

***Martha's Vineyard
Regional Transportation Plan
2024-2044***

DRAFT FOR PUBLIC COMMENT

July 19, 2023

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NOTE:

The draft Martha's Vineyard Regional Transportation Plan for 2024-2044 is open for public comment through August 18, 2023. A final version will incorporate new comments and edits, along with additional maps, photos, and formatting. Some portions are highlighted where more information is still pending. Comments may be sent to Alex Elvin at elvin@mvcommission.org.

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Executive Summary

This Regional Transportation Plan (RTP) for 2024-2044 covers several important developments since the previous RTP in 2019, including the Covid-19 pandemic, the State's 2021 Climate Law and Clean Energy and Climate Plan for 2050, the 2022 Vineyard Climate Action Plan, initiation of the Steamship Authority's first strategic planning process in 2023, the 2020 US Census, and completion of the long-planned MassDOT/Tisbury Beach Road project.

In general, the RTP serves as a foundation for projects and programs to be considered for State funding through the shorter-term Transportation Improvement Program (TIP). Building upon the previous RTP, this update provides both general and detailed analyses of the Island transportation network, including all regular modes of travel to and within Dukes County. It also draws from 2020 Census data, and an update to the MVC's Martha's Vineyard Statistical Profile, which will be released in the fall. Beginning with Section 6, the plan examines each mode of transportation in terms of trends and issues, and for each mode we offer a series of objectives and proposed actions that were developed in collaboration with MVC staff, Martha's Vineyard Joint Transportation Committee (JTC), MVC Bicycle-Pedestrian Advisory Committee (BPAC), and members of the public. Section 5, on the environment; and Section 15, on the concept of livability, also include objectives and proposed actions, since both topics should figure prominently in the transportation planning process.

The Covid-19 pandemic greatly affected traffic and economic patterns around the world. The effects on the Vineyard were concentrated in 2020 (especially April of that year, when most economic activity saw an unprecedented decline) and in many cases continued through 2021. Since then, the Island economy has largely returned to normal, although certain effects have lingered, including fewer walk-on ferry passengers in the summer, reduced ridership on the Vineyard Transit Authority, and an increase in commercial boardings at the Martha's Vineyard Airport. Sections 3 and 6-13 include more detailed discussion of how the pandemic affected the Island economy and transportation network.

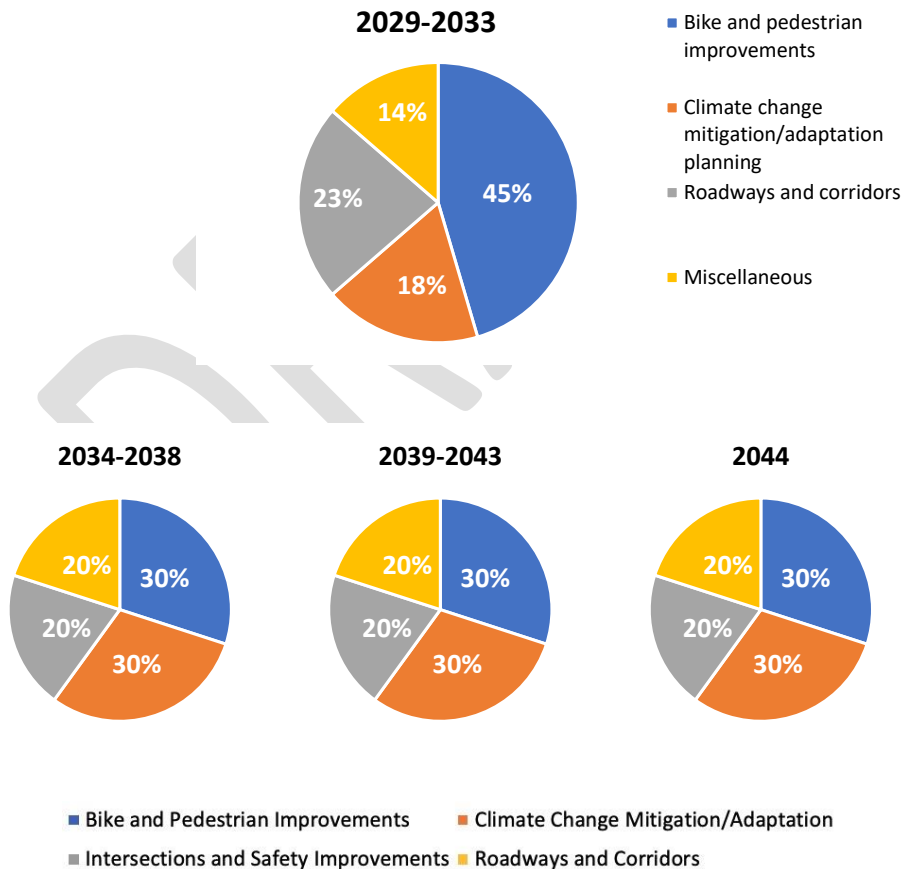
Recent updates to climate change legislation in Massachusetts, along with the 2022 Vineyard Climate Action Plan (CAP), provide a framework for many of the objectives and proposed actions in this plan. The State's 2021 Climate Law sets a new goal of net-zero emissions in the State by 2050, while the Vineyard CAP sets a similar goal for the Island by 2040. As with the previous RTP, this update emphasizes the need to reduce automobile usage on the Island, promote alternate modes of travel, and electrify the regional transportation network, while incorporating sea-level rise and other climate projections into the transportation planning process. In adopting this RTP, the Joint Transportation Committee also adopts several relevant goals and initiatives in the CAP, as outlined in Sections 5-12.

A key element in meeting the Island's emission reduction goals will be the electrification of the Steamship Authority fleet, through the purchase of new ferries, or conversion of existing ferries. Following the recommendations of the HMS Consulting report issued in 2018 (see Section 6), the SSA has initiated its first ever strategic plan, which will likely involve discussion of alternative-propulsion ferries in order to meet the State requirements for 2050. Other significant progress in terms of electrification since 2019 includes the VTA's new solar-powered

charging system and en-route inductive charger in Edgartown, and significant growth in the number of hybrid and electric vehicles in Dukes County since 2020. (See Sections 9 and 10.) Still, much work is required on all fronts to achieve zero emissions by 2040.

Based on our analysis of trends and issues (and within the constraints of state and federal budget projections), this plan recommends 15 projects totaling \$6.01 million for the years 2029-2033, and the allocation of funds based on project type for the years 2034–2044. Section 16 includes a table of estimated budgets and a general timeframe for each project, although funding at this point is not guaranteed. The proposed projects will be reviewed by the Massachusetts Department of Transportation (Mass DOT), and those that are approved will be included in the Island’s Transportation Improvement Program, which is updated every year and details all funded transportation projects over a four-year period.

Proposed Funding Allocations: 2029-2044



Looking ahead, the JTC notes that sustained regional collaboration and town buy-in are typically required to advance projects to the point where they can be included in the TIP. Accordingly, this RTP is a starting point for ongoing regional collaboration among the JTC, Islands towns, Dukes County, the Wampanoag Tribe, transportation administrators, Island businesses and nonprofits, and the public at large. The JTC also welcomes Island governments, nonprofits, and others to utilize the RTP in their own planning efforts and funding proposals.

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Participants

Martha's Vineyard Committee of Signatories

Gina Fiandaca	Secretary and Chief Executive Officer (CEO), MassDOT
Jonathan Gulliver	Administrator, MassDOT Highway Division
Joan Malkin	Chairman, Martha's Vineyard Commission (MVC)
Alice Butler	Chairman, Vineyard Transit Authority (VTA)

Martha's Vineyard Joint Transportation Committee

Voting Members

Jeffrey Madison	Town of Aquinnah
Peter Cook	Town of Chilmark
Allan DeBettencourt	Town of Edgartown
Richard Combra, Jr.	Town of Oak Bluffs
Kirk Metell	Town of Tisbury
Matthew Sudarsky	Town of West Tisbury
Leon Brathwaite	Dukes County
Durwood Vanderhoop	Wampanoag Tribe of Gay Head/Aquinnah
Adam Turner	Martha's Vineyard Commission
Angela Gompert	Vineyard Transit Authority

Ex-Officio Members (Non-Voting)

Raissah Kouame	MassDOT, Office of Transportation Planning
Joi Singh	Federal Highway Administration
Peter Butler	Federal Transit Administration
Alison Fletcher	Steamship Authority (SSA)
Greg Politz	Bicycle & Pedestrian Committee (BPAC)
Geoffrey Freeman	Martha's Vineyard Airport
Pamela Haznar, P.E.	MassDOT District 5
Barbara Lachance	MassDOT District 5
William Veno	Martha's Vineyard Commission

Staff of the Martha's Vineyard Commission

Adam Turner	Executive Director
Sheri Caseau	Water Resources Planner
Dan Doyle	Special Projects Planner
Liz Durkee	Climate Change Coordinator
Alex Elvin	Research and Communications Manager
Michael Mauro	Transportation Program Manager
Lucy Morrison	Executive Assistant
Rich Saltzberg	Development of Regional Impact (DRI) Coordinator
Curt Schroeder	Administrator and Chief Fiscal Officer
Chris Seidel	Cartographer/GIS Coordinator
Laura Silber	Housing Planner
William Veno	Senior Planner
Kate Warner	Energy Planner

Transportation Planning (and Related) Organizations

Bicycle-Pedestrian Advisory Committee

Information related to BPAC meetings activities is posted at mvcommission.org.
508-693-3453

Healthy Aging Martha's Vineyard

Various workgroups are open to new members. For information, send an email to healthagingmv@gmail.com.
508-693-7900 ext. 455
<https://www.hamv.org/workgroups>

Island Climate Action Network

Facebook: @islandclimateactionnetwork
islandclimateactionnetwork@gmail.com

Joint Transportation Committee

Information including the JTC Bylaws, is available at mvcommission.org.
508-693-3453

Martha's Vineyard Airport

Meeting schedules and agendas are posted at mvyairport.com.
508-693-7022

Martha's Vineyard Commission Climate Change Task Force

Contact Ben Robinson at phraluang@yahoo.com for information.

Southeastern Massachusetts Regional Transportation (SMART) Citizens Task Force

smartcitizenstaskforce.org, smartcitizenstaskforce@gmail.com

Town Selectmen, Planning Boards, Zoning Boards

Meeting agendas, contact information and other resources are available on the following town websites: Aquinnah: aquinnah-ma.gov
Chilmark: chilmarkma.gov
Edgartown: edgartown-ma.us
Gosnold: dukescounty.org/pages/dukescountyma_gosnold/index
Oak Bluffs: oakbluffsma.gov
Tisbury: tisburyma.gov
West Tisbury: westtisburyma.gov

Vineyard Transit Authority

Financial information and annual reports are available at vineyardtransit.com.
508-693-9440
info@vineyardtransit.com

Woods Hole, Martha's Vineyard and Nantucket Steamship Authority

Meeting schedules and agendas, along with staff emails and SSA documents, are available at steamshipauthority.com.
508-548-5011

SECTION 1:

Transportation Systems at a Glance

Steamship Authority

The Martha's Vineyard, Nantucket and Woods Hole Steamship Authority (SSA) accounts for about 90 percent of all passenger travel to and from the Vineyard. The number of passengers dropped about 30% in the first year of the pandemic, but by 2022 the figure had rebounded to about 2.3 million, just 4% less than in 2019.

The SSA carried 570,095 vehicles to the Vineyard in 2022, up from 498,511 in 2012. That included 510,862 automobiles (up from 455,894 in 2012), and 59,233 trucks (up from 42,617).¹ The local tourism economy relies almost entirely on the SSA's service from the Cape, although summertime congestion has led many residents to call for a limit on vehicles traveling on SSA ferries.

With continued encouragement from the MVC and other Island organizations, the Steamship Authority is now studying the feasibility of transitioning at least some of its fleet to electric or hybrid vessels.

Martha's Vineyard Airport

The Martha's Vineyard Airport accounts for about 5% of passenger travel to the Vineyard, but its extensive Business Park helps add an estimated \$140 million per year to the Island economy. The Business Park provides a location for various commercial activities that may conflict with the character and small scale of town centers.

The number of annual boardings (passengers departing on scheduled airline flights) fluctuated from about 60,000 in the mid-1980s, to less than 40,000 in the early 1990s, then peaked at about 74,000 in 1999. In recent years, annual enplanements have fluctuated considerably, due partly to the Covid-19 pandemic, with a low of 15,657 in 2020 and high of 69,039 in 2022. Along with other projects in its Capital Improvement Plan, the airport is planning to renovate its 1999 terminal building to accommodate current and future demand.

Roads and Automobiles

The Martha's Vineyard road network includes about 177 miles of public, paved roads, and accommodates the travel demands of about 20,600 year-round residents, and well over 90,000 residents and visitors in the peak summer season.

¹ In 2021, the SSA reclassified trucks less than 20' as automobiles. The change was also applied to previous years shown here and in Section 6.

The number of registered vehicles on the Island peaked at around 30,000 in 2010, declining to about 26,741 in 2023. The number of vehicles arriving by ferry has increased 14% since 2012, and about a quarter of those vehicles arrive in the summer. A steady increase in vehicle traffic on the Vineyard since the 1990s, combined with narrow or winding roads and a general desire to preserve the Vineyard's unique rural character, has led to increasing frustration among visitors and residents alike, who have called for a limit on vehicles traveling on Steamship Authority ferries, and more alternatives to single-occupant automobiles.

There are now about 1,270 electric vehicles on Martha's Vineyard, a 73% increase since 2020, compared to a 4% increase in the number of fossil fuel vehicles.

Vineyard Transit Authority

The Vineyard Transit Authority operates a fleet of 36 fully accessible vehicles with seating capacities ranging from around 18 to 37 passengers, and accounts for most of the bus and van service on the Island. The VTA also maintains most Island school buses, operates a paratransit van service, and provides contract transportation to Boston-area medical facilities.

Between 2007 and 2019, ridership increased about 43%, with growth in all seasons but especially July and August. The Covid-19 pandemic, along with other factors, caused VTA ridership to drop about 32% in FY 2020, from about 1.3 million to 894,000, and another 39% in FY 2021, perhaps the largest decline of any transportation mode on the Island during the pandemic. Ridership grew 41% in FY 2022, but was still about 41% less than in FY 2019.

Sixteen of the VTA's full-size busses have been replaced with electric vehicles, with the rest on track to be replaced by 2028.

Taxis and Rideshare

About 15 taxi companies operate a total of about 70 vehicles on the Island, while the rideshare companies Uber and Lyft employ an unknown number of private drivers. About 33% of respondents to the 2023 RTP survey said they were "very likely" to use a rideshare service, compared to about 20% in 2019.

Islandwide, rideshare trips peaked at about 209,400 in 2019, then fell to about 76,000 in 2020, rebounding to about 167,200 in 2022.

The average ride distance on the Island is about half the average for the state, which likely reflects the dense development up-Island, where many homes are within a few miles of the Steamship Authority terminals and town centers. The most in-town rides were in Oak Bluffs, followed by Edgartown and Tisbury.

Bicycle and Pedestrian Infrastructure

Thirty-eight miles of shared-use paths down-Island and around the State Forest link the major population centers with many primary tourist destinations and West Tisbury. However, gaps in

the existing network of sidewalks and shared-use paths, along with narrow rights-of-way and competition with motorized vehicles, have impeded bike and pedestrian travel across the Island.

The need to improve bicycle conditions was the highest ranked safety concern in 2023 RTP Survey, with 87% of respondents calling it an “important” or “very important” concern, even surpassing roadway conditions and intersection designs (70%). Bicycle and pedestrian amenities were the second-highest priority in terms of transportation funding (61% of respondents), after congestion and pollution (64%).

As with the SUPs, the Island’s extensive network of walking trails provide an important alternative to motorized travel, and a more intimate experience of the Island landscape. Improving bike and pedestrian options is necessary to achieve the goals of this RTP, which include reduced automobile use, and the elimination of greenhouse gas emissions on the Island by 2040.

Mopeds

In 2016, four businesses in Oak Bluffs and one in Vineyard Haven provided about 350 rental mopeds in the summer—a major decline from the 1980s, when about 1,000 mopeds were available from 11 Island companies; and from 2001, when about 630 were available. The Vineyard Haven business closed during the pandemic, and the town select board voted in 2023 not to approve a new business permit due to safety concerns, leaving Oak Bluffs as the only Island town where mopeds can be rented.

Various accidents in recent years have renewed calls to ban rental mopeds on the Island. By some accounts there have been at least nine fatal accidents on the Island in the last 40 years, and likely hundreds of injuries. A home-rule petition that would allow Oak Bluffs to ban moped rentals (the third of its kind since 2018) is now pending in the State legislature.

SECTION 2:

Regional Transportation Plan Guidance and Process

Federal Legislation

The Federal transportation legislation related to state and regional transportation planning began with the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), and includes additional federal legislation such as the Transportation Equity Act for the 21st Century (TEA-21), and the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFE-TEA-LU), along with interim surface transportation extension acts. The most recent legislation informing this plan are the Moving Ahead for Progress in the 21st Century Act (MAP-21), signed in 2012; and the FAST (Fixing America's Surface Transportation) Act, signed in 2015, both of which are outlined below.

MAP-21 and the FAST Act

MAP-21 continued basic programs, consolidated others (such as Transportation Enhancements and Safe Routes to School) into a new Transportation Alternatives Program, and established new performance goals for the Federal-Aid Highway program. Following from the national goals for transportation, MAP-21 features eight planning factors meant to instill a sustainable, efficient, and comprehensive process for transportation planning.

The FAST Act was signed into law by President Obama on December 4, 2015, and last amended in 2023. As with MAP-21, it continued basic programs and consolidated others. It also established two additional planning factors to add to the eight factors featured in MAP-21. The 10 current planning factors, building on those in MAP-21, are as follows:

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.
2. Increase the safety of the transportation system for motorized and non-motorized users.
3. Increase the security of the transportation system for motorized and non-motorized users.
4. Increase accessibility and mobility for people and freight.
5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned-growth and economic development patterns.
6. Enhance the integration and connectivity of the transportation system across and between modes, for people and freight.
7. Promote efficient system management and operation.
8. Emphasize the preservation of the existing transportation system.
9. Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation.
10. Enhance travel and tourism.

Federal guidance for plan development encourages both short- and long-range options for an “integrated multimodal transportation system to facilitate the safe and efficient movement of people and goods in addressing current and future transportation demand.”

This RTP outlines the existing transportation system, existing usage and problem areas, and proposes objectives and actions to improve or further study the system. Much of the information is based on research by MVC staff, and the work of the Joint Transportation Committee (JTC), which holds public meetings to discuss transportation planning on the Island. The JTC consists of appointed representatives of the six Island towns, the Wampanoag Tribe of Gay Head (Aquinnah), Dukes County Commissioners, the Vineyard Transit Authority (VTA), and MVC; along with three non-voting members representing the Martha’s Vineyard Airport, the Steamship Authority, and the bicycle-pedestrian community; and members of the public. The JTC serves as the Martha’s Vineyard Metropolitan Planning Organization (MPO), deciding upon transportation planning goals, projects, priorities, and funding at their public meetings. The committee votes on recommendations to the official MPO signatories listed below. MVC staff then reports on the recommendation at a televised MVC meeting.

- Secretary and CEO, Massachusetts Department of Transportation (MassDOT)
- Highway Administrator, MassDOT Highway Division
- Chairman, Martha’s Vineyard Commission
- Chairman, Martha’s Vineyard Transit Authority

Title VI and Environmental Justice

Under Title VI of the 1964 Civil Rights Act, “No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.” Executive Order 12898, signed in 1994, takes Title VI further by requiring each Federal agency to identify and address “disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States.”

Applying the principles of environmental justice, regional planning opportunities include:

- Identifying residential, employment, and transportation patterns of minority and low-income individuals and households.
- Improving public participation processes in order to involve minority and low-income populations in transportation decision making.
- Providing essential transportation services to minority and low-income populations who do not have transportation to work, shops, childcare centers, recreation areas, and other destinations.
- Ensuring that transit facilities and services deliver equitable levels of service and benefits to minority and low-income populations.

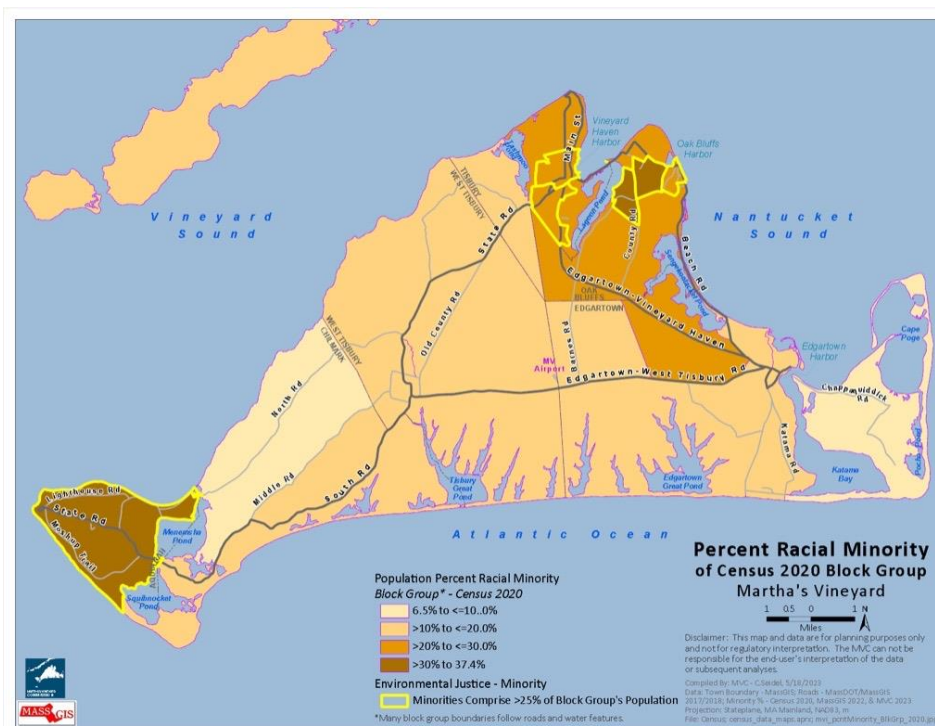
According to the US Census, although 79% of Dukes County residents identified as white in 2020, the county has become more racially diverse since 2010, most notably in terms of the

number of people identifying as non-Hispanic and as having two or more races, which increased about 194% between 2010 and 2020, and the number of people identifying as black, which increased about 34% in the same period. Both populations are concentrated largely in Edgartown, Oak Bluffs, and Tisbury, and to some extent West Tisbury.

Two minority populations of note are the Wampanoag Tribe of Gay Head (Aquinnah), and the seasonal African-American community in Oak Bluffs. The Wampanoag Tribe of Gay Head was, until 2007, the only federally recognized tribe in Massachusetts, and owns substantial property in Aquinnah. According to the 2020 Census, Aquinnah's approximately 112 tribal members made up about 26% of the town's population, down from about 37% in 2010. Oak Bluffs has been a popular resort for African-Americans for over 100 years, but only about 10% of year-round Oak Bluffs residents identified as black or African-American, up from about 8% in 2010. The figures here include people identifying as having more than one race.

While the Vineyard serves many wealthy visitors and seasonal residents, the median household income of county residents in 2021 (\$77,392) was about 16% less than that for Massachusetts as a whole, but about 10% more than the national median. The ACS estimates that the percentage of individuals living below the poverty line in 2021 (7.8%) was lower than both the state and national figures (10.4% and 12.8%).

The highest concentration of non-white populations, according to Census data, is in Oak Bluffs, Tisbury, and Aquinnah. (See map below.) All of these areas in Oak Bluffs and Tisbury are served by regular VTA bus routes, major and secondary roads, school bus routes, shared-use paths, ride-share services, and other transportation options. Block Group 2 in Oak Bluffs and Block Group 2 in Tisbury also encompass the main gateways to the Island, including the Tisbury and Oak Bluffs Steamship Authority Terminals, where about 90% of all traffic enters and exits the Island. Living within walking distance of those areas is beneficial in terms of access to services and amenities, and options to travel to the mainland for healthcare and other services without needing a personal vehicle.



Block Group 5, which covers most of Aquinnah, is accessible by the VTA, major and secondary roads, school buses, a seasonal bike ferry, and seasonal ride-share services. VTA bus service to Aquinnah was reduced in 2022 due to a shortage of drivers, but has been at least partially restored. It should be noted that the Vineyard Climate Action Plan includes a goal to protect vulnerable roads and infrastructure such as State Road which connects Aquinnah to the rest of the Island, and this will become a stronger focus of our transportation planning as climate change intensifies.

Most State-funded transportation projects in recent years have been sited down-Island where the population is more diverse. However, Chilmark and West Tisbury have similar percentages of people below the poverty level compared to down-Island towns, and along with Aquinnah have similar percentages of people over 60, for whom access to transportation is of particular concern. About 22% of Dukes County residents who are below the poverty level, and 30% of those over 60, live up-Island where options are more limited. Aquinnah also has the highest population of Native American residents, and Wampanoag Tribal Housing is far removed from the down-Island centers.

MassDOT funding has recently allowed the installation of permanent traffic counters in Chilmark, and we hope to install permanent counters in Aquinnah as well. Plans to improve travel and visitor experiences at the Aquinnah Circle (the town's commercial area and main destination) are also ongoing. As with the down-Island towns, it is likely that efforts to ensure

equitable access to existing travel options such as the VTA and bicycle-pedestrian infrastructure would have the greatest impact in serving these populations.

State Legislation and Guidance

Regional Planning

In the early 1970s, Massachusetts adopted the federal government's comprehensive, cooperative, and continuing (3-C) transportation planning process. The intent of the 3-C process is to decentralize transportation decision making by ensuring that "all reasonable and prudent alternatives to transportation problems are considered and analyzed adequately." Decisions must give full consideration to all impacts; emphasize physical, economic, and social consequences; and include the "participation of elected officials, public and private groups, and individual citizens."

Establishing an "open and participatory planning" process led to a memorandum of understanding (MOU) between state and regional representatives in 1980. The MOU resulted in the formation of the Joint Transportation Committee, whose purpose and responsibilities are as follows:

- Guide regional transportation decision making.
- Serve as a forum for discussing all transportation issues.
- Advise the Committee of Signatories, which includes MassDOT, the MVC, and the VTA.

In 2008 the Commonwealth adopted the weMove Massachusetts planning and public outreach initiative, which engaged the public in order to develop a high-level vision for transportation statewide. Based on public input, 10 core themes were developed to guide the planning, design, and operation of the transportation system:

1. Improve transportation system reliability.
2. Focus attention on maintaining the transportation system.
3. Design transportation systems better.
4. Encourage shared use of infrastructure.
5. Increase capacity by expanding existing facilities and services.
6. Create a more user-friendly transportation system.
7. Broaden the transportation system to serve more people.
8. Provide adequate funding and collect revenue equitably.
9. Minimize environmental impacts.
10. Improve access to the transportation system.

WeMove Massachusetts proceeded to review transportation system conditions and financial resources under various scenarios, which resulted in recommendations for transportation reform and performance management.

Greenhouse Gas Analysis (Prepared by MassDOT)

This section documents recent progress made by MassDOT and the MPOs in working to help achieve greenhouse gas (GHG) reduction goals as outlined in state regulations applicable to Massachusetts. This “progress report” estimates future carbon dioxide (CO₂) emissions from the transportation sector as part of meeting the GHG reduction goals established through the Commonwealth’s Global Warming Solutions Act (GWSA).

GWSA Transportation Status: Future Carbon Dioxide Emissions Reductions

The Global Warming Solutions Act of 2008 requires statewide reductions in greenhouse gas (CO₂) emissions of 25 percent below 1990 levels by the year 2020, and 80 percent below 1990 levels by 2050.

The Commonwealth’s thirteen metropolitan planning organizations (MPOs) are involved in helping to achieve greenhouse gas reductions mandated under the GWSA. The MPOs work closely with the Massachusetts Department of Transportation (MassDOT) and other involved agencies to develop common transportation goals, policies, and projects that would help to reduce GHG emission levels statewide, and meet the specific requirements of the GWSA regulation – *Global Warming Solutions Act Requirements for the Transportation Sector and the Massachusetts Department of Transportation (310 CMR 60.05)*. The purpose of this regulation is to assist the Commonwealth in achieving their adopted GHG emission reduction goals by:

- Requiring each MPO to evaluate and report the aggregate GHG emissions and impacts of both its Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP).
- Requiring each MPO, in consultation with MassDOT, to develop and utilize procedures to prioritize and select projects in its RTP and TIP based on factors that include GHG emissions and impacts.

Meeting the requirements of this regulation is being achieved through the transportation goals and policies contained in the Federal Fiscal Year (FFY) 2024 RTPs, the major projects planned in the RTPs, and the mix of new transportation projects that are programmed and implemented through the TIPs.

The GHG evaluation and reporting processes enable the MPOs and MassDOT to identify the anticipated GHG impacts of the planned and programmed projects, and also to use GHG impacts as a criterion in prioritizing transportation projects. This approach is consistent with the greenhouse gas reduction policies of promoting healthy transportation modes through prioritizing and programming an appropriate balance of roadway, transit, bicycle and pedestrian investments; as well as supporting smart growth development patterns through the creation of a balanced multi-modal transportation system. All of the MPOs and MassDOT are working toward reducing greenhouse gases with “sustainable” transportation plans, actions, and strategies that include (but are not limited to):

- Reducing emissions from construction and operations

- Using more fuel-efficient fleets
- Implementing and expanding travel demand management programs
- Encouraging eco-driving
- Providing mitigation for development projects
- Improving pedestrian, bicycle, and public transit infrastructure and operations (healthy transportation)
- Investing in higher density, mixed use, and transit-oriented developments (smart growth)

Regional GHG Evaluation and Reporting in RTPs

MassDOT coordinated with MPOs and regional planning agency (RPA) staffs on the implementation of GHG evaluation and reporting in development of each MPO’s 2016 and 2020 RTPs. This collaboration has continued in developing the MPOs’ FFY 2024 RTPs and FFYs 2024-28 TIPs. Working together, MassDOT and the MPOs have attained the following milestones:

- Modeling and long-range statewide projections for GHG emissions resulting from the transportation sector, as a supplement to the FFY 2024 RTPs. Using the newly updated statewide travel demand model, GHG emissions have been estimated for 2019 (base) conditions, and for 2050 base (“no-build” including existing and committed projects) and build (action) conditions (see the chart in this section for the results of this modeling).
- All of the MPOs have addressed GHG emission reduction projections in their RTPs (including the statewide estimates in the chart that follows), along with a discussion of climate change and a statement of MPO support for reducing GHG emissions from transportation as a regional goal.

