during the pandemic off-season to accommodate the increase in calls. As staff are all at the station, when a call comes in, the paramedics and EMTs can be out the door in two minutes. Response times in the summer are longer due to traffic congestion on Tisbury's roads.

The department has seen a dramatic increase in calls over the past three years ... including an increase in the number of calls involving falls by older adults and mental health incidents.

The Emergency Services Department is short staffed. The only time full-time employees see each other is during the shift change, and when a paramedic calls out sick, the EMS Director often needs to fill the shift. With regional labor shortages and the high cost of housing on Martha's Vineyard, the department has experienced challenges filling open paramedic positions. Recently, the department has implemented a program where people who have done first responder training can come along for a ride to build interest in working with EMS in order to recruit EMTs.

In-person training, discontinued during the pandemic, is being reinstated at least once per month, except in July and August. Both EMTs and paramedics must keep up with training hours to be eligible for recertification with the Commonwealth of Massachusetts, with EMTs requiring 40-50 hours and paramedics requiring 60 hours every two years.¹⁰¹

¹⁰¹ "EMTs – all levels," [OEMS Administrative Requirements](#), Massachusetts Department of Public Health, accessed November 2022.

Harbormaster

The Harbor Department manages the busiest waterfront on Martha's Vineyard. It is responsible for waterfront access, boating facilities, and the mooring fields in Vineyard Haven Harbor, Lagoon Pond, and Lake Tashmoo, maintaining the two public piers at Lake Street Landing and Owen Park, enforcing waterways regulations, and protecting public safety in an environment that accommodates recreational, commercial, fishing, and ferry vessels. There are four full-time staff and numerous part-time employees. The Harbor Department frequently works with the Shellfish Department, for they have some overlapping jurisdiction in coastal and marine resource management. However, they have different purposes and priorities – recreation, water safety, and transportation on one hand, and natural resource stewardship on the other.

The Harbormaster is responsible for Tisbury's inner harbor, outer harbor, Lagoon Pond, and Lake Tashmoo. The Harbormaster's responsibilities include overseeing and collecting payment for the Town's 780 moorings, managing and permitting the dredging of Lake Tashmoo opening every 2-3 years, enforcing the waterways regulations.

The Harbormaster and Shellfish functions are both within the Natural Resources Department. The department includes the Harbormaster, the Shellfish Constable, the Natural Resources Assistant, and the Administrative Assistant. The Natural Resources Assistant and the Administrative Assistant are also both sworn in as assistant harbormasters. In the summer, the department hires around eight interns ranging in age from 14 to 18 years old who tie up boats, rent out dock space, staff the radios, assist with pump outs, and handle phone calls. The staffing is sufficient to meet the needs of the Town.

The Harbormaster building at 19 Owen Park Way is in poor condition and does not meet the needs of the department. The building has insufficient storage for the harbormaster equipment, ranging from mooring balls to vessels. Currently, the harbormaster stores equipment in a Quonset hut at the DPW facility with a dirt floor and leaking roof. In addition, the building does not have a shower facility for staff coming back from working out on the water. The Town has identified site selection for a new facility as a priority. The department recently upgraded the Lake Street Landing Pier and plans to upgrade the Owen Park Pier in the next year.

The Harbormaster boats include a brand-new patrol boat, two pump-out boats, and two skiffs. The pump-out boats will need to be replaced in five to ten years. For the most part, the boats are sufficient to meet the needs of the Harbormaster and the fleet is in good condition.

Public Library

The Town of Tisbury's Vineyard Haven Public Library is at 200 Main Street. The elected Board of Library Trustees oversees the library finances, and the library staff manage daily operations. The library has a director and six staff members: a children's librarian, a reference librarian, a young adult librarian, an adult program coordinator, and two circulation staff members. Services at the library include book and equipment borrowing, document printing, computer access, Wi-Fi, digital library resources, museum

and beach passes, online tutoring, and study rooms.¹⁰² The library staff hold seven to ten free programs each week, including children story-times, summer outdoor play, language conversation programs, drawing, arts classes, and writing workshops. The library also offers after-school programs for children and a summer reading program.¹⁰³

In a normal year, the library has around 75,000 visits. During FY 2022, however, usage declined to around 26,000 visits, with an additional 10,000 virtual visits. According to library staff, the heaviest library users are retirees and families with young children. Working adults also use the library space and internet to work remotely.

The Vineyard Haven Public Library meets all Massachusetts requirements for libraries in towns their size. It is currently open 42 hours per week, Monday through Saturday, with evening hours two days a week. The library is working toward being open seven days a week but currently does not have enough staff to do so. The Town pays for the library staff and part of the library's programming budget. The library also has an endowment that supplements the operating expenses, supports library programming, and pays for new books and network membership dues. Along with Town and library endowment funding, library operations are supported to a lesser extent by state grants.

The library facility is in poor condition. According to the library's recent 2014-2018 strategic plan, the existing community room in the basement is not meeting the needs of library visitors and Tisbury residents due to poor ventilation, low ceilings, lack of windows, lack of ADA accessibility, and insufficient space. According to town administration, the library needs replacement of all major systems, along with energy saving improvements, painting and roofing. The strategic plan's public engagement process led the library to hire an architect to design an addition to the existing building and develop a cost estimate for construction of a new 1,200-1,500 square foot event/programming space. The library has a non-profit foundation that is conducting a capital campaign to raise money for the new facility. As of August 2022, the campaign had secured about \$1 million. The library is hoping to embark on the next five-year strategic plan and long-range plan soon.

Council on Aging / Senior Center

The main goal of Tisbury's Council of Aging (COA) is to "enhance the quality of life of seniors by ensuring them equal access to social, economic and political systems in a safe, secure and comfortable environment." The COA offers activities and services for adults 55 and older and their families. The Council on Aging is managed both by an appointed Board of Directors and by town staff members.¹⁰⁴

Tisbury's Senior Center at 34 Pine Tree Road is open Monday through Friday from 8:30 AM to 4:30 PM. The facility was built in 1991 and has approximately 4,000 square feet of space. It contains a large group event space, a large kitchen, and an outdoor deck, and provides community events and social services to

¹⁰² "Currently Available Library Services," Vineyard Haven Public Library, accessed November 2022, <http://www.vhlibrary.org/Covid19.shtml>

¹⁰³ "All Programs and Events," Vineyard Haven Public Library, accessed November 2022, <http://www.eventkeeper.com/mars/xpages/V/VH/ekp.cfm?curOrg=VH>

¹⁰⁴ "Council on Aging," Town of Tisbury, accessed November 2022, <https://www.tisburyma.gov/council-aging>

seniors. The facility is in fair condition with enough space for programming. The center (*See also, Chapter 11, Community Health.*) According to town administration, the Senior Center needs improvements to the parking lot including pavement sealant and repair of catch basins.

The Council on Aging has a director and four staff members: an activities director, an elder companion, and two receptionists. The existing staff does not meet all the needs of the senior center. In August 2022, the center was working on hiring an outreach coordinator to fill gaps in COA services by supporting applications for social assistance and referring residents to service providers.

Tisbury Town Hall and Town Hall Annex

Tisbury Town Hall at 51 Spring Street houses the Town Administrator, Treasurer/Collector, Town Accountant, Assessors, Human Resources, Town Clerk, and Select Board. The Town Hall was built in 1844 and is not meeting the needs of the Town. The building does not have enough space for all general government functions, and in 2022, the auditorium was used as a de facto office area. The building also has accessibility issues for people with disabilities.

Tisbury's Town Hall Annex complex at 66 High Point Lane houses Building Inspection and Zoning, the Board of Health, Information Technology, Conservation/ Zoning Board of Appeals, the Planning Board, and the Dog Pound. The complex includes the Dog Pound structure from 1995, and two office trailers placed in their current location in 2009. The Town Hall Annex trailers, originally a temporary solution, have received minimal maintenance since their placement, leading to several major issues. The outside of the trailers is starting to rot, and the heating, cooling, and electric systems are reaching the end of their useful life.

In 2022, fifteen staff worked in the Town Hall building, with one vacancy in accounting, and ten staff worked in the Town Hall Annex complex,¹⁰⁵ with one vacancy in Animal Control. The DPW maintains these buildings. According to town administration, the DPW building located at 115 High Point Lane is in need of an expanded maintenance building.

PUBLIC SCHOOLS

Public schools are the largest department and most costly operation of any service provided by cities and towns. Tisbury is no exception. The Town is a member of the all-island Martha's Vineyard Public Schools, a regional district covering all six municipalities. Each town has an elementary school, and all children entering grade 9 transfer to the regional high school in Oak Bluffs. The regional school committee that oversees the island's school district includes members chosen by the participating communities, and the committee chooses the regional superintendent. Every school has a building principal and vice-principal, guidance staff, a school nurse, librarian, specialists, regular and special education teachers, and English language support personnel. There are also parent councils for each school, and an island-wide parents council for special education services. It goes without saying that the public schools on Martha's Vineyard are small and geographically distributed across the island. These

¹⁰⁵ Town of Tisbury, *Employee Personnel Report*, (2022).

conditions contribute to what is arguably one of the highest-cost school districts in the Commonwealth, measured on a per-student basis.

Students in Tisbury can also attend the Martha's Vineyard Charter School (K-12) in West Tisbury. Table 9.3 shows public school enrollments for 2021-2022. Approximately 39 percent of the FY 2023 operating budget is appropriated for the schools, with \$8.1 million for Tisbury School (not including shared costs), and \$5.4 million for the Martha's Vineyard Regional High School.¹⁰⁶

Table 9.3. Tisbury and Martha's Vineyard Regional High School Enrollment 2021-2022 School Year

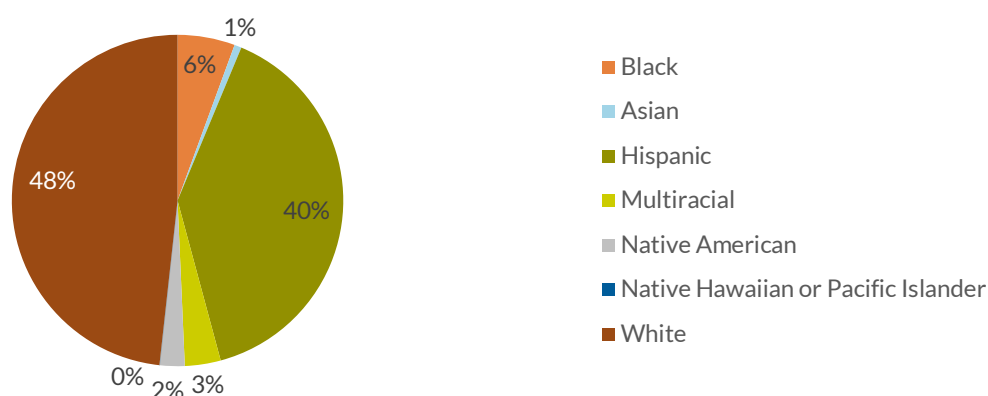
School	Grades Served	Year Built	Student Enrollment in 2021-2022
Tisbury School	PreK-8	1938	289
Martha's Vineyard Regional High School	9-12	1959	703

Source: Enrollment by School/Grade School Year 2021-22, Massachusetts Department of Elementary and Secondary Education (DESE).

Staffing at the Tisbury School includes the Principal and Assistant Principal, 43 teachers, 22 teacher assistants, three custodians, three cafeteria workers, three secretaries, and a technologist. Some staff are shared between the regional district's schools, such as an occupational therapist, school nurse, and guidance counselor. Tisbury School and Martha's Vineyard Regional High School both have large populations of Portuguese-speaking students and families. Of the 289 students at the school in 2021-2022, 52 percent were students of color, as shown in Figure 9.2. Seventy one percent of students in the Tisbury Elementary School are high needs, including 20 percent of students with disabilities and 34 percent are English language learners.¹⁰⁷

Figure 9.2 Race and Ethnicity of Tisbury School Students, 2021-2022

(Source: Massachusetts Department of Elementary and Secondary Education)



¹⁰⁶ Town of Tisbury, Appendix A - Article 30 Fiscal 2023 Operating Budget, (2022).

¹⁰⁷ "School and District Profiles", Massachusetts Department of Elementary and Secondary Education (DESE), Tisbury School, Accessed March 2023.

High needs students can impact the resources of a school as they typically require additional resources and support to be successful in school. The resources may include additional staff, specialized programs, assistive technology, modifications to facilities, and professional development.

The school works to support this highly diverse population of students with needs such as assisting parents unfamiliar with the health care system with appointments and providing staff who are multilingual.¹⁰⁸

Historic and Projected Enrollment

According to the New England School Development Council (NESDC), Tisbury School enrollment declined 16 percent between 2011 and 2021 (Figure 9.3). In contrast, Martha's Vineyard Public Schools as a whole has seen an 8 percent increase in enrollment over the same ten-year period (Figure 9.4). Based on birth data, NESDC projects Tisbury School enrollment will grow by 32 percent over the next ten years, based on real and estimated birth rates.¹⁰⁹

Figure 9.3. Tisbury School Historical and Projected Enrollment

(Source: NESDC)

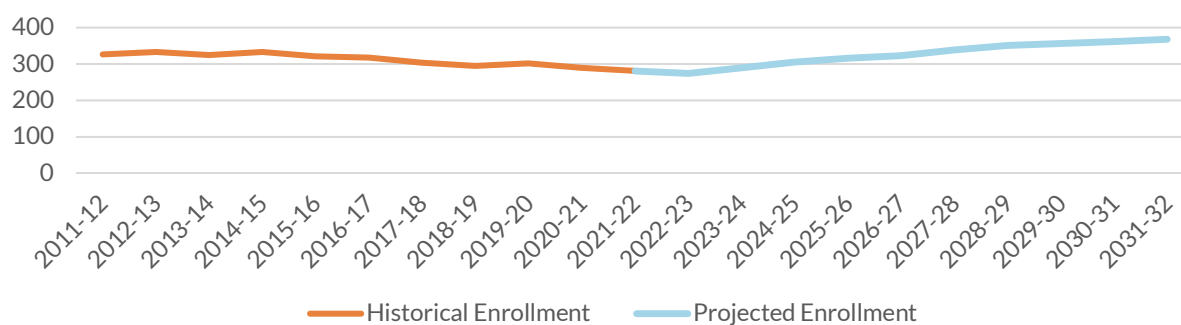
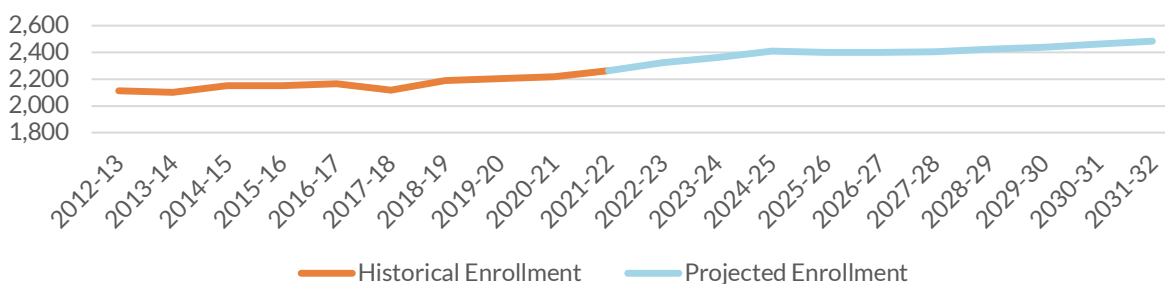


Figure 9.4. Martha's Vineyard Regional Schools Historical and Projected Enrollment

(Source: NESDC)



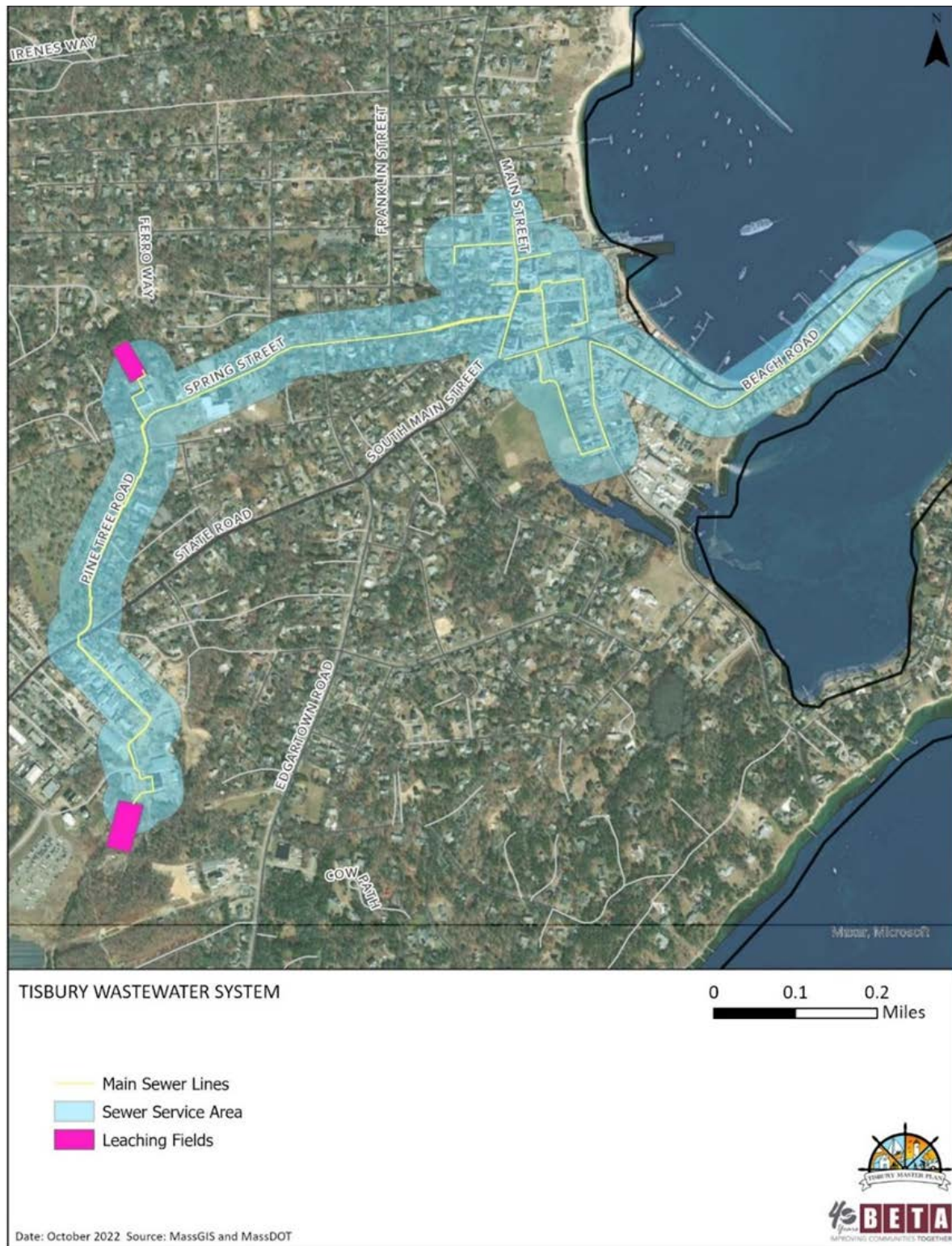
¹⁰⁸ "Enrollment by District/Grade/Race School Year 2021-2022," Massachusetts Department of Elementary and Secondary Education, accessed March 2023.