MassDOT’s statewide estimates of CO₂ emissions resulting from the collective list of all recommended projects in all Massachusetts RTPs combined are presented in the table below. Emissions estimates incorporate the latest planning assumptions including updated socio-economic projections consistent with the FFY 2024 RTPs:

**Massachusetts Statewide Aggregate CO₂ Estimated Emissions Impacts from Transportation
(all emissions in tons per summer day)**

Year	CO ₂ Action Emissions	CO ₂ Base Emissions	Difference (Action – Base)
2019	75,113.6	75,113.6	n/a
2050	53,772.5	53,781.4	-8.9

This analysis includes only those larger, regionally significant projects that are included in the statewide travel demand model. Many other types of projects that cannot be accounted for in the model (such as bicycle and pedestrian facilities, shuttle services, intersection improvements, etc.), are covered in each MPO region's RTP with either "qualitative" assessments of likely CO₂ change, or actual quantitative estimates listed for each project.

As shown above, collectively, all the projects in the RTPs in the 2050 Action scenario provide a statewide reduction of nearly 9 tons of CO₂ per day compared to the base (existing and committed projects) case.

These results demonstrate that the transportation sector is expected to continue making positive progress in contributing to the achievement of GHG reduction targets consistent with the requirements of the GWSA. MassDOT and the MPOs will continue to advocate for steps needed to accomplish the Commonwealth's long-term goals for greenhouse gas reductions.

See Section 5 for more information about regional and state climate change goals.

Planning and Outreach

The public outreach effort described in this section involved the participation of many Island individuals and groups. The process also ensured consistency with other regional and local plans.

Joint Transportation Committee (JTC): Representatives of all Island towns, the Wampanoag Tribe, the VTA, and the MVC, were responsible for reviewing and recommending the final plan. The JTC built upon the efforts of previous planning efforts outlined on the MVC website, including the 2020-2040 Regional Transportation Plan.

Town and Public Participation: Town boards, Island organizations, and the general public were invited to participate in the RTP planning process. The draft RTP was forwarded to town boards and public safety departments, the Wampanoag Tribe, Island organizations, business associations, MVC commissioners, and other stakeholders. MVC staff hosted a public meeting on July 5, 2023, at which time the RTP process was discussed and public input sought about what information should be included. Further comments and suggestions were relayed to the MVC by email, in person, and via the online survey (see below).

MassDOT: MassDOT provided general guidance, financial information, additional language related to state policies and procedures, and specific comments.

Bicycle-Pedestrian Advisory Committee (BPAC): The bicycle-pedestrian section of this plan reflects recent discussions of the Bicycle-Pedestrian Advisory Committee, which was established by the JTC and reestablished in 2019 after a period of dormancy. The BPAC continues to advocate for multi-modal options and provide input on transportation matters.

Formal review process: The JTC released a draft version of the RTP for public comment on July 25, 2023. The full document was made available on the MVC website, and at the MVC office building. Comments received during the formal review process helped the MVC develop the transportation planning priorities in this RTP and shed light on the various problems and potential solutions that are discussed throughout. All public comments that were received in writing are included in the Appendix.

The Martha's Vineyard MPO Committee of Signatories: The final version of the plan was recommended for approval by the Joint Transportation Committee on August 29, 2023. The current committee consists of four official signatories (see above). It should be noted that while all project proposals are considered, the limited amount of estimated state and federal funding for Martha's Vineyard may not satisfy every need. This underscores the importance of performance measures that indicate how project decisions will benefit the public.

Transportation Survey: An online transportation survey was developed in SurveyMonkey for input in the transportation planning process in 2023. The survey was forwarded to town boards, Island organizations, and the MVC's 600+ plus member mailings list, with further distribution through Healthy Aging Martha's Vineyard, MVC quarterly newsletter, and online ads in both Island newspapers. Flyers with QR codes linking to the survey were posted at about 40 locations around the Island, including the Steamship Authority terminals, town halls and libraries, shopping areas, the Island Food Pantry, and other locations. The survey drew responses from 167 people, about 80% of whom identified as permanent residents, and helped the MVC develop the planning priorities and discussions in this RTP. The full survey results, including comments, can be found the Appendix.

Performance Measures for Martha's Vineyard

The performance measures for Martha's Vineyard were informed by initial staff review of existing project evaluation criteria, a consideration of potential data sources, and a review of Federal and State guidelines and information. The draft performance measures were then discussed at open meetings that involved local towns and MassDOT staff, and were adopted by the JTC. These measures are consistent with the relevant Transportation Performance Measurement (TPM) and Transportation Asset Management (TPM) guidelines issued by the Federal Highway Administration in 2016. A full list of the Martha's Vineyard MPO's performance measures and goals is included in the Appendix.

Criteria for Project Prioritization

Many of the sections in this plan include a list of proposed actions. The JTC uses the following criteria to evaluate and prioritize proposed projects, and to select which ones should remain in the long-range plan and which should be added to the Transportation Improvement Program. (Brackets indicate the relative weighting assigned to each criterion.)

- Safety: Promotes greater roadway, bicycle and pedestrian safety. [3]
- Alternative Modes: Favors the use of modes of transportation other than the private automobile. [2]

- Congestion: Reduces traffic congestion with physical improvements, particularly at the most problematic locations. [2]
- Infrastructure Improvement: Reconstructs deteriorated existing road and bridge infrastructure, improves drainage, enables Americans with Disabilities Act (ADA) compliance, increases amenities. [2]
- Project Readiness: A measure of the project's ability to move forward. [2]
- Character: Respects and reinforces the scenic, historic, and natural values of the Vineyard. [1]

The JTC also considers the extent to which a proposed service will be used by the public, and whether it promotes or conforms to other goals of this plan, such as climate change mitigation and adaptation, and the enhancement of multi-modal options and livability.

DRAFT

Section 3:

Martha's Vineyard Overview

Martha's Vineyard is a 117-square-mile island (including land and water) located three miles off the coast of Cape Cod in southeastern Massachusetts. Its unique topography results largely from its location on a terminal moraine, or the southern edge of the various glaciers that once covered much of North America. Home to the Wampanoag Tribe for thousands of years, it was settled by Europeans in the middle of the 17th century.

The Vineyard community consists of year-round residents, seasonal residents (many of whom own second homes on the Island), and hundreds of thousands of short-term visitors—attracted by the natural, ecological, historical, and cultural values that define the Island character.

Each of the six Island towns still reflects its origins: Edgartown the home of master seamen and the seat of county government; Tisbury the Vineyard's gateway and market town, West Tisbury and Chilmark the agricultural region (along with the fishing village of Menemsha), Aquinnah the Wampanoag tribal settlement, and Oak Bluffs the first summer resort. Three quarters of the population is concentrated in the down-Island towns of Tisbury, Oak Bluffs, and Edgartown (so named for being farther down-latitude), each with a busy commercial center. Vineyard Haven in Tisbury serves as the main port, followed by Oak Bluffs. The three up-Island towns of West Tisbury, Chilmark, and Aquinnah are more rural in character. The town of Gosnold, which includes the Elizabeth Island chain to the west, is the seventh town in Dukes County.

With six towns, one county, a regional planning agency, a federally recognized Native American tribe, and various other entities active in transportation policy and implementation on Martha's Vineyard, coordinating policy is a challenge, but the Island community generally works well together to meet common goals.

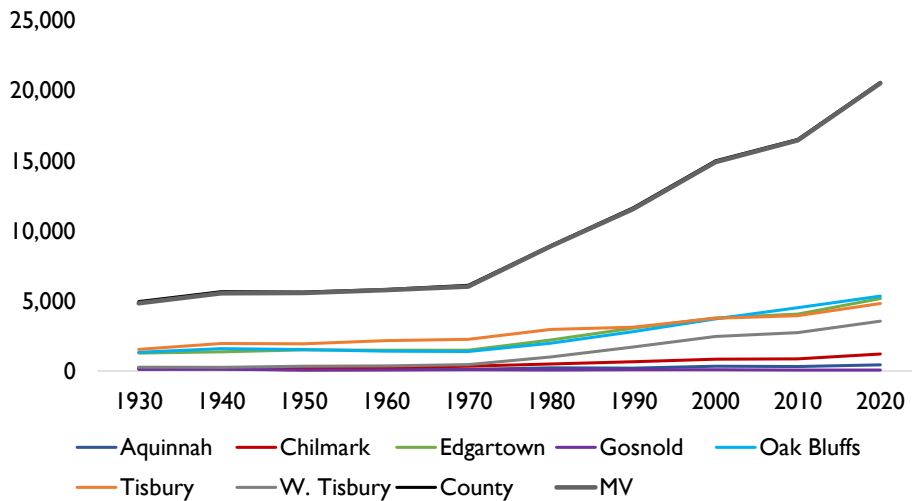
Demographics

Population

The Island's population grew slowly from 1900 to 1970, then increased sharply through the 1980s and 1990s. The year-round population has grown significantly in recent decades, far outpacing most other regions, Massachusetts, and the country as a whole.

According to the U.S. Census, Dukes County had 20,600 residents in 2020, making it the second-smallest county in the state, after Nantucket. The population has increased about 25% since 2010, with about three quarters of all residents living down-Island. Aquinnah's population saw the sharpest increase (41%), followed by Chilmark (40%), Edgartown (27%), West Tisbury (30%), Tisbury (22%), and Oak Bluffs (18%). Only Gosnold's population has declined, from about 75 in 2010 to 70 in 2020, due partly to the high cost of living and the shortage of jobs on the Elizabeth Islands.

Population 1930-2020 (Decennial Census Counts)



In terms of population density (year-round only), Oak Bluffs and Tisbury far surpass the other towns, with 730 and 736 residents per square mile, respectively. Edgartown has about 193 residents per square mile, West Tisbury 141, Aquinnah 82, Chilmark 67, and Gosnold 5. Those differences highlight the suitability of Steamship Authority terminals, the VTA hub, several bike rental companies, and other transportation services being located in Oak Bluffs and Tisbury.

It should be noted that the Island’s population increases several times over in the summer, but nearly all of the available data, including through the US Census and American Community Survey, relates only to the year-round population. In 2018, the MVC estimated a peak-season population peak of about 90,000, updating its estimate of about 75,000 in 2011, but both estimates were likely on the lower end. The MVC is now working with the UMass Donahue Institute to develop a new methodology for estimating the seasonal population, and an updated figure will likely be available this year.

Age and Gender

In 2021, the median age in Dukes County (47.9) was 8.3 years higher than in the state (39.6), according to the American Community Survey. The difference reflects the county’s larger aging population, but also its smaller number of residents under 45. People ages 65–74 (including the upper half of the Baby Boomer generation) is the fastest growing age in group in both the state and the county. Most people over 64 in Dukes County live in Tisbury, Oak Bluffs, West Tisbury, and Edgartown. However, the up-Island towns and Gosnold have a higher percentage of people in that age group.

Older residents (over 60) make up about one third of the Dukes County population, compared to 24% in the state, with the greatest percentage in Gosnold (55%), followed by West Tisbury

(40%), Chilmark (38.6%), Tisbury (38.3%), Aquinnah (36%), and Oak Bluffs (23.1%). Those over 85 account for about 3% of the population, compared to about 2% in the state. Many elder residents in Dukes County also have low incomes and rely largely on Social Security for their income.

Age Distribution (Percent of Total Population)									
Age	Aquinnah	Chilmark	Edgartown	Gosnold	Oak Bluffs	Tisbury	West Tisbury	County	State
<5	3.9	0.7	2.3	0	6.5	3	5.9	4	5
5-15	13.3	7.4	11.2	0	14.7	9.2	6	10.7	11
15-24	11.8	8.3	11.9	0	8	5.8	8	8.6	13.4
25-34	4.8	10.6	13.1	13.2	12.6	16.9	6.5	12.4	14
35-44	14	6.7	9.1	23.7	13.9	6.8	14.9	10.7	12.8
45-54	9.4	23.3	9.3	7.9	12.1	10.9	15.7	12.4	12.6
55-64	16.3	10	24.2	34.2	11.8	23.4	9.1	17.3	13.8
65-74	22	20	9.6	7.9	13	14.5	26	15.2	10.5
75-84	3.4	11	4.3	13.2	6.1	4.3	7.9	5.8	4.9
85+	1.2	2.1	5	0	1.2	5.2	0	3	2.1
Population Over 64									
	Aquinnah	Chilmark	Edgartown	Gosnold	Oak Bluffs	Tisbury	West Tisbury	County	State
Number	183	485	960	8	1,079	1,145	1,010	4,870	1.2M
Percent	26.6	33.1	18.9	30.1	20.3	24	33.9	24	17.5

Dukes County maintained about an even balance among males and females from 2010 to 2020, with slightly more females as a result of higher female longevity.

Population Projections

The UMass Donahue Institute in 2022 projected that the population in Dukes County would increase to 21,072 by the year 2030, then decrease to 19,226 in 2050. Oak Bluffs, Tisbury, and West Tisbury would see the greatest increase by 2030; and Gosnold and Chilmark would see the greatest decrease by 2050.

Countywide, the older population (age 65 and up) is projected to more than double, to about 7,064 residents in 2035 before declining to about 5,954 in 2050. At the same time, the number of Dukes County residents over 85 (the upper end of the Baby Boomer generation) is expected to nearly triple, from 481 in 2030 to 1,264 in 2050. The projected decrease in overall population by 2050 is largely the result of the projected decline in older adults.

Population Projections by Regional Planning Area								
RPA	2010	2020	2025	2030	2035	2040	2045	2050
BRPC	131,219	129,019	126,739	125,223	123,735	122,454	121,373	120,612
CCC	215,888	228,995	225,685	220,135	211,205	199,836	187,597	176,123
CMRPC	556,698	604,647	610,390	617,353	622,281	624,210	623,561	621,469
FRCOG	71,372	71,032	69,559	67,382	64,317	60,666	56,794	52,999
MAPC	3,087,975	3,357,208	3,413,616	3,487,271	3,540,861	3,587,535	3,635,192	3,678,402
MRPC	236,475	250,522	249,562	248,447	245,735	241,239	235,348	229,206
MVC	16,535	20,596	20,977	21,072	20,817	20,316	19,760	19,226

MVPC	333,748	369,899	377,809	386,484	393,800	398,746	401,712	403,707
NMCOG	286,901	310,015	315,600	320,695	323,291	322,799	319,824	316,493
NPEDC	10,172	14,256	15,095	15,968	16,790	17,579	18,426	19,434
OCPC	362,406	393,247	396,647	400,662	402,960	402,915	401,028	398,695
PVPC	621,570	628,134	628,035	623,393	614,591	604,384	595,111	580,865
SRPEDD	616,670	652,363	656,883	661,261	662,552	660,403	655,983	650,730

Population Projections: Over 64 (Red = Peak)								
	2010	2020	2025	2030	2035	2040	2045	2050
Aquinnah	29	88	105	104	96	85	82	65
Chilmark	199	414	431	410	372	331	283	244
Edgartown	621	1246	1409	1542	1505	1400	1253	1135
Gosnold	13	23	24	20	14	14	10	9
Oak Bluffs	792	1395	1746	2179	2461	2594	2577	2503
Tisbury	659	1101	1276	1385	1382	1311	1230	1176
W. Tisbury	386	1034	1230	1314	1234	1100	957	822
Aquinnah	29	88	105	104	96	85	82	65
County	2699	5301	6221	6954	7064	6835	6392	5954

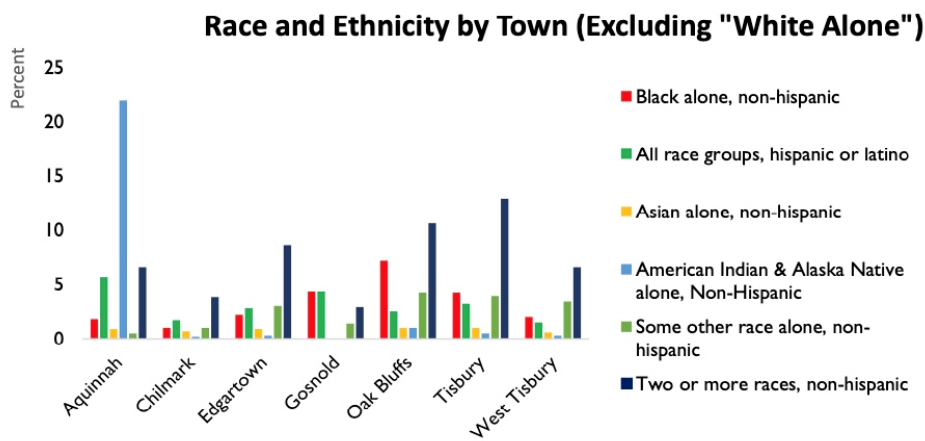
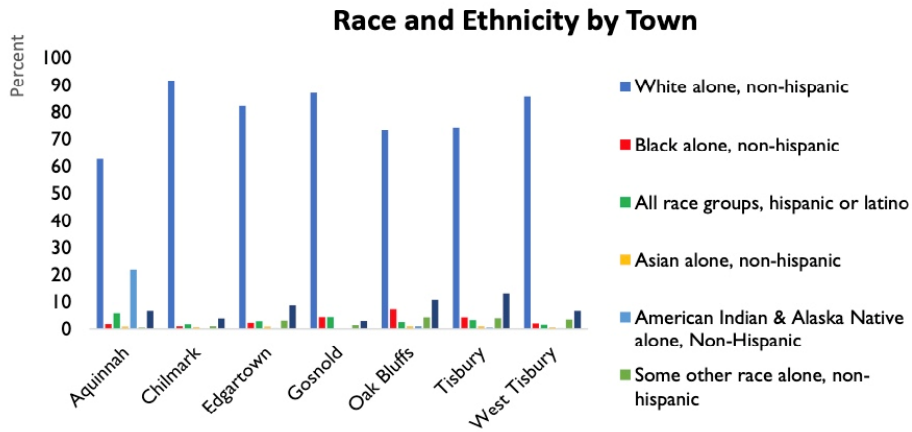
Vulnerable and Minority Populations

According to the American Community Survey (ACS), Dukes County had a median household income of \$77,392 in 2021 (estimated based on surveys in 2016-2020), which was 16% lower than the state median of \$89,645. According to the MA Department of Housing and Economic Development, the median family income (for a family of four) was \$107,400, or about 12% less than the state median of \$120,400.

It is generally understood that the cost of living on the Vineyard is higher than on the mainland, due in large part to high real estate costs. As one indicator, the median single-family home price on the Island in 2022 was \$1,295,000, creating a housing affordability gap of \$843,500.² Overall, about 39% of households on the Island are paying more than 30% of their incomes on housing, compared to 35% in the state, qualifying them as cost-burdened by state affordable housing standards. This cost burden affects all income levels and Island towns, and a greater portion of homeowners than renters, due again to the high real estate costs. Countywide, about 8% of residents are below the poverty level, compared to about 10% in the state.

According to the US Census, although 79% of Dukes County residents identify as white, the county has become more racially diverse since 2010, most notably in terms of the number of people identifying as non-Hispanic with two or more races, which increased about 194% between 2010 and 2020, and the number of people identifying as black, which increased about 34% in the same period. Both populations are concentrated in Edgartown, Oak Bluffs, and Tisbury, and to some extent West Tisbury. The Hispanic/Latino and Asian populations saw smaller increases, while Native American and other non-Hispanic populations declined slightly.

² The difference between the median sale price of single-family homes and what a median-income household can afford. Calculation provided by Karen Sunnarborg Consulting.



In terms of national origin, the ACS reports that about 13% of Dukes County residents were born outside the US in 2016-2020 (compared to about 18% in the state), with the greatest portion in Oak Bluffs, followed by Edgartown, Tisbury, West Tisbury, Chilmark, and Aquinnah. The largest portion of foreign-born residents were from the Americas (2,030), followed by Europe (433), Asia (171), and Africa (19). Among those from the Americas, 1,346 were from Brazil, 245 from Jamaica, 117 from Guatemala, 62 from Canada, and 260 from other countries.

Based on the latest five-year estimates, about 13% of the county population over the age of five speak a language other than English. About 6% speak English "less than very well" (also referred to as Limited English Proficiency, or LEP), which is about double the rate in 2011-2015. The figure for residents over the age of 16 is about 9%. Most common among those who speak a language other than English is "other Indo-European languages" (about 78%), which presumably refers mostly to Brazilian Portuguese. Other languages listed are Spanish (17%),

Asian and Pacific Island languages (4%), and other languages (1%). LEP populations on the Vineyard are concentrated mostly down-Island and in West Tisbury.

	Speak a language other than English	Speak English “less than very well”
Aquinnah	2.4%	0.0%
Chilmark	11.4%	2.8%
Edgartown	15.4%	6.1%
Gosnold	5.3%	0.0%
Oak Bluffs	11.8%	7.3%
Tisbury	16.6%	8.3%
W. Tisbury	6.7%	6.0%
County	12.8%	6.4%
State	24.5%	10.0%

School enrollment data provides another window into the demographics of younger families on the Island. According to the Department of Elementary and Secondary Education, about 30 percent of all students enrolled in Island schools in 2022-2023 were not native English speakers; about 62% of students were white, 26% Hispanic, 5% African American, 5% multi-race, 2% Native American, and 1% Asian. The difference between these numbers and the Census and ACS numbers above may indicate limitations in the Federal data, including the number of people identifying as Hispanic, but it may also indicate that racial diversity is higher among families with children, compared to other age groups on the Island. The greatest diversity in Island schools in terms of non-white students was at the Tisbury School, followed by the Oak Bluffs Elementary School, Martha’s Vineyard Regional High School, the Edgartown School, Martha’s Vineyard Charter School, and Chilmark Elementary School.

About 11% of the civilian noninstitutionalized population in Dukes County has at least one disability, compared to about 4% in the state, owing at least partly to the Island’s larger percentage of older adults. Most people with a disability live down-Island, with the highest concentration in Tisbury, followed by Oak Bluffs, West Tisbury, and Edgartown. The most common disabilities reported in Dukes County are “ambulatory,” followed by “hearing” and “independent living,” whereas the most common disabilities in the state are “hearing,” followed by “self-care” and “ambulatory.” This further suggests that the need for transportation services among older Island residents may be greater than statewide. Among those with ambulatory difficulty, most live in Oak Bluffs, followed by Tisbury and Edgartown. Fortunately, this is also where most transportation and health services are located, including the Martha’s Vineyard Hospital in Oak Bluffs, Island Health Care in Edgartown, and the down-Island Councils on Aging.

	Aquinnah	Chilmark	Edgartown	Gosnold	Oak Bluffs	Tisbury	W. Tisbury	County	State
Hearing difficulty	4	66	231	3	331	161	226	1,022	810,146
Vision difficulty	7	14	116	0	131	69	48	385	211,255
Cognitive difficulty	9	43	171	0	111	79	11	424	137,197
Ambulatory difficulty	50	45	298	3	531	436	0	1,363	329,929
Self-care difficulty	1	3	8	3	309	59	0	383	366,711
Independent living difficulty	9	22	55	3	315	115	0	519	154,293
Total with a disability	70	126	453	3	587	692	308	2,239	292,824
Total percentage with a disability	10.1	8.7	9	7.9	11.2	14.6	10.3	11.1	4.2

It should be noted again that while the data here provide insight into the Island's year-round population, they do not necessarily reflect the much larger seasonal population. However, it is generally the case that seasonal residents and visitors represent many diverse backgrounds and come from many states and countries. Seasonal activity is concentrated in the down-Island towns, although up-Island town centers are typically busy throughout the summer.

Economy

Economic Development Locations

The Island's primary economic activities, both seasonal and year-round, take place mostly within the town centers of Edgartown, Oak Bluffs, and Tisbury, each of which is built around a harbor and waterfront and fringed by dense commercial, mixed-use, and residential development. The waterfronts of Edgartown and Oak Bluffs, and to a lesser extent Tisbury, are composed primarily of visitor-oriented establishments that close in the off-season. Many year-round retail and office activities still occupy the down-Island towns, but have grown away from the historic commercial centers, including along Upper Main Street in Edgartown and Upper State Road in Tisbury.

Other retail and office activities are located in smaller up-Island centers such as the West Tisbury village center, along with Beetlebung Corner and Menemsha (both in Chilmark). The North Tisbury center along State Road in West Tisbury is the newest and largest of those areas, and the closest to the down-Island towns.

Industrial activities in various developed and rural locations are scattered across different parts of the Island, most notably at the Airport Business Park in Edgartown, where the Martha's Vineyard Commission recently approved additional areas for commercial, non-aviation use.

Although diminished from previous generations, the traditional Island industries of fishing and farming still contribute to the Vineyard's character and its appeal to visitors, as well as to the regional economy.

Places of employment, including many home businesses, are widely dispersed across the landscape, due partly to activities related to the construction, renovation, maintenance, and landscaping of properties. It should be noted that according to the ACS, the number of people working from home approximately doubled during the Covid-19 pandemic, which may have further reduced overall traffic in 2020 and 2021.

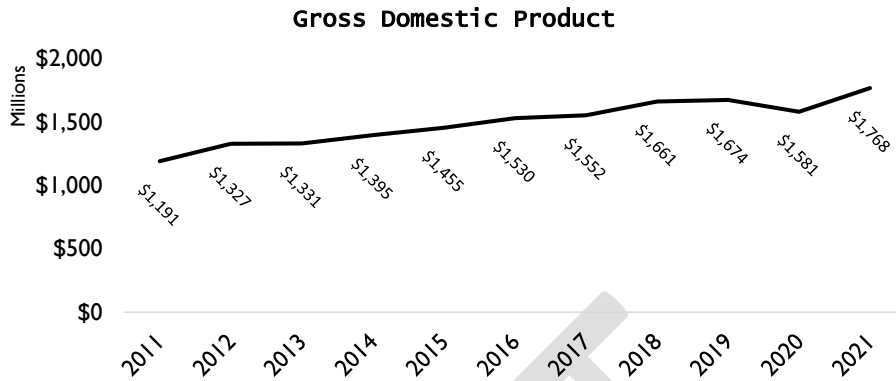
Notes on the Seasonal Economy

- The Vineyard depends primarily on a summer tourism industry that increasingly spills over into the spring and fall, but also harbors a stable and growing year-round economy.
- The driving force of the Island's economic base is the second-home owner, who purchases goods and services, often throughout the year.
- Second-home owners pay property taxes, but generally do not send their children to Island schools, which provides something of a windfall for the year-round population. The philanthropy of seasonal residents also contributes to many high-quality services on the Vineyard (in both government and private sectors), while enabling the towns to maintain relatively low tax rates, and many seasonal visitors provide rental income to year-rounders.
- Consumer spending can vary widely among sub-groups, including year-rounders, seasonal residents, vacationers, transient visitors (staying for less than a week), and day-trippers.
- The MVC, in partnership with the Martha's Vineyard Chamber of Commerce and other Island nonprofits, has worked to help expand the shoulder seasons (spring and fall) with new and existing tourism opportunities that help support the hospitality sectors, including restaurants, hotels, and retail industries. Efforts have also been made to help diversify the Island's economic base, particularly within the creative economy sector, which includes arts and culture; and to support the Island's traditional industries of farming and fishing.
- Due to the tourist-based economy and seasonal nature of the Island, training and retaining a skilled workforce continues to pose serious challenges to Island employers.
- The extreme fluctuations in population from winter to summer severely strains town infrastructure, including water, sewer, solid waste facilities, and the Island road network.

The seasonal nature of the Vineyard has an especially adverse impact on housing availability and affordability for year-round residents and seasonal workers (see below).

Gross Domestic Product

According to the US Bureau of Economic Analysis, Dukes County had a GDP (the final value of goods and services produced) of about \$1.768 billion in 2021, up from about \$1.191 billion in 2011. The figure dipped from about \$1.674 billion to \$1.581 billion during the pandemic.



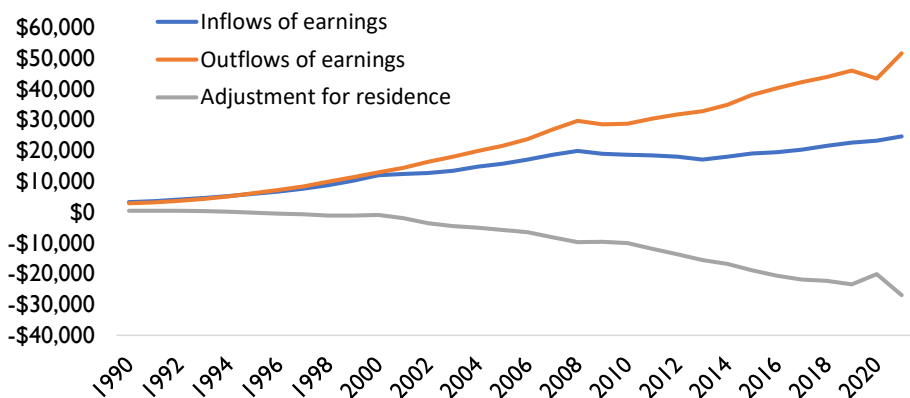
Employment

Countywide, the unemployment rate between 2010 and 2022 declined in all seasons, but still tends to increase in the off-season. The biggest seasonal shift in 2022 was in Edgartown (from 10% in January to 2.8% in August), followed by Oak Bluffs, Tisbury, and Aquinnah. In line with other counties in the state, Dukes County's total unemployment rate decreased significantly between 2010 and 2022 (from 9.5% to 5.2%), but in 2022 was the second highest in the state, after Nantucket (6.3%). Unemployment spiked in April 2020, with some Island towns seeing rates of more than 20%, but has since declined almost to pre-pandemic levels.

Income and Earnings

According to the ACS, median household income in 2021 ranged from \$55,938 in Tisbury to \$117,035 in West Tisbury, while income per capita ranged from \$36,180 in Tisbury to \$87,603 in Gosnold (\$51,354 for the county as a whole). Median household and family incomes in Dukes County are somewhat lower than statewide.

According to the US Census Bureau, about 2,200 people in 2020 commuted to the Island from another county for work, while a nearly equal number commuted from the Island. Those figures have been relatively stable since around 2015. However, data from the US Bureau of Economic Analysis show that earnings in Dukes County since 1990 have steadily flowed out of the county as a result of people commuting from off-Island. In 2021 the outflow of earnings exceeded the inflow of earnings by about \$27 million. This followed a bump during the pandemic in 2020 when more earnings remained on the Island.



Housing

In 2020, about three quarters of the Island’s 17,530 housing units (including seasonal and year-round units) were located down-Island—in Edgartown (5,234), Oak Bluffs (4,429), and Tisbury (3,226). West Tisbury had 2,371 units, Chilmark 1,574, and Aquinnah 478. Notably, only about half of all housing units in Dukes County are occupied year-round, compared to about 90% statewide. The highest percentage of vacant (seasonal) homes was in Chilmark (66%), followed by Edgartown (58%), Aquinnah (57%), and Oak Bluffs (48%). The overall percentage of vacant homes declined from about 67% in 2011. More single-family building permits are issued in Edgartown than any other Island town.

The additional demand for summer housing brought on by thousands of seasonal workers further strains the already limited rental market. The lack of available and affordable housing makes it difficult to maintain a stable workforce and greatly affects the Island economy. In 2023, the MVC launched a Housing Action Task Force, setting the stage for an ongoing regional collaboration to address the Island’s housing crisis.

As of 2019, the Island had 409 affordable housing units included in the state’s Subsidized Housing Inventory, and 449 affordable units that were restricted in other ways, for a total of 857 units. Most were down-Island and in West Tisbury, although due to its less abundant housing stock in general, Aquinnah had the largest relative share, with 56 units.

The ACS reports that about 287 (4%) of the 6,801 occupied households in 2021 had no vehicles available, and about 2,285 (34%) had only one vehicle available. At the same time, the average household size in Dukes County was about three people, which could suggest a need for transportation options beyond a single car.

Seasonality

Planning efforts on the Island typically focus on the summer population, which increases more than five-fold compared to the winter, and includes many short-term visitors passing through

for stays of less than a week. The MVC provided estimates of the Island's peak summer population in 2000 and 2010, and an informal update in 2016. According to the estimates, the summer population grew almost 19% between 2010 and 2016, from about 75,000 to 89,231. The MVC is currently working with the UMass Donahue Institute to update its methodology for estimating the seasonal population, and a new estimate is expected this year.

It can be assumed that most of the summer population increase occurs in Edgartown, Tisbury, and Oak Bluffs, which have more housing units in total (and more seasonal homes and hotels), although Chilmark and Edgartown both have proportionally more seasonal homes, which implies that those towns see the most dramatic shift from season to season. However, the percentage of seasonal homes in every Island town (measured as the number of homes that are vacant in the winter) far exceeds the state average of about 10%.

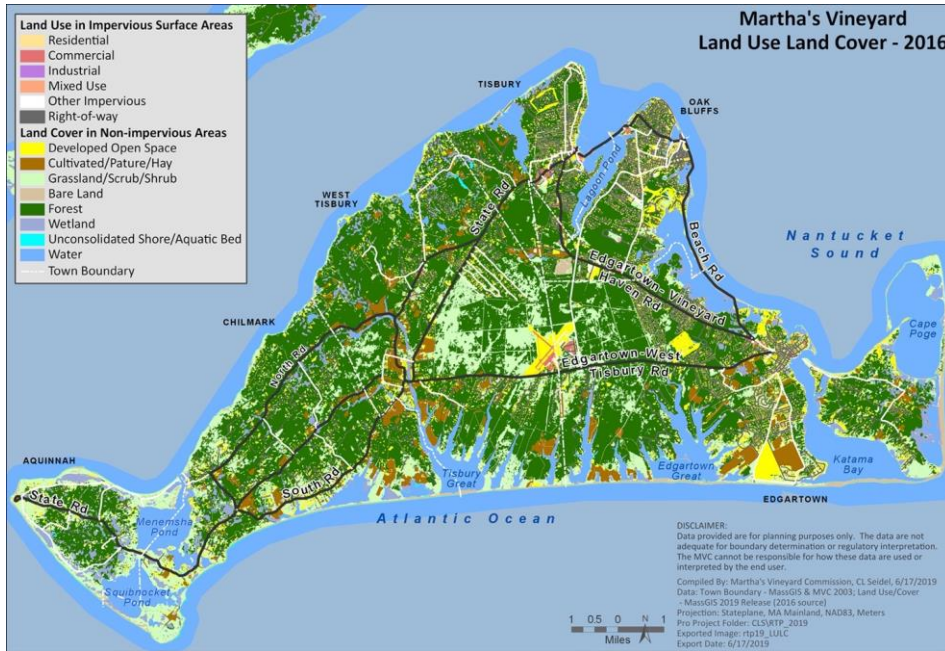
The fact that only 51% of the Island's housing stock is occupied year-round is a testament to the tremendous demand for seasonal homes among vacationers and retirees. This strong demand equates to exceptionally high housing and living costs.

Land Use and Transportation

A rapidly increasing population and changing patterns of development have a large impact on the nature of transportation on the Island. A generation ago, most residents lived in the small village centers of the three down-Island towns. Their everyday destinations were a short walk away, so car use was limited.

In the past 35 years, much of the Vineyard's enormous residential and commercial growth took place on the outskirts of the towns. Automobiles became the only way to reach an increasing number of homes, jobs, businesses, and services, many of which were relocated outside of traditional town centers. This led to a significant increase in car traffic. With the potential for even more growth, traffic problems could get considerably worse, especially if development continues in a dispersed pattern. Such development has also meant that people increasingly live in locations that are not accessible by public transit.

About 30% of Vineyard land is developed or unbuildable (e.g. wetlands), 40% is protected open space, and 30% is "available" either for development or protection. The map below depicts how current development patterns on the Vineyard could result in a landscape dominated by low-density residential uses, and diminish the forested and agricultural quality of the Island.



The 2009 Island Plan examined the locations and rates of different types of development that would result from different combinations of market forces and mechanisms to manage growth. The plan considers several possible development scenarios based on different possible growth rates and patterns.

Possible patterns of development are:

- Dispersed (continuation of present trends)
- Compact (concentration of future development in already built-up areas, mostly down-Island)
- Compact, Islandwide (concentrations down-Island and in other Island village locations)

One use of these scenarios would be to evaluate the relative merits of having certain year-round businesses dispersed at village locations around the Island, as compared to reinforcing existing downtown centers. As the rural population increasingly includes those over age 65 who want to age in place, this would allow walking to commercial areas to acquire basic necessities.

Estimates of Future Growth (Discussion)

It is difficult to predict exactly how the Island population will grow in the next 20 years, since the limited availability of land for development will play an increasingly important role in mitigating natural growth tendencies (births, deaths, and migration).

The MassDOT Office of Transportation Planning (OTP) and the UMass Donahue Institute have developed population and employment projections for the state as a whole and for each MPO region. These projections are used in land-use and transportation planning. [\(See Appendix.\)](#)

Most transportation data and planning on the Island is based on the summer peak, when transportation systems may reach or exceed their capacity. The summer population has been estimated for different categories of people, each of which has a different travel pattern. Off-season and shoulder-season figures are especially important for working out appropriate ferry, air, and transit services for those time periods.

Population during the shoulder seasons is growing as a result of the increasing number of year-round residents, and apparently the number of seasonal visitors (possibly second-home owners) arriving in the spring and fall. Some transportation proposals that address short-term visitors (e.g. encouraging them to leave their cars behind) may have less impact in terms of dealing with the growing demand in the shoulder seasons and in the winter.

DRAFT

SECTION 4:

The Regional Transportation Network

The characteristics of the regional transportation network, along with travel patterns and an inventory of the network's components, are reviewed in this section. In general, the network consists of various means of transport to and from the Island by water and air, and other modes for movement around the Island—on roads (private vehicles, public transit, tour and school buses, taxis, rideshare) and otherwise (bicycles and pedestrians). Each mode is discussed in the upcoming sections of this plan, as are issues of intermodality (transfers from one mode to another), travel information, and freight.

The only access to the Island is by water (Steamship Authority and private ferries, cruise ships, barges, and smaller boats) and air (commercial and general aviation). Travel on the Island is by mostly automobile, bus, bike, motorcycle, moped, and foot. The flow of traffic to and on the Island varies considerably throughout the year, from the less congested winters with 20,600 year-round residents, to the often gridlocked summers with more than 90,000 additional seasonal residents and visitors. The shoulder seasons fall somewhere in between, and are increasingly active.

Among the 167 respondents to the 2023 RTP Survey, the most commonly used transportation modes were automobile (97% of respondents) and the Steamship Authority (90%), followed by walking (82%), biking (49%), off-Island coach bus (47%), on-Island public transit (42%), and rideshare (27%). Other modes included school buses, carpooling, taxis, non-SSA ferries, and off-Island public transit. (See survey results in the Appendix.)

General Objectives

The overarching goal of this RTP is to establish and maintain a transportation system that is safe, reliable, convenient, accessible, economical, affordable, environmentally responsible, and consistent with the Vineyard's scenic, historic, and natural resources. More specific objectives for transportation planning across the Island are as follows:

- Promote a variety of transportation options that efficiently meet the mobility needs of all of the Island's residents and visitors, using the Vineyard's existing transportation infrastructure wherever possible.
- Help achieve the goals of the Vineyard Climate Action Plan by reducing dependence on private automobiles, promoting alternate modes of travel and the electrification of traditionally gas-powered vehicle types, expanding electric vehicle charging infrastructure, and planning for sea-level rise and other climate-related impacts.
- Expand transportation options for older adults, and raise awareness of those options. (Adapted from HAMV Priorities for an Aging Friendly Island.)
- Address safety and accessibility issues for older adults, including infrastructure (roads, sidewalks, bike paths, beaches) to support their lifestyle aspirations. (Adapted from HAMV Priorities for an Aging Friendly Island.)

- Facilitate ongoing public discussions surrounding long-term transportation planning issues including climate change and population growth.
- Encourage residents and visitors to use public transportation by continually improving bus and park-and-ride services.
- Favor the seamless integration of various transportation systems (physical installations, scheduling, etc.) to increase the efficiency and convenience of alternate modes.
- Ensure that the road network is designed and managed to minimize congestion, pollution, and safety problems, and to preserve scenic roadside views and the character of rural roads.
- Address problems at the Island's most congested locations, emphasizing traffic management over major physical modifications—such as new or widened roads, or inappropriate traffic controls—that would degrade the character of the Island.
- Expand and enhance a safe and efficient network of shared-use paths (SUPs), walking trails, and in-town bicycle and pedestrian accommodations.
- Work with the VTA and others to enhance the transportation options of those with limited mobility (older, younger, and disabled residents), and for other disadvantaged populations.
- Integrate infrastructure improvements (particularly harbors and the Airport) with economic development strategies.
- Promote cooperation among the Vineyard's various transportation agencies, the public, and private transportation providers.
- Coordinate regional land-use and transportation planning policies, favoring land-use decisions that reinforce the other objectives such as:
 - Consolidation of mixed-use, pedestrian-friendly village areas within the limits of already developed areas, where daily needs can be met without a car.
 - Outside village areas, development within walking distance of bus stops, and encouragement of general stores to reduce the need for routine trips.

Transportation Demand Projections

Federal Rules (23 CFR 450.322[b][1]) require that Regional Transportation Plans identify the projected transportation demand of persons and goods in the planning area over the period of the plan. An increase in population and visitors on the Island is expected to increase the demand for transportation, subject to certain limitations. Crucially, meeting the needs of the peak summer population affects the year-round population as well (not always in a desirable way), and a balance must be sought in order to maintain a high quality of life for the whole community.

Water Transportation

The key player in water transportation is the Woods Hole, Martha's Vineyard and Nantucket Steamship Authority (SSA), which furnishes year-round ferry service to and from the mainland. As detailed in Section 6, the SSA has seen a steady rise in passengers and vehicles in recent years, notwithstanding a decline during the pandemic. The SSA has not forecast traffic since 2000, and for budgeting purposes it assumes level traffic from year to year. While the Island's year-round population grows (relative to the seasonal and visitor population), ferry traffic on

will also grow, but primarily in the off-season. Population growth may exceed the increase in vehicle trips on the ferries, since many residents park a vehicle off-Island instead of transporting it each way. Similarly, many workers commuting to the Island keep a vehicle here to save on ferry trips. US Bureau of Economic Analysis data indicate that commuter trips going both ways will likely continue to increase, potentially leading to increased road congestion in the morning and evening.

Freight Transportation

Freight transportation is considered a reliable measure of the Vineyard's growing economy and population. Discussions surrounding the possibility of establishing a trash and freight route between the Vineyard and New Bedford have emerged periodically as residents and town officials on both sides of Vineyard Sound explore ways to reduce vehicle traffic in Woods Hole, Vineyard Haven, and Oak Bluffs. However, multiple studies and related efforts by the SSA in recent years have established that this option is likely not feasible in the near term. Discounting the height of the pandemic in 2020, truck trips on SSA ferries have increased about 39% per year since 2012, a trend that will likely continue.

Air Transportation

The Martha's Vineyard Airport (MVY) forecast robust growth in 2000, but that growth has not materialized to date, for a variety of reasons. The rate of growth MVY has suggested is most sustainable is in the 1.5% annual range for both commercial and general aviation. An increase in enplanements during the pandemic has continued for commercial carriers, while general aviation has remained about steady. At the same time, the airport reports that congestion on Airport Road has declined, due in part police details directing traffic on Edgartown-West Tisbury Road, and the better spacing of flights.

Roads and Automobiles

As detailed in Section 9, vehicle trips to the Island from 2002-2022 (including automobiles and trucks) increased about 19% in the summer (June-Sept), and about 7% in the winter (January-March). The winter trend reflects both the increase in second homeowners traveling to the Island in the off-season, and an increase in the number of Island residents in general, including those who commute to work or school on the mainland.

Since this RTP seeks in part to mitigate the impacts of peak summer traffic, the planned infrastructure should be sufficient to handle traffic at other times as well, but the effects on the year-round community must be weighed in any specific development proposals.

The State's 2021 Climate Law aims for a net-zero emissions economy by 2050, while the 2022 Vineyard Climate Action Plan sets an earlier goal of 2040. To meet those deadlines, the State and Island must focus on electrifying all energy sectors, including transportation, which makes up a significant share of emissions. As a result, the Island will likely see a growing share of electric vehicles, along with the required charging infrastructure. However, this transition must go hand-in-hand with a shift away from single-occupant automobile use, as electric vehicles

have environmental impacts of their own, and alternatives such as public transit and biking can further reduce congestion.

Buses

The Martha's Vineyard Transit Authority (VTA) saw robust growth up until around 2019, but ridership declined significantly during the pandemic. As detailed in Section 10, VTA boardings grew from around 900,000 in 2007 to 1.3 million in 2019, although annual ridership has yet to rebound to pre-pandemic levels. Reductions in service, along with worker shortages and other issues since 2020 creates a certain amount of uncertainty in terms of future projections. However, the VTA continues to innovate with smaller and electric vehicles, and various pilot programs that strive to increase ridership. Ideally, as the VTA service matures, ridership will increase.

Taxis and Rideshare

Towns and taxi companies have discussed options for improved licensing and services, while rideshare services have become much more prevalent, especially in the summer. Rideshare options have significantly reduced the demand for taxis, while providing a flexible employment option for many Island residents and visitors. As discussed in Section 11, pending State legislation may soon provide additional employment benefits for rideshare drivers, although such changes are not universally welcomed. In any case, rideshare trips on the Vineyard increased X% from 2019 to 2023, and growth will likely continue.

Bicycles and Pedestrians

Already cycling and walking are popular ways to experience the Island, but additional growth is expected as infrastructure, amenities, and other incentives improve. Section 12 details the list of expected improvements. If the Vineyard is to accommodate a growing population while retaining the character that ensures its popularity, and eliminating greenhouse gas emissions in line with the Vineyard Climate Action Plan, bicycling and walking must play a greater role in the future. Various planning efforts in recent years have focused largely on promoting bicycle and pedestrian travel as an alternative to automobile use.

Section 5: Environment

Overview

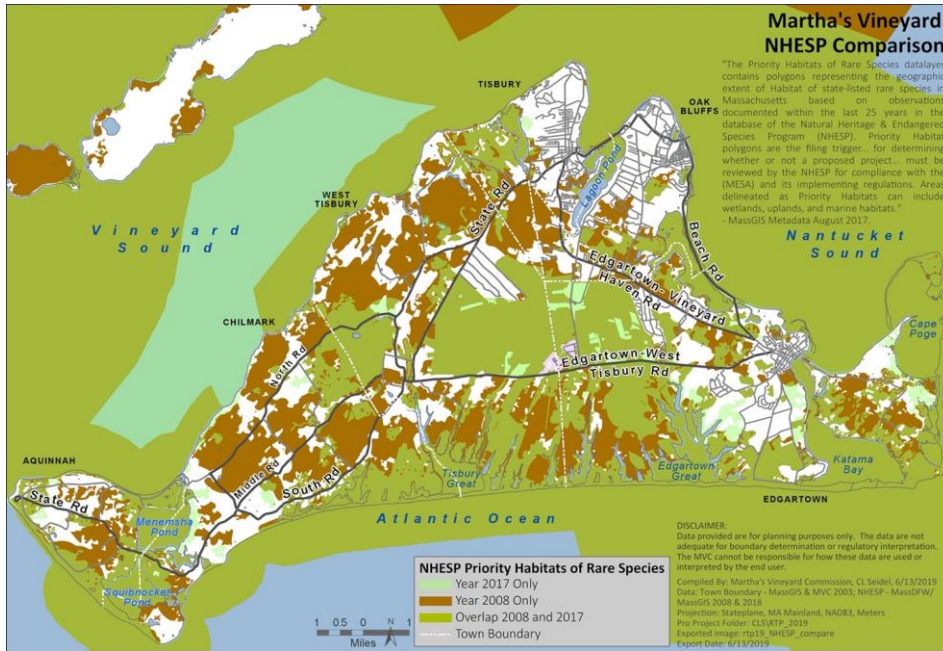
The Vineyard's physical isolation from the mainland, along with its sensitive ecological environments, pose unique challenges, including as they relate to transportation. Fortunately, the ability of the Island community to address environmental issues is strengthened by the Martha's Vineyard Commission. As the Island's Regional Planning Agency (RPA), the MVC works closely with the seven towns in Dukes County and various local organizations that can help fulfill the MVC's mission to protect the unique "natural, historical, ecological, scientific, [and] cultural" qualities of the Vineyard.

The objectives listed throughout this plan include a primary focus on protecting the environment, as well as adapting to and mitigating the effects of climate change. The overall goal of the RTP is to establish and sustain a transportation system that among other things is environmentally responsible and "consistent with the Vineyard's scenic, historic, and natural resources." Several specific objectives throughout the plan also reinforce the MVC's commitment to environmental quality and climate change adaptation.

Since traffic congestion is a mostly a seasonal problem (albeit a significant one) and the traditional tactics used to reduce congestion may run counter to the Island's character and economic well-being, alternative ways of dealing with transportation issues must be explored on a continual basis. The list of proposed and possible Transportation Improvement Program (TIP) projects listed in Section 16 consists mainly of projects that reduce traffic congestion and increase safety without physically expanding the road network. The list includes multiple new shared-use paths (SUPs), improvements to existing SUPs, sidewalk improvements, bus stops, and other projects aimed at promoting alternate modes of travel. Specific adaptation projects should be identified and included in future TIP reports.

Habitat and Biodiversity

The Massachusetts Natural Heritage and Endangered Species Program, part of the Massachusetts Division of Fisheries and Wildlife, lists 432 native plant and animal species across the State as endangered, threatened, or of special concern. The vast majority of Dukes County is also listed in the Massachusetts BioMap plan, which is intended "to guide strategic protection and stewardship of lands and waters that are most important for conserving biological diversity in Massachusetts." A map of State-protected rare wildlife and rare species areas on the Island is included below, and the latest BioMap areas are available [here](#).



Each proposed transportation project in this RTP may have additional environmental review at the local, regional, and/or State levels as the concept and design are developed.

Climate Change

Overview

As a small Island in the Atlantic, Martha's Vineyard is especially susceptible to climate change impacts. These include rising temperatures, sea-level rise, rising sea surface temperatures and ocean acidification, extreme storm events, and changes in precipitation. Further impacts may also manifest in the future as climate change progresses. In terms of transportation, the most direct impacts will be from sea-level rise, extreme storm events, and increased precipitation, all of which will increase flooding.³

Sea level: Projections vary, but it is likely that sea level on the Vineyard will rise 0.6-1.8 feet by 2050 and 1.5-6.5 feet by 2100, relative to the year 2000. This will lead to more frequent flooding of roads and infrastructure, increased erosion, damage to coastal infrastructure

³ Precipitation, sea-level rise, and storm data are drawn from the MA Statewide and Sub-basin Climate Change Projections Guidebook and MA Climate Clearinghouse. Sea-level rise projections are also drawn from the MA Climate Clearinghouse, Oak Bluffs Climate Change Vulnerability Assessment and Adaptation Plan, and NOAA Technical Report NOS CO-OPS 092.

including major roads, and other impacts. The Island's three major downtown areas, and various individual roads, are especially vulnerable due to their low elevation and proximity to the ocean. Some roads are critical due to the emergency access they provide during hurricanes and other storms. Adaptation strategies in terms of roadways may include reinforcement, elevation, abandonment, or relocation.

Stronger and more frequent storms: Hurricanes, nor'easters, and other storms are expected to become more frequent, including hurricanes that produce more rain and potentially higher winds. As with sea-level rise, this will lead to increased erosion, stormwater runoff, and inland flooding, with various impacts to the built and natural environment (including harbors and private vessels), and to human health and safety. Many critical facilities including the ferry docks and Martha's Vineyard Hospital, and Hariph's Creek Bridge, which connects Aquinnah to the rest of the Island, could become inaccessible during a severe storm.

Precipitation: Changes in the amount, frequency, and timing of precipitation will likely affect transportation on the Vineyard, including road access and safety across the Island, and the number and frequency of ferry cancellations. Due to the complexity of climate patterns, projections encompass both increases and decreases in precipitation by 2050, but some level of change is likely. In terms of transportation, more precipitation could lead to increased flooding and road closures, including in winter when more precipitation may fall as rain.

Local and State Planning

The Vineyard and the Commonwealth have made significant progress in their climate change planning since the Martha's Vineyard RTP was last updated in 2019. Goals, objectives, and proposed actions resulting from local and State climate change planning in recent years are incorporated throughout this document.

Following two years of public outreach and regional collaboration, the MVC in 2022 launched the [Vineyard Climate Action Plan](#) (CAP), a comprehensive roadmap for eliminating fossil fuel use on the Island by 2040, while helping communities adapt to sea-level rise, storms, and other climate impacts in the years ahead. Key to the plan's success is its focus on ongoing community support and engagement, and each of the more than 200 actions identified in the plan are assigned a lead agency in charge of implementation. At the state level, an updated Clean Energy and Climate Plan for 2050 (CECP), as required by the 2008 Global Warming Solutions Act and 2021 Climate Law, sets a similar statewide goal for 2050. Both the CAP and CECP include a focus on transportation and related infrastructure, as discussed below.

Development of the Vineyard CAP also involved a series of working papers on the Island's current energy landscape, including one on the [transportation sector](#); and a series of [Adaptation Context Booklets](#) to help each Island town begin to prepare for specific climate change impacts it will experience in the coming decades.

The overarching goals of the CAP are to reduce fossil fuel use 50% by 2030 and 100% by 2050 (compared to 2018 levels), while increasing renewably generated electricity at the same rate and adapting to specific climate change impacts.

Transportation currently accounts for the largest share of the Island’s emissions (about 45%), while buildings and electricity account for about 32% and 28%, respectively. Many Island roads and critical facilities are also in the 100-year flood zone and susceptible to increasing storms and sea-level rise. Accordingly, transportation figures prominently in the CAP in terms of both mitigating and adapting to the effects of climate change.

The CAP lists specific challenges and goals as they relate to transportation:

Main challenges:

- Damage to coastal roads and infrastructure from stronger and more frequent storms, sea-level rise, and higher storm surge.
- 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.
- Increased tidal flooding to coastal roads and infrastructure (including wastewater, water, and communications).
- Loss of access to critical facilities such as the Martha’s Vineyard Hospital and Steamship Authority due to coastal storms, storm surge, and flooding.

Main goals:

1. By 2040, critical vulnerable roads and infrastructure are protected or relocated through a network that prioritizes (and promotes) non-fossil fuel-based transportation and nature-based strategies.
2. By 2040, a long-term resiliency plan for our supply chain is being implemented to ensure an adequate flow of goods, materials, and services needed.
3. By 2040, a model of Island self-sufficiency has been adopted to reduce solid waste and promote local production, repurposing (including compost), and sharing of goods and services.

Other goals relevant to transportation planning:

- By 2040, land use decision-making prioritizes public safety and ecosystem values potentially impacted by climate change.
- By 2040, for the safety of all residents and visitors, we have an effective county- wide emergency preparedness, response, and recovery system in place, including multilingual communication.
- By 2040, the Island community has combined historical knowledge and practices with proven technology and current climate change science to build social, environmental, and economic resilience to the impacts of climate change and to minimize contributions to its cause.
 - Complete town maps of transportation and infrastructure assets and vulnerabilities, Combine maps and ID areas of regional significance.

Specific objectives and actions related to each of the goals are included in the Appendix.

In line with the CAP and State goals, this RTP update focuses largely on the adoption of electric vehicles and charging infrastructure (including for the Steamship Authority), smart-growth development where daily vehicle trips are less necessary, and the promotion of public transit, walking, and biking as alternatives to single-occupant automobiles.

At the state level, the 2021 Climate Law and CECP aim to reduce greenhouse gas emissions at least 85% below 1990 levels by 2050, while achieving net-zero emissions via carbon sequestration. As part of that process, the state has established various sub-limits for GHG emissions, including for the transportation sector, which must reduce emissions 86% below 1990 levels by 2050. As stated in the CECP, this transition will focus primarily on the widespread electrification of vehicles, further multimodal transportation infrastructure, and facilitation of smart-growth development, all of which must be implemented responsibly and with regard to natural areas and vulnerable populations.

An increasing share of renewable energy feeding the electrical grid, and associated grid modernization to handle the increased loads, will help ensure an effective transition. Along those lines, Eversource Energy plans to replace one of its undersea cables to the Vineyard, and install a new fifth cable, to handle the projected demand. The MVC continues to meet with Eversource on a regular basis to discuss the Island's energy needs and goals. Participants include representatives from each of the town energy committees, Dukes County Commissioners, Vineyard Power (the Island's energy cooperative), and the MVC Climate Action Task Force.

In the bigger picture, the Federal government is responsible for setting national fuel economy standards (National Highway Traffic Safety Administration) and greenhouse gas emission standards (Environmental Protection Agency). However, Massachusetts has a law requiring it to adopt the applicable standards in California, if they exceed those at the Federal level. (California has a waiver under the Clean Air Act that allows it to adopt more stringent emissions standards than the Federal government.) According to the CECP, this is the primary means to achieve the required GHG reduction in transportation by 2050: "These standards will ensure all new light-duty vehicles for sale in Massachusetts, beginning in 2035, will be either zero-emission vehicles or plug-in hybrids. Separate standards for medium- and heavy-duty vehicles will ensure that Massachusetts achieves rapid growth in zero-emission vehicles in these sub-sectors simultaneously." Various incentive programs and public education will be required to support the transition, both statewide and on the Island.

It should be noted that the widespread electrification of vehicles is not without its drawbacks, including the extraction of raw materials needed for lithium-ion batteries, which has taken an environmental and cultural toll in many countries. While encouraging electrification, this RTP also emphasizes the importance of smart-growth development, public transit, bike and pedestrian infrastructure, and other alternatives to private automobiles.

Related Efforts

Various other efforts at the town and regional levels are helping respond to climate change and provide access to state grants aimed at reducing GHG emissions. For example, all six Island

towns are among the state's 290 designated Green Communities, which gives them access to funding through the Massachusetts Department of Energy Resources. To qualify, a town must adopt five energy-related criteria, including zoning bylaws that facilitate renewable energy projects, and plans to reduce municipal energy use by 20% over five years.

All of the seven towns in Dukes County have taken part in the Municipal Vulnerability Preparedness (MVP) program, which the Massachusetts Executive Office of Energy and Environmental Affairs launched in 2017. State funds allow participating communities to complete vulnerability assessments and resiliency plans based on a framework developed by The Nature Conservancy. MVP-certified communities may apply for MVP Action Grants and receive other benefits related to community resilience.

Established in 2019, the Island Climate Action Network (ICAN) and MVC Climate Action Task Force continue to educate the public and advocate for climate solutions. Both groups were instrumental in developing the Vineyard CAP.

Vineyard Power, a nonprofit energy cooperative founded in 2009, continues its mission to ensure that electricity on the Island is produced from local renewable sources—including the Vineyard Wind and New England Wind offshore windfarms that are currently under development. As part of their Community Benefit Agreements with Vineyard Power, Vineyard Wind and New England Wind have committed more than \$16 million over seven years to fund the Island's goal of becoming 100% renewable by 2040. Vineyard Power will manage the fund, and has established an advisory committee including a representative from the MVC, to support program implementation.

Each Island town has its own climate and energy committees, and the energy committee chairpersons make up the Vineyard Sustainable Energy Committee (VSEC), which coordinates among various projects and initiatives at the town level. The energy committees successfully helped the Island towns achieve Green Community status, and advanced a non-binding town meeting warrant article that demonstrated resounding support in all six towns for transitioning the Island to 100% renewable energy by 2040. This in turn helped solidify the goals of the CAP.

In 2021, the MVC adopted an Energy Policy for use in reviewing Developments of Regional Impacts (DRIs). Both the policy and the CAP were partly in response to an Emergency Climate Resolution that the MVC adopted in 2019 to address climate impacts via its official policies and planning. The policy was streamlined in 2023 in response to the 2021 Climate Law and the fact that all six towns had since adopted the MA Stretch Code, overriding some of the previous policy guidance. Among other things, the policy encourages all-electric design for buildings, onsite renewable energy generation, and EV charging stations for parking areas. A separate DRI policy on Coastal Resiliency, stemming in part from the CAP, is currently under review.

2023 RTP Survey Responses

The 2023 RTP Survey reaffirms a strong public commitment to addressing climate change on the Island. More than 82% of the 167 respondents listed climate change and environmental concerns as an "important" or "very important" priority in terms of long-range transportation

planning, and 56% of respondents listed vehicle emissions as a fundamental objective for the region (the second highest-rated category after preserving local character).

Eighty percent of respondents listed automobiles as their primary mode of transportation, although 82% also walk, 49% bike, 42% use the VTA, and 15% carpool. About 78% said that promoting alternate transportation modes is an “important” or “very important” priority in terms of their mobility needs, and respondents strongly prioritized various environmental impact solutions such as mixed-use development in town centers and the incorporation of alternate transportation options in any new developments.

The survey further confirms that electrification of transportation modes, and the availability of charging infrastructure, should be considered a priority in terms of long-range transportation planning. The vast majority of respondents indicated that electrifying the SSA fleet, along with school buses, delivery vehicles, and rental cars; and increasing the number of EV charging stations, including Level 3 chargers, is at least “somewhat important” in terms of addressing their mobility needs. More detailed discussions regarding electrification can be found in Sections 6 (Water), 8 (Air), 9 (Roads and Automobiles), 10 (Bus and Van), and 12 (Bicycles and Pedestrians).

Transportation Improvement Projects and Climate Change

[SEA-LEVEL RISE MAP]

The above map indicates some of the potential impacts of climate change on the Island’s transportation infrastructure. Martha’s Vineyard will have to take steps to address the possible future effects of rising sea level, coastline change, and greater storm surges. (It should be noted that current FEMA Flood Insurance Rate Maps do not account for climate change.) Several of the Island’s main roads are located where they could be subject to the impacts of sea-level rise, coastline change, and more severe storms, notably:

- Sea View Ave., which connects Edgartown, Oak Bluffs, and Tisbury town centers.
- Beach Road in Oak Bluffs and Tisbury, which provides primary access to Martha’s Vineyard Hospital.
- Eastville Avenue and County Road in Oak Bluffs, which also provide access to the hospital.
- Five Corners and Water Street in Tisbury.
- East Chop Drive in Oak Bluffs.