¹⁰⁹ New England School Development Council, *Martha's Vineyard Public Schools 2021-22 Enrollment Projection Report*, (2021).

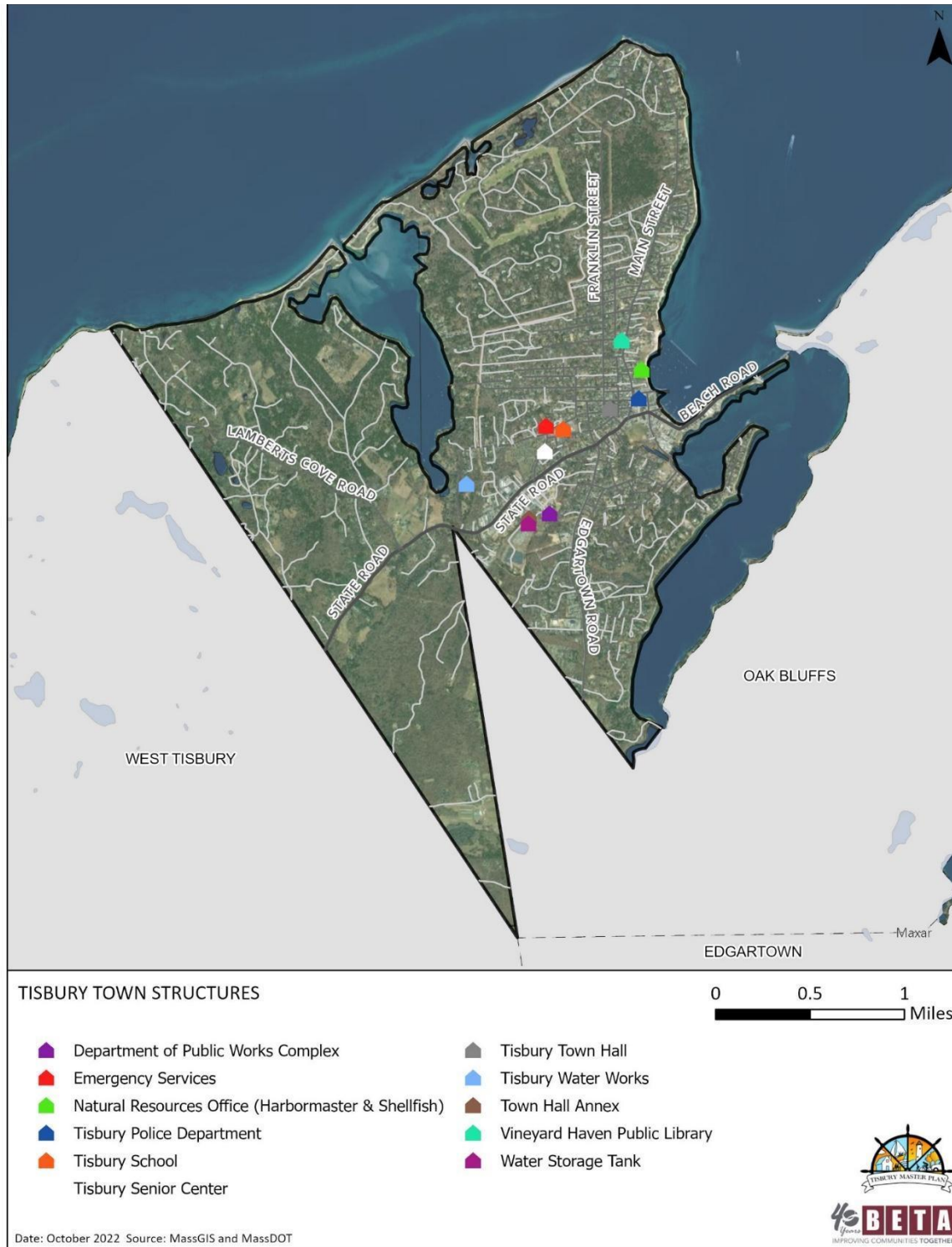
Facility and Service Condition

The main school was built in 1929 with additions in 1938 and then again in the early nineties. Asbestos abatement occurred in the 1980s and additional abatement was completed in 2018 with the school relocating half the campus to the high school. In recent years, the school has experienced a drop in enrollment due to abatement work and with the anticipation of a multi-year school construction project. An interim school facility was established to keep the entire school faculty and students on site while the comprehensive renovation and addition to the school is constructed. The \$81 million modernization of the school facility is expected to be completed in 2025.

Map 9.1 Tisbury's Existing Wastewater System



Map 9.2 Tisbury Town Structures





10. Transportation

Introduction

The local transportation system in Tisbury should provide safe and efficient mobility for all transportation modes, including walking, biking, public transit, water transport, vehicles, trucks, and taxis, and connections to destinations in town, on Martha's Vineyard, and off-island. The transportation system design, in tandem with land use decisions, affects island energy consumption, equitable outcomes, traffic congestion, pollution, and public health. The choices made over the next 10-20 years with regards to maintenance and enhancement of the transportation system will impact how Tisbury residents and visitors interact with Martha's Vineyard and get around in the future.

Existing Conditions

INVENTORY OF EXISTING ROADWAYS

Tisbury has around 71 miles of roadways. Roads in town can be classified using the federal road classification system into arterials, collectors, and local roads. Map 10.1 shows roadways by federal road classification. Table 10.1 shows the total length of each classification of roadway in Tisbury by centerline miles, the roadway length without accounting for the number of lanes.

Table 10.1. Classification of Tisbury's Roadways

Roadway Class	Centerline Miles	% Of Centerline Miles
Arterial	8.12	11.5%
Collector	2.46	3.5%
Local	60.28	85.0%
Total	70.86	100%
<i>Source: MassDOT Roads 2018</i>		

Arterial Roads

Arterial roads typically move people across town or between towns while providing access to popular destinations. Approximately 12 percent of the roadways in Tisbury are arterials. In Tisbury, Beach Road, Edgartown-Vineyard Haven Road, and part of State Road are principal arterials that together form a regional connection between Vineyard Haven and other towns on Martha's Vineyard. Franklin Street, Main Street, Spring Street, Pine Tree Road, and parts of State Road are minor arterials providing local and regional connections.

Collector Roads

Collectors typically move traffic from local roads to arterial roads, while providing access to places along the road. State Road in western Tisbury and Lambert's Cove Road are both collector roadways. Only about three percent of Tisbury roadways are collectors.

Local Roads

Local roadways provide the highest access to adjacent properties. Approximately 85 percent of all roadways in Tisbury fall under this classification. Local roadways in Tisbury are characterized by predominantly residential development and lower vehicle volumes and speeds.

Roadway Jurisdiction

In Tisbury, Beach Road and State Road are under state jurisdiction, making up around four percent of roadway miles. The Town owns around 31 percent (22 miles) of roadways in town. The rest of the roadways, the majority, are owned privately.

Scenic Roads

In 1976, Tisbury Town Meeting designated the public portion of Lambert's Cove Road as a scenic road. Designation as a scenic road requires any repair, maintenance, reconstruction, or paving work not

involving the cutting down or removal of trees or the tearing down or destruction of stone walls except with the prior written consent of the planning board and a public hearing.¹¹⁰

MAJOR TRIP GENERATORS

Major trip generators in Tisbury are the Ferry Terminal, the B2 commercial area, and the Vineyard Haven commercial area. Ferry arrivals and departures have a large impact on Tisbury traffic patterns and operations.

VEHICLE VOLUMES

Table 10.2 and Map 10.2 show the most recent available summer vehicle volumes on Tisbury roadways. Beach Road and Edgartown-Vineyard Haven Road have the highest number of vehicles (over 13,000 per day). State Road volumes are assumed to be high in town as well, though recent data for the roadway is not available.

Tisbury's roads experience a large increase in traffic during the summer season; however, the Town has experienced more consistent levels of residential and commercial vehicular traffic year round after the emergence of the Covid-19 pandemic as second homeowners chose to live on Martha's Vineyard during the fall, winter, and spring. Members of the Tisbury community note the roads in Tisbury were not originally designed to accommodate the high number of vehicles currently using the roadways. The roads consistently experience vehicle backups, particularly at specific locations including the Five Corners intersection and the intersection of Edgartown Vineyard Haven Road and State Road.

Table 10.2. Summer Vehicle Volumes

Roadway	Location	Weekday ADT	Saturday / Sunday ADT	% Trucks on Weekday
Skiff Ave	Near Top of Hill	2,690 (2017)	2,357 / 1,548 (2017)	2%
Lagoon Pond Road	South of Beach Road	2,686 (2021)	2,778 / 1,530 (2021)	NA
Edgartown-Vineyard Haven Rd	South of Sanborn Way near bank	13,836 (2017)	NA	5%
Main Street	By Montessori School	2,610 (2016)	2,138 / 1,854 (2016)	NA
Beach Road	Beach Road at Five Corners	13,524 (2013/2014)	14,072 (2013/2014)	NA
Source: MVC, MassDOT				

¹¹⁰ Tisbury., Mass., Rev. Ordinances ch. 9, § 4 (1976).

BICYCLE & PEDESTRIAN FACILITIES

Tisbury's sidewalk network is concentrated in the eastern side of town leading to and from the Vineyard Haven commercial area on Beach Road, State Road, Edgartown-Vineyard Haven Road, Franklin Street, Main Street, and adjacent roadways.

Tisbury has three shared use paths wide enough for people to walk and bike on Edgartown-Vineyard Haven Road, through Veteran's Memorial Park and on Beach Road, shown in Map 10.3. A sidewalk or shared use path exists on seventy-five percent of arterial roadways. Along with the shared use paths, Tisbury has two on-road marked bike lanes on a portion of Skiff Avenue and Beach Road. On Edgartown-Vineyard Haven Road south of Mount

Aldworth Road, large unmarked shoulders provide space where people currently bike. Tisbury's many low-volume local roads also generally present a comfortable place for people to walk and bike, though in recent years, town staff have observed increased vehicular traffic on these roadways. While the western side of town has no sidewalks or shared use path facilities along the roadways, walking trails connect people through wooded areas. In general, narrow roadways are frequently shared between people walking, biking, and driving which presents mobility and safety challenges.

Bike racks are available around town at various locations including the Ferry Terminal Bus Loop, the Ferry Terminal Ticket Office, and by the Main Street Commercial District. Visitors can rent bicycles at the Ferry Terminal from a local business. The areas with the highest bicycle and pedestrian traffic are located near the Ferry Terminal and in the Vineyard Haven commercial district. Some students walk to Tisbury school, and so pedestrian volumes increase near the school during the school year at arrival and dismissal.



People walking and biking in the wide shoulder on Edgartown-Vineyard Haven Road

PARKING

On-Street Parking

On-street angled parking is provided on Main Street and on-street parallel parking is provided on Franklin Street, Church Street, Spring Street, Union Street, William Street, and Clough Lane. Angle and parallel parking are provided at the Owen Park Beach and Lake Street Landing.

Off-Street Parking

The Town-owned Park & Ride lot is located on High Point Lane. The Park & Ride lot offers short-term parking free of charge, and long-term passes for a charge. The lot has 420 spaces and is served by a free shuttle bus to the ferry terminal operated year-round by the VTA in partnership with the Town of Tisbury and the Steamship Authority.¹¹¹ The lot is well used by Tisbury residents and employees. Several abandoned vehicles were observed in the lot in July 2022.

The Town owns the lot next to the Police Department and the Stop and Shop, the lot next to the VTA bus terminal by the Steamship Authority, as well as the old fire station town lot on State Road. Tisbury School, the Emergency Services building, the Town Hall Annex, and DPW all have off-street parking areas, along with the town tennis courts on Court Street.

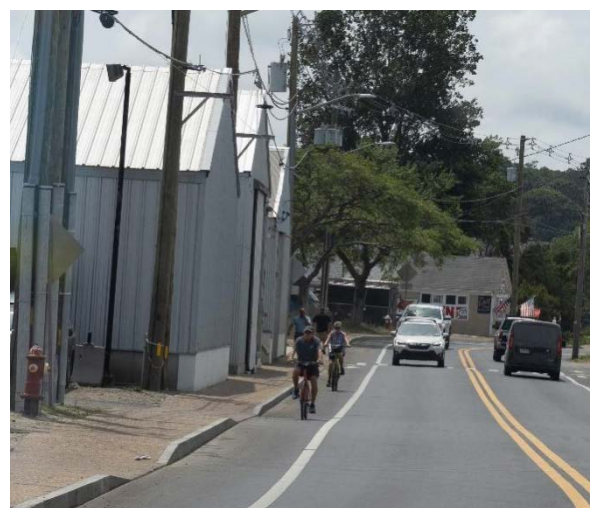
Commercial parking is typically provided through off-street parking lots. According to the Martha's Vineyard Commission, the Town has two electric vehicle charging stations at the Martha's Vineyard Family Campground and at Cronig's market.

Parking Use

The Town-owned parking lot located next to the Police Department and the Stop & Shop supermarket complex is heavily used, serving the Vineyard Haven commercial area and the supermarket. According to the police, summertime congestion in the lot can delay emergency response vehicles. Depending on the time of day, much of the on-street parking and the town-owned lots reach or near their capacity,



Bicycle parking by Ferry Terminal.



People biking on Beach Road bike lane.

¹¹¹ "Park and Ride," Tisbury Police Department, accessed November 2022, <https://www.tisburypolice.org/park-ride>

particularly in the summertime. Residents and town staff note parking conflicts as a major challenge to mobility in the area. Occupancy at select on-street and off-street locations, as collected by VHB in the summer of 2016, is shown in Table 10.3.¹¹²

Table 10.3. Parking Utilization in Vineyard Haven in 2016

	# of spaces*	Friday 7/15/16 11 AM	Thursday 8/18/16 2PM	Wednesday 6/29/16 3PM	Tuesday 7/12/16 4PM	Average
Town Lot by Stop & Shop	49	98%	92%	94%	94%	95%
Main St (State - Owen Park)	54	81%	90%	92%	85%	87%
Post Office Parking Lot	39	95%	84%	77%	86%	86%
Union St (Main-SSA terminal)	13	92%	85%	92%	62%	83%
Centre St (Main - Franklin)	27	81%	89%	74%	85%	82%
Spring St (Franklin-Main)	21	82%	86%	77%	77%	81%
Church St (Main- Franklin)	22	86%	86%	82%	55%	77%
William St (Spring- Colonial)	43	58%	47%	84%	84%	68%
Town Lot next to VTA hub	24	48%	63%	89%	59%	65%
SSA Angled Parking lot ¹¹³	16	100%	83%	44%	33%	65%

BRIDGES

According to the most recently available data from MassDOT, the bridge on Lagoon Pond Road by the Martha's Vineyard Museum is the only identified bridge in town, and it is structurally sound.¹¹⁴

MAINTENANCE

The Tisbury Department of Public Works (DPW) maintains 22 miles of Town-owned roads, including pothole repair, sidewalk construction, road resurfacing, and snow removal. Private roads, accounting for approximately 70 percent of roadways, are maintained by private owners, and according to town staff, are often in poor condition. The Massachusetts Department of Transportation is responsible for state-owned roads including Beach Road and State Road.

The Town implements a pavement management program to monitor and maintain the conditions of roadways and prioritize their repair. The GIS-based program collects and evaluates data about the condition of roadways in order to determine a schedule of maintenance. The DPW, excluding the Wastewater division, has 18 total full-time employees as of August 2022, with three unstaffed positions.

¹¹² VHB, Vineyard Haven Parking Study, (2016).

¹¹³ The Steamship Authority angled parking lot is only used for pick up and drop offs to the ferry terminal.

¹¹⁴ MassDOT. *Bridges*. (September 2, 2022). Accessed November 1, 2022. <https://geo-massdot.opendata.arcgis.com/datasets/bridges/explore>.

PUBLIC TRANSPORTATION

The regional transit authority serving Tisbury is the Martha's Vineyard Transit Authority (VTA) which operates five bus routes, paratransit service, a Boston hospital shuttle, and on-demand service in Tisbury. In addition to the VTA, the Steamship Authority operates ferries to Tisbury and Oak Bluffs. Map 10.4 illustrates public transit services in Tisbury.

Local Bus Service

The VTA operates Route 1, Route 2, Route 3, Route 10/10A, and Route 13 in Tisbury. All routes terminate at the Vineyard Haven Steamship Authority Terminal and operate increased service during the summer season between June and October. Bus routes provide direct service to West Tisbury, Oak Bluffs, and Edgartown. The VTA schedules vary by time of year with a spring and fall off-season schedule, winter schedule, and summer peak schedule. In general, Route 1 to Edgartown, Route 10 serving the Tisbury Park and Ride, and Route 13, to Edgartown, are the most frequent routes with service running every half hour to hour depending on time of year and day of the week. VTA is currently converting their entire fleet to electric buses, including inductive charging.

Figure 10.1 VTA Annual 2019 Boardings on Tisbury Routes

(Source: Vineyard Transportation Authority)

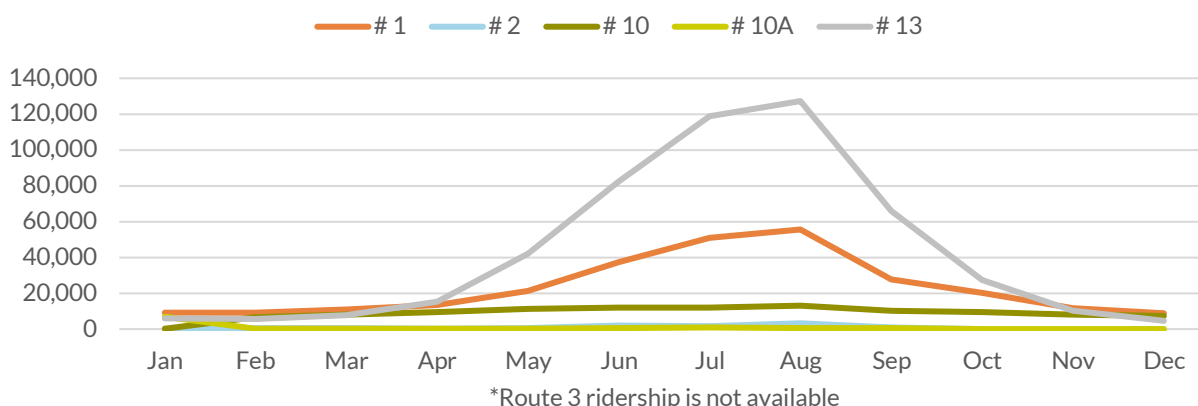
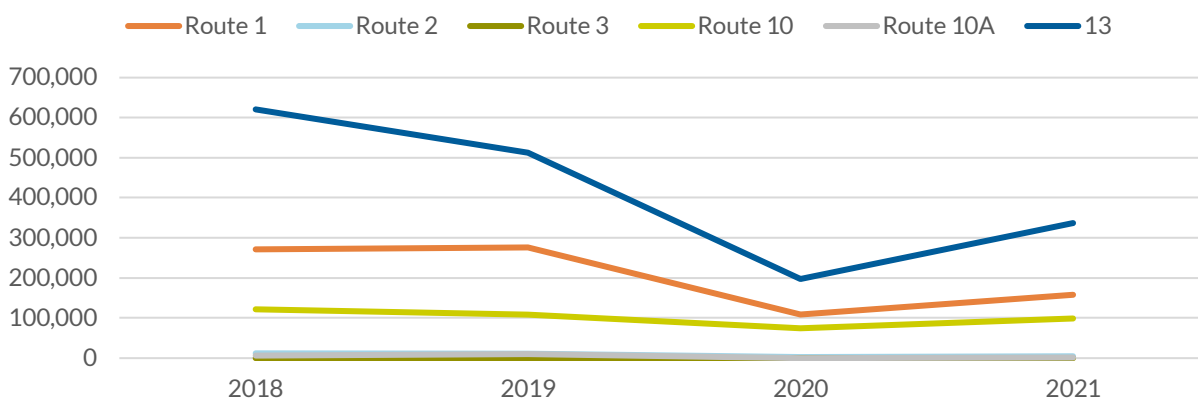


Figure 10.2 VTA Ridership 2018 to 2021*

(Source: Vineyard Transit Authority)



All fixed-route bus services vary in cost by number of towns traversed and time of year. The VTA offers 1-, 3-, 7-, 31-, 100-, and 365- day passes (valid for consecutive calendar days). The 100 day-passes are targeted at seasonal workers. The 365-day passes were formerly “annual” passes. Seniors, youth, riders with disabilities, and military veterans are eligible for reduced fares.

VTA Route 13, serving Oak Bluffs and Edgartown, is the highest ridership route. According to the VTA, Route 13 serves day trippers and seasonal workers and Route 10 predominantly serves trade workers who live off-island and park their commercial vehicles overnight in the park and ride lot. Figures 10.1 and 10.2 show transit ridership in Tisbury in 2019 and over time between 2018 and 2021.

The LIFT Paratransit Service

The LIFT is the VTA’s paratransit service provided under the Americans with Disabilities Act (ADA) offering shared rides in accessible vehicles to riders with disabilities who cannot use fixed route service. The service operates within a ¾ mile buffer from fixed route bus service.

Boston Medivan Service

The VTA provides service to Boston Area Hospitals every Tuesday year-round eligible for people 60 years and older or people with disabilities.¹¹⁵

Senior Center Shuttle

The Town of Tisbury does not offer a senior shuttle service but provides VTA senior bus passes at the senior center. Vineyard Village at Home, a non-public partner of the Tisbury Council on Aging, organizes rides for seniors.¹¹⁶

School Buses

According to Tisbury Town staff, the Martha’s Vineyard public schools own and operate the two buses bringing Tisbury students to Tisbury School and to Martha’s Vineyard Regional High School.

Steamship Authority Ferries

The Steamship Authority (SSA), a quasi-public agency, operates privately contracted ferries from Woods Hole in Falmouth to Vineyard Haven on Martha’s Vineyard year-round (as well as to Oak Bluffs between May and October). The ferry from Woods Hole runs hourly during the off-peak season, and every fifteen minutes to an hour during the peak season from the end of June to beginning of September. Passengers pay \$9.50 per adult, with reduced rates for children. Vehicle rates vary by time of year, day of the week, and size of the vehicle but range between \$59 to \$125 one-way. Bicycles cost \$4 to bring onto the ferry each way. Steamship Authority ferries account for around 90 percent of passengers coming to and from Martha’s Vineyard and bring passengers to Tisbury and Oak Bluffs.¹¹⁷ The Town of Tisbury imposes an

¹¹⁵ “Services Provided,” VTA, accessed November 2022, <https://www.vineyardtransit.com/services-provided>

¹¹⁶ “Become a Member of Vineyard Village at Home Today,” Vineyard Village at Home, accessed November 2022, <http://vineyardvillage.org/become-a-member/>

¹¹⁷ Martha’s Vineyard Commission, *Martha’s Vineyard Regional Transportation Plan 2020-2040*, (2019).

embarkation fee for departing passengers of \$0.50 per passenger from the Steamship Authority, as allowed by state law.¹¹⁸

Table 10.4. Annual Ferry Ridership 2007-2017

	2007	2009	2011	2013	2015	2017
Passengers	2,143,160	2,179,567	2,189,530	2,263,708	2,378,303	2,466,548
Automobiles	381,930	368,704	375,615	388,864	399,277	415,753
Trucks	98,257	115,600	114,782	118,922	125,078	136,706
Total vehicles	480,187	484,304	490,397	507,786	524,355	552,459

Source: Martha's Vineyard Steamship Authority and Martha's Vineyard Statistical Profile, 2019¹¹⁹

According to data collected by the Martha's Vineyard Commission from the Martha's Vineyard Steamship Authority monthly business reports in Table 10.4, both the number of total passengers and the total number of total vehicles using the Steamship Authority ferries have increased between 2007 and 2017 by fifteen percent.

Taxis and Transportation Network Companies (TNCs)

Several private taxi companies and Transportation Network Companies (TNCs) operate on Martha's Vineyard and in Tisbury. Taxis have a designated pick up and drop off area at the ferry terminal.

To operate, taxi companies must purchase an annual taxi license through the Select Board for \$400 plus \$40 for each vehicle they operate. Taxi operators also pay an annual permit to the town through the Police Department costing \$20. TNCs pay a fee to the State of Massachusetts to operate. The State then distributes funds to municipalities through their TNC Division to municipalities by the number of rides started in the town. In 2021, the Town of Tisbury received \$2,714 in TNC fees, an increase over 2020 where the Town received \$1,857, but a drop from 2019 where the Town received \$4,426.¹²⁰

FREIGHT

According to the MVC 2020-2040 Transportation Plan, most freight comes to the island on the Steamship Authority (SSA) ferries. In addition to the SSA ferries, some freight is delivered by barge to the RM Packer Company located on Beach Road in Vineyard Haven, east of the Steamship Authority Ferry Terminal. Few businesses in town have dedicated loading docks off-street. In the summer, the ferries operate a freight run in the morning.¹²¹

AIRPORT

The closest airport with commercial flights is Martha's Vineyard Airport in West Tisbury. As of 2022, six airlines served Martha's Vineyard Airport with year-round flights to New York, Boston, and Nantucket and seasonal flights to Philadelphia, Charlotte, Washington DC, White Plains, Teterboro, Barnstable,

¹¹⁸ Commonwealth of Massachusetts, General Law, Ch. 55, § 11 (2004).

¹¹⁹ Martha's Vineyard Commission, *Martha's Vineyard Statistical Profile*, (Oak Bluffs, 2019).

¹²⁰ Massachusetts TNC Division, *2021 Rideshare Data Report*, (2021).

¹²¹ Martha's Vineyard Commission. *Martha's Vineyard Regional Transportation Plan 2020-2040*.

and New Bedford.¹²² Table 10.5 shows annual one-way passenger enplanements at the Martha's Vineyard airport between 2010 and 2017. Anecdotally, since 2020, residents have noticed more noise from flights coming over Tisbury towards the airport.

Table 10.5. Annual Passenger Enplanements 2010-2017

Year	Enplanements (one way)
2017	48,000
2016	53,000
2015	49,000
2014	51,000
2013	54,000
2012	50,000
2011	48,000
2010	43,000
Total	396,000
<i>Source: Martha's Vineyard Airport and Martha's Vineyard Statistical Profile, 2019</i>	

PRIVATE WATER TRANSPORT

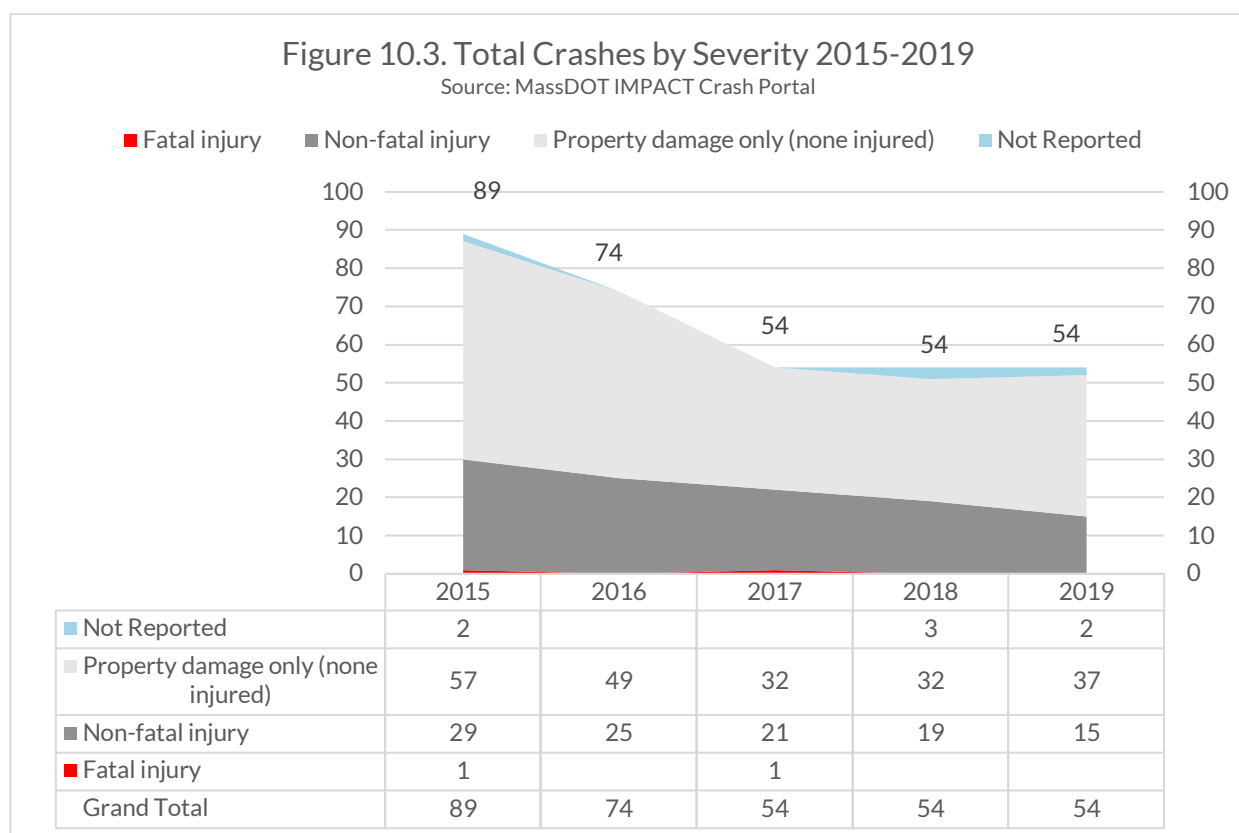
Tisbury's waterways, including Vineyard Haven Harbor, Lagoon Pond, and Lake Tashmoo, are regulated by the Harbormaster. In April 2022, the Harbormaster was updating the Waterways Regulations, which cover speed limits on the waterways, water sports, pollution, commercial uses, houseboats, town piers and landings, and moorings.¹²³ According to the Harbormaster, the Town controls around 780 moorings in the Tisbury Inner Harbor, Outer Harbor, Lagoon Pond, and Lake Tashmoo which are at capacity with a waiting list of more than 200 people.

SAFETY

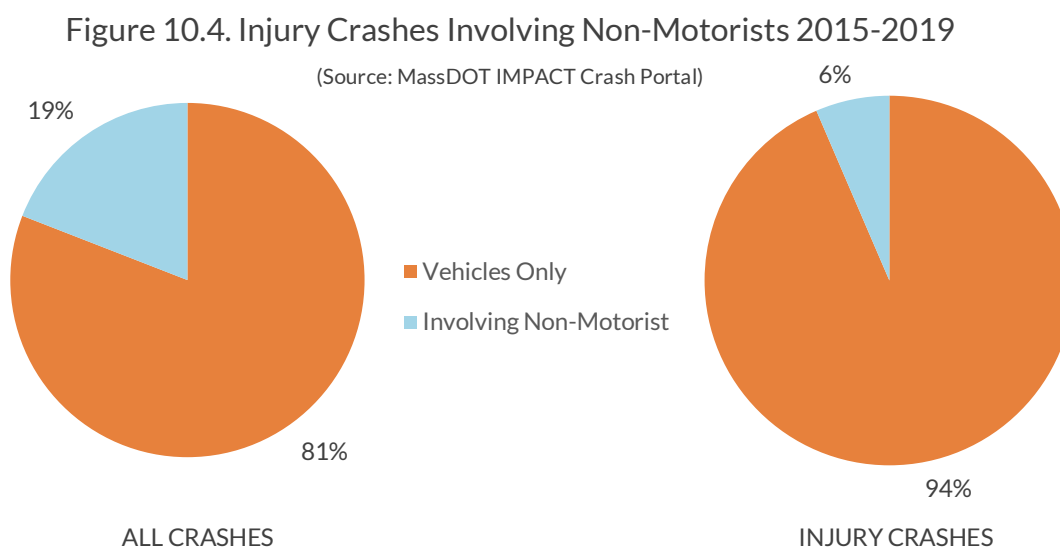
Map 10.5 shows a map of crashes in Tisbury between 2015 and 2019, the most recent data for analysis from MassDOT. Roadway crashes are concentrated in the Vineyard Haven section of town near the Ferry Terminal. Intersections with relatively high crashes include Five Corners, State Road and Pine Tree Road, and Franklin Street and Center Street. The intersection of South Main Street and State Road was identified as a Highway Safety Improvement Program (HSIP) cluster between 2017-2019.

¹²² Martha's Vineyard Airport, *MVC Route Map*, accessed November 2022, <https://mvyairport.com/mvy-route-map>

¹²³ Town of Tisbury, *Draft Waterways Regulations*, (2022).

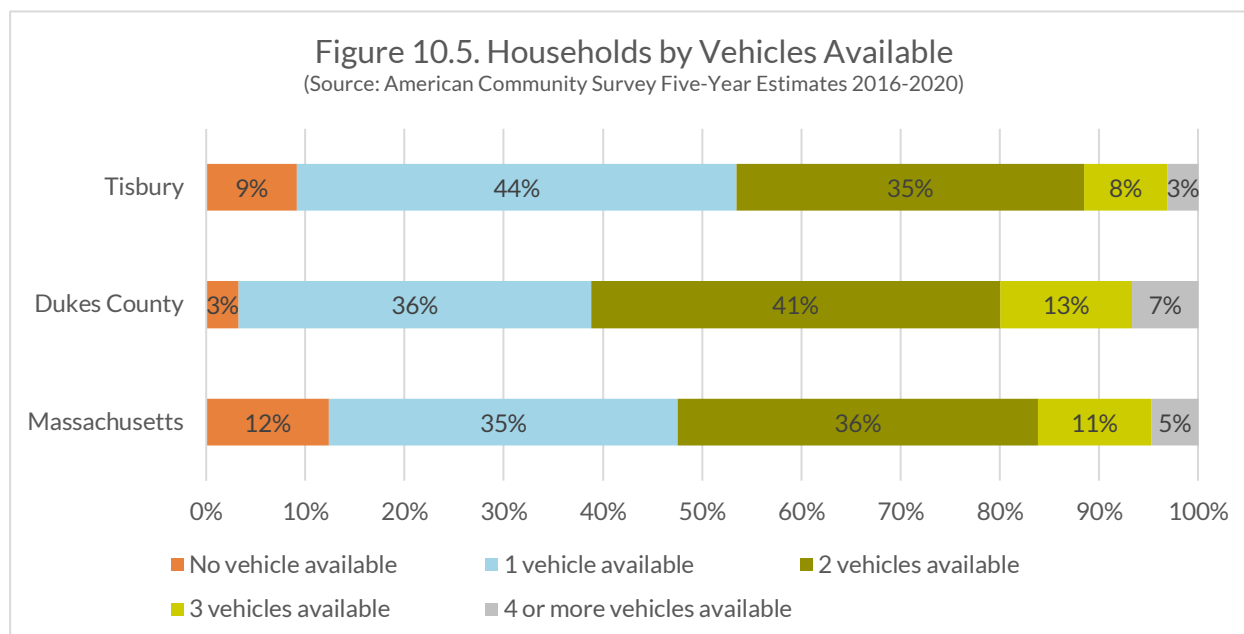


There were two fatal crashes, one of which involved a person walking on State Road at Pine Tree Road. Both total and injury crashes trended downward, as shown in Figure 10.3. Non-motorist crashes resulting in injury are overrepresented, as shown in Figure 10.4. According to Tisbury Police, the top three safety complaints they receive are speeding, stop sign violations, and non-compliance at crosswalks. The Harbormaster also has cited speeding and jet skiing as being the largest safety concerns on the waterways.



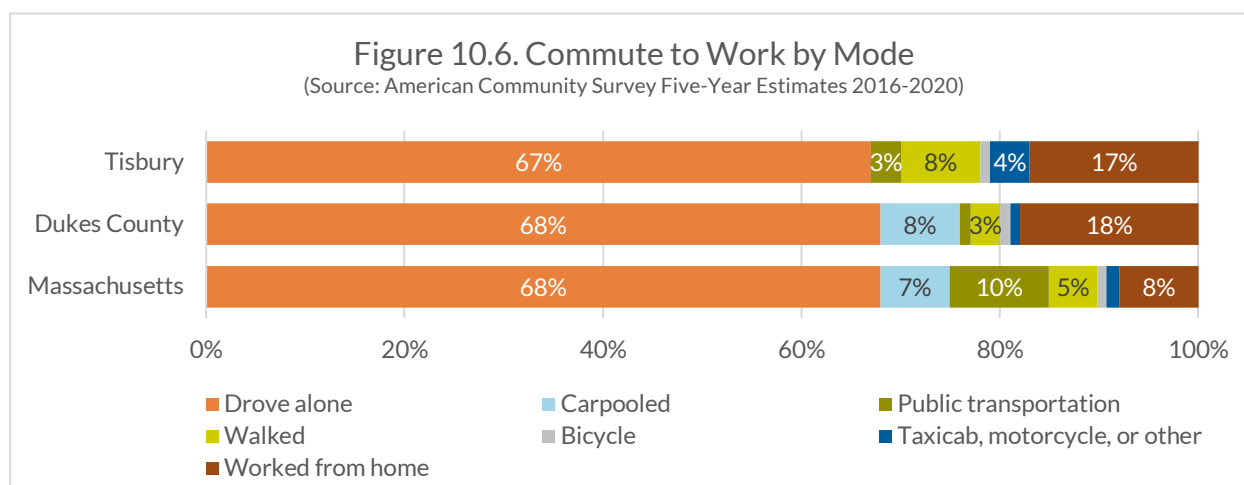
VEHICLE OWNERSHIP

Figure 10.5 shows the estimated number of vehicles available per household for the Town of Tisbury, Dukes County, and the State of Massachusetts based on the U.S. Census American Community Survey 2016-2020 Estimates. Most households in Tisbury (51 percent) have access to one or no vehicle.