Due to their proximity to the water and low elevation, both Island ferry terminals will be affected by sea-level rise. Their design already accommodates normal sea level variation but the SSA has begun to discuss longer term impacts for the Oak Bluffs terminal. However, the impact on the access roads will be especially problematic. The Lagoon Pond Drawbridge Committee had strongly encouraged MassDOT to carry out a climate change study related to the design of the drawbridge, but a study was not done. The main challenge may be that the clearance for boats passing under the bridge, which was increased by a couple of feet with the new design, will revert back to the previous clearance. It’s also possible that Beach Road on

either end of the bridge will need to be raised in the future. Because many vulnerable roads are owned by the State, MassDOT should work with the Island towns and MVC to develop a comprehensive alternatives analysis to determine the most appropriate means of addressing flooding and sea-level rise.

The 2016 Oak Bluffs Climate Change Vulnerability Assessment and Adaptation Plan notes among other things that flooding currently affects Beach Road from the Tisbury town line to Eastville Avenue, and will likely affect Hospital Road (the primary access to the Hospital) by 2030. By 2070, a 100-year storm (with a 1% probability of occurring in a given year)⁴ could cause flooding along Beach Road, Eastville Avenue, and County Road, leaving Temahigan Avenue to the north as the only access road to the hospital. In a category 4 hurricane, Temahigan Avenue may also become flooded, leaving the hospital inaccessible to vehicles. (Flooding along Beach Road is also likely to obstruct vehicle access to and from the Vineyard Haven Terminal in the future.) The plan recommends possibly raising portions of Eastville Avenue and County Road to reduce flooding in the area.

Any transportation improvement projects proposed for vulnerable areas should involve studying the potential impacts of climate change early in the development process. In addition, increasing the usage of alternate transportation modes throughout the year should focus on removing existing barriers such as the lack of bike and pedestrian infrastructure in key areas, and limited VTA service.

Objectives

1. Continue to preserve “for present and future generations the unique natural, historical, ecological, scientific and cultural values of Martha’s Vineyard,” in line with the MVC charter (Chapter 831 of the Commonwealth of Massachusetts 1977 Acts and Resolves as Amended).
2. Improve mobility to and around the Island and reduce congestion by encouraging alternatives to single-occupant automobiles (public transit, walking, biking) and promoting the necessary electrification of cars, trucks, buses, ferries, and aircraft.
3. Promote smart-growth development where residents can walk or bike to amenities, including in the review of Developments of Regional Impact.
4. Ensure that critical vulnerable roads and infrastructure are protected or relocated through a network that prioritizes alternative transportation and green infrastructure. (Adapted from Vineyard Climate Action Plan.)
5. Ensure the Joint Transportation Committee representatives understand climate risks and prioritize funding for the CAP’s transportation priorities. (Adapted from Vineyard Climate Action Plan.)
6. Ensure that rights of way more equitably reflect Island values, including through green stormwater management practices, climate mitigation consideration in multi-modal accommodations, designs that reflect the needs of our older adult and vulnerable populations, and speed limits that reflect the Island’s concern for impaired users and wildlife.

⁴ The probability of a 100-year storm is now significantly greater than 1% as a result of climate change.

Proposed Actions

Mitigation

- Identify and publicize incentives for purchasing electric vehicles and retiring gas-powered vehicles, including for environmental justice communities, low- and moderate-income residents, and older adults.
- Continue to work with the Steamship Authority to promote alternative-propulsion ferries within a reasonable time frame.
- Continue to work with Eversource, Island towns, and others to identify infrastructure needs and solutions related to electrical vehicles and charging infrastructure on the Island, including Level 2 and Level 3 chargers.
- Continue to work with Eversource to ensure adequate grid modernization and resilience for projected electricity needs on the Island.
- Continue to explore funding opportunities related to GHG reduction in the transportation sector.
- Expand the shared-use path network to enable walking and biking as alternatives to automobile use in all Island towns.

Adaptation

- Create an inventory of Island roads and infrastructure most affected by sea-level rise, and an action plan (involving public meetings or workshops) for how the MVC, towns, and state can best respond to the projected changes. The plan should consider both hard and soft solutions to sea-level rise.
- Develop guidance for shoreline retreat projects on the Vineyard, including funding sources, relevant town, state, and federal regulations, cost considerations, the public process, and a discussion of alternatives.
- Develop a policy to ensure that climate change projections and protocols are used to assess road and infrastructure repairs and upgrades.
- Continue dialog with the Steamship Authority about what steps it is taking to prepare for the effects of sea-level rise on its docks and other infrastructure.

General

- Pursue the objectives and actions listed in the Transportation, Infrastructure, and Waste section of the Vineyard Climate Action Plan (see [Appendix](#)).
- Actively participate in the Vineyard Power advisory committee related to its Community Benefit Agreement and promote transportation programs and projects that address climate change impacts.
- Develop new DRI policy or amend Built Environment Policy to further encourage smart-growth development, and discourage development that relies on automobiles, especially in regard to housing projects.

SECTION 6:

Water Transportation

Overview

Most Island residents and visitors travel to and from the Island on scheduled ferries. The dominant carrier of passengers, vehicles, and freight is the Woods Hole, Martha's Vineyard and Nantucket Steamship Authority (SSA), which is based in Woods Hole and furnishes year-round service to the islands.

In addition to the SSA fleet, four passenger-only services (Hy-Line Cruises out of Hyannis, the Falmouth-Edgartown Ferry out of Falmouth, the SeaStreak out of New Bedford and New York City, the Island Queen out of Falmouth) serve the Vineyard in season, while various tug boats and barges operate year-round. The Cuttyhunk Ferry Company out of New Bedford, and the privately owned Cuttyhunk Water Taxi, serve the island of Cuttyhunk in the Elizabeth Islands throughout the year.

Patriot Party Boats Inc., operating an approximately 40-passenger vessel between Falmouth and Oak Bluffs, carries passengers and small daily freight year-round. The ferries On Time II and On Time III shuttle residents, visitors, and vehicles to and from the tied-island of Chappaquiddick in Edgartown. The seasonal Menemsha Bike Ferry carries passengers and bicycles across Menemsha Creek between Chilmark and Aquinnah, and the Winnetu Oceanside Resort provides a seasonal water taxi between Katama and downtown Edgartown.

Private vessels and recreational boating also play an important role in the Vineyard's transportation system, as well as its culture and history. Harbor slips across the Island are in high demand during the summer, often with wait lists of several years. Major hurricanes have periodically wreaked havoc on the Island harbors, causing millions of dollars in property damage. The last hurricane to strike the Vineyard was Hurricane Bob in 1991, although Hurricane Sandy in 2012 (technically a post-tropical cyclone when it struck New England) caused significant damage in the area.

The SSA was the second most commonly selected primary mode of travel in the 2023 RTP survey (90% of respondents), after automobiles (97%), which aligns with the fact that most Islanders use the SSA as an extension of the road network. More than half of respondents listed "increased Steamship Authority services" as either an "important" or "very important" priority, and 59% similarly prioritized electrification of the SSA and other passenger ferries.

Harbors

Harbors in the three down-Island towns include anchorage or marina facilities for transient recreational boats, in addition to hundreds of marina dockages, harbor moorings, and anchorages used by residents. The historic fishing village of Menemsha, in Chilmark, has a small harbor with facilities for both recreational and commercial fishing boats, and the federal government designates Menemsha Pond a harbor of refuge for boats during storms. (Vineyard

Haven and Lagoon Pond are also harbors of refuge.) The Island's Coast Guard station is located overlooking Menemsha Harbor, with quick access to Vineyard Sound. Island harbormasters reported especially high boat traffic in 2022, indicating a return to normal after the pandemic.

- Vineyard Haven Harbor: Ferry, tug, and barge service from the mainland, with a breakwater, dockage, and anchorage. (The Tisbury Marine Terminal is currently being expanded to accommodate offshore wind maintenance vessels as well.)
- Oak Bluffs Harbor: Ferry service from the mainland, pleasure-boat dockage and moorings, permanent jetties.
- Edgartown Harbor: Ferry from Falmouth, pleasure and fishing boats, ferry to Chappaquiddick.
- Menemsha Harbor and Pond (Chilmark and Aquinnah): Fishing and shellfishing, pleasure-boat anchorage, dockage, and mooring; permanent jetties and opening to Vineyard Sound.
- Tashmoo Pond (Tisbury): Pleasure-boat anchorage, boat launch, small jettied opening without a real channel.
- Lagoon Pond (Tisbury and Oak Bluffs): Pleasure-boat anchorage, fish hatchery, pond opening with a breakwater jetty.
- West Basin (Aquinnah): Fishing and pleasure-boat anchorage.
- Other coastal ponds, including Nashaquitsa Pond, Tisbury Great Pond, Oyster Pond, Edgartown Great Pond, Sengekontacket Pond, and Pocha Pond: Recreational boating, fishing, shellfishing, and swimming.
- Katama Bay (Edgartown): Small ferry, pleasure boating, boat ramp, shellfishing (primary site of Vineyard commercial oyster farms).
- Cape Poge Bay (Chappaquiddick; Edgartown): Pleasure boating, swimming, fishing and shell fishing.
- Harthaven Harbor (Oak Bluffs): Private harbor with dockage and anchorage.
- Off-Island ferry harbors at Woods Hole, New Bedford, Falmouth, Hyannis, Lewis Bay, and Nantucket in Massachusetts; and Quonset Point in Rhode Island

Vessels Operating in Vineyard Waters

Steamship Authority ferries for vehicles and pedestrians
Other seasonal ferries for passengers
Various small ferries and water taxis
U.S. Coast Guard rescue vessels out of Woods Holes and Menemsha
Coastal cruise ships docking in Vineyard Haven
Small pleasure boats docking and mooring in all Island harbors
Large pleasure boats berthing, mooring, anchoring in deeper water
Parasailing and personal watercraft rental in Vineyard Haven
Harbormaster boats operating safety patrols in the four major Island harbors
Bilge pump-out boats in Island harbors
Small sailboats for recreational, competitive, and instructional sailing
Large sailing vessels (including the Shenandoah and Alabama, which anchor in Vineyard Haven)
Sport fishing boats chartered from Island ports
Commercial fishing boats operating from local ports

- Shellfishing vessels primarily operating in inland Island waters
- Cruising catamaran Mad Max, a passenger vessel in Edgartown
- Tugs and towboats for barges and emergency towing
- Deck barges carrying bulk aggregate and modular homes
- Fuel barges used to transport petroleum products
- Dredges (public and private) used for waterway projects
- Offshore wind maintenance vessels out of the Tisbury Marine Terminal

Trends and Issues

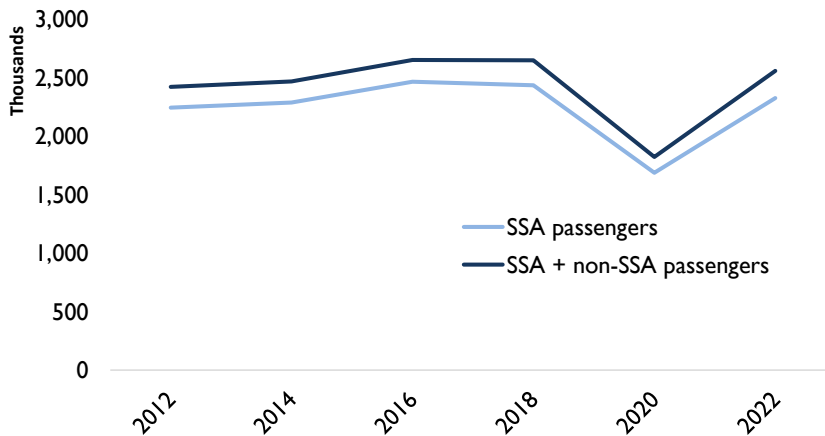
Woods Hole, Martha’s Vineyard and Nantucket Steamship Authority

Overview

Operating with the motto “Lifeline to the Islands,” the Steamship Authority provides year-round service between Woods Hole and Vineyard Haven and seasonal service between Woods Hole and Oak Bluffs. It is the only ferry that carries both passengers and vehicles between Martha’s Vineyard and the mainland. Each one-way trip takes about 45 minutes from dock to dock.

The SSA is a public entity created by the Massachusetts legislature to provide “adequate transportation of persons and necessities of life for the islands of Nantucket and Martha’s Vineyard...” To help protect its economic viability as a non-seasonal service, the state also grants the SSA the ability to regulate private freight operators and vessels certified by the U.S. Coast Guard to carry more than 40 passengers between the mainland and the islands.

Passengers carried to the Vineyard (including on the three seasonal services—HyLine, Falmouth-Edgartown Ferry, and SeaStreak—licensed by the SSA) totaled 2.56 million in 2022, up from 2.42 million in 2012, but down from 2.65 million in 2016. The SSA consistently accounts for about 90% of all passenger travel to and from the Vineyard.



While the Enabling Act language above indicates a fundamental obligation to Nantucket and Martha's Vineyard residents, the SSA has stated that it does not specifically use that criteria in vetting its operations. Rather, the annual budgets and operating schedules are based on anticipated demand, which the SSA regards as itself a measure of "adequate transportation of persons and necessities of life." This has sometimes been a point of contention as ever increasing traffic, encouraged by off-Island advertising by the SSA, have continued to strain Island infrastructure and other resources in the summer. (The SSA's advertising budget has increased about 7%, from \$1,288,000 to \$1,380,147, since 2017.)

Despite the specific language about Nantucket and Martha's Vineyard, the Enabling Legislation also explains the SSA's obligation to the Commonwealth as a whole:

The exercise of the powers granted by this act will be in all respects for the benefit of the people of the commonwealth, for the increase of their commerce and prosperity, and for the improvement of their health and living conditions...

This act, being necessary for the welfare of the commonwealth and its inhabitants, shall be liberally construed to effect the purposes thereof.

The SSA should clarify its responsibilities to the residents of Martha's Vineyard and Nantucket, versus to the Commonwealth as a whole, as they relate to finances and operations, as this could benefit the SSA's sometimes confrontational relationship with the public.

Legislation and Finances

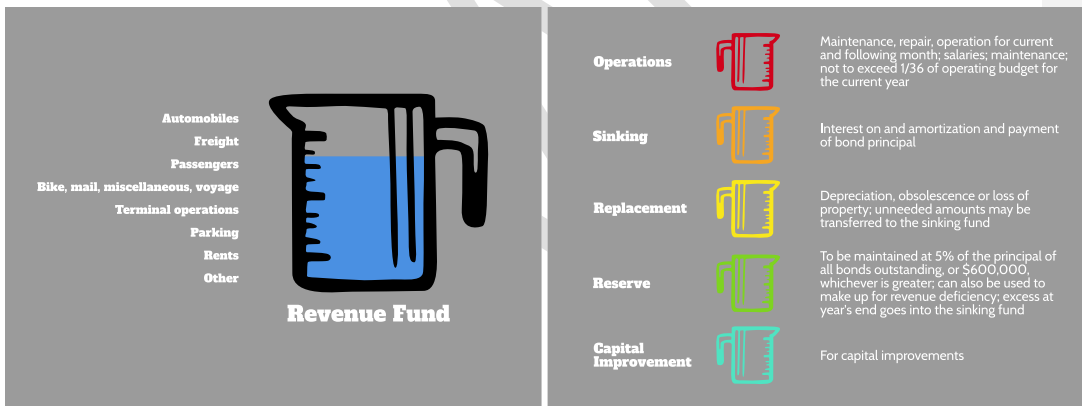
The SSA's Enabling Act from 1960 (as amended) establishes the boat line as a tax-exempt entity that receives no state subsidies and is authorized to perform certain functions including the fixing of rates and charges for service, and the issuance of bonds. SSA revenue comes almost entirely from user fees, with grants, investments, and concessions making up a small portion of the total. The enabling act specifically authorizes the SSA to perform the following functions:

1. Acquire, maintain, repair, and operate a boat line.
2. Issue bonds.
3. Fix rates and charges for service (the MA Department of Public Utilities can reject proposed rates and charges).
4. Adopt bylaws for SSA affairs and business (including refund policies, advertising guidelines, public conduct in terminals, etc.).
5. Acquire, hold and dispose of real and personal property; lease or charter vessels; contract other services traveling to and from the islands.
6. Enter into contracts and agreements, hire contractors, fix compensation; expenses must be from proceeds of bonds or revenue.
7. Accept Federal grants and other contributions.
8. Hire regular employees; recognize seniority and pension benefits.
9. Insure employees and be liable for payments.
10. Provide for the issue of interest-bearing or discounted notes (not to exceed \$100 million, payable within 3 years).
11. Maintain confidentiality in regard to customers.

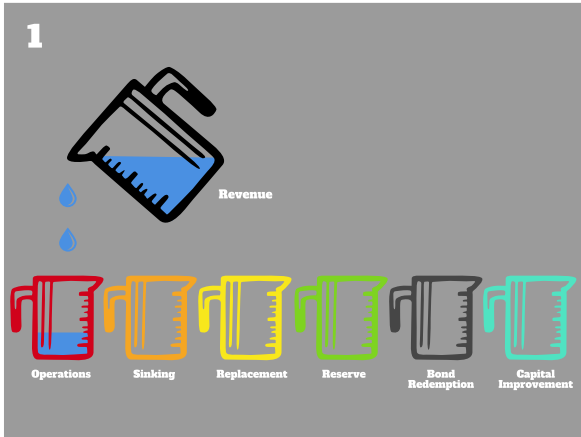
The enabling act also lays out specific procedures for how funds must be allocated, and how bonds must be repaid. The fund allocation process is illustrated below. In terms of bond repayment, the SSA may not have more than \$100 million in bonds outstanding at any time, and bonds may be used only to pay for replacements, new construction, or acquisition of vessels and facilities required to provide “adequate service.” In addition:

- Principal and interest are payable only from funds authorized in the Enabling Act.
- The repayment term may not exceed 40 years; notes must be repaid within 3 years.
- The SSA will decide how the funds are disbursed, but does not borrow money for operating expenses.
- Bonds may be made redeemable before maturity.
- Payments can be made at any bank or trust institution in Massachusetts.

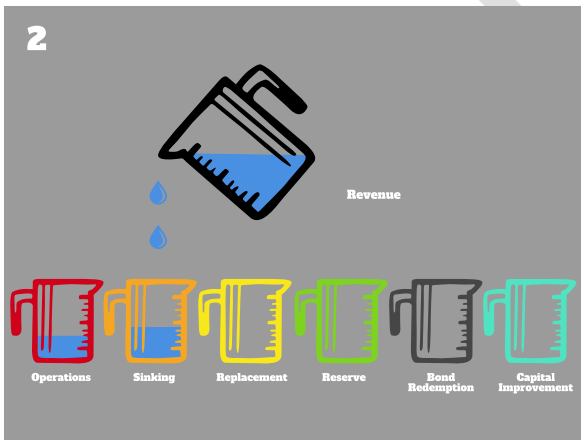
While the bonds are backed by the full faith and credit of the state, they may be issued without the state’s consent, and the state has never paid any of the SSA’s debt service. At the end of the year, if the SSA is unable to make its bond payments, it must report to the Commonwealth, and an assessment will be made against the SSA port communities. However, this has not happened since 1962. The SSA has stated that bonds are typically paid at an accelerated rate to allow for new projects. The SSA had a total of \$98,910,00 in outstanding bonds and notes as of December 2022.



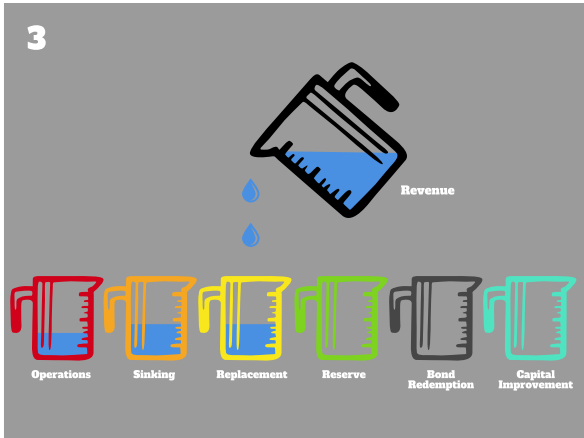
SSA revenue is allocated to various funds, starting with a general revenue fund, as illustrated above. Revenue is transferred to an operations fund, along with five special-purpose funds, following a process laid out in the Enabling Act. While the SSA has no official savings or “rainy day” fund, certain funds can accumulate over time.



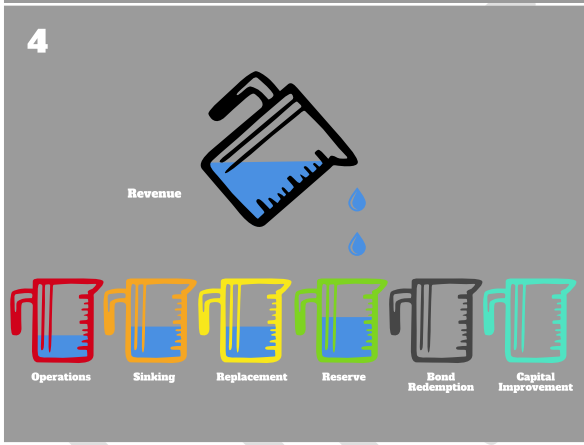
First, money from the revenue fund is put in the operations fund. This is for maintenance, repair, and operations (for the current and following month), as well as salaries and maintenance of capital. The operations fund is limited to the next two months of budgeted operating expenses, plus 1/36 of the current fiscal year's operating budget.



Revenue is then put into the sinking fund, for the payment of bond principal and interest...



...then into a replacement fund for depreciation, obsolescence, or loss of property; or improvements to and acquisitions of real and personal property. Depreciation is included in accordance with generally accepted accounting principles, and is a noncash item.

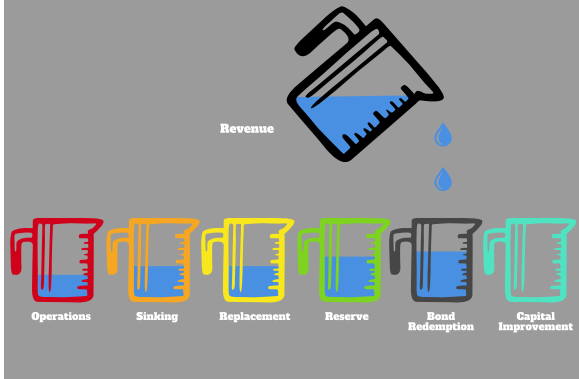


After the replacement fund, revenues are added to the reserve fund, for use in paying for services when income is insufficient. The reserve fund is to be maintained at 5% of the principal of all outstanding bonds, or \$600,000, whichever is greater. The reserve fund is used to offset any operating deficit at the end of the year.



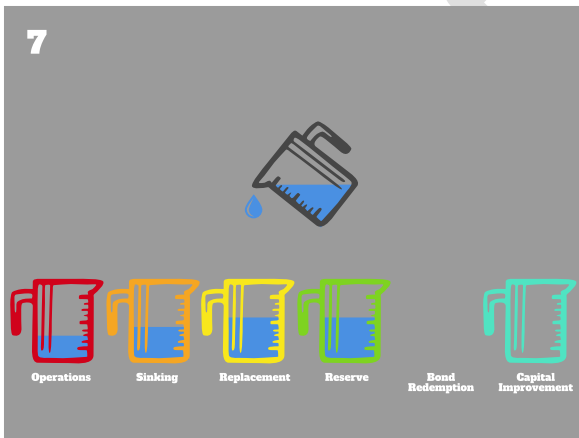
If any money is left in the reserve fund at the end of December, the excess goes into the bond redemption account. But if there are no outstanding bonds, then it goes toward repaying any money from the state, which then distributes that money to the towns (this never happens, per the SSA). The bond redemption account can be used to purchase or redeem bonds, or for purposes for which a bond may be issued.

6



All remaining revenue goes into the bond redemption account, for the purchase of redemption bonds...

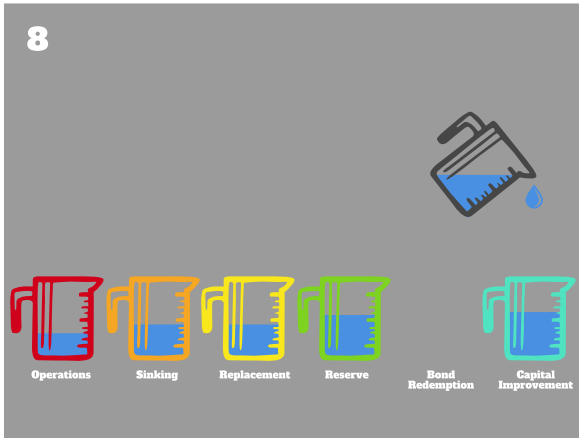
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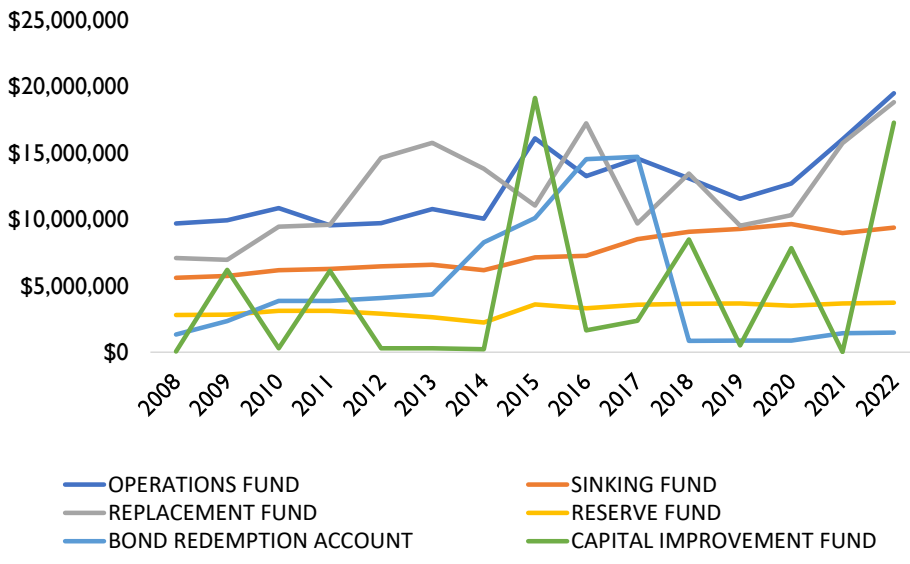
...but it can also be transferred to the replacement fund...

8

...or the capital improvement fund, for any purpose for which bonds can be issued.



Fund Totals (Ending Balance)



Budgeting, Expenses, and Revenue

The SSA bases its revenue projections on the prior 12 months of traffic data, and generally assumes flat growth for the following year. However, it also aims for a surplus of 5-10% of operating expenses each year. The capital budget is updated annually and includes a 10-year outlook, while rates are adjusted about once every 3-5 years.

The SSA board consists of five members: one Nantucket resident appointed by the Nantucket County Commission, a Martha's Vineyard resident appointed by the Dukes County Commission, and one resident each from Falmouth, Barnstable, and New Bedford. Each island member (Martha's Vineyard and Nantucket) has 35% of the members' combined vote, while each mainland board member has 10%. A seven-member advisory board known as the Port Council consists of members appointed by the towns of Barnstable, Fairhaven, Falmouth, Nantucket, New Bedford, Oak Bluffs, and Tisbury. The annual budget is developed with input from SSA department heads and other staff beginning in July. The Port Council and Board review a preliminary budget in September, and vote on the final budget in October.

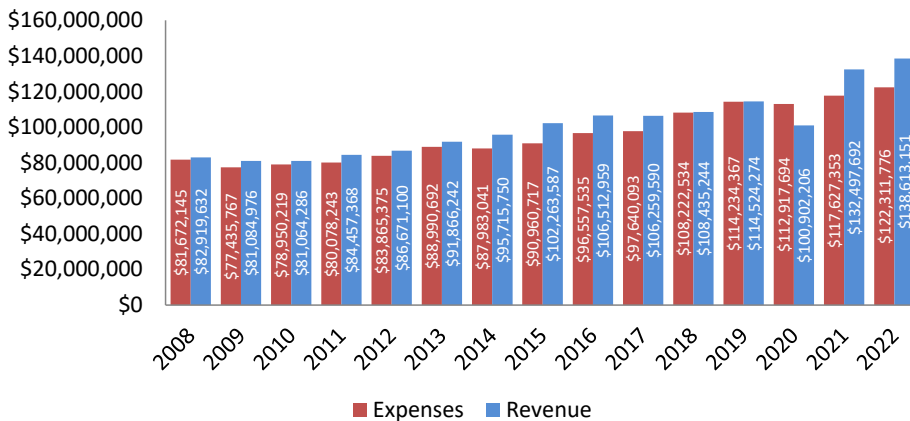
State Senator Susan Moran in 2020 filed legislation that would require another Cape town to join the Vineyard and Nantucket in their voting majority on the SSA board, effectively removing the majority control that has been in place since 2002. Moran stated that the legislation grew out of discussions surrounding regional transportation on the mainland, including the replacement of the Bourne and Sagamore bridges, and a desire for more equal representation among the towns. Citing the SSA's core mission to serve the islands, and the islands' continued responsibility for any operating deficits, the Cape and Islands delegation roundly dismissed the bill and ensured that it would not pass without their endorsement.

Operation of vessels is typically the greatest annual expense, followed by "general" expenses (wages, pensions, legal expenses, etc.), maintenance (including wages, boats, buildings, and other vehicles), operation of terminals, and other expenses. In terms of vessels and maintenance, the largest share of costs is for wages and employee expenses.

Revenue comes mostly from passenger, vehicle, and freight fares, with growth resulting more from fare increases than increased ridership. Total passenger revenue from 2007-2022, for example, grew at nearly five times the rate of actual passengers, auto revenue at almost eight times the rate of actual autos, and freight revenue at more than double the rate of actual trucks (including all sizes). Revenue from parking, terminal operations, bikes, rents, and other sources made up about 10% of the total in 2022.

Total annual expenses have increased about \$41.6 million (50%) since 2008, while total revenue has increased about \$55.7 million (67%). A summary of revenue and expenses is below.

SSA Total Expenses and Revenue 2007–2022
(From Monthly Business Reports)



2008-2019 = Actual, 2020-2022 = Budget

Vessels, Infrastructure, and Maintenance

SSA vessels dock in both Vineyard Haven and Oak Bluffs during the summer, and Vineyard Haven in the off-season. Both Island terminals are located in the town centers, with access to buses, taxis, rideshare, and bike paths within about one tenth of a mile.

Reconstruction of the seasonal Oak Bluffs ferry terminal was completed in 2010. The project involved rebuilding the SSA pier to accommodate some of the staging that had previously occurred on the street. The former staging area was reorganized to allow for more efficient pick-up and drop-off, and to ease traffic pressure near the terminal. Ferry trips into Oak Bluffs are sometimes diverted in high winds or rough seas, when it becomes difficult for ferries to dock.

The Vineyard Haven terminal in Tisbury, built in 1995, is farther from the water and more sheltered from the weather. It is also the Island’s only year-round connection for SSA ferries. As such, Tisbury has sometimes felt strained by the growth of year-round trips and related traffic near the terminal, including at the Five Corners intersection to the south and the intersection of State, Look and Edgartown-Vineyard Haven roads farther east.

Seven of the SSA’s 10 vessels regularly serve the Vineyard: The M/V Governor, The M/V Island Home, The M/V Katama, The M/V Martha’s Vineyard, The M/V Nantucket, The M/V Sankaty, and The M/V Woods Hole. The freight vessel M/V Gay Head normally works the Nantucket route, but occasionally fills in on the Vineyard routes when other vessels are being maintained. Vessel sizes and ages, along with carrying capacities, are shown in the table below.

	Passenger Capacity	Vehicle capacity (cars)	Length	Width	Year Built (Keel Laid)	Year Acquired
Gay Head	147	39	235'	52'	1981	1987
Aquinnah (future)						2022
Barnstable (future)						2022
Eagle	768	52				1987
Governor	256	42	242'	46'	1954	1998
Island Home	1,210	60	255'	64'	2005	2007
Iyanough	400	0	154	39	2006	2007
Katama	150	39	235'	52'	1982	1986
Martha's Vineyard	1,275	54	230'	60'	1992	1993
Monomoy (future)						2022
Nantucket	809	50	230'	60'	1973	1974
Sankaty	300	38	235'	50'	1981	1994
Woods Hole	453	50	235'	64'	2015	2016

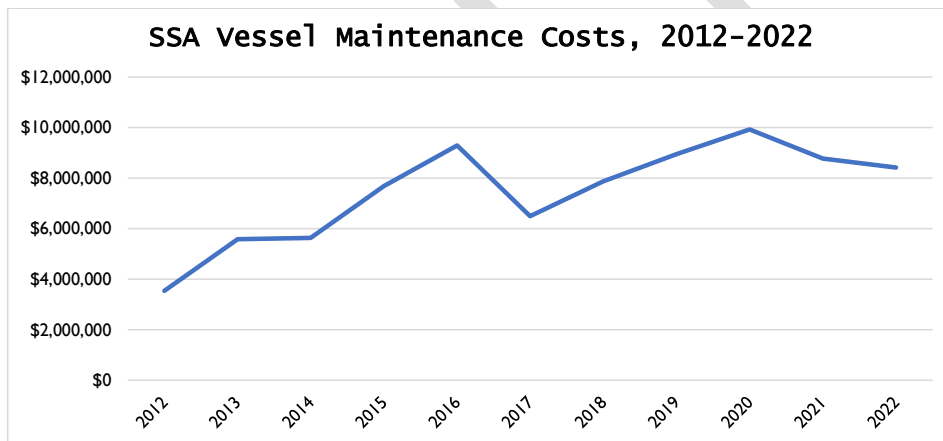
The M/V Woods Hole joined the fleet in June 2016 after being constructed at the Conrad Shipyard in Louisiana. At \$40.4 million, the hybrid freight/passenger vessel was the most expensive SSA ferry to date, and SSA officials consider it the most versatile as well. The vessel can carry up to 453 passengers, along with 50 vehicles or nine tractor trailer rigs (or some combination of both), and travel at speeds of up to 14.5 knots. It was originally meant to replace the 1954 M/V Governor (the oldest ferry in the fleet), but SSA officials later decided to repair and improve the Governor and keep it in service for backup.

In 2022, the SSA purchased three used offshore supply vessels that it plans to convert into freight ferries to replace the M/V Gay Head and M/V Katama. The total cost of the three vessels so far, including additional design, engineering, and other costs, is about \$74 million. The cost of converting them to freight boats was originally estimated at about \$8-9 million each, but due to supply chain issues, material costs, and other factors, the lowest bid (from Alabama Shipyard in Mobile, AL) was about \$20 million for each boat. The cost was later negotiated down to about \$27.2 million for two of the boats together, in part by extending the timeframe and reducing the scope of work. The SSA has also agreed to pay about \$18 million to the shipyard to convert the third vessel, and plans to buy a fourth as well. The first two are expected to go into service in 2024. All of the new vessels are expected to carry both freight and passengers, except when the freight includes hazardous waste.

The miscalculation by SSA management in terms of the cost of converting the new vessels drew considerable ire from the SSA Board in 2023. New COO Mark Higgins reported to the Board this summer that the mistake had resulted from several factors, including providing the estimates

prior to a full scope of work, relying on past contracts as a baseline, and omitting various costs including bulkhead work that Federal law requires for vessels that carry passengers. Higgins also explained that the current demand for vessels to service the offshore wind and fossil fuel industries meant fewer bids among the shipyards, and a scarcity of skilled labor in general. Higgins also planned to develop a new written procedure for future bidding.

All three of the new boats are Lode Star class OSVs from Hornbeck Offshore Services, which the SSA views as a major benefit, since their parts will be interchangeable, and operations and maintenance will be similar for each one. The new vessels have also been in service only a few years, compared to the current SSA freight boats, which are all more than 40 years old. SSA Vineyard Governor Jim Malkin has explained that most of the current SSA vessels differ from one to another, in part because the Vineyard prefers drive-through vessels that are more easily maneuvered, while Nantucket prefers single-enders that are thought to be better suited to the longer voyage. Several of the ferries have also been converted from other uses. Annual vessel maintenance (not including wages) has increased about 138%, from 3.5 million to 8.4 million, since 2012, but may decline as a result of the new vessels.

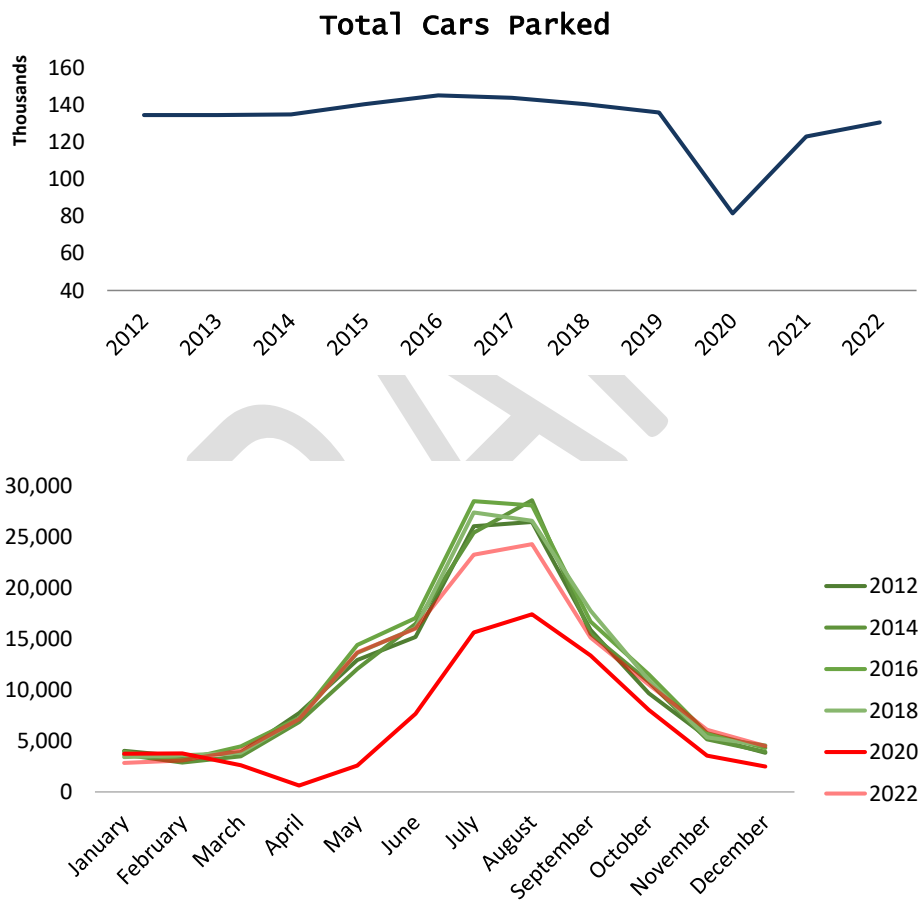


Automobiles and Trucks

SSA ferry traffic has grown considerably since the 1990s, often causing frustration among Islanders (and many Falmouth residents) who experience the burden of heavy traffic in the summer. At the same time, the SSA fleet is likely nearing its capacity, with 10 ferries and limited dock space. Two of the three recently purchased Lode Star class vessels are expected to replace the M/V Gay Head and M/V Katama, but is not clear whether the other one (and possible a fourth) will also replace current vessels.

Concerns about the growing number of vehicles carried by the ferries led to a nonbinding referendum in 1997, approved by voters in all Island towns, to limit summer automobile capacity to 1995 levels, when about 370,000 vehicles were carried to the Vineyard. However, the SSA did not officially adopt the referendum.

Meanwhile, the number of vehicles registered in Dukes County has almost doubled, from 14,743 in 1994 to 26,741 in 2023, although it's not clear how many cars are on the Island at any one time. The number of cars parked annually at the Woods Hole, Falmouth, and Cataumet lots for Vineyard ferries grew 5% between 2007 and 2019 (mostly in July and August, but with notable growth in the shoulder seasons), peaking at about 145,000 in 2016. The figure dropped to about 81,000 in 2020 during the pandemic, and has not yet returned to pre-pandemic levels, except in the winter and shoulder seasons. Short-term visitors account for only a small portion of summer vehicle traffic on the Vineyard.

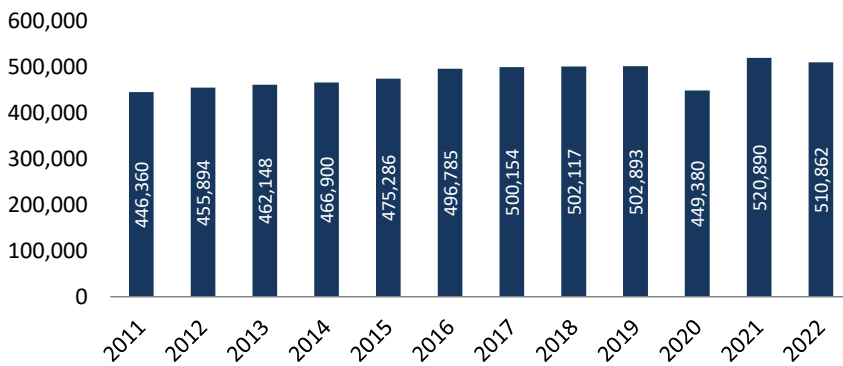


The SSA opened a new parking lot on Thomas B. Landers Road in East Falmouth, in 2015, providing 1,900 parking spots for SSA passengers, but it also closed its Gifford Street, Sun, and Falmouth High School lots, resulting in a net increase of only 50 parking spots. (The parking lot at the Falmouth Ice Arena near the Landers lot can hold up to 200 cars and is used on occasion.)

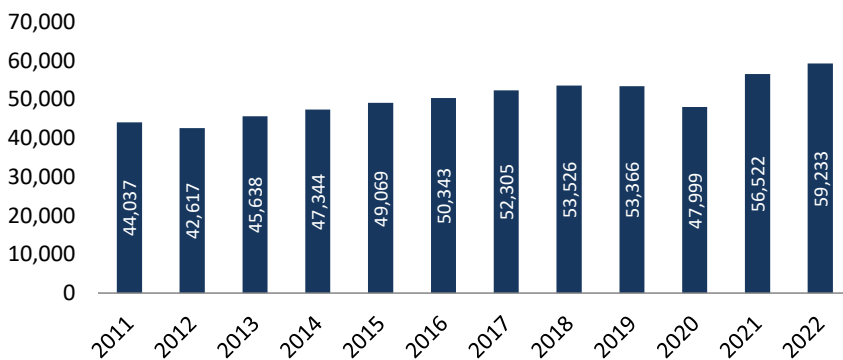
According to the Vineyard Gazette, SSA discussions in 2003 surrounding the replacement of the M/V Islander revived discussions about a limit on summer vehicle capacity, and residents were assured that other vessels would be removed from the route to maintain capacity. However, the boat line continued to add trips to meet the increasing demand—which it views as a primary obligation under its enabling legislation. Peak-season automobile traffic (July and August) increased about 24% from 1998 to 2022.

The SSA carried 570,095 vehicles to the Vineyard in 2022, up from 498,511 in 2012 and a 54% increase over 1995 levels. That included 510,862 automobiles (up from 455,894 in 2012), and 59,233 trucks (up from 42,617). The dip in auto traffic in 2020 was the first time since 2007 that annual auto traffic had not increased from the prior year.

Automobiles

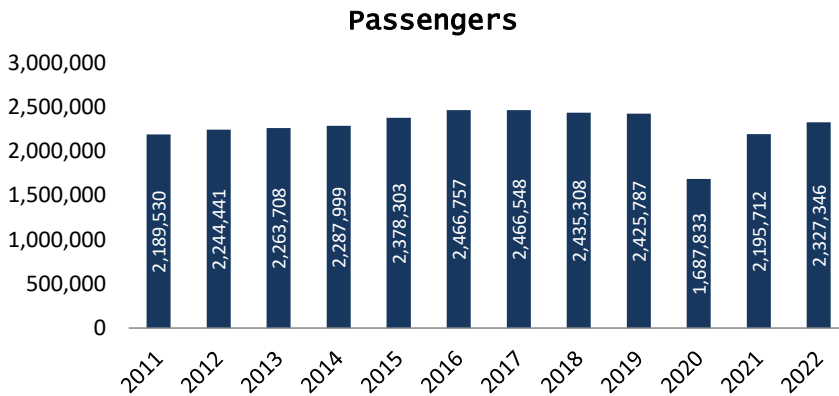


Trucks



Passengers

The number of passengers on SSA ferries is also on the rise. Passenger trips grew steadily in the 1990s, to a peak of about 2.4 million in 2002, then fell to about 2 million in 2005. Following another steady rise, the number of annual passengers reached a record 2.47 million in 2017. Passengers declined more than automobile or truck trips in 2020 during the pandemic, most likely due to social distancing protocols.



The congestion accompanying the arrival of passengers is of relatively short duration—usually less than 30 minutes for the larger SSA vessels, and less than 15 minutes for the private carriers—but occurs frequently throughout the day. After arrivals, activity returns to, or is slightly elevated from, background levels, and some terminals experience very little activity between arrivals.

[BOX:]

Tisbury officials have discussed several ideas for relieving traffic congestion in the vicinity of the SSA terminal and Vineyard Transit Authority transit hub:

- *Completing pedestrian ways and upgrading their width or condition*
- *Controlling pedestrian street crossings through a combination of improved or additional crosswalks, physical barriers to direct pedestrians to crosswalks, and education and enforcement efforts*
- *Improving way-finding signage at the terminals and the village centers*
- *Re-evaluating vehicle circulation patterns as they affect terminals*

Better data regarding the characteristics of ferry passengers may lead to a better understanding of their movements on the Island. Some improvements have been made, notably to the area around the Oak Bluffs terminal and nearby streets (Lake Avenue project), and although congestion still occurs during loading and unloading, it seems fairly well dispersed.

In 2003, the Commonwealth enacted legislation allowing a 50-cent fee for passenger trips to and from the Vineyard (\$1.00 round-trip), to be used to help defray costs incurred by the port

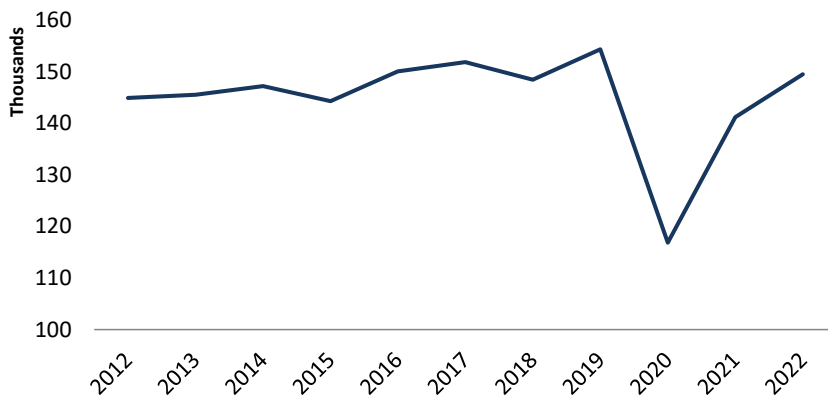
towns in dealing with the impacts related to the ferry services. Commuter, excursion, and student trips are exempted. The funds collected have been remitted to the port towns, where they have been used for a variety of purposes such as ensuring a police presence to direct traffic around the ferry terminal and at nearby intersections, and to defray the cost of the park-and-ride service in Oak Bluffs and Tisbury, which is provided by the Vineyard Transit Authority.

The Oak Bluffs and Tisbury select boards in 2022 voted to ask the state legislature to increase the embarkation fee from 50 cents to \$1.50. As of summer 2023, the request was still pending.

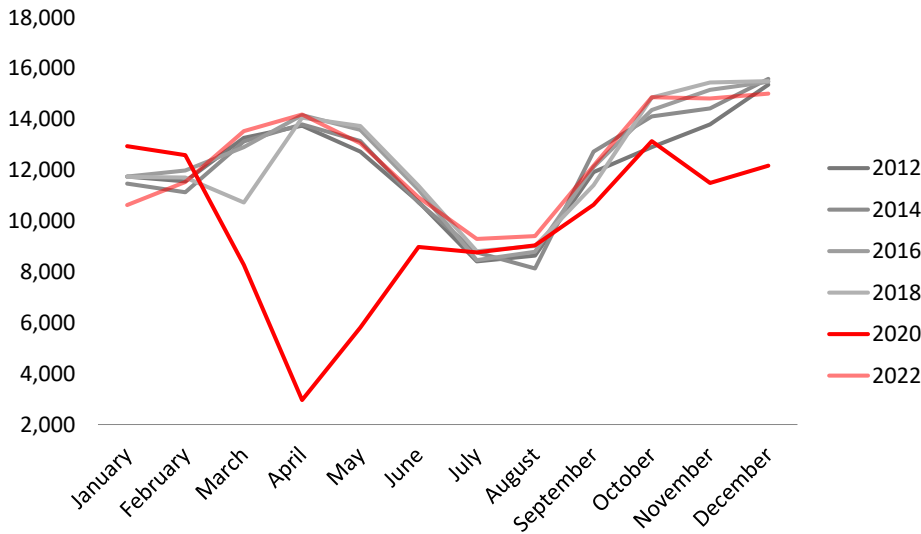
Increasing use of the Internet makes it easier for customers to make reservations, and reduces the need for separate trips to the ferry terminal to pick up tickets. The SSA introduced on-line reservations in 2003, and 58% of all vehicle reservations are now made online, although walk-on tickets must still be bought in person. In 2017, about 11,000 walk-on passengers opted for a new electronic ticketing system using RFID (radio frequency identification) cards, instead of the regular ticket books, which are more expensive. The SSA expects to fully revamp its reservation system and website in the near future.

Island residents may qualify for an SSA discount known as an excursion fare. Those rides must be round-trip and originate on the Island. The number of excursion trips peaked at around 154,000 in 2019, then fell to about 117,000 during the pandemic, and have since rebounded to pre-pandemic levels. Excursion trips tend to drop in summer, perhaps because more residents are occupied with seasonal work.

Total Excursion Vehicles



Excursion Vehicles: Monthly



SSA ferries allow many people to live on the Vineyard and work on the mainland, or vice versa. In one interesting trend, an approximately equal number of people now commute to and from the Vineyard for work. However, the earnings of people commuting from other counties has steadily outpaced the earnings of people commuting from Dukes County, and the annual outflow of earnings now exceeds the annual inflow by about \$27 million. (See Section 3.)

Reliability and Other Issues

Despite significant progress since 2018, various issues related to operations, management, technology, services, and staffing have continued to beset the SSA at times, leading to interruptions in service and unforeseen costs for the boat line.

In 2018, 2020, and 2023, the annual opening of summer vehicle reservations was hampered by delays and other issues related to the SSA’s technology and reservation systems. The Vineyard Gazette reports in 2023 that the SSA technology system is something of a patchwork of smaller systems put in place since the 1960s, most of which need to interact with the website, which is itself about 10 years old. However, “the website hasn’t been the problem in the booking breakdowns, it’s largely been behind-the-scenes systems,” including a company server that wasn’t set up to handle opening day traffic, and a specific line of code that created a bottleneck between portions of the reservation system. The SSA plans to initiate an independent review of all its IT systems to improve reliability in the future. A new website and mobile application are also expected sometime this year, at a cost of about \$2 million.

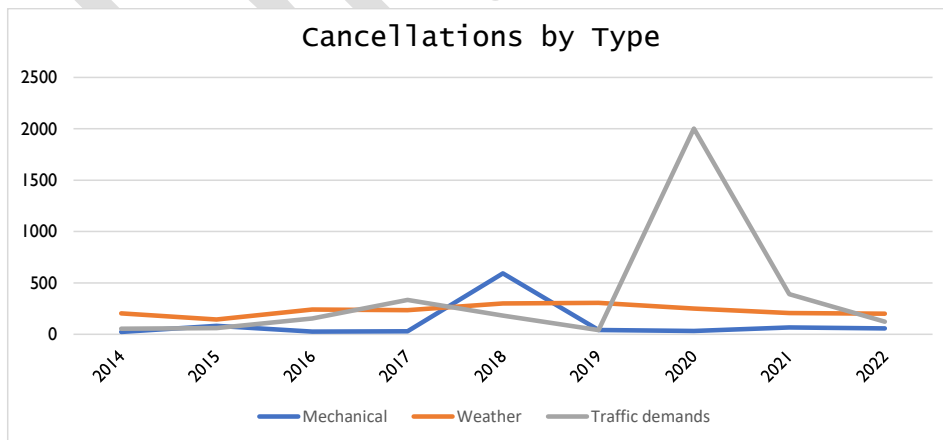
Perhaps most concerning, a 2018 report by HMS Consulting (see below) notes that the reservation system is “entirely owned, managed, and maintained by a single individual

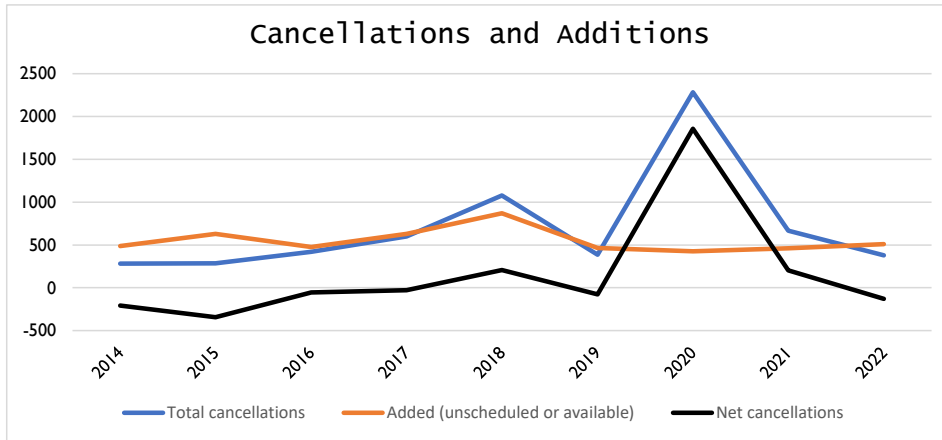
operating remotely and the report program generator (RPG) code that the system is written in is dangerously outdated.” SSA employees “do not have access to the code or know how it works, resulting in a ‘single point of failure’ should this proprietor of the reservation software become incapacitated or otherwise unavailable.”

Separately, a ransomware attack on June 2, 2021, crashed the SSA website and crippled its reservation and internal communication systems. In response, the SSA put up a temporary website and enacted storm protocols, including shifting to manual operations. Prior reservations were honored with carbon-copy receipts, but new travelers mostly had to pay in cash due to limited credit processing ability, and wait in standby. Local, State, and Federal law enforcement agencies were called in to assist in the response. The website, reservation system, and other normal services were restored within about 10 days. To the SSA’s credit, service continued throughout the attack, with only minor delays. However, no details about the attack or longer-term implications were provided to the public.

Other problems with service this year have included shortened schedules for the M/V Governor and M/V Iyanough resulting from a lack of deck officers. The SSA noted an unusual backlog in the US Coast Guard’s licensing process that delayed the required testing for six of the 10 SSA crew members who attended deck officer training over the winter. As a result, the Governor was down to four trips a day rather than seven, and the Iyanough (which serves Nantucket), was down to four rather than five. The SSA has also struggled to find bus drivers and parking lot staff for its Woods Hole facilities.

Trip cancellations for weather and mechanical reasons have declined from a height of about 894 in 2018, and remained relatively low even through the Covid-19 pandemic in 2020 and 2021. A total of 2,002 cancellations due to “traffic demands” in 2020 far surpassed the total number of cancellations in 2018, although 2020 was an anomalous year due to the pandemic. While trip cancellations can be highly inconvenient for ferry customers, the SSA also adds unscheduled or otherwise available trips, which in many cases will create a net increase in annual trips.





In terms of the reservation system, SSA Vineyard Governor Jim Malkin reported to the Dukes County Commission in 2022 that the SSA has made progress on public outreach related to reservation policies and processes, including sending fact sheets and brochures to Island residents. “One issue that the MV representatives bring up constantly is the mystifying situation of no available spaces shown for trips on the website, and then spaces are available on the boats when they depart,” Malkin wrote. “The SSA continues to deal with this issue, and this is partially a function of vehicles leaving on earlier boats (either by taking earlier trips and/or not showing up), making space available closer to the time of departure, and the compounding impact when reserved truck space is not used and that three-car space is now empty. This is confusing and distressing to Islanders who rely upon the boats for travel to and from the mainland.”

HMS Consulting Report Update

Following a string of unprecedented breakdowns and cancellations in 2018 (see 2019 RTP for details), and a concerted public outcry, the SSA board agreed to commission an independent review of its operations and management. Released in December 2018, the independent review by HMS Consulting of Seattle, WA, praised the SSA for its longstanding fiscal independence, but also found fault in an “overemphasis on cost reductions” that had led to understaffing at all levels of the organization, including upper management.

“SSA is over-reliant on a small number of individuals who hold inordinate amounts of knowledge and power, resulting in an executive team that is stuck in a perpetual mode of day-to-day firefighting,” the report states. “The primary focus of these roles should be long-term sustainability and improvement of the organization, but almost no long-term planning is currently being performed.”

The report makes 10 recommendations related to fleet maintenance, vessel operations, management structure, and IT systems; including the hiring of a new Chief Operating Officer, and development of a first ever strategic plan. The SSA board agreed to adopt all of the

recommendations, including the creation of new management positions, and to retain HMS Consulting to help in the process. The SSA has indicated that it will increase fares to pay for the changes, which were estimated to cost about \$1 million per year.

Below is a summary of the 10 HMS recommendations, and information about what progress the SSA has made since 2018.

1. *Safety Management System*: *It is strongly recommended that the SSA utilize the ISM [International Safety Management] Code as guidance to develop and implement an externally-audited safety management system (SMS) across the fleet.*
2. *Quality Management System*: *It is strongly recommended that the SSA develop and implement a quality management system (QMS) across the entire organization, preferably in concert with an SMS.*

The SSA has worked with Systems Management Systems LLC to implement both a Safety Management System (SMS) and Quality Management System (QMS). According to the SSA website, "A safety management system has been built from the ground up that includes policies, plans and procedures to manage operational safety and customer experience. The SMS system focuses on vessel operations, while the QMS system focuses on shoreside and administrative operations." Further updates were not provided on the website, although the SSA has recently hired a new director of information technology, Health, Safety, Quality, and Environmental (HSQE) manager; human resources director; port captain; director of marine operations; and director of shoreside operations.

3. *Learning Management System*: *It is strongly recommended that the SSA source a Learning Management System (LMS) and implement it first with vessel crews. Based on successes and lessons learned it can then be expanded to other departments.*

The SSA has entered into an agreement with Marine Learning Systems Inc. to implement a process-based LMS program. According to the SSA website, the proprietary software known as MarineLMS "will act as the Authority's central hub for delivering and managing its marine and shore side training and assessment programs. The secure web-based platform will be accessible to all Authority personnel, which in the summer includes more than 700 individuals."

4. *Mission Statement and Performance Objectives*: *It is strongly recommended that the SSA leadership adopt a mission statement and supporting performance objectives, communicate them to the employees and the general public, and identify the necessary metrics to measure progress against the performance objectives.*

The SSA Board voted in 2019 adopt the following mission statement: "Our mission is to operate a safe, efficient, and reliable transportation system for the islands of Martha's Vineyard and Nantucket with a commitment to sustainability, accessibility, our port communities, and public engagement." According to the website, "The mission statement will serve as the backbone for the Steamship Authority's strategic planning, employee performance evaluations and overall operations in the future. The MVC Climate Action Task

Force, among other groups, provided input on the mission statement in 2019. The SSA has stated that its performance objectives are still in progress.

5. *Strategic Plan:* *It is strongly recommended that the SSA immediately begin a strategic planning process to include all aspects of the organization.*

The SSA is working with Raftelis Financial Consultants Inc. to develop its first ever strategic plan. An outline of the plan was expected by early summer 2023, and a final plan by the end of the year. An online survey was posted on the SSA website through June 30, 2023, and public feedback sessions were held on the Vineyard, Nantucket, Falmouth, and Hyannis this spring. Among other things, the strategic plan must address the potential for alternative-propulsion ferries in order to meet the state's requirements for a net-zero emissions economy by 2050. (See section on electrification below.) Information about the strategic planning process, including an overall framework and desired outcomes, is available here: <https://www.steamshipauthority.com/strategicplan>

6. *Engineering Resources:* *It is strongly recommended that the SSA consider adding key positions in the engineering department and realign some conflicting responsibilities.*

The SSA hired five new members of its engineering department: two additional port engineers, one additional assistant port engineer, a project engineer, and an assistant vessel maintenance manager. The last two positions are new for the SSA.

7. *Health, Safety, Quality and Environmental Management:* *It strongly recommended that the SSA recruit and hire a Director of Health, Safety, Quality and Environmental Protection to oversee the development of process-based continuous improvement programs (SMS and QMS) as detailed in this report, manage their ongoing implementation and fulfill the duties of the Designated Person.*

The SSA has created a position for Health, Safety, Quality, and Environmental (HSQE) manager, who is responsible for implementing the SSA's new Safety Quality Management System. (See recommendations 1 and 2.)

8. *Vessel Operations:* *It is strongly recommended that the SSA consider a realignment of the chain of command and roles and responsibilities among operations and engineering personnel, add a Chief Operating Officer (COO) and a Director of Marine Operations, and delete the Assistant Port Captain position.*

The SSA has hired a Chief Operating Officer, "to elevate the level of decision making for the Authority's core disciplines so that, when there are conflicts between divisions, there is someone well-placed within the organization to resolve the conflicts and make the ultimate decision," and a Director of Marine Operations, "to unify the vessel operations and engineering teams under one management structure." The SSA also plans to reorganize its organizational chart to reflect changes to operations, chain of command, shared functions, job descriptions, and delegation of authority. The SSA still employs an assistant port captain, who was promoted to the position in 2019.