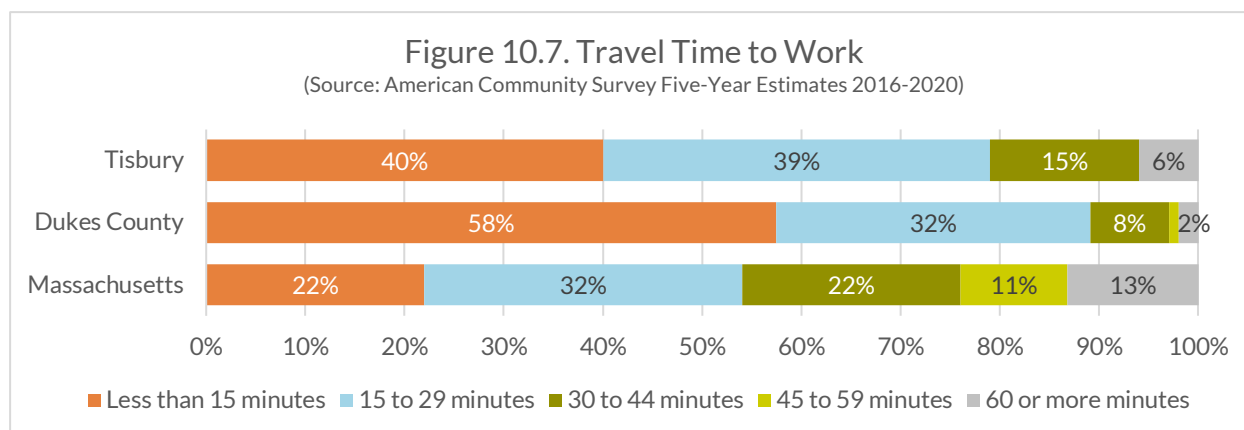
COMMUTING PATTERNS

Figure 10.6 shows the modes of transportation to work for residents in Tisbury, Dukes County, and the State of Massachusetts according to the ACS 2016-in 2020 Five-Year Estimates. Dukes County with 18 percent and Tisbury with 17 percent both have a significantly higher percentage of people working at home than throughout the state (8 percent). Town staff have said second homeowners who can work from home shifted to work in Tisbury during the pandemic, causing an increase in the share of people working from home.



Travel Time to Work

Figure 10.7 shows the reported travel times to work for Tisbury, Dukes County, and Massachusetts. According to the ACS 2016-2020 Five-Year Estimates, approximately 80 percent of Tisbury residents had an average commute time of 30 minutes or less. The short commute times for residents of Tisbury reflects the short distances most workers travel to get to jobs either in Tisbury or in one of the nearby Vineyard towns, as described in Chapter 8: Economic Development.



RECENTLY COMPLETED PLANS AND PROJECTS

Complete Streets Projects. In 2017, Tisbury received funding from the Massachusetts Complete Streets Program.¹²⁴ Through this program, the town constructed a bike path from State Road to Veteran’s Park by the old fire station lot and sidewalk improvements on Crowell Lane and Norton Street.

Traffic Calming on Franklin Street by Woodlawn Avenue. The Tisbury Department of Public Works recently narrowed lanes on Franklin Street by Woodlawn Avenue and added a painted curb extension to reduce vehicle speeds.

Sidewalk Replacement on Summer Street. DPW recently reconstructed part of the sidewalk on Summer Street in Tisbury with concrete sidewalk and granite curb.

Bicycle and Pedestrian Improvements on Norton Street. DPW recently added traffic calming elements including curb extensions and bicycle and pedestrian signage on Norton Street off of Main Street.¹²⁵

Pilot of the GoGo Grandparent Program. Beginning in July 2021, this pilot program provides both scheduled and on-demand car rides for both essential and recreational trips for older adults on the Vineyard through a grant received by the Martha’s Vineyard Community Foundation.¹²⁶

¹²⁴ “Massachusetts Complete Streets Funding Program Participation,” MassDOT, accessed November 2022, <https://gis.massdot.state.ma.us/completestreets/Map/>

¹²⁵ “DPW Current Completed Projects,” Tisbury Department of Public Work, (Updated July 23, 2021), accessed November 2023, <https://www.tisburyma.gov/departments-public-works/news/dpw-current-completed-projects>

¹²⁶ “GoGo Grandparent Pilot Program,” Martha’s Vineyard Older Adult Transportation Coalition, (September 21, 2021), accessed November 2022, <https://www.hamv.org/transportation-workgroup>

Union Street Reconfiguration. In 2015, the Town changed the direction of travel on Union Street.

Beach Road Redesign. In 2022, MassDOT reconstructed Beach Road with multimodal infrastructure improvements including extended sidewalk and on-street bike lanes.

VTA 100-day Digital Pass. In 2022, The VTA implemented a 100-day bus pass available conveniently on mobile devices with an in-person physical pass option. The pass is geared at seasonal workers employed on Martha's Vineyard for the summer and costs \$100.

GIS Database Expansion. The MVC has been expanding their database of publicly available GIS layers for walking trails, transit routes, bicycle/pedestrian paths and other transportation elements in Tisbury and across the island.

Speed Feedback Signs. The Police Department and DPW have collaborated to place four portable speed feedback signs on roadways in Tisbury on a rotating basis.

Installation of Permanent Traffic Counters In 2019, the MVC worked to install five permanent traffic counters in Oak Bluffs, Edgartown, and Tisbury as part of the TIP.¹²⁷

Upgrade to Lake Street Landing Pier. The Harbormaster recently replaced the Lake Street Landing Pier funded through a Seaport Economic Council grant.

25 MPH Speed Limit on Select Roads: In 2021, the Town opted into the Massachusetts program MGL c. 90 § 17C allowing the statutory speed limit on roadways in thickly settled or business districts to be reduced from 30 miles per hour to 25 miles per hour. The entirety of Daggett Avenue, Franklin Street from Leland Avenue to Spring Street, and the entirety of Skiff Avenue were included.¹²⁸

Alternative Routes to Walking and Biking on State Road. The Open Space & Recreation Committee is currently discussing ways to promote alternative routes to State Road for people walking and biking in partnership with the West Tisbury Complete Streets Committee, using lower volume roadways.

PREVIOUSLY PROPOSED, UPCOMING, & ONGOING PROJECTS

Phase 1 Main Street Sidewalk Improvement Project. Starting in October 2022 the Tisbury Department of Public Works will oversee construction on Phase 1 of Main sidewalk improvements. The project will focus on pedestrian safety by adding high visibility crossings and curb extensions along Main Street between Spring Street and Owen. The project will also include installation of street trees, planters, benches, and bike racks. The expected completion date is June 20, 2023.

¹²⁷ Martha's Vineyard Commission, *Martha's Vineyard Transportation Improvement Program (TIP) For Federal Fiscal Years (FFY) 2021-2025*, (2022).

¹²⁸ "[*Speed limits in thickly settled or business districts*](#)," MassDOT, (September 21, 2021), accessed November 2022.

VTA Vehicle Fleet Electrification. The VTA is in the process of upgrading their entire bus fleet to battery electric buses.

MVC Collection of Transportation Volumes for Vehicles and Bicycles. The MVC plans to purchase at least two additional permanent traffic counters for motor vehicles, and to collect bicycle count data on the bicycle paths and shared use paths across the Vineyard.

Pre-Feasibility Study of the Extension of the Martha's Vineyard Network of Shared Use Paths. In 2009, the extension of several shared use paths through Tisbury were explored as part of a larger pre-feasibility study examining connections across the Vineyard. In Tisbury, the study examined options for connecting the existing Beach Road path with the Veteran's Memorial Park Shared Use Path and the Edgartown-Vineyard Haven Road shared path using Beach Road, Edgartown-Vineyard Haven Road, Skiff Ave, Lagoon Pond Road, or connecting through private and town property.

Road Safety Audit for Five Corners Intersection In 2015, MassDOT commissioned a study of the Five Corners intersection of Beach Street, Water Street, Lagoon Pond Road, and Beach Street Extension in Tisbury. The Audit recommended reversing the direction of Union Street, signalization or a roundabout, closing Beach Street Extension to just pedestrians, bicyclists, and loading, and making Lagoon Pond Road one way.¹²⁹

Road Safety Audit for State Road at Look Street/Edgartown-Vineyard Haven Road. In 2015, MassDOT commissioned a study of the State Road at Look Street/Edgartown-Vineyard Haven Road intersection. The audit recommended enhancements to the intersection including making Look Street one-way northbound, installing a roundabout or signal, improving sight lines, narrowing the roadway visually, adding signage, creating a bypass route, adding bike lanes, and improving crosswalk visibility.¹³⁰

System of Connector Roads Traffic Study: This report published in 2005 examined the traffic impacts of adding connector roads between State Road and Edgartown-Vineyard Haven by the Tisbury Park and Ride utilizing the existing utility corridor. The study found the connector roads would reduce traffic at the State Road, Edgartown-Vineyard Haven Road and Look Street intersection to the north. Preliminary concepts of alternative alignments have been developed since the 2005 study.

Complete Streets Prioritization Plan. Massachusetts offers up to \$500,000 (increased from \$400,000 in August 2022) in funding for Complete Streets projects that improve safety and accessibility for people of all ages and abilities walking, biking, taking transit or driving. Tisbury passed their Complete Streets Policy in 2017 and completed a Complete Streets Prioritization Plan in 2018. The plan includes 117 projects across town.

2020-2040 Transportation Plan. In 2019, the Martha's Vineyard Commission released a long-range transportation plan for Martha's Vineyard, including Tisbury. The plan's transportation goals and

¹²⁹ GPI, *Road Safety Audit: State Road at Look Street/Edgartown-Vineyard Haven Road*, (2015).

¹³⁰ GPI, *Road Safety Audit: Five Corners Beach Street at Water Street/Lagoon Pond Road/Beach Street Extension*, (2015).

recommendations provide guidance and direction to the Town of Tisbury, including managing vehicles in town and encouraging multimodal transportation options.

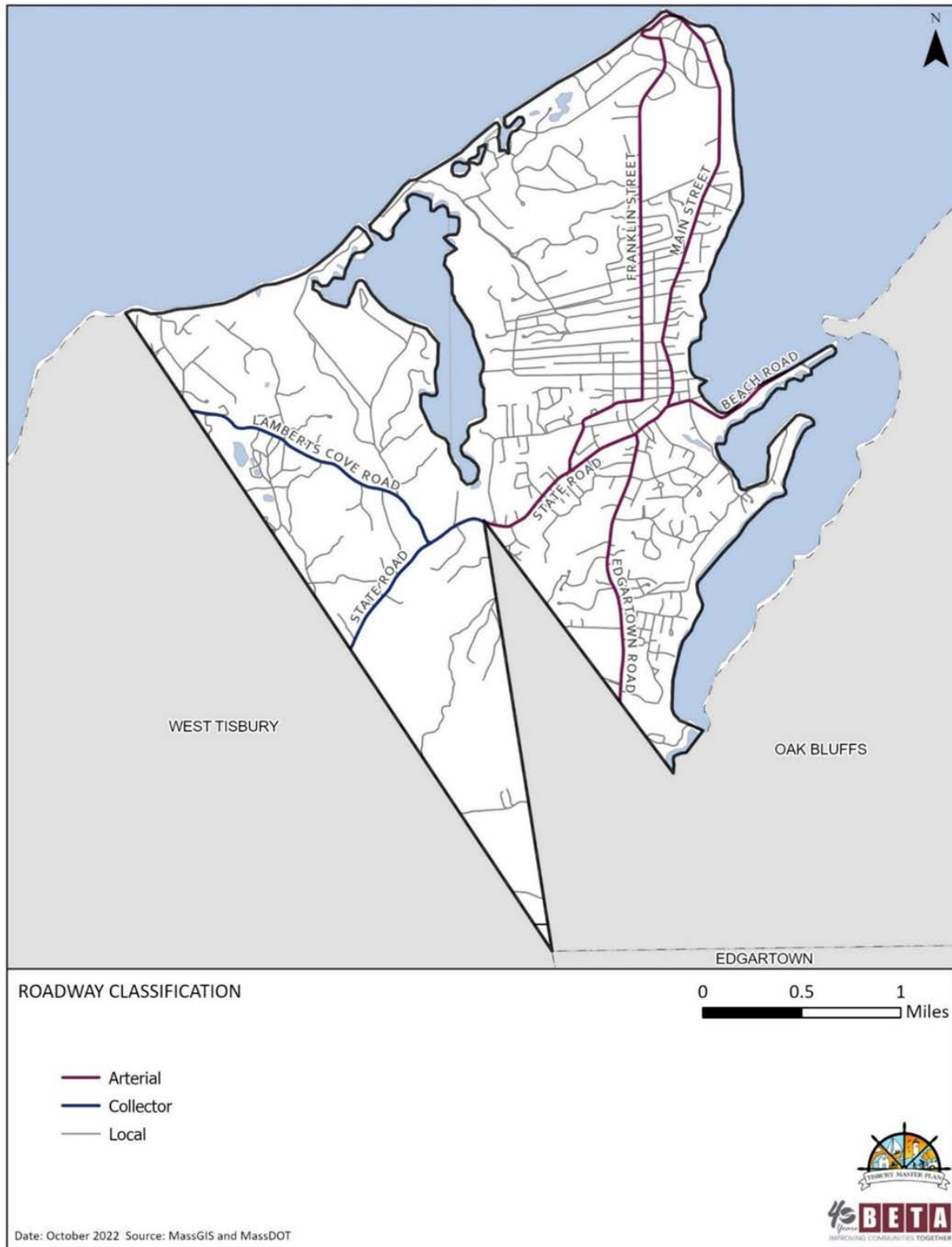
Island-Wide Elder Transportation Study. This study is prioritized for \$100,000 in the TIP for 2025-2029.

Electric Vehicle Infrastructure. Infrastructure is prioritized for \$100,000 in the TIP for 2025-2029.¹³¹

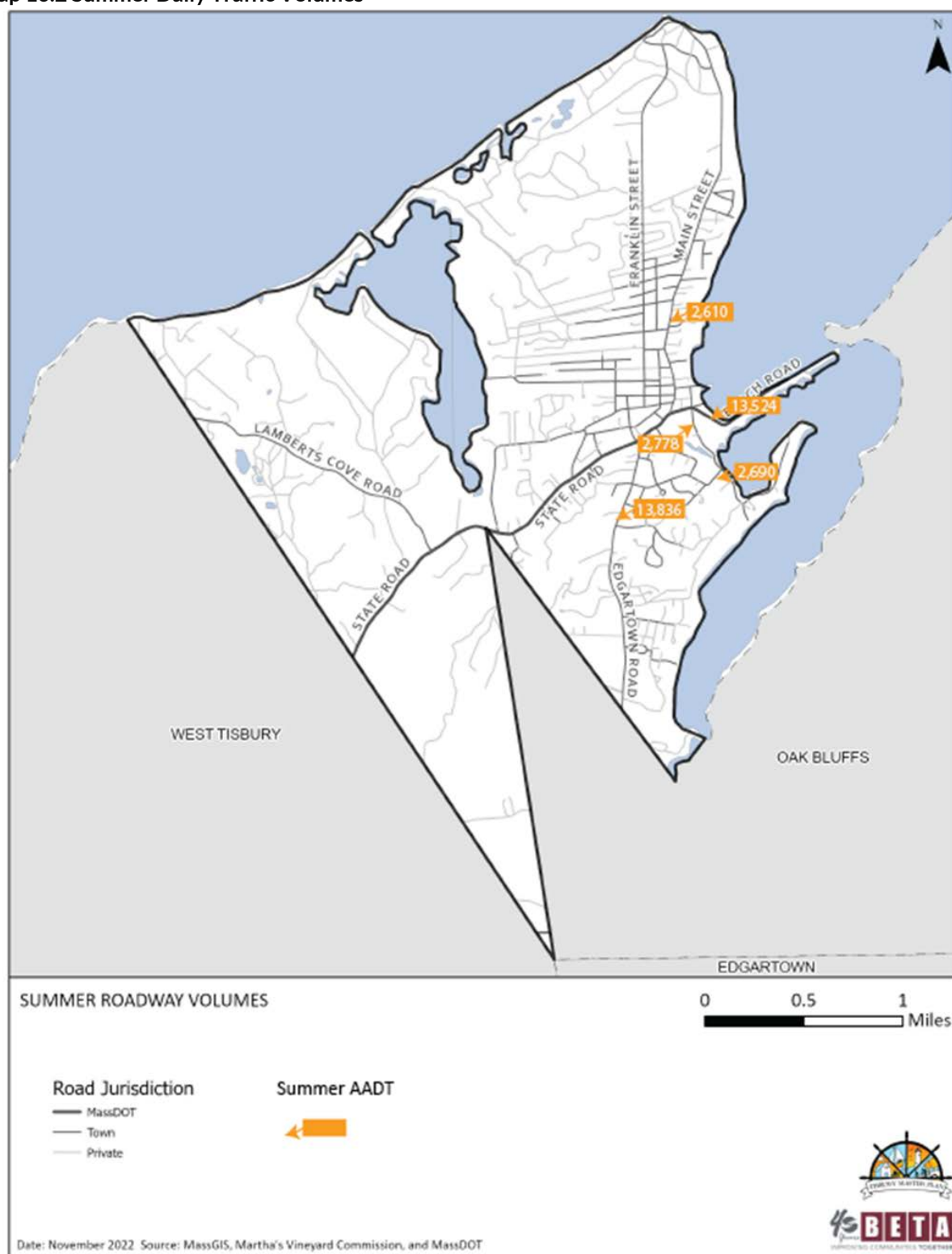
Preliminary Concepts for Ferry Terminal Circulation. As of 2022, the Town and the VTA have begun collaboration on multimodal solutions to the ferry terminal circulation issues.

¹³¹ Martha's Vineyard Commission, *Martha's Vineyard Transportation Improvement Program (TIP) For Federal Fiscal Years (FFY) 2023-2027, (2022)*.

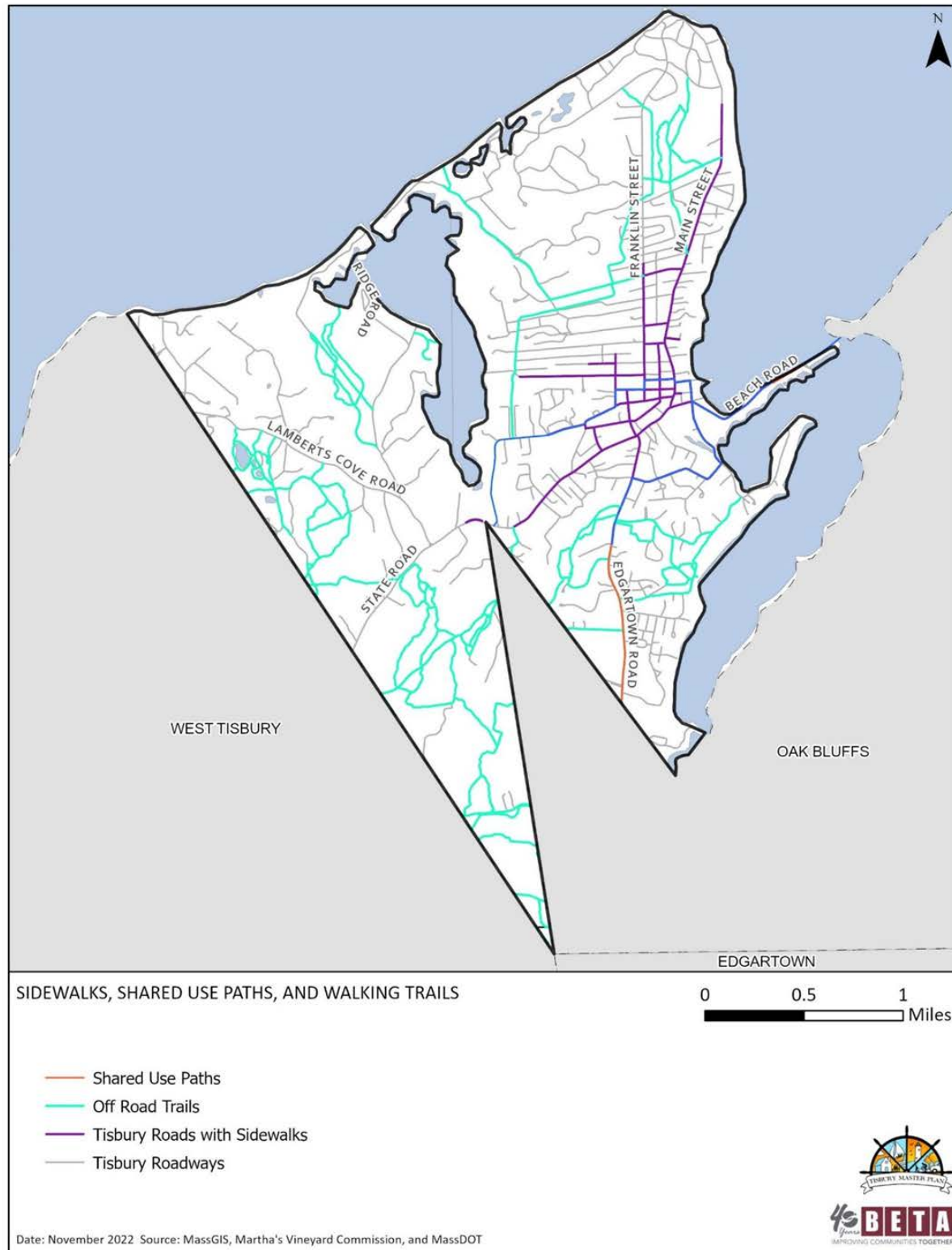
Map 10.1 Classification of Tisbury's Roadways



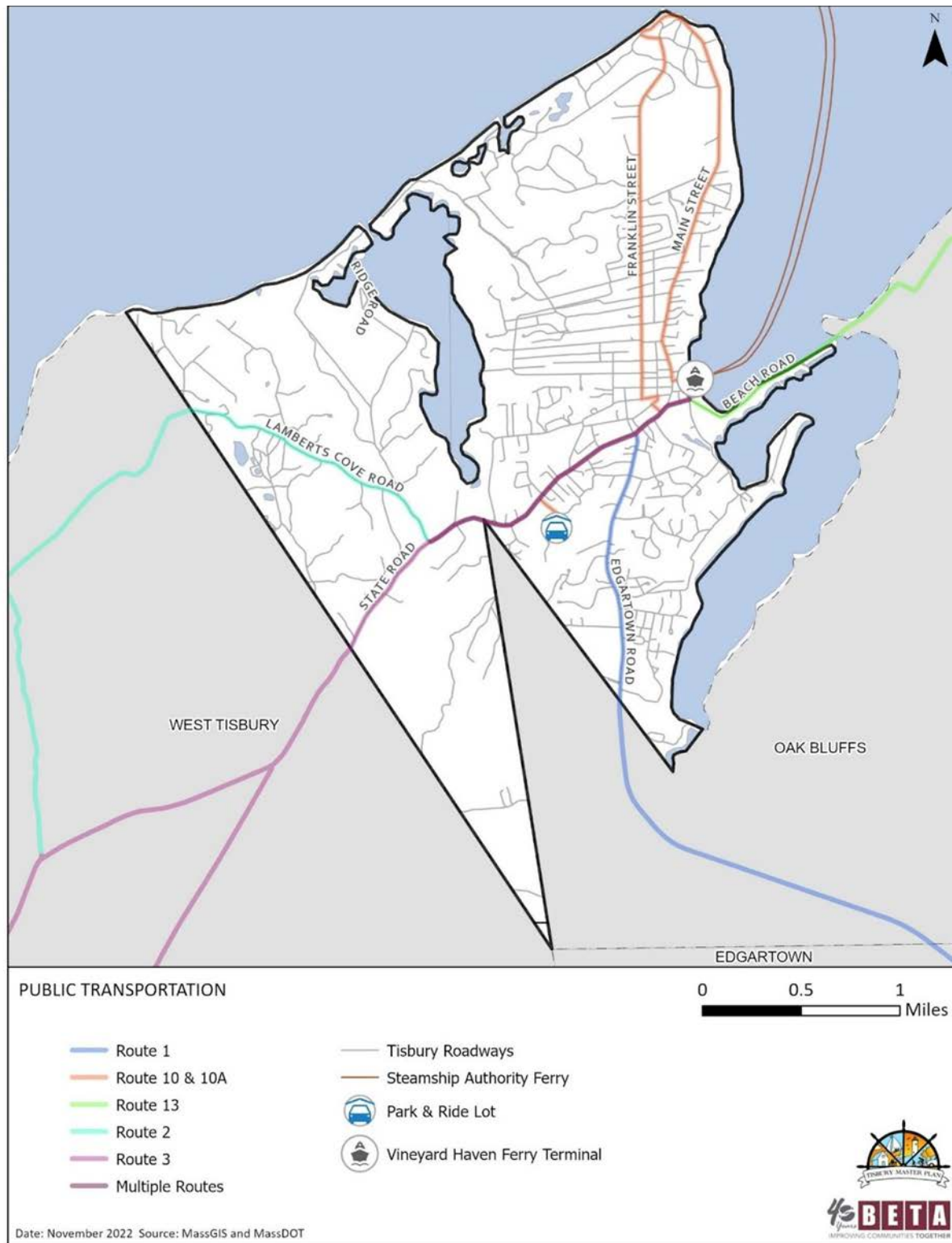
Map 10.2 Summer Daily Traffic Volumes



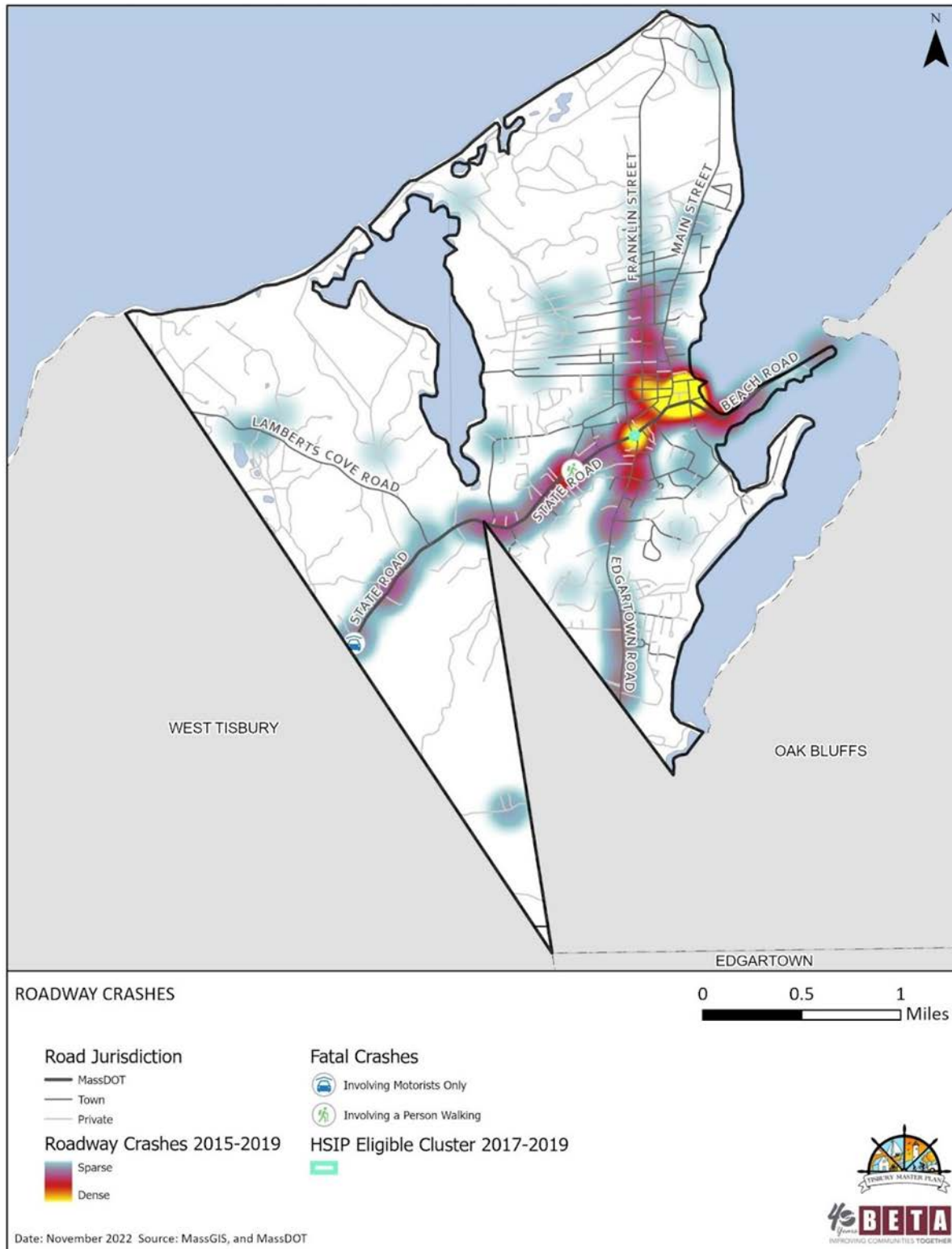
Map 10.3 Sidewalks, Shared Use Path, and Walking Trails



Map 10.4 Public Transportation



Map 10.5 Roadway Crashes 2015-2019



11. Community Health

Introduction

Many of the early milestones in community planning (such as zoning regulations and infrastructure design) were a direct response to historical public health concerns. Today, to improve our personal health and wellness and overall quality of life, we are experiencing a return to place-making with an emphasis on community health. The term “health” can mean many things to different people. While it can be seen narrowly as an absence of disease, those in community health planning see it more broadly – incorporating physical, mental, and social wellbeing. Although genetics and health care can influence an individual’s health, social determinants of health (SDOH), the conditions of the environment in which we are born, live, work, play, worship, and age, can dramatically affect quality of life and health outcomes.

SDOH are grouped into five areas, as shown in the inset above. Examples include:

- Safe housing, transportation, and neighborhoods.
- Racism, discrimination, and violence.
- Education, job opportunities, and income.
- Access to nutritious foods and physical activity opportunities/
- Polluted air and water.
- Language and literacy skills.¹³²



Adapted from U.S. Dept. of Health & Human Services "Healthy People 2030"

¹³² "Social Determinants of Health," *Healthy People 2030*, US Department of Health and Human Services, accessed November 2022, <https://health.gov/healthypeople/priority-areas/social-determinants-health>.

SDOH vary widely across communities and are influenced by policies, programs, and institutions at all levels, public and private. Focusing on social determinants can help us identify root causes of disease, address health equity, and create prosperity and security in our community.

Through the local planning process, a community can improve outcomes by exploring the relationship between the built environment and social, economic, and environmental conditions that impact the physical health and wellness of its residents. Table 11.1 is a crosswalk that shows the connections between public health concerns/SDOH and community planning issues, and where policies in the Tisbury Master Plan can improve health outcomes.

Table 11.1. Public Health and Community Planning Crosswalk		
Public Health/SDOH	Community Planning Topic	Tisbury Master Plan Links
Active Living	Active Transportation Options Recreation Opportunities	Transportation Open Space and Recreation
Emergency Preparedness	Climate Change Natural Hazards	Sustainability
Environmental Health	Air and Water Quality	Natural Resources
Food and Nutrition	Access to Food and Healthy Food Options Clean Drinking Water	Community Health Natural Resources
Health Care and Human Services	Accessible Health Care and Human Services Aging-Friendly Community	Community Health Town Services
Social Cohesion and Mental Health	Housing Quality and Affordability Public Safety Equity and Inclusiveness Accessibility for People with Disabilities	Housing Economic Development Town Services Community Health
<i>Source: Adapted from Healthy Plan Making: Final Report, American Planning Association Planning Community Health Research Center (n.d.)</i>		

There are several studies and data available to understand public health conditions on Martha's Vineyard and Tisbury. Sources range from state agencies to assessments by island health care providers to local surveys of residents. Each has its value in evaluating trends and needs of Tisbury residents. The following are the primary sources used to provide a baseline for future planning because they are updated on a regular schedule or as new data are available. This offers consistency in monitoring trends and community needs. Other sources are cited, as appropriate.

The Massachusetts Department of Public Health Environmental Public Health Tracking (EPHT) collects, analyzes, and interprets data about environmental hazards, exposure to these hazards, and the public health effects from that exposure.¹³³ Data are available for all communities in the Commonwealth.

The Massachusetts Healthy Aging Collaborative prepares a Healthy Aging Report and compiles Healthy Aging Community Profiles for each community in Massachusetts and several neighborhoods of

¹³³ [Massachusetts Environmental Public Health Tracking Index](#), Massachusetts Executive Office of Housing and Human Services, (Updated December 8, 2022).

Boston.¹³⁴ Using 2018 data, these profiles summarize various health indicators for seniors related to nutrition, chronic diseases, behavioral health, disabilities, and access to health care, among other information.

Some local health institutions, such as the Martha's Vineyard Hospital (MVH) and Island Health Care (IHC), conduct triennial Community Health Needs Assessments. Data are generally island-wide. The most current assessments available for both were released in 2022 and helped assess public health conditions and health care needs for Tisbury.

In 2021, Healthy Aging Martha's Vineyard (HAMV) published the findings of a survey conducted in December 2020. The survey provided insight into the behaviors and preferences of older residents for socializing, working, volunteering, transportation, health services, technology, and other needs. Findings will be used to support the planning, prioritization, and collaboration across the island for those who provide services to this population. The survey findings are available by community.¹³⁵

The following section presents a public health snapshot of Tisbury organized around available data to describe the overall health of Tisbury residents, their access to health care and human services, existing environmental conditions that impact residents' health, and economic and social conditions of Tisbury related to equity and environmental justice.

Existing Conditions and Trends

CHRONIC ILLNESSES AND HEALTH CONDITIONS

Chronic health conditions, those that persist for long periods of time, can be the result of environmental factors and exacerbated by social and economic conditions. Understanding the prevalence of these types of health concerns in Tisbury can direct town policies to limit or reduce exposure or identify ways to improve conditions that are leading to these adverse health outcomes.

Asthma

Asthma is a common chronic disease with increasing prevalence. It is the most common chronic disease in children. The Commonwealth of Massachusetts has an elevated rate of asthma compared to the national prevalence rate. Causes of asthma are unknown, but episodes of asthma (asthma attacks) can be triggered by certain environmental conditions such as air pollution, mold, pets/pet dander, and dust mites. Reducing exposure to these pollutants can help prevent symptoms. Climate change can also decrease air quality and have an impact on individuals with asthma. Increasing numbers of very hot days due to climate change may increase ozone and pollen levels that can trigger attacks. Other factors such as access to medical care and health behaviors (e.g., diet or exercise) are also linked with asthma and should be considered in community planning.

¹³⁴ *Healthy Aging Data Report: Highlights from Massachusetts, 2018*, Massachusetts Healthy Aging Collaborative, (December 2018).

¹³⁵ "MV Older Adult 2020 Survey Results," Healthy Aging Martha's Vineyard, Accessed November 2022, <https://www.hamv.org/2020survey>

In 2018, 14 percent of Tisbury residents 65 years and older reported to have asthma, compared to 15 percent statewide.¹³⁶ Asthma emergency department visits are tracked for people of all ages. As shown in Figure 11.1a, in 2017, the rate of visits by Tisbury residents visiting the emergency department was nearly double the statewide rate. The prevalence of asthma in Tisbury students in kindergarten through eighth grade was slightly higher than the statewide rate, 12.9 per 100 students compared to 12.1 (Figure 11.1b).