9. *External Recruitment: It is strongly recommended that the SSA carefully weigh the advantages and disadvantages to promoting from within and increase efforts to recruit from outside the organization.*

The SSA has stated: "On an ongoing basis, the Authority balances external recruiting with internal promotion for key roles."

10. *Management Performance Metrics / Accountability: It is strongly recommended that the SSA develop performance metrics for key managers (based on the performance objectives developed under Recommendation iv. Mission Statement and Performance Objectives) and hold them accountable for progress achieved against them.*

The SSA has stated that this recommendation will stem from the strategic planning process, which will include metrics "for measuring the performance of SSA supervisory staff."

Woods Hole Terminal Project

Work on a new Woods Hole Terminal is well underway, despite some delays related to Covid-19. Completion was originally expected around 2023, but will likely continue into 2025. (A temporary ticket office constructed just north of the staging area in 2017 will eventually be removed.) The \$110 million project has been the subject of much debate, with concerns focused largely on preserving views of Vineyard Sound from parts of Woods Hole, and minimizing the building's energy footprint. In response to public concerns, the original plan for a two-story ticket building was revised to include a one-story ticket office and separate two-story utility building, although some residents say the utility building will still block their views. The public has also criticized the project for its high cost (the budget has almost doubled from about \$60 million to \$110 million), and for various design elements considered unnecessary, such as large round windows in the ticket building. The project also features a dog park, restored pocket park, new traffic patterns, and parking for up to 200 bikes. SSA shuttles and other buses will now load and unload closer to the terminal, which could benefit older adults and people with luggage, who now must cross a travel lane to board the buses.

The project also includes the utilization of a third ferry slip that had previously been used only for maintenance and overnight berthing. The new slip went into service in May 2019, raising concerns about increased vehicle trips to the Island, although the SSA has stated that the number of trips is still constrained by the Vineyard Haven and Oak Bluffs terminals. According to the SSA, the third slip was opened mainly to ensure that at least two slips in Woods Hole are always available during the construction project.

Electrification of SSA Vessels and Buses

Much discussion since 2018 has focused on electrifying the SSA fleet, including the possibility of retrofitted or hybrid ferries. According to the 2022 Vineyard Climate Action Plan (CAP), about 45% of the Island's energy footprint is attributable to transportation, and the biggest single emitter is the SSA. In order to achieve the CAP goal of eliminating all fossil use on the Island by 2040, the SSA will need to shift away from fossil fuels. This will also most likely be necessary in

order to comply with the state’s 2021 Climate Law, which requires net-zero emissions in the state by 2050. Both the CAP and state Clean Energy and Climate Plan for 2050 highlight electrification in the transportation and building sectors, as a primary means of transitioning off of fossil fuels.

About 59% of respondents to the 2023 RTP survey listed “electrification of the Steamship Authority ferries and other passenger ferries” as either an “important” or “very important” priority in terms of their mobility needs, and 61% listed the same in terms of environmental impact solutions that could apply the transportation network. At the same time, 51% said new electric ferries should be a priority in terms of Federal and other transportation funding, and 47% indicated the same in terms of onshore charging infrastructure. (Only 40% indicated the same for converting existing vessels.)

In a step forward, the SSA recently commissioned a study by the Elliot Bay Design Group to compare five alternative propulsion options for a new vehicle ferry. The hypothetical ferry was equivalent to the M/V Woods Hole in terms of its size and usage. Released in 2022, the 24-page study looks at various alternatives including diesel, three types of diesel-battery hybrid, and all-electric. The evaluation criteria were capital cost, operating cost, and emissions. (The all-electric option was evaluated only for the Woods Hole - Vineyard Haven route, since the quantity of batteries needed for the Nantucket Route was considered prohibitive.) Based on various assumptions, the all-electric option was estimated to have the highest capital and operating costs (174% and 41% more than the diesel option, respectively), and by far the lowest emissions (about 5% of CO₂ compared to diesel, and similar declines in other greenhouse gas emissions). Notably, the hybrid alternatives were estimated to generate similar emission levels as diesel.

Table 8: Martha's Vineyard Emissions Summary

OPTION	DESCRIPTION	CO ₂ (MT/YR)	NOX (MT/YR)	CO (KG/YR)	PM (KG/YR)
1	Diesel Mechanical	3849	22	909	175
2	Berth Battery	3565	14	258	87
3	Peak Shave	3538	13	467	82
4	50% Battery	3544	11	2118	101
5	All Electric	187	1.1	45	8.7

Table 9: Nantucket Emissions Summary

OPTION	DESCRIPTION	CO ₂ (MT/YR)	NOX (MT/YR)	CO (KG/YR)	PM (KG/YR)
1	Diesel Mechanical	3619	20	936	155
2	Berth Battery	3355	13	364	79
3	Peak Shave	3317	11	1782	92
4	50% Battery	3336	12	968	81

The study concludes that “there is likely a sweet spot” hybrid option that could work well on both routes, and recommends that the M/V Woods Hole be evaluated for its ability to be converted to a diesel-hybrid system. The SSA has also stated that “a hybrid vessel is the most likely near-term solution,” and has submitted a grant application to the US Department of

Transportation to explore the possibility of converting five SSA vessels, including the three diesel-powered Lode Star class vessels that the SSA purchased in 2022.

While the SSA's interest in converting some of its ferries to hybrid technology is laudable, the alternative propulsion study would indicate that this would have little effect on CO₂ emissions. The JTC encourages the SSA to include in its strategic plan a long-term strategy for converting the fleet to all-electric or other non-fossil fuel technology by 2040.

In another step forward, the MVC hosted "Ferries Now," a community discussion about the feasibility of electric ferries, at the Martha's Vineyard Film Center in March 2023. The sold-out event featured presentations by ferry line representatives from Denmark, Maine, and Washington, where electric or hybrid ferries are currently running or will be soon, as well as representatives from the SSA and Eversource Energy. The event marked a critical juncture, as the SSA embarks on its first ever strategic plan, which must include a transition away from fossil fuel-powered ferries in order to meet the state's decarbonization goals for 2050.

The SSA in 2021 placed an order for three electric buses to carry customers between the mainland terminals and off-site SSA parking lots. The purchase included the necessary charging infrastructure and totaled about \$3 million (offset by grants from the Volkswagen Settlement Grant Program and the Federal Transit Administration's Low or No-Emission Program). The buses were expected to enter service in 2023. In addition, the SSA has finalized a contract with NextGrid Inc. to install a 5,900 KW solar array and 6,100 KWh battery storage system at the Thomas B. Landers Road parking lot in Falmouth. NextGrid will build, operate, and maintain the project. It will also make annual lease payments and sell net metering credits to the SSA.

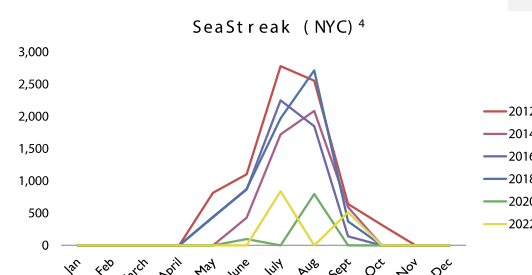
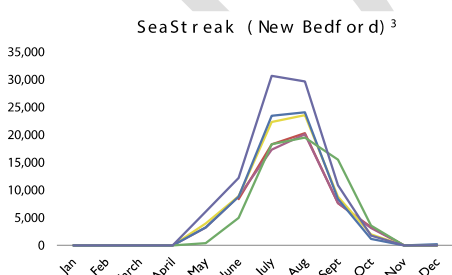
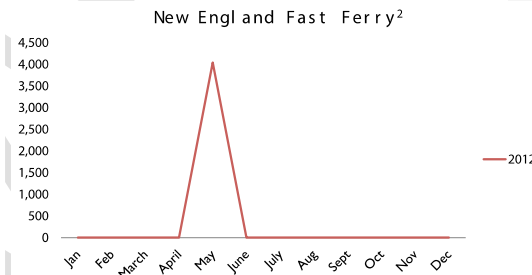
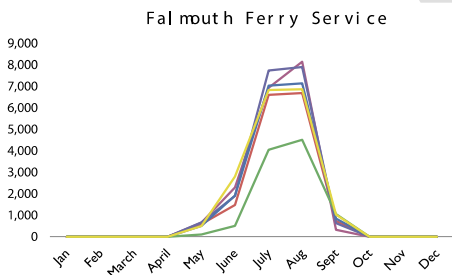
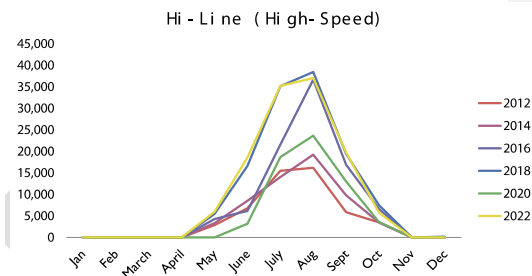
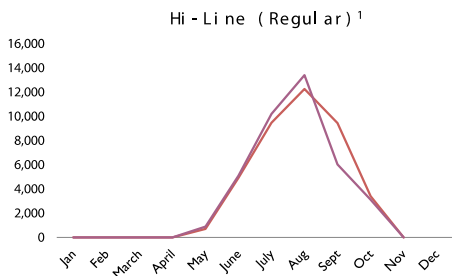
It should be noted that as the Island transitions to electricity and renewable energy for all of its needs, the existing electrical infrastructure must also be updated. Along those lines, the MVC has instituted quarterly meetings with Eversource (the Island's electricity provider) to explore ways to modernize the energy grid and increase its resilience. Further discussions, including with the SSA, will focus on electrifying all types of transportation, including the necessary charging infrastructure, educating the public about the pros and cons of electrification, and continuing to pursue alternative to automobiles.

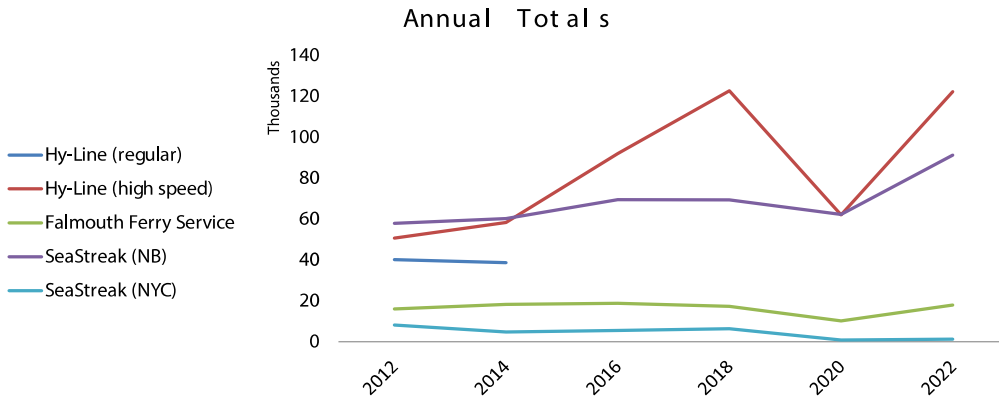
Seasonal Passenger Ferries

The Steamship Authority licenses three other ferry companies that serve the Vineyard: Hy-Line Cruises out of Hyannis, the Falmouth-Edgartown Ferry out of Falmouth, and the SeaStreak out of New Bedford and New York City. Those services typically run from March to November, and do not carry vehicles. As with the SSA, passenger travel on the seasonal ferries peaks in July and August. About 25% of the 167 RTP survey respondents listed "other passenger ferry" as a primary mode of travel, compared to about 90% who listed the SSA.

HyLine Cruises operated both regular and high-speed ferries until 2016, when it eliminated the regular-speed option and expanded its high-speed service. SeaStreak (formerly New England Fast Ferry) began offering trips out of New York City beginning in 2010, and out of New Bedford in 2012. Rhode Island Fast Ferry had also served the Vineyard between 2003 and 2012.

Between 2012 and 2022, the Hy-Line high-speed ferry out of Hyannis saw the most growth in ridership (141%), followed by the SeaStreak New Bedford service (58%), and Falmouth Ferry Service (12%). SeaStreak also saw an 84% decline in ridership for its New York City service in the same period. Hy-Line, SeaStreak, and Falmouth Ferry saw considerable drops in service as a result of Covid-19 in 2020 (49%, 27%, and 53%, respectively). Ridership on all but the New York City route had rebounded as of 2022. One benefit of the service from New York and New Bedford is that it offsets some of the seasonal traffic in Woods Hole.

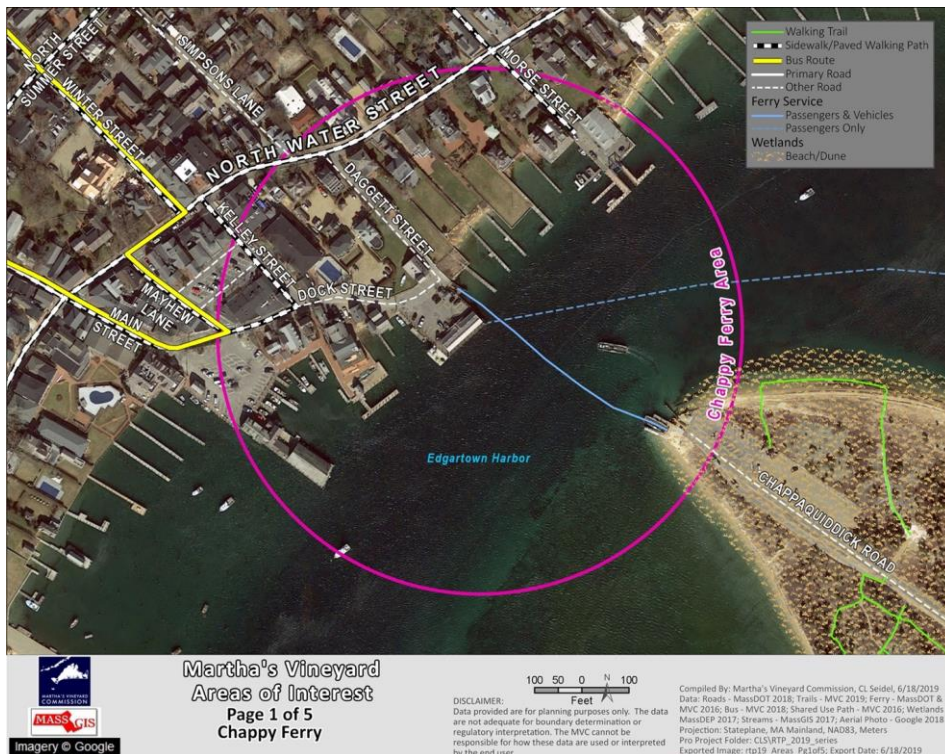




In addition to the three SSA-licensed services, Island Commuter Corporation operates its Island Queen ferry between Falmouth and Oak Bluffs in the summer, with limited trips in May and October. Statistics for the Island Queen are not publicly available because the company was licensed before public reporting was required by the state; the only trips that SSA now licenses for the ferry are those that extend beyond the regular season.

The end of Sea-View Ave. Extension in Oak Bluffs, also known as the North Bluff, was redesigned and permitted in 2022 to include a roundabout for vehicles entering from the south, and improved staging areas for the passengers ferries that dock there in season. The project was designed by the same firm involved in the Oak Bluffs Streetscape Project. (See Section 12.)

In 2021, the towns of Edgartown and Tisbury approved a temporary harbor use permit for Falmouth Water Transportation Inc. to operate a seasonal 38-passenger water taxi between Memorial Wharf in Edgartown and the Vineyard Haven Marina. Some town officials praised the new service as way to potentially reduce road travel in the down-Island towns. More recently, the organizers of Beach Road Weekend, an annual music festival in Tisbury, have received permission to operate a water taxi between Oak Bluffs and Falmouth during the three-day festival in August. The service is available only to ticket holders and will run from 8:45PM to 1AM each day.



The Chappy Ferry

The Chappy Ferry transports cars, bikes, and people to and from Chappaquiddick in Edgartown. Its long history (it was among the first businesses on the Vineyard), constant presence throughout the year, local crew, and slightly do-it-yourself character make the ferry (actually three ferries—the On Time I, II, and III) a cherished part of Island culture. The ferry service is licensed by the Edgartown selectmen, who also approve the fares.

The south-facing barrier beach that connects Chappaquiddick to the rest of the Island occasionally breaches for prolonged periods, during which the Chappy Ferry is the only way to transport vehicles across the harbor. The last breach occurred during the Patriot’s Day Storm of 2007 and persisted until the two sides of the beach naturally reconnected in 2015.

The ferry crossing is located in historic downtown Edgartown, where Edgartown Harbor narrows to about 530 feet. The ferry operates year-round from about 6:45 a.m. to 8 p.m., weather permitting, with another hour or two in the later evening. Each vessel can carry three vehicles at a time. One ferry runs in the off-season, but two run simultaneously in the summer to handle the increased demand among residents and visitors. Together the two vessels in summer can transport about 30 vehicles per hour in both directions. (Heavy trucks and trailers are advised to board only during high tide to prevent damage to the ferry and ramp.)

At one time, the vehicle line for the ferry ran roughly parallel to the harbor, along Dock Street, but it was relocated to Daggett Street to reduce congestion. While the current restricted capacity effectively controls the pace at which vehicles are released onto Chappaquiddick, and conversely back to Edgartown, the summer demand still often creates vehicle queuing for users on both sides of the harbor. Waits of more than an hour increasingly occur. Queuing on the narrow Edgartown streets can extend a few blocks at peak times, and coordination requires at least two traffic control officers, including in the shoulder seasons. The waiting cars often block resident driveways and other traffic in the downtown area. In August 2018, the Chappaquiddick Island Association sponsored a taxi stand on the Chappaquiddick side of the harbor as a pilot study so that residents going to and from the ferry could avoid the traffic.

The queuing varies from hour to hour and day to day, making it difficult to count the total hours of delay. According to a summer 2002 MVC survey, ferry users were about evenly split among Chappaquiddick residents, service vehicles, and tourists or recreationists. A third of respondents said they would consider using bus transportation on Chappaquiddick if it were available. The Vineyard Transit Authority, with its well-used route from downtown Edgartown to South Beach, has demonstrated that beachgoers, at least, will forego personal vehicles and use buses to reach their destination.

In the spring of 2015, the Town of Edgartown resumed exploring ways to reduce ferry queuing and the resulting interruption of public roads and private driveways, and to better accommodate traffic to and from Chappaquiddick. Initial short-term goals included providing real-time information to drivers about the length of the queue and the likely wait. New cameras on Simpsons Lane (a residential area which handles the overflow traffic) show the queue in real time on the Chappy Ferry website. Officials have also discussed the possibility of relocating truck staging to North Water Street. In the longer term, the town plans to devote Community Preservation Act funds to a five-to-10-year waterfront project that among other things would reconfigure the ferry landing. Further study is needed on other strategies, which may include a reservation system, remote staging, separate ferrying of cyclists and pedestrians, and new ferry service farther from the downtown area.

A study by Fuss & O'Neill in 2023 explored options for adapting both the Chappy Ferry and Edgartown ferry landings and infrastructure to sea-level rise. Among other things, the study recommends raising the Edgartown ferry landing infrastructure to 5.8 feet in two phases, and notes that the Chappy infrastructure could also be raised, including the operations building, which could be either raised or reconstructed. A public information session hosted by the Chappy Ferry Steering Committee was held in April to discuss the study and next steps.

Major cruise lines such as Norwegian and Royal Caribbean may bring up to 30,000 visitors to the Island each summer. Those ships anchor off Oak Bluffs and passengers are tendered to the Oak Bluffs Harbor. Smaller cruise ships that berth in Vineyard Haven Harbor may bring about 1,000 additional passengers per year.

Recent Developments (Completed)

- Oak Bluffs seawall (2016)—Oak Bluffs restored the eroding North Bluff coastal bank, including a 720-foot metal seawall and a pedestrian walkway between Oak Bluffs Harbor and the town fishing pier. The new seawall helps protect down- town infrastructure from sea-level rise, and the walkway forms part of a continual path between the harbor and the downtown area.
- East Chop Beach Club bulkhead (2017)— The town of Oak Bluffs built new bulkheads in the vicinity of the beach club to improve the berthing of motor vessels, including a fire and rescue boat that was obtained through a federal emergency management grant.
- Menemsha Channel dredging (2017)—The U.S. Army Corps of Engineers hired contractors to dredge the channel, im- proving the safety of boat travel into and out of Menemsha Pond and Harbor. (Menemsha Channel is a federal navigation project, and the pond serves as a harbor of refuge to boaters, hence the federal oversight.)
- Massachusetts Estuaries Project—This collaboration between the University of Massachusetts and the state Department of Environmental Protection began in 2001 and has studied most of the major estuaries on the Island, providing recommendations for improvements in water quality that among other things may increase their attractiveness for recreation.

Objectives

1. Continue working to encourage the adoption of alternative propulsion ferries, with an emphasis on all-electric equipment, and associated shoreside charging infrastructure.
2. Engage the SSA and other stakeholders (town officials, Chamber of Commerce, etc.) in discussions to explore limiting the number of vehicles traveling to the Island in the summer.
3. Continue to encourage visitors to come to the Island without their cars.
4. Reduce the number of vehicles traveling to the ferry terminals in Vineyard Haven, Oak Bluffs, and Woods Hole to drop off passengers.
5. Improve vehicle and passenger access to and from ferry terminals, including better remote parking, improved passenger drop-off, vehicle queuing, and distribution between the two Island terminals.
6. Reduce vessel delays or cancellations as much as possible to ensure reliability and confidence in the system.
7. Work with SSA to explore ways to reduce congestion associated with freight trips between the Island and Woods Hole.
8. Coordinate improved connections with transit at both ends of the ferry trip.
9. Support efforts to reduce congestion in downtown Edgartown that results from vehicles waiting for the Chappy Ferry.

Proposed Actions

- Provide ongoing feedback on the SSA’s strategic plan, including in regard to alternative propulsion ferries and associated infrastructure, and concerns related to the Island’s carrying capacity. Ensure that the SSA provides regular updates on the planning process and opportunities for public comment.

- Encourage the SSA to moderate its spending on capital projects such as the Woods Hole Terminal, and focus more on improved service.
- Encourage passenger drop-off and pick-up at park-and-ride facilities to reduce traffic congestion in town and especially near terminals. Consider setting up remote check-in facilities at park-and-ride locations.
- Continue to improve the SSA reservation system and queuing for passenger convenience and to reduce unnecessary traffic.
- Review periodically the number of trips delayed or cancelled for mechanical issues to provide a reliability check on the ferry system.
- Coordinate the capacities of the boat lines with the capacities of the region's roads and public surface transportation services.
- Utilize the websites of the SSA and other ferry companies to provide information about car-free travel on the Vineyard.
- Initiate public discussions surrounding the use of bike-share systems that allow people to rent bicycles for a small fee and then return them to a designated station. (These could perhaps be within walking distance of the terminals, but not at 53 the terminals themselves.)
- Continue working to establish a park-and-ride in Oak Bluffs with shuttle service to the terminal.
- Provide information on the SSA website and in SSA terminals about the free park-and-ride service in Vineyard Haven.
- Work with the SSA as it continues to investigate proposals to establish a freight dock in New Bedford.
- Work with the SSA and HAMV and others to establish a program to help older adults and disabled residents with their luggage on both ends of the trip.

SECTION 7:

Freight Transportation

Overview

Freight traffic to, from, and on Martha’s Vineyard represents a vital element of Island life and has a substantial impact on the transportation system. Freight in the form of mail, express packages, fuel, food, and building materials are the major items shipped to the Island. Solid waste and recyclables are shipped to various facilities off-Island. Most freight to the Vineyard arrives on trucks via Steamship Authority (SSA) vessels linking Woods Hole to Vineyard Haven and Oak Bluffs. Some freight is also delivered by barge to the RM Packer Company in Vineyard Haven. Air freight is used for smaller, time-sensitive shipments.

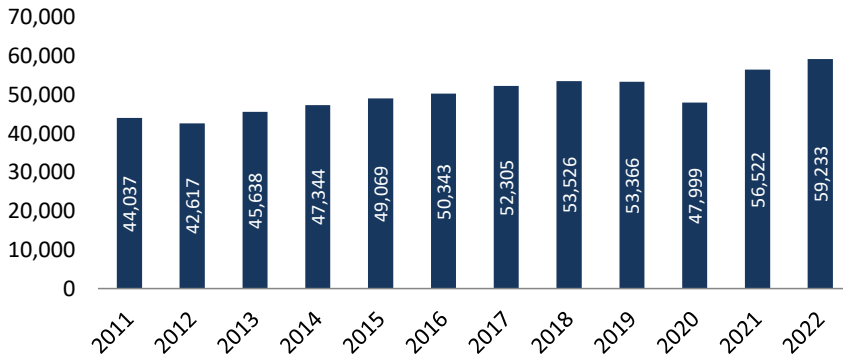
Companies that focus on general freight on-Island include Cape Cod Express, Carroll’s Trucking, and Martha’s Vineyard Logistics, although other companies sometimes make deliveries to the Vineyard. The main companies concentrating on express deliveries are FedEx, UPS, and DHL.

General freight is carried over on large trailers with up to about 80,000 pounds of loaded weight each, then transferred to smaller trucks for delivery to Island destinations. The smaller trucks are generally 30–35-foot straight trucks with 20,000–25,000 pounds of loaded weight; or 25-cubic-foot trucks with up to 10,000 pounds of loaded weight. In 2017 the Camp Meeting Association in Oak Bluffs voted to prohibit delivery trucks longer than 20 feet within the historic Camp Ground, which features many small houses and narrow roads.

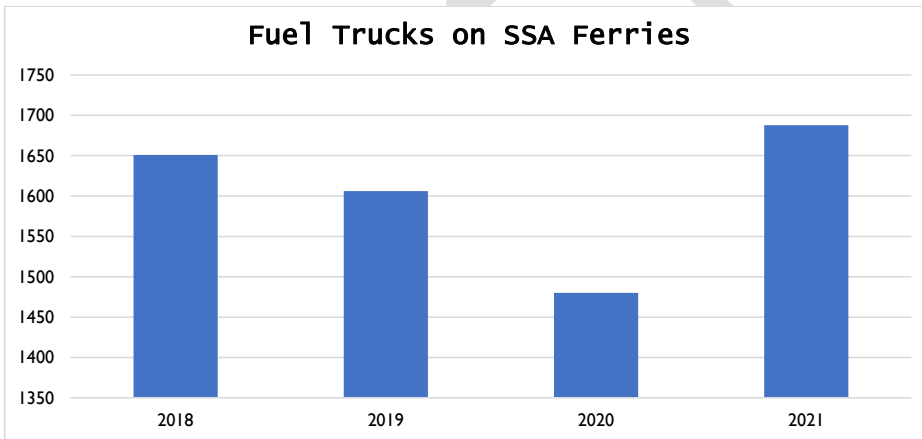
Trends and Issues

Freight transportation is thought to closely mirror the growth of the Island population and economy. As one indicator, truck traffic on Vineyard SSA ferries increased about 39% between 2012 and 2022, compared to about 12% for automobiles, and saw a similar decline during the pandemic. At the same time, the number of trucks registered on the Vineyard increased about 11% between 2020 and 2023, suggesting an increase in the movement of both freight and trucks on the Island.

Trucks on SSA Ferries



Fuel Trucks on SSA Ferries



The transportation of hazardous material (hazmat) is a concern for the SSA as well as the towns through which those trucks must pass. Hazmat may only be shipped on designated freight boats, and the SSA chooses not to carry private vehicles or passengers on vessels also carrying hazmat. This will also be true of the three used ferries the SSA purchased in 2022.

The SSA’s pricing and reservation policies—charging for truck length rather than weight, and penalizing for unused reservations—appear to have compelled freight companies to ensure that trucks are fully loaded and that the smallest possible trucks are used for ferry trips. However, shippers have complained about difficulty in obtaining additional reservations for desired times of day (typically early morning). The SSA operates a bulk reservation system that serves to schedule repetitive daily, weekly, and less frequent freight-truck trips to and from the Vineyard. The system divides the year into three sections: January–May, May–October, and October–December—and allows for trucks to be scheduled by lottery. The SSA has made efforts to

schedule more freight trucks to the Island earlier in the day so that more deliveries will coincide with normal working hours.

Among the concerns surrounding freight, large trucks move slowly to navigate the typically narrow Island roads, and daytime deliveries may add to existing congestion. Few stores have off-street truck docks. It would make sense to encourage more off-peak delivery, but attempts by freight companies to deliver early are often stymied by the fact that smaller businesses may not be staffed until later in the day, forcing deliveries to come during the prime shopping and visitor hours. Shippers of perishables tend to deliver to larger establishments, many of which have better docking facilities, but local noise restrictions often prevent them from making early-morning deliveries. The Island lacks adequate warehouse facilities where products could be stored and distributed at more opportune times.

In response to longstanding complaints from Woods Hole residents about early-morning truck traffic heading to the Vineyard ferries, the SSA voted in 2017 to eliminate the 5:30 a.m. freight boat from the winter and spring schedules. But it stopped short of eliminating the early morning run in the summer as well, pointing out that shifting those trips to later in the day could worsen traffic in both Woods Hole and on the Vineyard. For the same reasons, the SSA also voted to limit the size of trucks carrying freight on the 5:30 a.m. boats to 40 feet, but only in the summer; and has instructed trucking companies to avoid early arrivals and loud braking.

Efforts to address the traffic in Woods Hole have focused largely on the possibility of establishing freight runs between the Vineyard and New Bedford, which could offset truck traffic in Woods Hole. Most recently, a report commissioned by MassDOT and released by the Steamship Authority in 2022 found that an alternate freight port on New Bedford would be feasible but would face major obstacles in terms of cost, travel distance, and a current lack of infrastructure. The study also points out that New Bedford officials would rather focus on tourism-related projects for the city's historic waterfront, and that other ports may be prohibitively far from the Vineyard. The Vineyard and Nantucket SSA governors had already pushed back against the idea, since it could entail longer trips and higher fares for freight coming to the islands. The report notes three alternatives that could be pursued:

1. *Freight consolidation off-Cape to ensure that the trucks going to the islands are at maximum capacity, rather than sending over trucks only partially full.*
2. *Reduction of waste to reduce the number of garbage trucks needing to make the trip off-island.*
3. *Short-sea shipping from locations outside of Massachusetts that might result in fewer trucks on state roads and fewer emissions.*

Earlier studies in 2002 and 2012 found that freight service from new Bedford would be unfeasible, although the 2012 study suggested that a combination of trash and freight could possibly work. A 2017 study commissioned by the SSA looked at the feasibility of a private contractor running freight trips from New Bedford, and found that such a service would be feasible but that necessary upgrades to the state pier in New Bedford would cost between \$2 million and \$5 million, with some setting the figure much higher. The study also points out the uncertainty in whether state and local leaders would endorse the idea.

The study found that freight trips to the Island consisted largely of mail, express packages, fuel, and food (38%) and building materials (17%). Waste and recyclables accounted for about 13% of all truck trips off-Island.

A separate study by Carlos Hernandez and Nathaniel Trumbull of the University of Connecticut in 2019 found that freight runs from New Bedford would result in lower carbon emissions. However, the 2022 study estimated they would generate more CO₂ and NO_x than current conditions, factoring in the possible travel time for trucks to get to either port, as well as the estimated vessel emissions in each scenario. (The emissions from trucks was estimated to decrease, but the emissions from trucks and vessels combined was estimated to increase about 20%.)

Following the MasDOT report, and in response to continued complains about early morning freight traffic in Woods Hole, the SSA issued a request for proposals in 2022 to establish a freight service between the Vineyard and New Bedford. However, none of the 47 potential contractors who reviewed the RFP showed any interest.

State and local composting initiatives that began around 2014, including new community composting sites around the Island, have likely eliminated a certain number of trash trips off-Island. The efforts resulted partly from a 2014 state regulation that businesses producing more than one ton of food waste per week must compost or repurpose it. Enforcement of the regulation has been lax, but was expected to increase once more composting facilities were available in the State. The ban may eventually extend to private homes as well. A commercial composting facility is now available at Island Grown Farm in Tisbury, which processed about 360 tons of food waste in 2019, and 200 tons in 2020. More recently, the town of Oak Bluffs has applied for funding through the US Environmental Protection Agency to establish its own commercial composting facility.

Another development that may affect freight travel is the eventual closure of the Island's sand mining operation, which could increase barge and ferry traffic from off-Island. However, there is little to suggest that the facility will close anytime soon.

Shipping is often blamed for the higher cost of goods on the Island, but that may not be the main cause. The costs of trucking from a mainland port include the tariff, the time required of drivers and equipment (ferry schedules account for at least three hours of dead time that necessitate more equipment and drivers), and the administrative costs of scheduling and dispatching to handle ferry operations. However, the total cost of logistics (transportation, inventory, and warehousing) is generally 10–15% of a final retail product's cost, with transportation representing only 3%. In the 1960s, the New England Motor Rate Bureau concluded that the additional transportation cost of shipping to the Vineyard was about 23%, a figure that is likely still valid today. So the average additional cost of a product costing \$100 is probably less than a dollar (a 23% increase of a \$3 transportation cost). The relatively higher cost of some products is attributable more to personnel and operating costs associated with Island living, especially the higher real estate costs, and may also reflect the fact that retailers have a captive market on the Island.

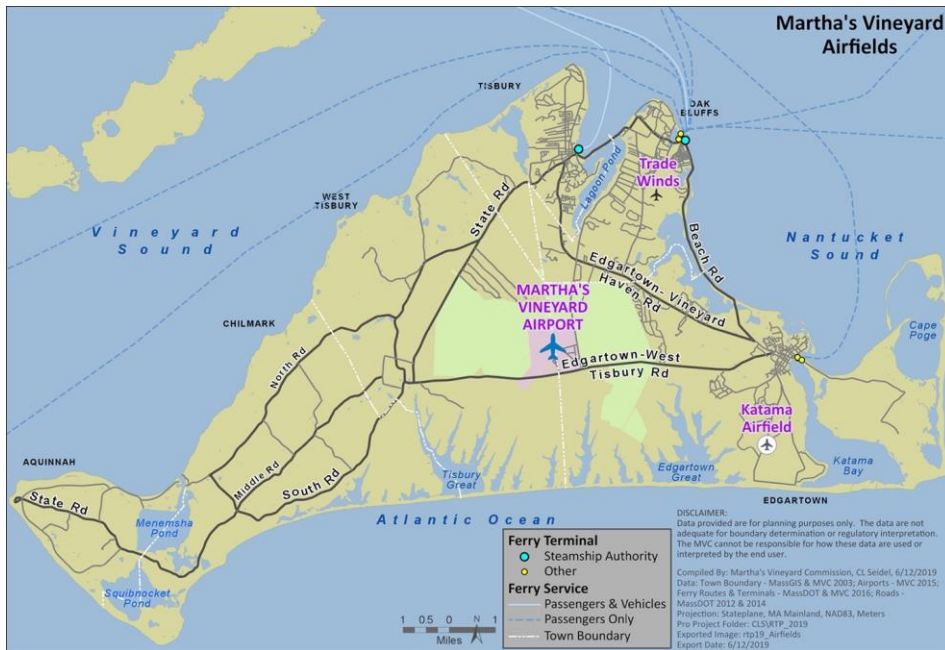
Objectives

1. Ensure that freight is brought to the Island and distributed to its destinations in a timely and efficient way, with minimal negative effects on traffic, safety, and the environment.
2. Reduce vehicle traffic to the ferry in Island towns as well as in Woods Hole and the rest of the Cape—particularly trucks and hazardous materials.

Proposed Actions

- Explore how a greater proportion of freight—and particularly low-value and less time-sensitive commodities (e.g. lumber) and hazardous materials (e.g. oil and propane)—could be brought to the Island by barge instead of ferry.
- Examine the feasibility of establishing an Island warehouse where products could be stored and distributed to Island businesses during non-peak hours.
- Look at the possibility of establishing truck routes in order to limit the presence of trucks on roads that pose particular traffic or public safety problems.
- Review the SSA freight policy with respect to its impact on the amount and cost of goods brought to the Island by ferry. Consider the possibility of offering discounts for off-peak travel and giving priority to time-sensitive freight.
- Consider the possibility of running more freight boats to facilitate truck access to the Island, particularly in the late afternoon, and reducing other trips.
- Look at the possibility of further limiting the maximum size of trucks and buses on the roads, or discouraging very large vehicles either all the time or at certain hours.
- Explore the possibility of delivering to people’s homes so shoppers don’t need to take their cars to go shopping. Explore the possibility of expanding mail delivery with door-to-door service in town centers, and by encouraging people in other areas to use rural delivery. Consider the possibility of satellite mail service at the Airport in summer.
- Explore the possibility of reducing the need to transport waste by treating liquid waste on the Island; promote the use of new and additional community composting facilities.
- Examine the possibility of limiting which vessels are used to transport garbage and septic waste, and the possibility of using only barges.

SECTION 8: Air Transportation



Overview

Martha's Vineyard Airport (MVY)

MVY is a certified Federal Aviation Administration (FAA) Part 139 non-hub general aviation airport that also hosts air carrier and freight service to the Island. Spanning sections of both Edgartown and West Tisbury, the airport is near the Island's geographic center, surrounded on three sides by the State Forest. It has two intersecting runways, an airline passenger terminal, air traffic control tower, aircraft parking areas and hangars, fueling facilities; and aircraft rescue, firefighting, and maintenance facilities. A business park adjacent to the airport offers industrial and commercially zoned lots for non-aviation use and plays a key role in the Island's year-round economy. In 2019, MassDOT estimated \$50.9 million in total payroll, and economic benefits of more than \$140 million per year attributed the airport. (Updated estimates are expected in the near future.) The airport has an operating budget of about \$12 million.

Three major airlines (JetBlue, Delta, and American Airlines) operate flights at MVY in the summer and shoulder seasons, with connections to Boston Logan, Charlotte Douglas International, Chicago, JFK International, LaGuardia, Newark, Philadelphia, and Washington National airports, along with smaller airports in Barnstable, New Bedford, and Nantucket. Cape

Air offers the only year-round commercial flight service to the Vineyard, and handles the majority of year-round trips. As a public-use airport that receives federal funding, MVY is required to accommodate any airline that wants to offer flights to the Vineyard.

The airport maintains about 2.65 million square feet of pavement, including runways, taxiways, and parking aprons. Runway 6-24 is 5,504 feet long, 100 feet wide, and equipped with a precision-instrument approach. Its high-intensity runway lighting can be pilot-controlled. According to the Federal Aviation Administration, the runways have an expected lifespan of 20 years; Runway 6-24 was reconstructed and grooved in 2019. The Airport Reference Code is C-III, which designates the aircraft size and speeds for which the area is designed.

Runway 15-33, also known as the cross-runway, is 3,297 feet long, 75 feet wide, and is a visual-flight-rules (clear-weather) runway with medium-intensity lighting that can also be pilot-controlled. The runway was reconstructed in 1992, with significant upgrades expected in the near future. The Airport Reference Code for this runway is B-II.

MVY is owned by Dukes County, and the Dukes County Commission appoints the seven-member Airport Commission (MVAC). The MVAC adopted a 20-year master plan in 2016 (its first since 2003), which outlines a number of strategies for accommodating changes in air service, technology, and other factors over time. In 2018, the MVAC initiated an environmental review of its [Capital Improvement Plan](#), which lists projects proposed for the next few years. The environmental review has since been finalized, and the Capital Improvement Plan revised to include the following projects (estimated completion dates are in parentheses):

- [Expansion of Airport Business Park](#): Addition of lots 34 and 38 for private business use. (Completed in 2021.)
- [Improvement of fuel farm access and safety](#): Remove hazards including stones along the access road. The preferred alternative is to pave the access road and fuel farm area, along with other work to reduce maintenance costs and improve safety and drainage. (2022; not yet completed.)
- [Aircraft hangar development](#): Replacement or addition of aircraft hangar space to accommodate current and potential demand. The preferred alternative is to construct two hangars, along with about 25 parking spaces. (2022; partially completed.)
- [Airspace vegetation management](#): Removal of trees near the end of the runways, while restoring native habitat and supporting rare species. The preferred alternative is to remove about 20 acres of trees and other vegetation on airport property or within aviation easements in the State Forest, and convert most of the cleared land to successional habitat. (2023)
- [Taxiway E reconfiguration](#): Geometric changes to improve the runway intersection, while reducing impacts to the neighboring habitat. The preferred alternative includes retaining most of the existing taxiway, reconstructing the ends, and building a new stretch that connects to Runway 15 and eliminates the need to back-taxi on the runway. (2023)
- [Runway 15-33 reconstruction](#): Replacement of deteriorating pavement, and removal of excess pavement on the runway shoulders, while reducing runoff and improving stormwater treatment. The preferred alternative is to reduce the landing distance on

Runway 33 from 3,328 to 3,053 feet, which would also eliminate the need to remove vegetation in part of the State Forest. (2026)

- **Terminal building renovation:** Upgrades to increase capacity and functionality, including security, baggage screening, and passenger areas; and mechanical, electrical, and HVAC infrastructure, to meet current code and security requirements. The preferred alternative is to preserve and renovate most of the existing structure, construct a three-season pavilion behind an existing courtyard to accommodate baggage during the peak season, construct an air-lock vestibule in front of the building to meet the state building code for efficiency, and other changes. (2028)
- **Aircraft parking and movement areas:** Reconfigure existing infrastructure to accommodate current safety and aircraft requirements, while reducing impacts to the neighboring habitat. The preferred alternatives are to build a new stub taxiway to the Southeast Ramp for larger aircraft and future hangar access, and reconfigure the Southeast Ramp, including the removal of four existing buildings, a parking lot, and vegetated areas, to make way for a larger apron and accommodate more aircraft. (2029)
- **Airport Road improvements:** Improvement of traffic at the intersection of Airport and Edgartown-West Tisbury roads. The preferred alternative is the addition of a right-turn lane on Airport Road. (2030)

PROPOSED CAPITAL IMPROVEMENT PLAN PROJECTS

What is the Capitol Improvement Plan and why are the projects required?

The Airport is required by FAA to review their current and future aviation demands and make the necessary improvements to maintain a safe facility to serve the community. The Capital Improvement Plan projects were identified through the previous Master Plan (2016) and vetted through a public process.

Proposed Airport Projects (Estimated Construction Dates)

1. 2021 Business Park (Lots 34 and 38)
2. 2022 Fuel Farm/Storage Improvements
3. 2022 Hangar Development
4. 2023 Vegetation and Habitat Management Area
5. 2023 Taxiway E Reconstruction
6. 2026 Runway 15/33 Reconstruction
7. 2028 Terminal Renovations
8. 2029 Aircraft Parking Improvements
9. 2030 Airport Road Improvements

Katama Airfield

This Visual Flight Rules (clear-weather) grass-strip airfield is sited in an environmentally sensitive sandplain grassland and open to recreational aircraft from May to October. Any expansion must conform to the Katama Plains Management Agreement, which is administered jointly by The Nature Conservancy and the Edgartown conservation and airfield commissions. Development must also conform to the regulations enacted by the MVC for the Katama Airport District of Critical Planning Concern. As of 2022, the airfield reported about 20-30 flights per day in season. A World War II era metal hangar was demolished in 2020 to make way for a larger hangar that can store about four planes year-round and up to eight in an emergency.

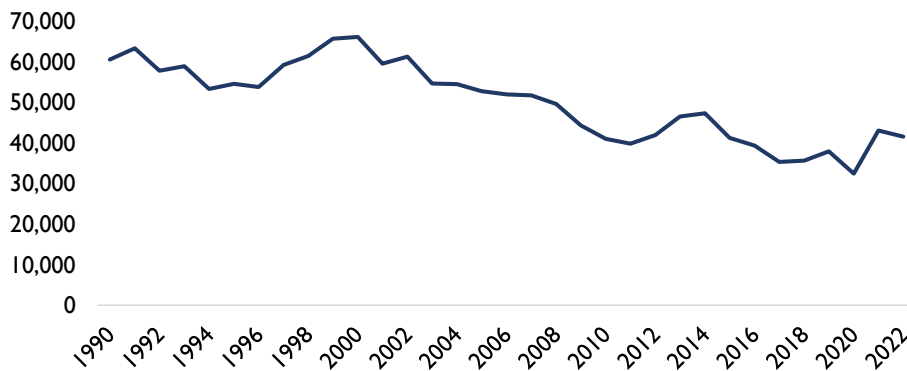
Trade Winds Airstrip

This grass airstrip, at Trade Wind Fields Preserve in Oak Bluffs, is owned and maintained by the Martha's Vineyard Land Bank Commission. There are few operations because pilots must receive advance permission. The airfield serves primarily as a dog park.

Trends and Issues

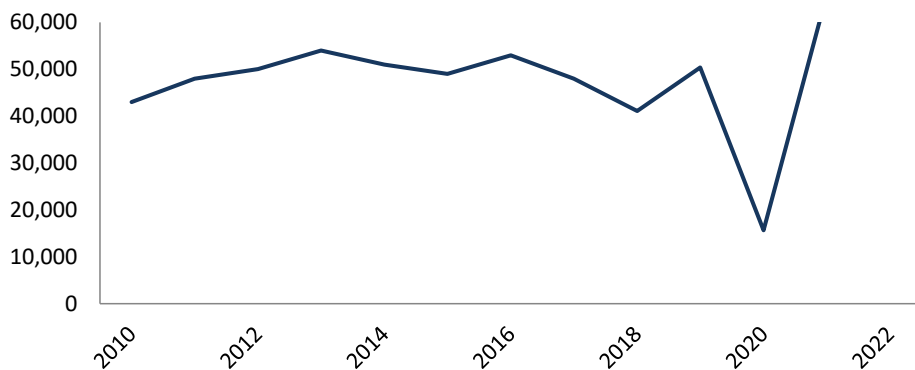
Air travel accounts for about 5% of passenger travel to the Island. The total number of passengers departing by air grew dramatically from 1970 to 2000, coinciding with the period of most rapid development on the Island, and has since declined considerably.

Operations, 1990–2022



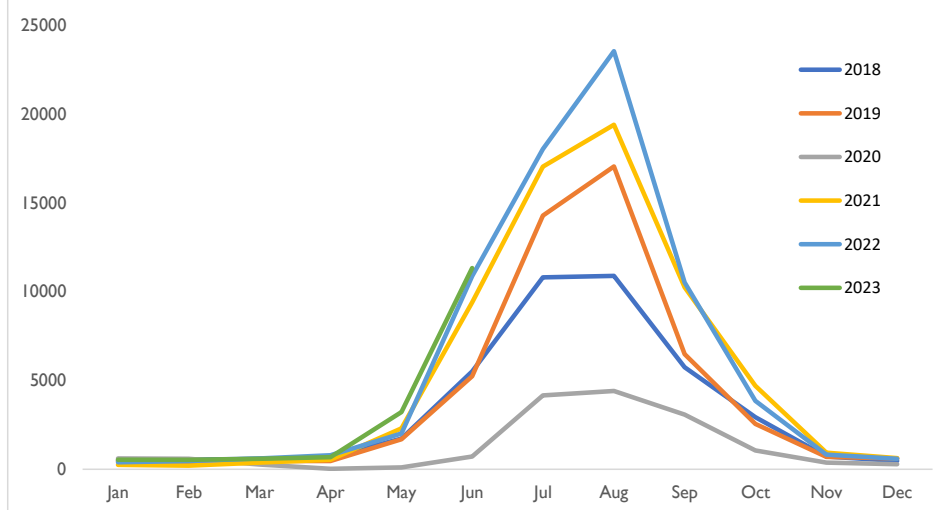
The number of annual commercial enplanements or boardings (passengers departing on scheduled airline flights) fluctuated from about 60,000 in the mid-1980s, to less than 40,000 in the early 1990s, then peaked at about 74,000 in 1999. In recent years, annual enplanements have fluctuated considerably, due partly to the Covid-19 pandemic in 2020.

Enplanements, 2010-2022



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Commercial Enplanements by Month, 2018-2023



The long-term variation since the 1970s has resulted from several factors, including changes in commercial service and the overall mix of air carriers (including a greater portion of commercial jets versus smaller aircraft), reduction of commercial service during the off-season, and revised flight schedules. Most commercial flights now arrive between around 11AM and 4PM, which creates a potential window of congestion in the terminal and on Airport Road during the

summer. In recent years, vehicles during those hours sometimes backed up all the way to Barnes Road, about two miles to the east. However, the airport reports much less congestion this year, even while operations and enplanements have increased. The improvement is likely a result of West Tisbury Police details being assigned to direct traffic on Edgartown-West Tisbury Road from about 12-4PM on most days, and better spacing of flight arrivals. (Still, the airport has observed significant congestion along Edgartown-West Tisbury Road this summer, with backups all the way from Barnes Road to Vineyard Meadow Farms Road about a mile to the west. The increased traffic may partly be a result of increased dump runs to the Edgartown Transfer Station just east of the airport, and possibly more people having learned to take Barnes Road in order to avoid construction delays in Tisbury.)

In response to typical summertime congestion at the airport, the MVAC plans to renovate the airport terminal, which was built in 1999. Public concerns surrounding the expansion a few years ago focused largely on maintaining a scale appropriate to the Vineyard. The airport has since shifted its focus from expansion to renovation and upgrading, while maintaining that it must continue to grow within the safety and parameters of the FAA and Transportation Security Administration (TSA), and offer a seamless experience for travelers.

One near-term change to the airline industry is the phasing out of E-190 jets, which carry 100 passengers each, in favor of the new Airbus 220, which carries 140 passengers. That may or may not result in fewer flights to the Island; the transition will likely take five to 10 years, with JetBlue indicating it may introduce the new planes to the Cape and Islands market in 2025. Cape Air is also planning to replace many of its aircraft, including with electric planes (see below), but that is not expected to affect flight schedules.

General aviation (GA), which refers to all aircraft except military and scheduled airlines, accounts for a large percentage of airport activity. The GA market was previously expected to expand slightly, while air carrier traffic remained stable. However, commercial traffic has increased about 76% since 2018, even with a major dip in 2020, while GA traffic has remained fairly level. The increase in commercial traffic may be a lingering (or lasting) trend resulting from increased air travel during the later part of the pandemic.

The airport notes a steady and large demand for general aviation in general, although the private nature of those businesses makes it difficult to monitor trends over time. The use of smaller aircraft has declined over the years, as recreational aircraft become more expensive to buy and maintain, and as many recreational pilots get older.

An increase in air passengers to the Island could decrease the number of vehicles on the road, but that benefit must be weighed against the potential increase in air traffic over Island neighborhoods and the relative greenhouse gas emissions.

With support from MVC staff and others, the airport has begun assessing the effects of aircraft noise on the surroundings, as part of the voluntary Federal Airport Noise Compatibility Planning process. The first step this year will be contoured noise exposure maps (NEMs) that show aircraft noise levels at specific times of day. This type of map has become standard for the FAA and most other Federal agencies, and takes into account factors such as average operating conditions, flights per day, the frequency of runway usage, and the flight paths of aircraft over

surrounding areas. The maps will show existing conditions and a five-year forecast. A technical advisory committee to oversee the planning process includes MVC staff, pilots, airlines, nearby residents, and other stakeholders. Once completed, the maps will help the airport determine whether changes to its existing [Fly Friendly](#) noise abatement program (to help reduce noise impacts on the surroundings) are needed.

With funding from MassDOT, the airport initiated a new automated parking system in 2017, where customers take a ticket upon entering one of three parking lots near the terminal, and pay on their way out. Previously, parking fees were based on an honor system that likely failed to capture the potential revenue for the airport. Among other things, the new system provides reliable data to the airport for planning purposes; and LAZ Parking, which installed the system, has served as the airport's ground-transportation manager, patrolling the front curb and parking lots during the summer and managing all of the airport's transportation contracts. The initial contract with LAZ will end soon, so the airport is exploring various options to continue the revenue-based system.

Electrification

Air travel currently accounts for about 7% of the Island's transportation emissions, although electric or renewably powered jets will likely not become feasible for some time. Still, some level of electrification may play a role in the Island's air transportation system in the coming years. Cape Air, which provides the only year-round commercial flight service to the Vineyard, intends to purchase 75 electric planes that are currently under development, and other companies, including Joby Aviation Inc., are developing electric air taxis that may reach the market in the next few years. The Cape Air planes would be a significant step toward eliminating flight emissions associated with the year-round population. As noted in the MVC Transportation Strategy Working Paper, once electric planes are proven in concept, reduced fuel and maintenance costs will help drive adoption.

Objectives

1. Continue to improve the safety, efficiency, and reliability of the airport as a transportation resource for the year-round and seasonal communities.
2. Improve airport facilities in response to present and future needs, including those related to technology and airline demand, and ensuring adequate facilities to accommodate aviation activity.

Proposed Actions

Short-term

- Initiate a series of public visioning workshops focusing on how best to meet the needs of seasonal and year-round MVY customers.
- Perform traffic counts on Airport Road between April and October 2024, in order to further quantify the need for traffic improvements such as a right-turn lane.

Long-term

- Further explore the possibility of airline and connector roads on airport property, in order to reduce vehicle traffic at the intersection of Edgartown-West Tisbury and Barnes roads, and complete the inter-airport roadway system associated with the development of the airport business park and the terminal areas.
- Support the airport as it moves forward on implementing projects in its Capital Improvement Plan, including the hosting of public outreach meetings as needed.
- Support the airport as it pursues infrastructure improvements adequate to meet current and future fire protection needs in regard to water supply and pressure for fire protection systems. Continue to study the feasibility of sourcing water from the Edgartown Water Department rather than the Oak Bluffs Water District, or of building a new municipal well on airport property.
- Continue to make improvements to the airport sewage treatment plant.
- Work to enhance year-round air service to hub airports.
- Identify and update performance measures to improve the operation of air transportation facilities.
- Continue to monitor operating policies at hub airports that affect Island air carriers.
- Continue to monitor the operation of the airport terminal; collect data related to the amount of customer traffic throughout the year, for use in designing the renovated terminal.
- Continue to support the airport as it develops the contoured noise exposure maps and applies the results to its Fly Friendly program, including the hosting of public outreach meetings as needed.
- Participate in discussions surrounding the airport's next master planning process, expected to begin around 2026.

SECTION 9: Roads and Automobiles

Overview

The Martha’s Vineyard road network still resembles the roadways created when the Island population was less than 5,000, but now accommodates the travel demands of about 20,600 year-round residents, and more than 90,000 people during the peak summer season.

The Island’s 177 miles of public, paved roads are classified into three basic categories with varying widths, lengths, and access features. Federal guidance for transportation systems generally reference a hierarchy of roadway function—from the “local” road network, to the “collector” or medium-style roadway, to the “arterial” or main-road network. Certain arterial roadways on the Island carry higher volumes of traffic at varying posted speed limits, from 20 to 45 miles per hour. In addition, the ferry routes from Woods Hole to Vineyard Haven and from Hyannis to Oak Bluffs are classified as regional arterials, making them eligible for Federal and State transportation funding.



Major and minor collector (secondary) roads constitute routes between towns and to shops, schools, parks, and beaches, on which travel distances and speeds are shorter and slower, relative to arterials. The remaining roads, which provide access to homes and places of

businesses, are referred to as local roads. The paved local roads are never more than two lanes wide, limiting capacity to about 1,200 vehicles per hour in each direction.

According to the Massachusetts Vehicle Census (launched in 2023), Dukes County has a total of 26,741 active vehicles in 2023, up from 25,148 in 2020. That includes 24,870 passenger vehicles, or about 1.2 per year-round resident.

Active Vehicles by Town				
	2020	2021	2022	2023
Aquinnah	504	502	503	554
Chilmark	1,697	1,758	1,860	1,886
Edgartown	6,920	6,825	7,213	7,396
Gosnold	43	32	37	39
Oak Bluffs	6,084	6,078	6,405	6,436
Tisbury	6,157	5,910	5,861	5,900
West Tisbury	3,743	3,826	4,140	4,530
Total	25,148	24,931	26,046	26,741

Trends and Issues

About 87% of the people who responded to the 2023 RTP Survey said cars are their primary mode of travel, followed by bikes (5%), and the VTA (4%). Significantly, respondents also prioritized an increase in alternative transportation options other than single-occupant automobiles, showed a strong desire for improved bike and pedestrian conditions across the Island, and would most like to see funding for projects that reduce congestion and pollution. (See survey results in the Appendix.)

According to the American Community Survey (ACS), about 287 (4%) of the 6,801 occupied households in Dukes County in 2021 had no vehicles available, and about 2,285 (34%) had only one vehicle available. At the same time, the average household size in Dukes County was about three people, which could suggest a need for transportation options beyond a single car.

The relatively compact size of Martha’s Vineyard translates to a mean travel time to work substantially less than that on the mainland. According to the ACS, the mean travel time to work in Dukes County is about 16 minutes, compared to 28 minutes for Massachusetts. But despite the limited travel times, ACS data indicate that alternative travel options remain largely unused in the off-season. Among workers ages 16 and up, two thirds drove alone to work, while 8% carpooled, 3% walked, 2% used public transportation, 1% biked, 1% used other means, and 20% worked from home. It should be noted that according to the ACS, the number of people working from home approximately doubled during the Covid-19 pandemic. This has likely reduced the need for work-related travel in recent years.

A steady increase in vehicle traffic on the Vineyard since the 1990s, combined with narrow or winding roads, has led to considerable amount of congestion in the summer. At the same time, the community has often expressed a strong desire to preserve the Vineyard’s rural character and scenic roads. Since at least the 1980s, residents have periodically called for a cap on the

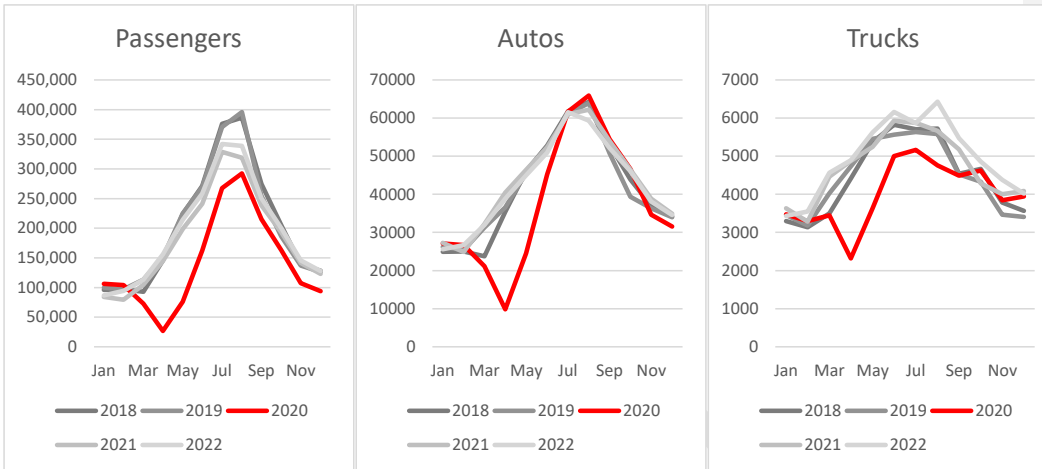
number of vehicles in the summer, a sentiment that led to a nonbinding referendum in 1997 to constrain vehicle traffic on Steamship Authority (SSA) ferries to 1995 levels. (See Section 6.) Some comments in the 2023 RTP Survey also indicate a desire to see a limit on the number of vehicles (electric or otherwise) on Island roads.

The number of automobiles arriving by ferry has increased by about 3,540 per year since 1998, with about 44% now arriving in June-September. The number of cars registered on the Island has also increased, with permanent residents, seasonal residents, and long-term visitors accounting for most of the summer weekday traffic at busy downtown locations. Various goods continue to be shipped over on the ferries, and trash and recycling account for about 13% of all freight trips off the Island. To help manage congestion, the Steamship Authority has worked to distribute ferry trips among the two Island terminals, and to prevent freight and passenger ferries from arriving at the same time. But SSA officials have also pointed out that as the Island population continues to grow, so does the demand for ferry service.

According to SSA data, vehicle trips to the Island from 2002-2022 (including automobiles and trucks) increased about 19% in the summer (June-Sept), and about 7% in the winter (January-March). The winter trend reflects both the increase in second homeowners traveling to the Island in the off-season, and an increase in the number of Island residents in general, including those who commute to work or school on the mainland.

The Covid-19 pandemic greatly affected the number of passengers, automobiles, and trucks traveling to and from the Island. All three measures plummeted at the outset of the pandemic in April 2020, then gradually rebounded. Automobile trips rebounded most quickly, even surpassing pre-pandemic levels by July 2020, and have remained relatively high since then. Passenger and truck trips remained well below normal for most of 2020, although truck trips returned to pre-pandemic levels by the fall. Passenger trips remained low even through the summer of 2022, but returned to the usual range that fall.

It is likely that travelers to the Vineyard in 2020 who may have normally traveled as walk-ons decided to bring a car during the pandemic to reduce exposure to other passengers. That trend may also have continued into 2021 and 2022, which could help explain why the number of passengers remained low through last summer while automobile trips were less affected. The relatively quick rebound in truck traffic in 2020 may also have been influenced by the ability of drivers to stay in their vehicles on the ferries, although the decline in truck traffic that summer reflects a general decline in economic activity at the time.