Figure 11.1a Asthma Emergency Department Visits, 2017

(Source: Tisbury Community Profile (2017), MA EPHT)

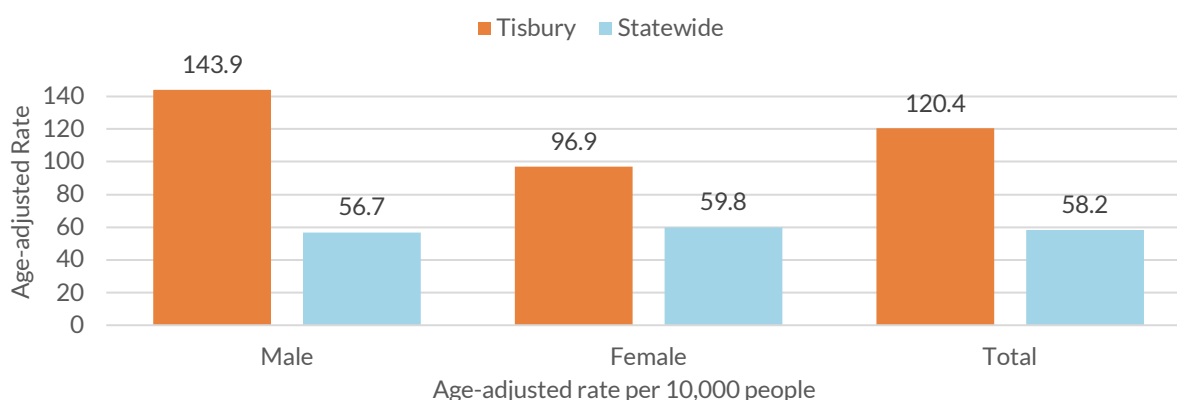
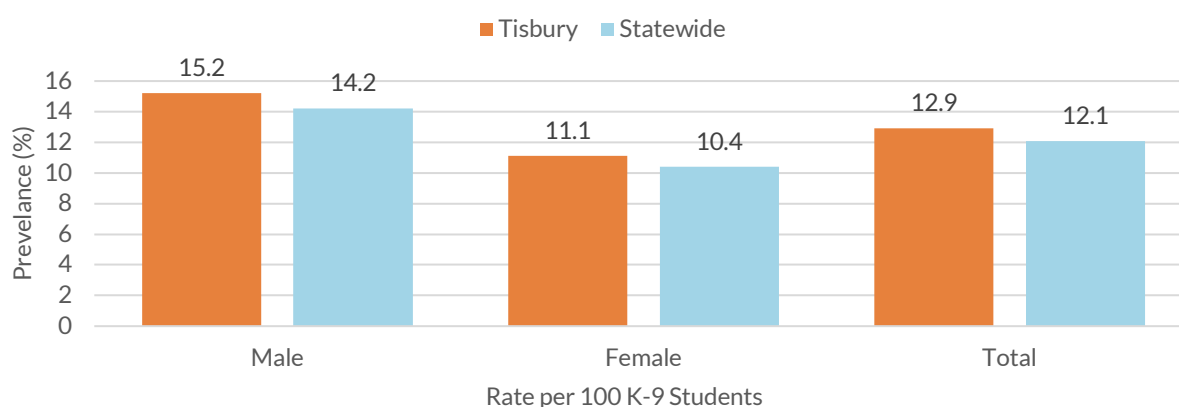


Figure 11.1b Pediatric Asthma Prevalence in K-8 Students, 2017

(Source: Tisbury Community Profile (2017), MA EPHT)



Heart Attacks

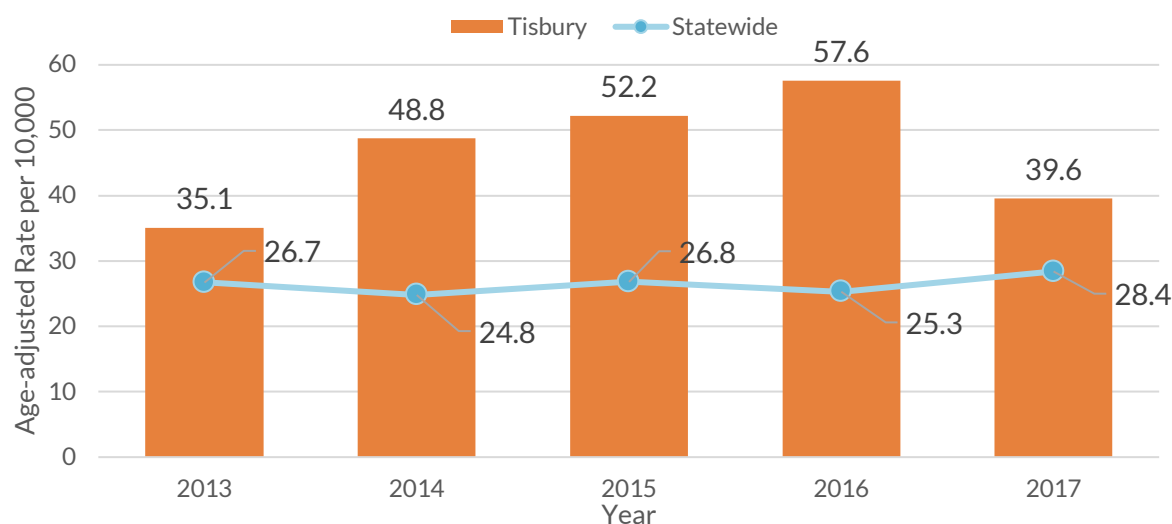
In Massachusetts, heart disease, stroke, and other diseases of the heart and blood vessels are responsible for approximately 35 percent of all deaths in the state. Risk factors for heart attack include health and lifestyle factors. Environmental factors also contribute to risk. Exposure to certain air

¹³⁶ 2018 Health Aging Community Profile for Tisbury, Massachusetts Healthy Aging Collaborative, (2018).

pollutants like ozone and particulate matter has been shown to increase the rate of heart attacks, especially for the elderly and individuals with pre-existing cardiovascular conditions.

Heart attack hospitalizations are tracked for adults over the age of 35. Overall rates across the population are significantly higher in Tisbury than statewide: 39.6 per 10,000 compared to 28.4 per 10,000 (Figure 11.2). In 2017, 4.8 percent of Tisbury residents 65 years and older reported to have a heart attack, compared to 4.6 percent statewide. Nearly 12 percent were living with the effects of a stroke, similar to the statewide percentage.

Figure 11.2 Heart Attack Hospital Admissions for Tisbury and Commonwealth, 2017
(Source: MA EPHT)



Mental Health and Substance Abuse

The MVH and ICH both report in their 2022 assessments that mental health and substance use disorders are primary community health needs and according to the assessment surveys and interviews. There is a need for increased access to services available on Martha's Vineyard for both adults and children, especially for the Brazilian Portuguese-speaking residents overall. The assessments note that lack of services to address these needs were associated with staffing shortages on the island, attributed to the cost of living and housing crisis on Martha's Vineyard. IHC also notes that Dukes County does not have on-island inpatient detox options. Several populations appear to be at risk for behavioral health problems, including young adults, the homeless, isolated seniors, people with disabilities, and children and youth who have experienced family and housing instability and other adverse life events.

For Tisbury's older residents, indicators related to mental and behavioral health are listed in Table 11.2. Note that these numbers are estimates and could potentially underestimate impacted seniors. Rates are higher locally compared to the Commonwealth for depression (more than one third of Tisbury seniors) and substance abuse. A lower percentage of local older residents is not keeping up with regular physical exams than those statewide. Nearly one quarter of Tisbury seniors suffer from anxiety.

Table 11.2. Select Indicators Related to Mental and Behavioral Health for Tisbury Seniors

Indicator	Tisbury Estimate	State Estimate
60+ with 15+ days poor mental health last month	5.1%	7.0%
60+ with physical exam/checkup in past year	83.9%	89.3%
65+ with depression	37.1%	31.5%
65+ with anxiety disorders	23.1%	25.4%
65+ with substance abuse disorders (drug use +/- alcohol abuse)	7.0%	6.6%
65+ with tobacco use disorders	8.5%	10.2%
65+ with asthma	14.3%	15.0%
<i>Source: 2018 Health Aging Community Profile for Tisbury, Massachusetts Healthy Aging Collaborative</i>		

ACCESS TO HEALTH CARE AND HUMAN SERVICES

According to the MVH, there are a number of health care services residents cannot secure on the island. Accessing care on the mainland can be costly and challenging for people of all ages, particularly when ambulance transport is needed to an off-island facility. This is particularly challenging in the summer months when ferry reservations are difficult to secure. MVH also finds that coordination of care among providers on- and off-island is also challenging. Because providers and residents do not have a full understanding of the range of services available on the island, some may be traveling off-island to access care unnecessarily. More work needs to be done to improve access to dental services to meet demand, particularly for those participating in and on the waitlist for the Health Safety Net Dental program, which supports dental services for the uninsured and underinsured. Table 11.3 provides an overview of select indicators related to accessing health care services by Tisbury seniors, a particularly vulnerable group. As noted above, these numbers are estimates, and could potentially underestimate impacted seniors.

Table 11.3. Select Indicators Related to Health Care Access for Tisbury Seniors

Access to Care Indicator	Tisbury Estimate	State Estimate
Medicare (65+ population)		
% Medicare managed care enrollees	2.4%	23.1%
% dually eligible for Medicare and Medicaid	12.7%	16.7%
% 60+ with a regular doctor	90%	96.4%
% 60+ who did not see doctor when needed due to cost	5.6%	4.1%
# of primary care providers within 5 miles	21	10,333
# of hospitals within 5 miles	0	66
# of nursing homes within 5 miles	0	399
# of health care agencies	1	299
# of community health centers	0	116
# of adult day health centers	0	131

Table 11.3. Select Indicators Related to Health Care Access for Tisbury Seniors

Access to Care Indicator	Tisbury Estimate	State Estimate
# of memory cafes	1	95
# of dementia-related support groups	1	136
<i>Source: 2018 Health Aging Community Profile for Tisbury, Massachusetts Healthy Aging Collaborative</i>		

The island's population is getting older, and MVH highlights that efforts are underway to improve services, particularly for seniors and address needs, such as home-based care as well as mental health and dementia care. Additionally, anecdotal evidence suggests that Tisbury's non-English speaking population is often unaware of the availability of basic medical services, and this represents a recurring gap in healthcare communications.

FOOD INSECURITY

The U.S. Department of Agriculture defines food insecurity as the lack of consistent access to enough food for an active and healthy life, typically because of a lack of financial resources for food.¹³⁷ Food insecurity is complex and many who experience it. For example, low-income families that are food insecure are more susceptible to other issues like a lack of affordable housing, social isolation, chronic or acute health problems, high medical costs, and low wages.¹³⁸ A report from the Rural Scholars Program¹³⁹ identified three populations most vulnerable to food insecurity on Martha's Vineyard to be the Brazilian population, chronically ill patients, and the island's older residents. But it is important to recognize that food insecurity impacts all communities and individuals of all ages.

Understanding food insecurity in Tisbury can come from a few data points and observations. In 2020, an estimated 140 Tisbury households (7.2 percent) reported receiving cash public assistance or aid through the Supplemental Nutrition Assistance Program (SNAP), compared to 11.6 percent statewide. Of those, approximately one third had an individual 60 years and older (43.2 percent statewide), and one quarter had a person 18 years or younger (39.2 percent statewide). MVH notes that there is a "SNAP gap" statewide, in that all those eligible for SNAP benefits do not enroll to receive them.¹⁴⁰ Additionally, according to the Massachusetts Department of Elementary and Secondary Education (DESE), during the 2022-2023 school year, 56.6 percent of students in the Tisbury School District were either eligible for free or reduced lunch, received Transition Aid to Families benefits, or eligible for food stamps.¹⁴¹ Rural

¹³⁷ "Definitions of Food Security," Economic Research Service, USDA, (Updated October 17, 2022), Accessed March 2023, <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-u-s/definitions-of-food-security/>

¹³⁸ "Hunger and Food Insecurity," Feeding America, Accessed March 2023, https://hungerandhealth.feedingamerica.org/understand-food-insecurity/#_ftn2

¹³⁹ Rural Scholars is a select group of students from the University of Massachusetts Graduate School of Nursing and Medicine. Sponsored by the Dukes County Health Council and housed by the Martha's Vineyard Hospital, the students spend time on the Vineyard researching and analyzing health related topics of critical importance to the island. See <https://www.dchcmv.com/rural-scholars>.

¹⁴⁰ "Closing the 'SNAP Gap' in Massachusetts," The Food Bank of Western Massachusetts, Accessed March 2023, <https://www.foodbankwma.org/closing-the-snap-gap-in-massachusetts/>

¹⁴¹ "Select Populations (2022-23)," Tisbury School District Profile, Massachusetts Department of Elementary and Secondary Education (DESE).

Scholars suggest that some may not participate in these assistance programs because of social stigma of enrollment, or the idea that “others need it more.” Knowledge of these resources by families and individuals to connect to these programs and local resources may also be a barrier.

The need to access healthy, affordable food exists. In 2022, Island Food Pantry in Oak Bluffs reported that 620 residents of Martha’s Vineyard visited per week during the peak summer season, a 52 percent increase from 2021. Nearly 3,000 individuals are registered with the pantry, which is more than double registrants before the COVID-19 pandemic.¹⁴² Both the MVH and IHC assessments highlighted that more work is needed to better understand food insecurity with residents of the island.

ENVIRONMENTAL CONDITIONS

Exposure to pollutants in the air, water, soil, and materials in our homes or workplace can cause health problems or exacerbate existing chronic illnesses. The following sections provide a snapshot of environmental quality in Tisbury.

Air Quality

Exposure to air pollution can contribute to heart or lung illnesses. As noted earlier, air pollution can worsen asthma and other respiratory ailments and can trigger heart attacks. The U.S. Environmental Protection Agency (EPA) establishes limits on air pollution levels to protect public health, including the health of at-risk populations. These limits, called National Ambient Air Quality Standards (NAAQS), are established for Carbon Monoxide (CO), Lead (Pb), Nitrogen Dioxide (NO₂) Sulfur Dioxide (SO₂), Ozone (O₃), and Particulate Matter (e.g., PM₁₀ and PM_{2.5}). Exceedances are a measure of bad air quality days. Monitoring is done by the Massachusetts Department of Environmental Protection (MassDEP) at 22 stations across the Commonwealth, including one on Martha’s Vineyard operated by the Wampanoag Tribe at Gay Head (Aquinnah).

Fine particulate matter, or PM_{2.5}, refers to a mixture of extremely small airborne particles. In 2021, MassDEP measured 17 exceedances of PM_{2.5} concentrations statewide above the NAAQS of 35 µg/m³ over a 24-hour period between July 20 and July 27. These exceedances were a result of wildfire smoke originating in western U.S. and Canada. Despite these exceedances, MassDEP reported that there was no violation of the two PM_{2.5} NAAQS standards: the 24-hour PM_{2.5} standard (35 µg/m³) and the primary annual PM_{2.5} standard (12 µg/m³). None of MassDEP’s PM_{2.5} monitoring stations exceeded these standards in 2021.

The ozone (O₃) layer found high in the upper atmosphere (the stratosphere) shields us from much of the sun’s ultraviolet radiation. However, ozone air pollution at ground level (in the troposphere) results from gasses that come out of tailpipes, smokestacks, and many other sources (also referred to as greenhouse gasses or GHG). When these gasses come in contact with sunlight, they react and form ozone smog making it difficult to breathe and potentially causing serious health problems.¹⁴³ Figure 11.3 shows that since 2015, the Aquinnah Tribe monitoring station recorded a few days where estimated ozone

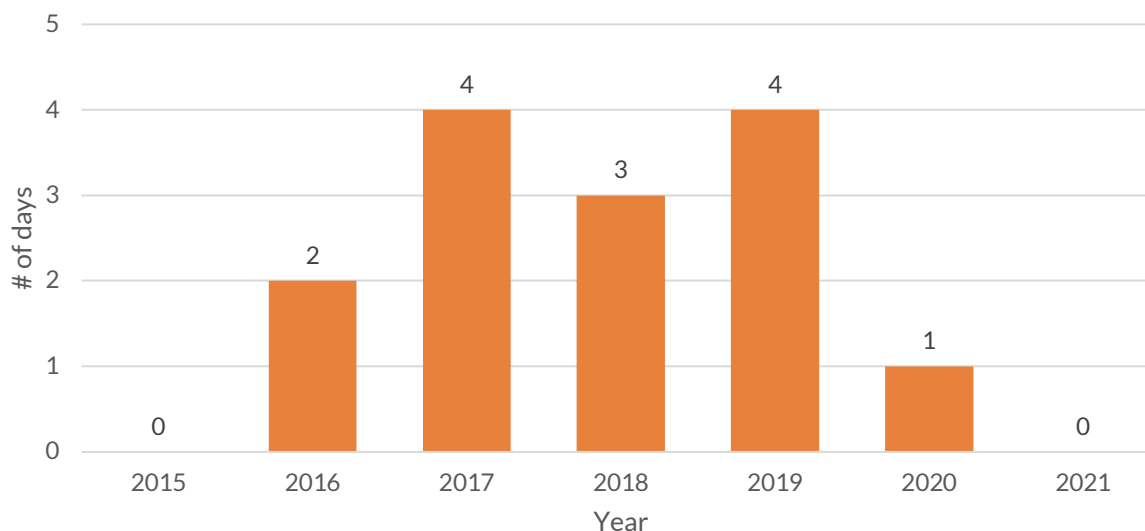
¹⁴² “Food Insecurity Sees Dramatic Rise,” *The Vineyard Gazette*, (August 2, 2022).

¹⁴³ “Ozone,” American Lung Association, Updated April 17, 2023, Accessed July 2023, <https://www.lung.org/clean-air/outdoors/what-makes-air-unhealthy/ozone>

concentrations were above the NAAQS of 0.070 ppm over an 8-hour period. None were measured in 2021.

Figure 11.3 Estimated Ozone: Number of days greater than NAAQS

(Source: Massachusetts Annual Air Quality Reports, 2015-2021, MassDEP)



Drinking Water

EPA also establishes limits of acceptable and safe levels of contaminants in drinking water, monitored and enforced by MassDEP's Drinking Water Program. Most Tisbury residents receive their drinking water from the Town sourced from groundwater. The Town issues annual Water Quality Reports to inform residents about the quality of the drinking water, including if monitoring shows any exceedances of contaminants. In recent years, none have been reported. (*See also, Community Facilities and Services Town Services and Facilities for more information on the Town's water supply.*)

Tick-Borne Illnesses

Certain tick species carry harmful diseases and spread them to humans when bitten. In Massachusetts, common tick-borne diseases are Lyme Disease, Babesiosis, and Anaplasmosis. The Martha's Vineyard Board of Health (MVBOH) recently reported that Martha's Vineyard has become a hotspot for Alpha-gal Syndrome. The MVBOH Tick-borne Illness Reduction Initiative (the Tick Program) works to reduce the number of ticks and tick-borne diseases on the island through education, advocacy, and cooperation with other local organizations and individuals. The Tick Program surveys private yards and public trails for ticks to monitor the location and number of ticks on the island.

The MVBOH reports that lone star ticks, believed to be the main cause of Alpha-gal Syndrome, continue to spread throughout the island. They are found in a variety of habitats from open grassy areas to dense forest with leaf litter, and therefore lone star ticks in residential mowed lawns are the greatest concern. As shown in Table 11.4, there is an increase in the proportion of yards with lone stars in all towns.

MVBOH notes that they found at least six properties with lone star ticks (typically nymphs, not adults) from perfectly mowed lawns.

Table 11.4. Number of Yard Surveys with at least 1 Lone Star Tick (Larvae, Nymph, Adult)

Town	2019			2022		
	# of Surveys	Surveys w/ Lone stars	% w/ Lone stars	Surveys	Surveys w/ Lone stars	% w/ Lone stars
Aquinnah	20	20	100.0%	5	5	100.0%
Chilmark	49	25	51.0%	10	8	80.0%
Chappaquiddick	58	56	96.6%	10	10	100.0%
Edgartown	24	6	25.0%	28	14	50.0%
Oak Bluffs	16	2	12.5%	8	2	25.0%
Tisbury	11	0	0.0%	14	5	35.7%
West Tisbury	34	12	35.3%	22	9	40.9%

Source: MV Tick-Borne Illness Prevention Program, Annual Report 2022, Martha's Vineyard Board of Health

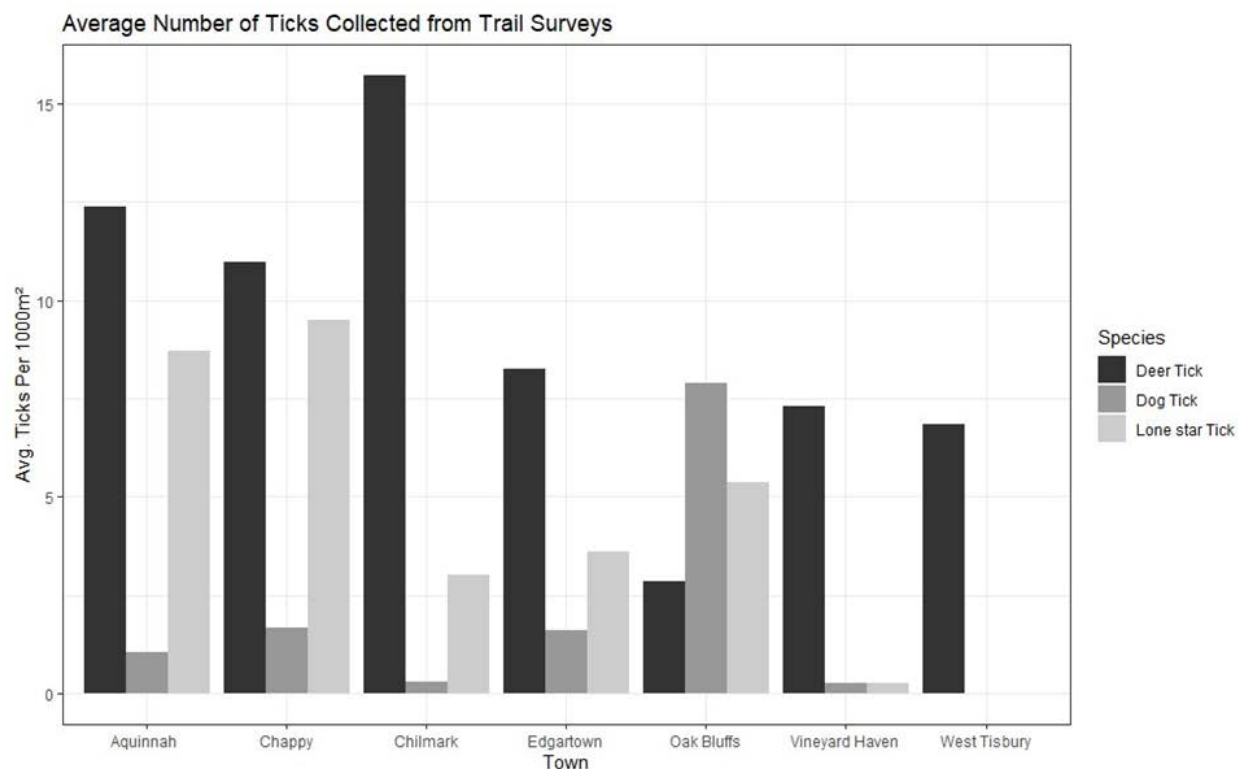
MVBOH surveys are also done on public trails in wooded areas. Table 11.5 shows the number of samplings done on the island and locations of the samplings. Nine samples were done at Phillips Preserve. Figure 11.4 shows the average number of ticks collected per 1,000 m² along the trail edges by town. This can be interpreted as the average number of ticks encountered during a 10- to 15-minute walk. The sample size in Tisbury was low and not specifically reported by the MVBOH in this graph, but the occurrences of various tick species are island wide.

Table 11.5. Public Trail Sampling

Town	Trails	# Times Sampled
Aquinnah	Gay Head Moraine	7
Chilmark	Fulling Mill Brook & Waskoskim's Rock	13
Chappaquiddick	Poucha Pond Preserve	6
Edgartown	Huckleberry Barrens, David H. Smith Preserve & Caroline Tuthill Preserve	20
Oak Bluffs	Tradewinds Fields & Pecoy Point Preserve	16
Tisbury	Phillips Preserve	9
West Tisbury	Christiantown Woods Preserve	12

Source: "MV Tick-Borne Illness Prevention Program, Annual Report 2022," Martha's Vineyard Board of Health

Figure 11.4 Average Number of Ticks Collected from Trail Surveys



(Source: "MV Tick-Borne Illness Prevention Program, Annual Report 2022," Martha's Vineyard Board of Health)

EQUITY AND ENVIRONMENTAL JUSTICE

The concept of "environmental justice" (EJ) is rooted in the assumption that everyone has a right to live in and enjoy a clean, healthy environment. Everyone, regardless of race, ethnicity, gender, income, where you live, etc., should have fair treatment and involvement in environmental decisions and enforcement of environmental regulations and policies. EJ is also rooted in the understanding that vulnerable segments of our population are disproportionately impacted by policies and practices that create environmental harm. Historically, lower income neighborhoods and people of color have been disproportionately exposed to poor air quality, contaminated soil, toxic pollutants, and other threatening environmental conditions.

The Massachusetts Environmental Justice Policy defines environmental justice populations as:

"those segments of the population that EEA has determined to be most at risk of being unaware of or unable to participate in environmental decision-making or to gain access to state environmental resources, or are especially vulnerable. They are defined as neighborhoods (U.S. Census Bureau census block group data for minority criteria, and American Community Survey (ACS) data for state median income and English isolation criteria) that meet one or more of the following criteria:

- The annual median household income is not more than 65% of the statewide annual median household income;

- Minorities comprise 40% or more of the population;
- 25% or more of households lack English language proficiency; or
- Minorities comprise 25% or more of the population and the annual median household income of the municipality in which the neighborhood is located does not exceed 150% of the statewide annual median household income.”

In Tisbury, environmental justice areas cover much of the western side of town, as shown in Map 11.1. These neighborhoods meet three criteria: household income is 65 percent of statewide annual median income or less, residents identifying as a minority make up 40 percent or more, or those identifying as a minority make up 25 percent of the population and household income is 150 percent or less of the statewide annual median. However, it should be noted that populations that speak English as a second language are also significant in Tisbury, with nearly 9 percent of residents reporting they do not speak English very well and their primary language is Portuguese or Portuguese Creole.¹⁴⁴ DESE reports that during the 2022-2023 school year English was not the first language of 56.6 percent of students in the Tisbury School District, and 33.8 percent were English language learners (English is not their primary language and are unable to perform ordinary classwork in English).¹⁴⁵

Local Policies, Practices, and Services

COUNCIL ON AGING

The Tisbury Council on Aging (COA) manages the Senior Center, which was built in 1991. It is fully air-conditioned in the summer months. Rooms are available to accommodate small gatherings as well as large community events and productions. A large kitchen allows the Town to host cooking classes as well as community meals. A congregate lunch is available Monday through Friday, all year.

The Senior Center offers a broad range of group and individual activities and services to serve the needs and interests of those adults who are 55 and older, as well as their families, including the following:

- Financial Services
 - Health Insurance Counseling
 - Fuel Assistance
 - Money Management
 - Tax Assistance provided by AARP volunteers.
- Health Care
 - Health Screening - Blood Pressure Screening
 - Medical Equipment Loans
 - Referrals for Supportive Day, help for caregivers caring for someone with Alzheimer's Disease, and Home Care
 - Home Safety Modification Program
 - Companion to help with shopping and errands

¹⁴⁴ US Census Bureau, American Community Survey Five-Year Estimates 2011-2015, Table B16001, via MA Executive Office Energy and Environmental Affairs GIS Viewer.

¹⁴⁵ “Select Populations (2022-23),” Tisbury School District Profile, Massachusetts Department of Elementary and Secondary Education (DESE).

- Diabetes support group
- Legal Resources and Documents
- Nutrition
 - Food distribution and Food Pantry
 - Congregate Meals at the Senior Center
 - Holiday meals
- Transportation
 - Referrals for on and off island medical and non-medical transportation through the Vineyard Transit Authority
 - A new pilot program called Gogo Grandparent Program that offers affordable transportation to get to doctor's appointments and errands
 - Resident senior discount bus passes for island residents 65 and over

The Center also works with other agencies and partners, such as Martha's Vineyard Center for Living, Healthy Aging, and Elder Services, to address needs associated with transportation (a shopping shuttle runs three days a week), access to medical care, and fall prevention.

HEALTHY AGING MARTHA'S VINEYARD

HAMV, a planning, advocacy, and community-building organization dedicated to creating an aging-friendly Island since 2013. Its mission is to ensure it has the infrastructure and services in place to serve the island's growing older adult population. Today one in three Islanders are 65+. HAMV maximizes its effectiveness by "building bridges" with a broad and diverse array of island stakeholders and seeks, whenever possible, to support the development of an integrated, island-wide perspective to optimize its collective energy and financial investment. It educates, builds awareness, and activates in the following ways:

- Convenes and manages coalitions of island organizations/consumer activists to focus on key priority areas;
- Identifies evidence-based programs/services to address service gaps, secure seed funding, and create pilot programs;
- Conducts research and shares analysis/recommendations with older adults, service organizations and local governments to stimulate conversation, support decision making and create a long term, shared vision on priorities;
- Sponsors educational/awareness seminars; and
- Addresses ad-hoc needs of our older adults and the agencies that serve them.

In May 2022, HAMV released its *5-Year Community Plan for an Aging and Dementia Friendly Island*.¹⁴⁶ It outlines six broad initiatives with strategic actions and local supporting partners for implementation. These initiatives include:

1. Ensure that the essential services older adults need and the workforce necessary to provide them are in place.

¹⁴⁶ Healthy Aging Martha's Vineyard, [*Martha's Vineyard 5-Year Community Plan for an Aging and Dementia Friendly Island*](#), (May 2022).

2. Expand older adults' transportation options and raise awareness of these options.
3. Develop a database/central clearing house of information as a resource for the island's older adult population.
4. Support digital equity and inclusion for older adults focusing on ongoing education/assistance.
5. Expand opportunities for community engagement (coordinated volunteer program, time banking, educational programs etc.).
6. Address older adults' safety/accessibility regarding infrastructure (roads, sidewalks, bike paths, beaches) to support their lifestyle aspirations.

LOCAL HEALTH AND SOCIAL SERVICES

The following provides an overview of select health and social services compiled by IHC in its 2022 community health needs assessment on Martha's Vineyard.

Martha's Vineyard Community Services

Martha's Vineyard (MV) Community Services is a social services umbrella organization that houses a range of services to meet different needs of the community, including:

- Disability services to promote community integration and independence of residents with disabilities, such as employment services, family support center, and others.
- Youth and family services, such as childcare, Head Start, family support center, and others.
- Domestic violence and sexual violence services, including counseling, education, and advocacy.
- Mental health services, including counseling, urgent care, senior care, and health care assistance associated with mental health needs.
- Senior services, including CORE (Counseling, Outreach, an Referral for Elderly), Healthy Aging MV, and caregiver support group.
- Veterans services such as support groups, outreach programs, and others.

Also under MV Community Services is First Stop MV, a comprehensive directory of community resources for all ages. First Stop MV was developed and run for its first three years by Healthy Aging Martha's Vineyard (formerly Healthy Aging Task Force.) In 2016, First Stop MV was transferred to MV Community Services, which runs it today. Healthy Aging Martha's Vineyard raised the initial funds to design and develop First Stop MV.

Island Health Care

IHC in Edgartown is a community health center with nurse practitioners, nurses, physicians, and other health professionals. Services are available for primary care, oral and dental health, mental and behavioral health, substance abuse counseling, and chronic disease management. IHC also offers prevention services, wellness coaching, and has a public health nurse on staff.

Martha's Vineyard Hospital

MVH is a not-for-profit hospital and provides limited inpatient services with 14 beds. The hospital has an emergency department that is physician-staffed 24/7. There are a number of specialty physicians with their main practice at MVH with others holding office hours on the Island on varying schedules.

MVH also operates the Island's largest nursing home, Windemere. This facility provides short-term rehabilitation and has a 25-bed unit for residents with Alzheimer's disease. According to IHC, the hospital is phasing out the Windemere facility and planning to partner with a corporate entity Navigator Elder Homes to provide 20 rest-home beds to independent seniors in the community.

Health Imperatives Martha's Vineyard

This is a satellite office of a mainland agency providing reproductive health services as well as STD counseling and testing. Health Imperatives also houses the Island's WIC program, and the AIDS Support Group of Cape Cod, which provides harm reduction services.

Elder Services of Cape Cod and the Islands

Elder Services is a private non-profit corporation, the federally designated Area Agency on Aging (AAA), and the state-designated Aging Services Access Point (ASAP) for the Island. Services offered by this agency include:

- Protective Services (Elder at Risk Services)
- Long-Term Care Screening, Senior Nutrition Program (Dining Centers)
- Meals on Wheels
- Long-term Care Ombudsman
- Senior Employment and Training Program
- AmeriCorps Retired and Senior Volunteer Program (RSVP)
- Home Care Program
- Options Counseling
- Family Caregiver Support Program
- Money Management Program and Information and Referral Services

Vineyard Health Care Access Program (VHCAP)

The VHCAP formed in 1999 as a program of Dukes County and the Massachusetts Department of Housing and Community Development. The agency helps uninsured Island residents secure and access public and private health insurance. VHCAP also serves as a resource to help people obtain needed health services. According to IHC, VHCAP helps over 3,000 (15%) of Island residents – seniors, frail elders, low-income families, pregnant women, and working adults who are not covered by employer insurance. It also assists employers with part-time employees and/or contract employees who are not eligible for employer insurance, people with disabilities or who need assistance applying for disability benefits, and people in financial distress.

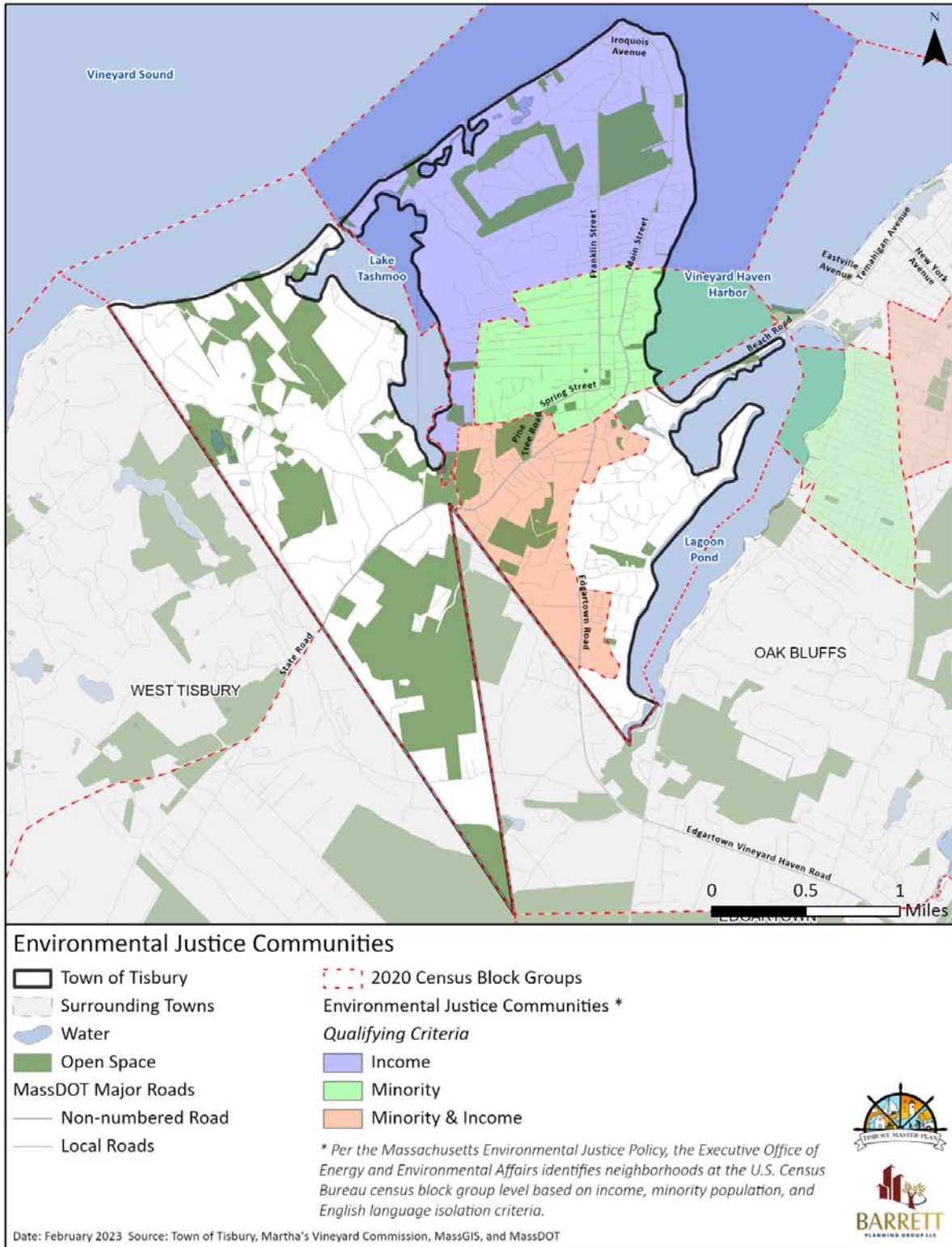
VHCAP operates several additional health care access initiatives, including Prescription Medication Assistance Program (uninsured or underinsured who need medicine or dental care but cannot afford) and the Senior Assistance Plan, specializing in prescription assistance for low income Island residents

including seniors and people with disabilities. IHC employs an outreach and enrollment specialist who works closely with VHCAP.

LOCAL FOOD PANTRIES

There are many nonprofits that run food pantries on Martha's Vineyard that are accessible to Tisbury residents. They include, but are not limited to, the following. Several churches, such as the First Baptist Church in Vineyard Haven, Shepherd Parish in Oak Bluffs, and Catholic Church, have food pantries or food distribution programs. Island Food Pantry, part of the Island Grown Initiatives, is located at the Portuguese American Club in Oak Bluffs. It is open to the public three days a week, with a fourth morning available to seniors only, and makes deliveries to homebound people.

Map 11.1 Environmental Justice Communities in Tisbury





12. Governance

Introduction

Governance refers to a city or town's form and structure of government and the distribution of powers and duties within it. Although governance is intertwined with the operation of municipal facilities, a governance analysis is more concerned with a community's capacity – human, financial, and political – along with public access to opportunities to serve and participate, how the community resolves conflicts and makes law, and the locus of authority for major decisions. Thus, while Chapter 9 of this plan focuses on Tisbury's public buildings and infrastructure, this chapter focuses on the organization and functions of town government and the capacity and cost to provide town services.

Existing Conditions and Trends

LOCAL GOVERNMENT

Tisbury incorporated as a town 352 years ago. Its first charter dates to 1671, and it was reviewed a few times in the 1980s.¹⁴⁷ Like most small towns and rural communities in Massachusetts, Tisbury has a

¹⁴⁷ Camp, Dresser, McKee, *Town of Tisbury Organizational Assessment*, (2012).

Select Board-Open Town Meeting form of government organized under the general laws of the Commonwealth. Tisbury does not have the kind of home rule or special act charter often found in communities today, so it has the basic statutory framework followed by many small towns.¹⁴⁸ In addition to operating under various state laws, Tisbury has locally adopted bylaws that cover matters such as fees and fines, town cemeteries, wetlands protection, and zoning.

On one level, Tisbury's town government is a large organization for a town with roughly 2,200 year-round households.¹⁴⁹ It seems so large that sometimes people have trouble identifying all the Town's boards and committees or agreeing on which board, committee, or Town employee is responsible for a given task or set of responsibilities. In 2022, based on available records and input from Town staff, the Town has 10 elected boards and commissions with a combined total of 44 members, two elected individuals, 159 town and school employees, and at least 20 relatively active committees with a combined total of 114 members. In addition, Tisbury has elected or appointed seats on several boards, committees, and organizations. With so many positions to fill, it comes as no surprise to find Tisbury residents sitting on more than one board or committee or Town staff wearing multiple hats. For example, individual Planning Board members participate in eleven other committees.

This type of decentralized government appeals to communities because it seems to encourage public involvement and puts residents in the driver's seat when it comes to making policy and spending decisions. However, it also has disadvantages. Given the enormity of the challenges Tisbury faces over the next decade, the Town will need to decide if its present government size and structure are up to the job at hand.

Select Board

The Select Board leads the executive branch of Tisbury's town government. As the town's chief elected officials, the Select Board is responsible for formulating and promulgating policy directives and guidelines to be followed by all town agencies that fall under the Board's jurisdiction. While it does not control all the Town's general government operations, the Select Board has some unique statutory powers, e.g., the power to commit the Town to contracts or purchase and sell municipal real property. The Board serves as the town's licensing authority, issuing licenses for the sale of alcohol, food, and other consumer products. In addition, the Select Board appoints a number of prominent town positions and boards, including the Town Administrator and most town department heads, along with the Zoning Board of Appeals, Conservation Commission, Board of Registrars, Affordable Housing Committee, and many others. The extent of the Select Board's responsibilities means they are very busy. Participants in the master plan process noted that it can be difficult for the Select Board to address all the items on their meeting agendas because of the number of matters they are asked to approve.

¹⁴⁸ In 1966, Massachusetts granted home rule authority to cities and towns under Article 98 of the Amendments to the Massachusetts Constitution.

¹⁴⁹ As of the writing of this chapter, the U.S. Census Bureau has released very little information from Census 2020. The number of year-round households is a rounded estimate based on the 2020 actual count, 2,139. What is clear – at least based on data from the Census Bureau – is that the number of year-round households has increased faster than the total number of new housing units, and vacancy overall (including seasonal residences) has declined somewhat.

Town Administrator

Day-to-day programs and services in Tisbury operate under the direction of a full-time Town Administrator who reports to and serves at the pleasure of the Select Board. Unlike many towns, Tisbury has never adopted a home rule petition to assign particular powers to the Town Administrator. Instead, it appears that in Tisbury, the position is generally organized G.L. c. 41, §23A, a state enabling law enacted in the early 1970s so that towns could have a professional employee acting at the behest of the Select Board. Using the limited authority available under the enabling act, Tisbury established and funded its first Executive Secretary position ca. 1975 and renamed the job as Town Administrator approximately fifteen years ago. Regardless of the title, the position is effectively the same. Town Administrator positions vary widely in Massachusetts, from positions that are essentially ministerial to those with the powers but not the actual title of Town Manager.¹⁵⁰

The Town Administrator coordinates the work of municipal departments and is responsible for carrying out the goals, policies, and directives of the Select Board. The position has little inherent power (e.g., authority that would be established under a town charter or a special act), but the Select Board entrusts the Town Administrator to see that departments under their purview operate cooperatively and efficiently, to ensure that residents, businesses, and property owners receive municipal services, and to resolve complaints. Tisbury has delegated several extra responsibilities to the Town Administrator, from fairly common ones such as personnel director or chief procurement officer to serving as a voting member on the Affordable Housing Committee and Affordable Housing Trust and representing Tisbury with the Cape Light Compact, Cape & Vineyard Electric Cooperative, and others.

Elected Officials

Tisbury's local government consists of fourteen elected boards and individual officials with a combined total of 48 people, as shown in Table 12.1. Some offices have regulatory powers, such as the Board of Health and Planning Board, while others serve in a policy-making role, such as the Board of Library Trustees.

Table 12.1. Elected Local Officials in Tisbury

Office	Members	Office	Members
Select Board	3	Finance & Advisory Committee	11
Board of Assessors	3	School Committee	3
Board of Health	3	Town Clerk	1
Planning Board	5	Town Moderator	1
Water Commissioners	3	Board of Library Trustees	9
Constables	3	Fish Committee	3
		Total	48

Source: Annual Town Report, 2021.

¹⁵⁰ Tisbury's General Bylaws makes only four references to the Town Administrator – three in connection with amnesty for affordable accessory dwelling units, and fourth in reference to enforcing a prohibition against marijuana use on public property.

Until a few years ago, the Town also had an elected Board of Public Works under a 1989 special act of the legislature (prompted by a home rule petition from Town Meeting). In 2015, however, as with most towns in Massachusetts, Tisbury changed the Department of Public Works to a department operating under the Select Board.¹⁵¹ The centralization of public works functions under the Select Board is in keeping with trends statewide toward clarifying roles, responsibilities, and accountability.

Appointed Officials

The Select Board has authority to appoint most Town employees, but some of the boards listed in Table 12.1 have authority over hiring the employees working in their facility or division. For example, the Library Trustees appoint the Library Director and staff, the Water Commissioners appoint the Water Superintendent, and the Board of Health appoints the Health Agent. In almost all cases, however, volunteer committees in Tisbury are appointed by the Select Board. Table 12.2 lists the Town's local committees and the number of appointees per committee, where known. Most function as standing (permanent) committees.

Table 12.2. Committees Appointed by Select Board

Appointed Office	Number Appointed	Appointed Office	Number Appointed
Affordable Housing Committee	7	Open Space & Recreation Committee	5
Affordable Housing Trust	7	Personnel Board	3
Beautification Committee	5	Sewer Advisory Board	8
Board of Appeals	7	Shellfish Constables	2
Board of Registrars	4	Short-Term Rental Task Force	5
Community Preservation Committee	9	Spring Building Management Committee	3
Conservation Commission	7	Town Picnic Committee	7
Council on Aging	5	Water Resources Committee	5
Embarkation Advisory Committee	5	Waterways Committee	7
Energy Committee	5	Williams St. Historic District Commission	8
Natural Resources Committee	Unknown	Total Appointees	114

The Town also has some committees appointed by other boards. For example, the Planning Board selects the Site Plan Review Committee and chooses members to serve on the Master Plan Steering Committee.

PUBLIC SCHOOLS

Tisbury is a member of the all-island Martha's Vineyard Public Schools, a regional district covering all six towns on Martha's Vineyard. Each town has an elementary school, and all children entering grade 9 transfer to the regional high school in Oak Bluffs. The regional school committee that oversees the

¹⁵¹ Acts of 2015, Chapter 93.

island's school district includes members chosen by the participating communities, and the committee chooses the regional superintendent. Tisbury voters elect three members to serve as the local school committee for the Tisbury School, and those three members may then serve on the regional school committee. Public schools are the largest department and most costly operation of any service provided by cities and towns, and Tisbury is no exception. Every school has a building principal and vice-principal, guidance staff, a school nurse, librarian, specialists, regular and special education teachers, and English language support personnel. There are also parent councils for each school, and an island-wide parents council for special education services.

FORM OF TOWN MEETING

Tisbury has an Open Town Meeting, which means all of Tisbury's registered voters are entitled to attend and vote on any matter on the Town Meeting Warrant. Under state law, towns with fewer than 6,000 residents must have an Open Town Meeting unless they seek and are able to obtain special permission from the legislature to establish a different legislative body. Towns are required to hold an Annual Town Meeting in order to set the operating budget for the coming fiscal year, which begins on July 1. Tisbury's Annual Town Meeting normally occurs in April, with town elections following two weeks later. Local officials decided to move the Annual Town Meeting to June for two years because of COVID-19.

Town Meeting's most important functions include appropriating funds to operate town government and approving bylaws that are within a town's purview. As a "home rule" state, Massachusetts allows cities and towns to regulate a wide range of activities that have not been preempted by state law or barred under the state constitution. Town Meeting cannot act on any matter without a quorum, which in Tisbury is at least 100 registered voters.¹⁵²

TOWN BYLAWS

Like other towns, Tisbury has two types of bylaws: the Zoning Bylaw (discussed in more detail in Chapter 5), and general bylaws. The Town has published a collection of general (non-zoning) bylaws, though it is not clear that the publicly available version is up to date (2013). They are not uniformly codified and not listed alphabetically, which makes the general bylaws difficult to navigate. Under state law, most bylaws adopted by Town Meeting require review and approval by the Commonwealth's Attorney General. According to records available from the Attorney General's Municipal Law unit, it appears that there has been very little activity to amend Tisbury's bylaws over the past ten years, other than marijuana regulations.¹⁵³

Despite the near absence of any references to the Town Administrator, the general bylaws formalized the creation of the Finance Department in 1999, when Town Meeting merged the functions of town accountant, town collector, town treasurer, and assessors under a single director appointed by the Select Board.¹⁵⁴ Some town boards and committees have explicit recognition in the bylaws, e.g., the Finance and Advisory Committee and Community Preservation Committee. In addition, the bylaws

¹⁵² Tisbury General Bylaws, Sec. 30 (1940).

¹⁵³ The Municipal Law Unit maintains a searchable database of bylaw amendments for all Massachusetts towns from 2010 to the present: <https://massago.hylandcloud.com/203publicaccess/mlu.htm>.

¹⁵⁴ Annual Town Meeting, 1999, Article 11.

provide for local wetlands protection to supplement the Massachusetts Wetlands Protection Act, G.L. c. 131, S. 40. Still, Tisbury's bylaws have quaint features sometimes found in other towns where no comprehensive update has occurred in a very long time (if ever). For example, Tisbury still has bylaws on the books to regulate "driving horses," sledding, school attendance and truancy, moped sales, "peddlars [sic] and hawkers," and loose farm animals.

TOWN CABINET

Over 20 years ago, Tisbury officials saw the need to improve interdepartmental communication and formed the Town Cabinet. It includes the chairs of several elected boards – the Select Board, Board of Health, Department of Public Works, Finance and Advisory Committee, Planning Board, School Committee, Board of Assessors, Water Commissioners, and the Library Trustees – along with the Town Clerk. The Cabinet meets quarterly. The Town Administrator and Finance Director also participate but in an ex officio, non-voting capacity.

Engagement and Information

Many of Tisbury's elected and appointed board members have served in their positions for several years. The most active boards include the elected Board of Selectmen, School Committee, Planning Board, and Advisory and Finance Committee. In addition to serving in local government through elected or appointed office, Tisbury residents participate in local civic and service organizations and clubs that offer volunteer opportunities. An obvious example is the Martha's Vineyard Chamber of Commerce, but Tisbury also has the Martha's Vineyard Museum and Martha's Vineyard Playhouse. In the adjacent town of Oak Bluffs, there is the Island Food Bank and the Martha's Vineyard Hospital. For a resident or visitor hoping to find basic information about non-governmental community services, the Town of Tisbury website is not a useful resource because it is fairly old and hard to navigate. Many communities do provide a basic directory of community services as an aid for residents, but it takes IT capacity and a website manager to provide this kind of assistance and keep the information up to date. Tisbury does not have the staff resources to support timely web-based communications.

Accomplishments

Despite the fragmented, decentralized system of government in Tisbury, the Town has made progress on a number of fronts, and Town staff take pride in what they have been able to accomplish. Moving forward with funding for the long-stalled Tisbury School project is an important step forward in Tisbury, but there have been other important milestones, too. Town employees seem universally committed to public service and the jobs they have been asked to perform even without the resources they need.

REGIONAL GOVERNMENT

Dukes County

Although many types of regional services exist in Massachusetts, there is little in the way of regional government. Until recently, Massachusetts had fourteen county governments, each with administrative responsibility for county courts, jails, and a registry of deeds, and maintenance of county roads. In the late 1990s, the Commonwealth abolished the governments of four Massachusetts counties. Two counties have since secured special charters to become regional councils of government. They provide a variety of services to participating cities and towns (who pay an annual assessment), including planning,

public safety, engineering, water, and waste disposal. The remaining six county governments are organized under county charters and the provisions of state law. Dukes County is one of the six remaining county governments.

Dukes County government is overseen by the elected County Commission, comprised of seven members (no more than two residing in the same town). The Commission appoints the County Manager who, much like a town manager in communities that have one, serves as the County's Chief Executive Official (G.L. c. 34, Sec. 18). The county-wide Department of Health and Human Services, the Martha's Vineyard Airport and Business Park, Emergency Management, Veterans Services, and several others fall under the Commission's jurisdiction. In addition to electing members of the County Commission, Dukes County voters elect the County Treasurer, Sheriff, and Register of Deeds.¹⁵⁵

Island-Wide representation

The six towns on Martha's Vineyard participate in several regional entities, most of which have some type of board or commission oversight. In addition to the elected representatives to the Martha's Vineyard Commission and Land Bank Commission, Tisbury has appointed members on the boards of the agencies and organizations listed in Table 12.3.

Table 12.3. Appointees to Regional Organizations

Appointed Office	Number Appointed	Appointed Office	Number Appointed
Land Bank Advisory Board	7	Steamship Authority Port Council	1
Martha's Vineyard Cultural Council	2	Steamship Long-Range Task Force	1
Martha's Vineyard Regional Transit	1	Steamship Working Group	1
MVTA Disability Representative	1	Cape Light Compact	1
Regional Emergency Communications Center (RECC) Finance Advisory Board	1	Cape & Vineyard Electric Cooperative	1
RECC Public Safety Advisory Board	3	Total Appointed Representatives	20

Sources: Tisbury Annual Town Report, 2021, and Dukes County Government, <https://www.dukescounty.org>.

* The Town appoints one member (can be a Select Board member or resident); no less than one and no more than two members can be voted in, representing Tisbury.

The Town of Tisbury also provides funding (together with other Dukes County communities) for agencies and organizations providing county-wide services, such as the Martha's Vineyard Center for Living, Dukes County Regional Housing Authority, and Dukes County Cultural Council. Finally, the Town is a member of the Dukes County Retirement System, which is overseen by a five-member board.

¹⁵⁵ Dukes County Administrative Code, (Amended October 2017), <https://www.dukescounty.org/county-commissioners/pages/administrative-code>

Past Plans and Studies

In 2012, the Town commissioned a town government organizational assessment. The study was intended to identify where Tisbury performed well and where it needed to make some organizational or structural changes to improve. The CDM Smith consultants who led the study found that at the staff level, Town employees value public service, teamwork, and transparency, and they shared a sense of responsibility to control costs. At the same time, they said Tisbury's fragmented decision-making, lack of a long-term vision, problems maintaining adequate full-time staff, and lack of institutional redundancy – i.e., lack of shared or overlapping responsibilities, lack of standard operating procedures, and no formal process for transferring job responsibilities when a staff member leaves – all created significant vulnerabilities for the Town. Several recommendations came out of the study, including:

- Establish the positions of Human Resources Director and IT Coordinator;
- Establish a uniform information management system so that Town staff can share information and transfer data across departments;
- Adopt documented policies and procedures, job descriptions;
- Conduct a gap analysis of current services; and
- Collaborate with other towns on Martha's Vineyard to create a regional full-time Fire Department or establish a full-time Fire Department within Tisbury.

CDM's organizational assessment team also found that Tisbury's decentralized government, with many boards and committees and many decisions requiring Town Meeting approval, may seem democratic and inclusive, but suffers from the lack of a clear chain of command and the inability to make timely decisions. Another challenge noted in the report was that Tisbury's reliance on several independent boards made it difficult for local government to operate cohesively. The fragmentation of oversight and services identified by the consultants led to recommendations in the report to reduce the number of Town committees, relocate all Town departments to a single administration building, and hold regular staff meetings.

Local Government Trends

State law requires small towns like Tisbury to have Open Town Meeting as the legislative body. The varieties found in town government today involve the locus of administrative and financial management authority. In 2022, 90 percent of the towns in Massachusetts have some sort of professional manager or administrator, and 60 percent use the title "Town Administrator," like Tisbury. However, at least 20 towns have moved to a Select Board/Town Manager arrangement in the last 15 years, largely responding to the increasing complexity of running local government. The composition of Select Boards has changed over time, too, with growth in the number of five-member boards.

Today, about the same number of towns has a three-member board or a five-member board. To some extent, the movement toward five-member boards has happened concurrently with elevating the

responsibilities and authority of an executive secretary to town administrator or town administrator to a town manager, but not always. Table 12.4 presents a sample of Massachusetts towns with a year-round population similar to Tisbury's. West Newbury (Essex County), which established a town manager position in 2017 under a special act of the legislature, retained a three-person Select Board. Lenox (Berkshire County) established its town manager position approximately 18 years ago and simultaneously increased the Select Board from three to five members. Attesting to the innovation towns will consider to make local government as efficient and affordable as possible, the Towns of Lenox and Lee executed an interlocal agreement in 2017 to share a single town manager. It was intended as an experiment and a period of discovery for both communities. The arrangement ended a year ago when Lee obtained a special act of the legislature to have a town administrator serving both as the town's chief administrative officer and chief financial officer – in effect, a town manager.

Table 12.4. Comparative Look at Local Government Organization in Selected Small Towns

Municipality	County	Administration	Select Board	2020 Population	Average Tax Bill	DOR Per Capita	2020 EQV Per Capita
Aquinnah	Dukes	Town Adm.	3	439	\$9,966	\$29,446	\$1,846,667
Avon	Norfolk	Town Adm.	3	4,777	\$6,193	\$36,559	\$191,099
Boylston	Worcester	Town Adm.	3	4,849	\$7,243	\$63,181	\$184,505
Chilmark	Dukes	Town Adm.	3	1,212	\$6,135	\$69,931	\$3,017,331
Deerfield	Franklin	Town Adm.	3	5,090	\$5,165	\$46,378	\$158,928
Edgartown	Dukes	Town Adm.	3	5,168	\$5,555	\$68,652	\$1,959,729
Hampden	Hampden	Town Adm.	3	4,966	\$5,784	\$46,241	\$133,354
Hubbardston	Worcester	Town Adm.	5	4,328	\$4,414	\$38,753	\$121,772
Lenox	Berkshire	Town Mgr.	5	5,095	\$5,068	\$56,099	\$265,264
North Brookfield	Worcester	N/A	3	4,735	\$3,925	\$30,230	\$99,908
Oak Bluffs	Dukes	Town Adm.	5	5,341	\$6,279	\$26,047	\$679,763
Paxton	Worcester	Town Adm.	3	5,004	\$6,969	\$39,965	\$121,307
Sherborn	Middlesex	Town Adm.	5	4,401	\$16,760	\$214,974	\$313,675
Tisbury	Dukes	Town Adm.	3	4,815	\$9,150	\$21,660	\$669,656
Warren	Worcester	N/A	3	4,975	\$3,491	\$21,221	\$86,490
Wenham	Essex	Town Adm.	3	4,979	\$14,265	\$78,745	\$190,064
West Newbury	Essex	Town Mgr.	3	4,500	\$8,754	\$78,619	\$228,235
West Tisbury	Dukes	Town Adm.	3	1,343	\$7,172	\$67,702	\$844,520

Sources: Mass. Department of Revenue Municipal Data Bank, and Massachusetts Municipal Association (MMA).