Roads

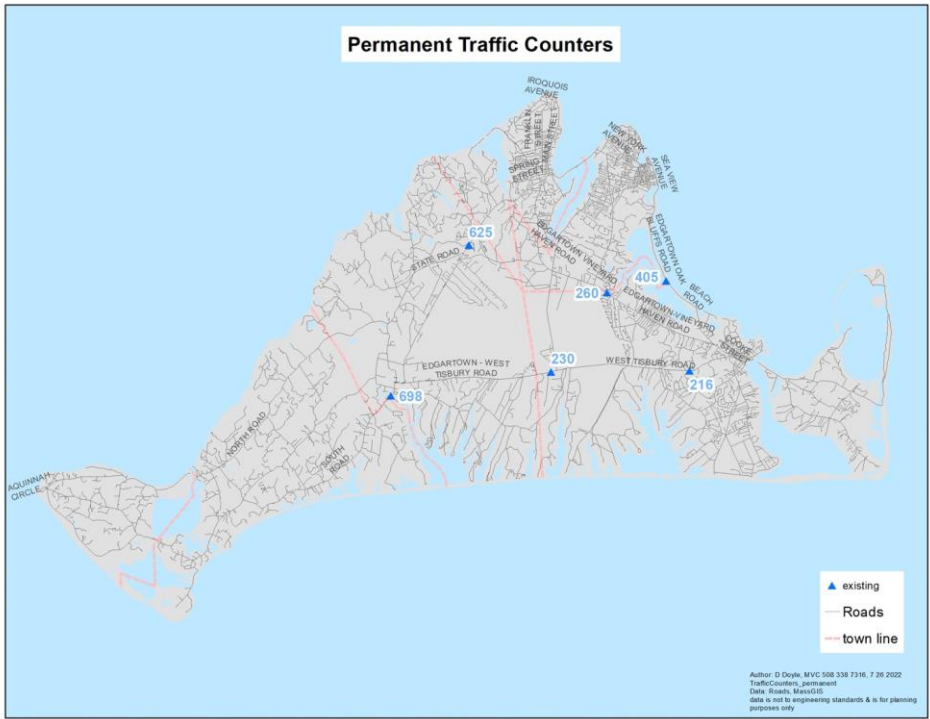
The regional transportation network performs well for most of the year, although the MVC continues to study areas of heavy congestion. During July and August—and increasingly during the shoulder-season months of April-May and September-October—congested locations become more evident, and people tend to look for alternate times and routes to avoid delays. During the summer, several intersections and roads back up for sustained periods, resulting in delays of 20 minutes or more. Congestion remains a particular issue at the following four intersections and convergences down-Island:

- The Five Corners intersection (Tisbury)
- The intersection of State, Look, and Edgartown-Vineyard Haven Roads (Tisbury)
- Steamship Authority terminals (Vineyard Haven and Oak Bluffs)
- The Triangle and Upper Main Street (Edgartown)
- The intersection of State and Edgartown-West Tisbury Roads (West Tisbury)

Most of those locations have undergone extensive study, with various proposals over the years. However, with the exception of the redesigned Oak Bluffs terminal and recent MassDOT/Tisbury project to improve bicycle and pedestrian traffic east of Five Corners (see Section 12), no significant action has been taken.

The most influential traffic-mitigation project on the Vineyard in recent years is the roundabout in Oak Bluffs, which replaced the four-way intersection of Barnes and Edgartown-Vineyard Haven roads. The project generated prolonged and often fierce public debate, but is now generally accepted as a major improvement. Other recent projects include the realignment of North Road where it meets State Road in West Tisbury, and the addition of a turning lane on Barnes Road where it connects with Edgartown-West Tisbury Road in Edgartown. All of those projects were funded through the Transportation Improvement Program (TIP).

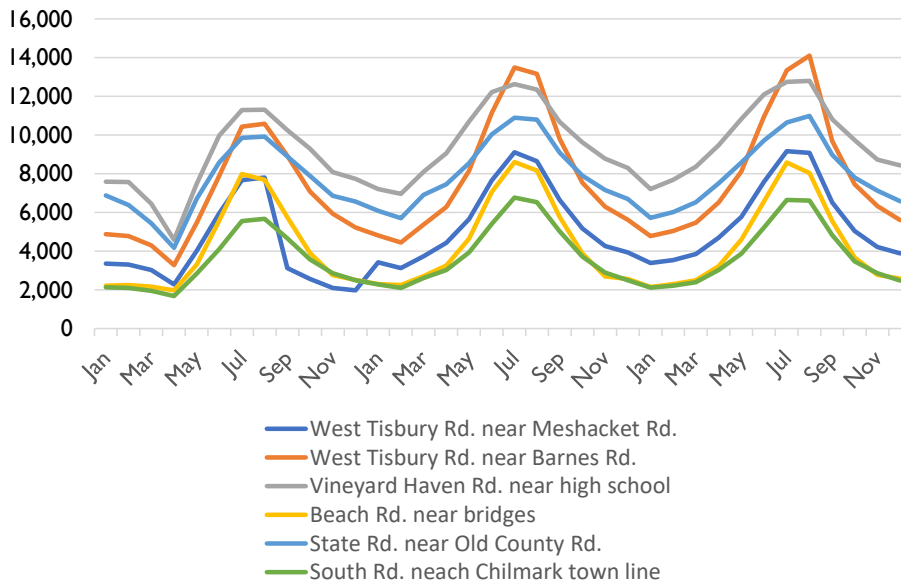
MVC traffic counters are deployed at key locations around the Island to monitor traffic volume, crashes, and other trends. Previously the counters were rotated each year to provide broader coverage, which limited the MVC’s ability to monitor volume from year to year. With 2018 TIP funding, permanent counters were installed at six key locations in 2019—State Road in West Tisbury, Edgartown-West Tisbury Road at Barnes Road, South Road on the Chilmark-West Tisbury line, Edgartown-West Tisbury Road west of Meshacket Road, Edgartown-Vineyard Haven Road near the high school, and Beach Road near the Big and Little bridges—which will provide more consistent data for use in both short- and long-term transportation planning. It should be noted that some of the busiest intersections like Five Corners and Look St. were not included, since the idling cars at times would create interference in the data. Temporary counters are still deployed at many locations each year, with the results provided to the towns and MassDOT for planning purposes.



The first full year of permanent traffic count data corresponded with the onset of the Covid-19 pandemic (2020), so the numbers represented less traffic than normal. The annual average daily traffic (ADT) in 2020 ranged from 3,300 on South Road to 8,468 on Edgartown-Vineyard Haven Road, while the range in 2022 was from 4,376 on Beach Road to 9,907 on Edgartown-Vineyard Haven Road. The total counts were similar in 2021 and 2022, but varied month to month, especially in February (usually the quietest month on the Island) where overall traffic increased 8.25% (370 trips per day) in 2022. August traffic increased about 3% in 2022, or about 300 trips per day. West Tisbury Rd. at Barnes Road showed the greatest seasonal variation in all

three years, and the highest summer peaks in 2021 and 2022, likely as a result of increased traffic to and from the nearby Martha’s Vineyard Airport, Business Park, and Edgartown Transfer Station. The high volume at that location may also be the result of more people traveling between West Tisbury and Oak Bluffs via Barnes Road in order to avoid Five Corners and the drawbridge, and construction on Beach Road.

Monthly Average Daily Traffic 2020-2022



Another TIP project that deserves mention is the Lagoon Pond Drawbridge, which opened to traffic in November 2015, replacing the previous drawbridge from 1935, and a temporary structure that was completed in 2013. The \$43.7 million project aimed to improve safety for drivers, pedestrians, and cyclists, and was one of seven in the state to receive an Engineering Excellence Award from the American Council of Engineering Companies in 2017. However, many have expressed frustration with the long delays that result from the process required to raise and lower the bridge when boats pass underneath. In some cases, traffic on the Tisbury side may back up all the way to the Five Corners intersection. One option to mitigate the delays in summer would be to use a text-notification system to alert drivers when the bridge is about to open, so they can plan accordingly.

Elsewhere, an increase in traffic in already busy areas may cause even longer delays than are typically expected. A relatively small increase in traffic at an intersection that is nearing capacity could lead to a large increase in delays. As traffic volumes on main roads approach their design limits at peak hours, more traffic is being channeled onto local roads in order to avoid congested intersections. To avoid delays, many drivers would take other routes if they were

available, or avoid driving during peak hours. Some visitors might stop coming to the Vineyard all together because of the unpleasant traffic.

Although some delays are merely an inconvenience, congestion can be especially problematic for unavoidable trips, such as off-Island hospital visits, where there is no real alternative to taking the ferry and unplanned delays can mean missing an appointment.

The fact that certain roads and intersections are congested for several months of the year does not necessarily mean that physical changes are the best course of action. Various opinion surveys indicate that people are generally against the expansion of infrastructure, including the widening of roads. For example, while 64% of respondents to the 2023 RTP survey indicated that maintaining roads and bridges is a “very important” priority, 60% said that widening roads was either “less important” or “not important,” and only 44% indicated turning lanes as either “very important” or “important.” The challenge is how to deal with increases in population and traffic, and a historic road network, while keeping congestion within bearable levels. In cases where expanding a road’s capacity would result in a significant detriment to the surrounding environment, the road should not be expanded. Planners and agencies must seek a balance between the unique experience and environment of Martha’s Vineyard and the increasing travel demands.

Preserving the character of Island roads may necessitate an increased tolerance for travel delays, although certain alternatives to road expansion should also be pursued: more real-time information so that people can choose to avoid congested areas at peak times, a shift to transit or other alternate modes during the busiest times, and zoning changes that promote a viable yet comfortably walkable, bikeable, and transit-friendly environment.

Other alternatives to expansion that should be prioritized even before roads reach their capacity include the following:

- Increase alternate modes of travel such as bus, taxi, bicycle, and foot.
- Limitations on use, such as restricting oversize vehicles or restricting vehicle traffic in certain areas.
- Making some roads one-way for improved circulation, where feasible.
- Land use and site design that facilitates walking, biking, and transit use.
- Traffic management techniques, such as providing information about congestion so that travelers can plan accordingly.

Parking

- Since so much of the Vineyard is rural or semi-rural, many people choose to travel by car or truck for at least part of their trip. This highlights the importance of parking near destinations, and an efficient transit system. Unsurprisingly, drivers have a harder time finding parking in town centers during the summer season. Physical constraints related to existing buildings or natural conservation areas make it difficult to add parking areas, particularly in town centers, so the need to provide parking outside of town, with efficient shuttle service, is increasingly important. The shortage of parking in town

centers was an issue highlighted by the 2009 Island Plan transportation workgroup, and figures prominently in the more recent master plans for Oak Bluffs, Aquinnah Circle, and Menemsha.

- There are three park-and-ride lots on the Vineyard, including, most recently, in Chilmark. The ones in Tisbury and Edgartown are intended primarily for employees, ferry passengers, and visitors—which frees up more parking spots in the town centers. The Vineyard Transit Authority (VTA) provides free service between the lots and corresponding town centers.
 - The Tisbury lot has a capacity of 420 vehicles and is free for up to seven days, with a charge for longer-term parking. An agreement between the town of Tisbury, the VTA, and the Steamship Authority provides free, year-round shuttle service from the park-and-ride to the ferry terminal with at least two trips an hour to coincide with the ferry schedule. Use of the Tisbury lot has increased significantly since 2013 when the free shuttle and short-term parking were established. (The SSA had leased a property at the Airport for possible use in the future as an off-site parking and service center, but the Airport has since designated that lot for additional Business Park activity.)
 - The Edgartown lot has a capacity of 150 vehicles. Although only a short walk to downtown, it is serviced by shuttle bus five months a year. The lot is often near capacity in July and August.
 - The Chilmark park-and-ride shuttle, also known as the Menemsha Sunset Shuttle, runs from a parking lot on Tabor House Road to Menemsha village, where parking is notoriously limited in the summer. During the day it also stops at the Chilmark Community Center. The park-and-ride is intended to serve primarily summer visitors and runs from the end of June to the beginning of September. It has a capacity of 70 vehicles and has been operating since 2014.
 - Many residents and visitors are unaware of the park-and-rides, or how they operate. And some towns have relaxed enforcement of in-town parking regulations in the shoulder seasons, which promotes parking in the town centers. The Joint Transportation Committee and the towns have worked to promote awareness and use of the park-and-ride lots, and to create new ones. A small park-and-ride at the Oak Bluffs public works yard was operated on a trial basis in 2005, and Oak Bluffs has explored potential land for another trial (see Section 10). The JTC also encourages seasonal parking at the Oak Bluffs and Edgartown schools.
 - The Tisbury park-and-ride lot is used largely by commuters from off-Island, who may also park overnight, which leaves less space for Island residents to use the service. Discussions about how to address this issue at the town level are ongoing. (Tisbury officials have noted that their town bears much of the burden in terms of regional traffic, since it is home to the only year-round ferry terminal and much of the year-round business activity.)

Pavement

- Most of the 177 miles of paved, public roads on Martha’s Vineyard are municipally owned and maintained. Many of the main and most-traveled roads are classified as

arterials, and many are owned, improved, and maintained by MassDOT. There are 102.8 lane- miles (51.4 road miles) of Vineyard roads that are eligible for federal aid.

- A Pavement Management System aims to keep the roadway system in the best possible condition with the most efficient use of available funds. The goal is to manage pavement conditions through prevention or rehabilitation, rather than to wait until a road is in need of costly reconstruction. Unsurprisingly, the cost of maintaining excellent road conditions across the Island, even for Federal-aid-eligible roads, far exceeds the available resources.
- Based on a visual review by the Martha’s Vineyard Commission, the Island’s Federal-aid-eligible roads are in good condition overall. However, even a single storm may change the condition of a road, so updates are both necessary and ongoing. The main travelling-road surfaces show few signs of deterioration, and ride quality is good, though ongoing maintenance is needed to maintain that condition. Often more problematic are the edges of roadways or road shoulders, especially where vehicles pull off to park, where deterioration may endanger cyclists travelling on that part of the roadway.
- Based on previous Regional Transportation Plan (RTP) cost estimates, improving road quality from “good” to “excellent” requires \$40,400 per mile; improving from “fair” to “excellent” requires \$405,146 per mile; and improving from “poor” to “excellent” requires \$697,980 per mile. This update uses the same general estimates, except the poor-to-excellent scenario, where we increased the cost estimate to \$1,000,000 per mile, based on project cost estimates.
- Based on those figures, the total cost of bringing the pavement of all Island roads up to excellent condition would exceed \$12,792,000, which would be about 30% of the projected highway funding of \$41,789,703 between 2025 and 2040. Despite the high cost, the first priority should be dealing with roads that are in fair or poor condition. The following table indicates the estimated costs based on the available funds for pavement improvements over the next 20 years.
- Overall, the pavement management strategy for the region will be developed in a financially constrained way that takes into account the projected revenues available to the region. The pavement conditions on-Island will be updated in each long-range transportation plan based on data collection by the MVC and town departments of public works. The MVC will also discuss shared-use path conditions with the towns and JTC in order to maintain off-road multi-modal options.
- Among the 71 RTP survey respondents in 2023 who identified specific roads that they avoid due to pavement conditions, 36 said there were no roads they avoid, although 16 identified various roads (9 down-Island and 7 up-Island), and 10 mentioned unspecified dirt or private roads. State Rd. in Tisbury, Edgartown-Vineyard Haven Road, and Middle and State Roads in Chilmark were all mentioned more than once.

Electrification

According to the MA Vehicle Census, the number of active electric vehicles on Martha’s Vineyard has increased about 73% since 2020, compared to a 4% increase in the number of fossil fuel vehicles. This is similar to the statewide increase of about 70%, although the Vineyard has seen a sharper increase in plug-in hybrids and a softer increase in all-electric vehicles, and the number of fossil fuel vehicles statewide has decreased by about 1%.

Active Vehicles by Advanced Type						
	2020	2021	2022	2023	% Change: County	% Change: State
Fossil fuel	24,417	24,107	25,013	25,475	4%	-1%
Hybrid electric	529	578	672	752	42%	48%
Electric	141	172	248	352	150%	180%
Plug-in hybrid	61	74	113	162	166%	120%
Hybrid + electric	731	824	1033	1266	73%	70%

Hypothetically, if the current trend on Martha’s Vineyard were to continue, electric and hybrid vehicles would outnumber gas-powered vehicles by around 2040. However, the trend will likely accelerate as renewably powered vehicles become more affordable and as the state moves forward on incentive programs and other efforts to comply with the 2021 Climate Law, including net-zero emissions by 2050. (According to the MA Clean Energy and Climate Plan for 2050, incentives will apply both to purchasing and charging electric vehicles, and retiring gas-powered ones.) The Island is also especially conducive to electric vehicles, since trip lengths are generally limited by the size of the Island. To plan for the shift in Dukes County, significant planning and funding should be directed to ensuring adequate charging infrastructure, and opportunities for residents and businesses to purchase EVs and retire their old vehicles.

Current technology allows for three levels of EV charging. Level 1 entails plugging the vehicle into a regular 120V wall outlet, which adds about 2-4 miles of charge per hour, depending on the vehicle. This is the slowest and least efficient method and is generally not adequate for most EV owners. Level 2 relies on 240V power and is about 6-8 times faster, adding about 12-32 miles of charge per hour. At the same time, not all homes are equipped to handle the additional voltage, and Level 2 charging may not be practical for charging en route. Level 3 is by far the fastest method, relying on 400-800 volts and adding up to 100-250 miles of charge in 30-45 minutes. This method also requires additional equipment, including a charging station similar in size and appearance to a gas pump. The transition to electric vehicles on the Island will require an increasing number of Level 2 chargers at homes and business places, along with dedicated Level 3 charging stations. Level 3 stations could potentially be located at park-and-ride lots, employee parking areas, libraries, and Steamship Authority staging areas – particularly at the Woods Hole terminal, so drivers can arrive on-Island with a full charge. Level 3 chargers are currently planned for the West Tisbury and Chilmark Schools. If possible they should be monitored in terms of the frequency and duration of charges, and overall energy use.

Looking Ahead: Key Locations

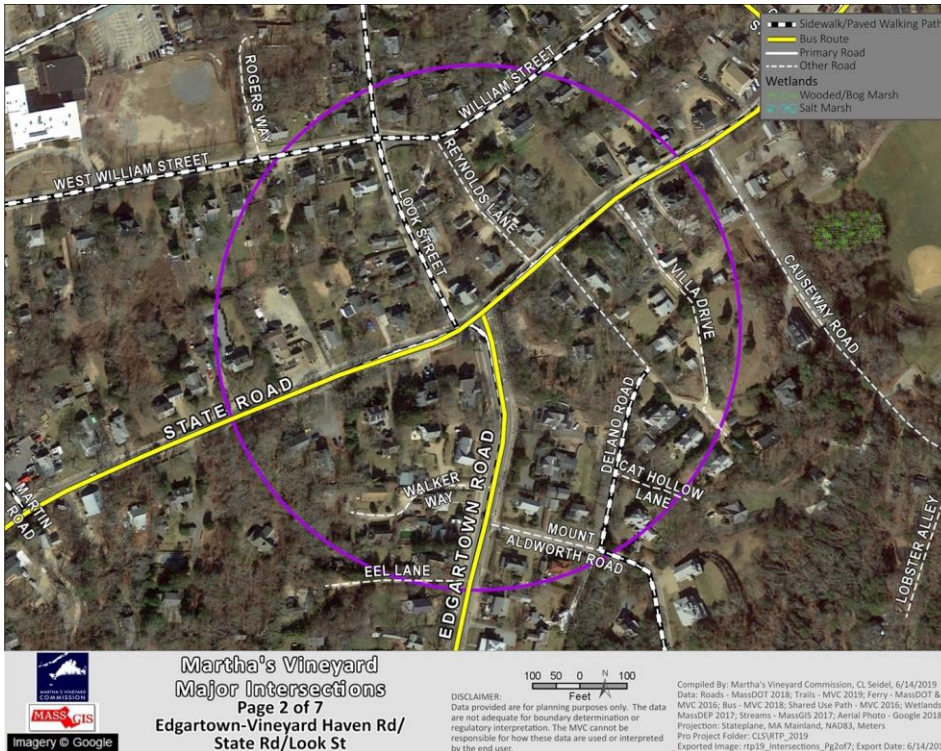


Five Corners

This intersection features three local roads (Water Street, Beach Street Extension, and Lagoon Pond Road) converging on an urban principal arterial road (Beach Street/State Road—Beach Road). The Steamship Authority terminal on Water Street generates traffic throughout the day and throughout the year. Much commercial, municipal, and pedestrian activity in the immediate area contributes to summertime delays of 10 minutes or more. In addition, the VTA bus hub is located at the end of Water Street near the Union Street parking lot for the convenience of downtown transit customers. The VTA buses try to keep on schedule while SSA and downtown traffic converges to exit via Water Street and the Five Corners intersection.

Various planning efforts over the years have explored options to improve the flow of vehicle and pedestrian traffic at the intersection, including in the context of the MassDOT Beach Road project, which was completed in 2022 and features improved pedestrian and bike infrastructure along Beach Road near the Lagoon Pond Drawbridge. Further planning is underway for how to direct foot and bike traffic around or through Vineyard Haven in a safe manner, and how to improve drainage in the Five Corners and State Road area.

Separately, the town of Tisbury in 2015 decided to experiment with reversing the one-way direction of Union Street, which now provides vehicles leaving the terminal an alternate route up-Island. This low-hanging fruit has presumably eased some of the traffic at the Five Corners, but more study is needed to quantify the effect. Discussions about whether to make Lagoon Pond Road one-way, or allowing only service vehicles on Beach Road Extension, have also come up in recent years, but no action has been taken.



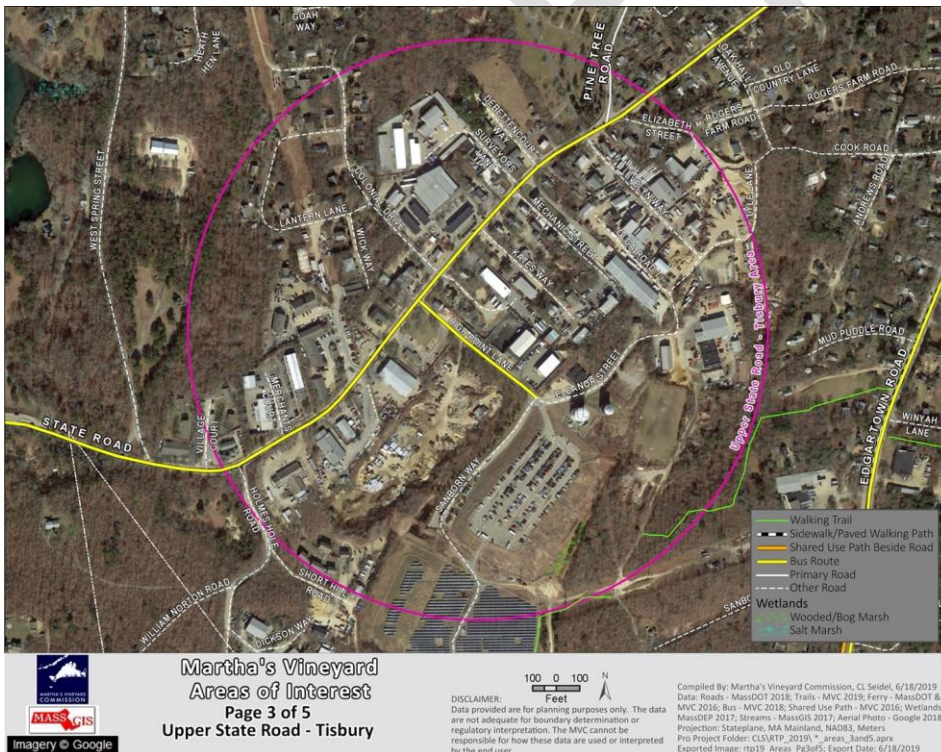
State Road, Look Street and Edgartown-Vineyard Haven Road Intersection

An urban principal arterial (Edgartown-Vineyard Haven Road) ends at State Road, which continues east as an urban principal arterial to Five Corners, and west (toward Upper State Road) as an urban minor arterial. The connection to Edgartown-Vineyard Haven Road and Vineyard Haven make this a well-used arterial connection. The State Road corridor is equally important as a connection to the same Vineyard Haven downtown destinations, and carries traffic from the three up-Island towns. The convergence of these two well-used roadways unsurprisingly creates delays. As State Road is the primary route through the intersection, the other movements typically experience the most delay. The left-hand turn from Edgartown-Vineyard Haven Road is particularly problematic, and is an increasing safety concern.

One proposed solution was the Tisbury Connector Roads, studied and brought to solid concepts in terms of how the roadways would connect between Edgartown-Vineyard Haven Road and Upper State Road. Plans were completed and the town brought the project to town meeting in 2012. Though a majority of voters approved of the Tisbury connector road system, the article did not gain the two-thirds margin required to pass.

A study carried out by the MVC indicated that, provided all three planned links to State Road were constructed, the project would offer the following advantages:

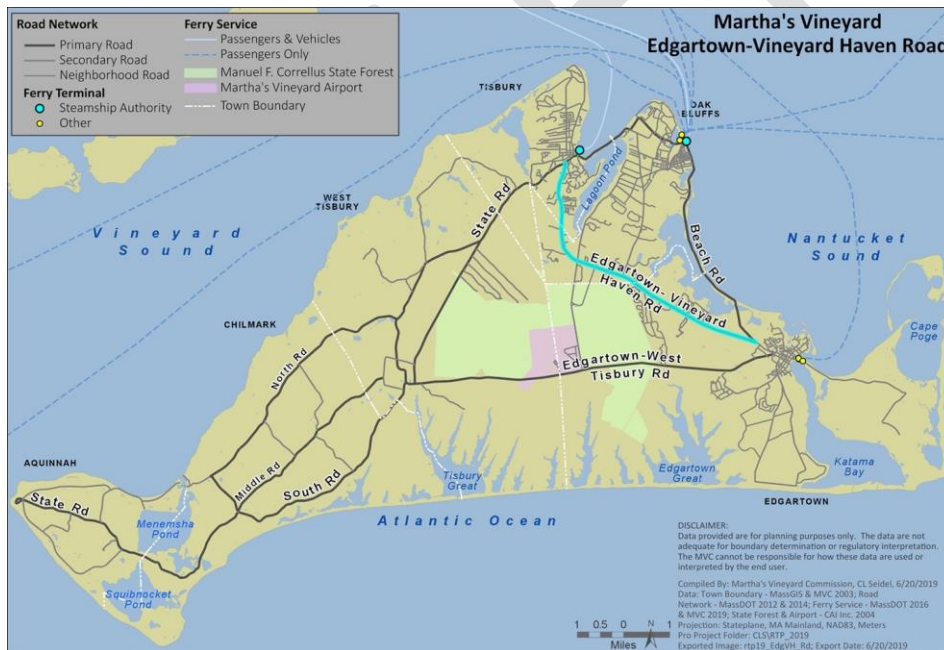
- Relieve traffic along the Upper State Road corridor and at the Look Street intersection by allowing much of the traffic between the Edgartown-Vineyard Haven Road and the Upper State Road commercial area (as well as traffic heading Up-Island) to bypass the intersection and part or all of the busy portion of Upper State Road.
- Provide better access to the park-and-ride and the shuttle to the ferry.
- Provide easier access to the properties south of Upper Main Street as part of a proposal by the Tisbury Planning Board for extensive smart-growth infill development.
- The possibility of making Look Street one-way (exiting the intersection) should also be analyzed.



Upper State Road

A commercial corridor along an urban minor arterial/rural major collector, this area frequently experiences congestion related to the many access points. In the 1990s, the State Road Corridor Committee commissioned a study by MS Transportation that among other things recommended limiting curb cuts and suggested the possibility of local commercial roads on both sides of State Road and parallel to it, which would better handle the local commercial traffic and relieve congestion on State Road. In reviewing some Developments of Regional Impact in the area, the Martha's Vineyard Commission has required the inclusion of easements or further work related to the construction of such roads.

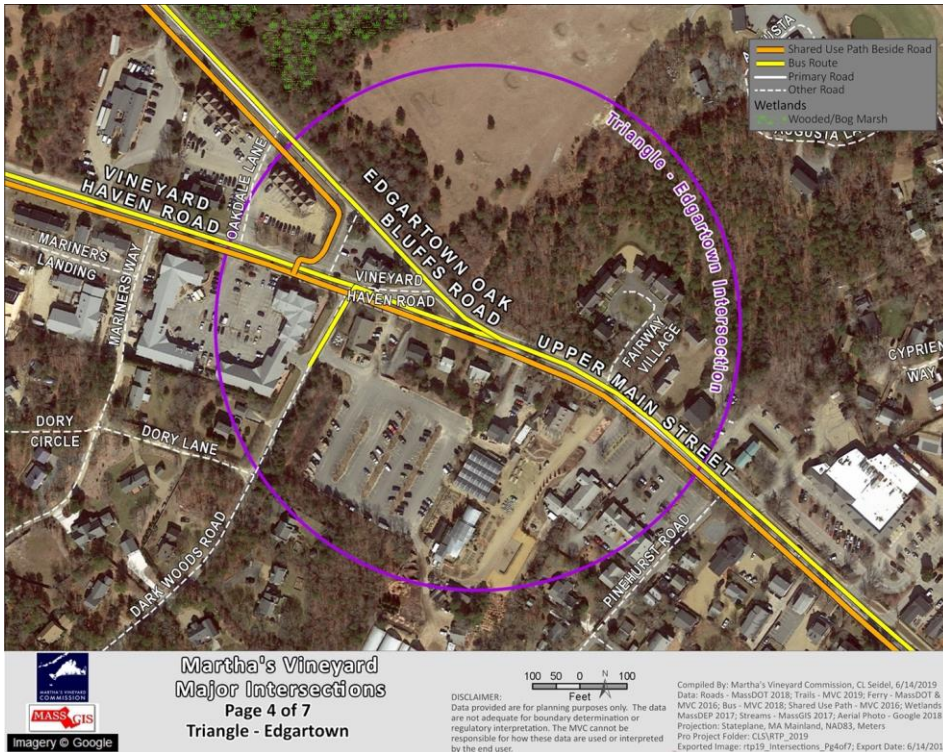
Another measure to limit congestion on State Road is to limit new traffic-generating uses in the area. The MVC has been doing this in recent years through the DRI process. Further study on improvement options for the corridor, including for pedestrians and bicycle accommodation, should be undertaken in the future. Meanwhile, voters in Tisbury approved funding in 2017 to design and engineer a new sewer district on State Road. The purpose was largely to improve the health of coastal ponds in the watershed, but it's unknown to what extent the new sewer lines will facilitate new development (and perhaps traffic) in the State Road commercial district. The town has stated that it expects new sewer capacity to become available by the fall of 2023. With it will come applications for new projects that will increase traffic on the road.



Edgartown-Vineyard Haven Road

The south end of this well-traveled road makes up one leg of the Edgartown Triangle and provides access to many businesses and connector roads on the outskirts of Edgartown. It also connects to County Road in Oak Bluffs, where it changes in classification from a rural minor

arterial to an urban primary arterial, then continues on through the Roundabout and north into Vineyard Haven. There it intersects with Look Street and State Road, another intersection of high concern down-Island.



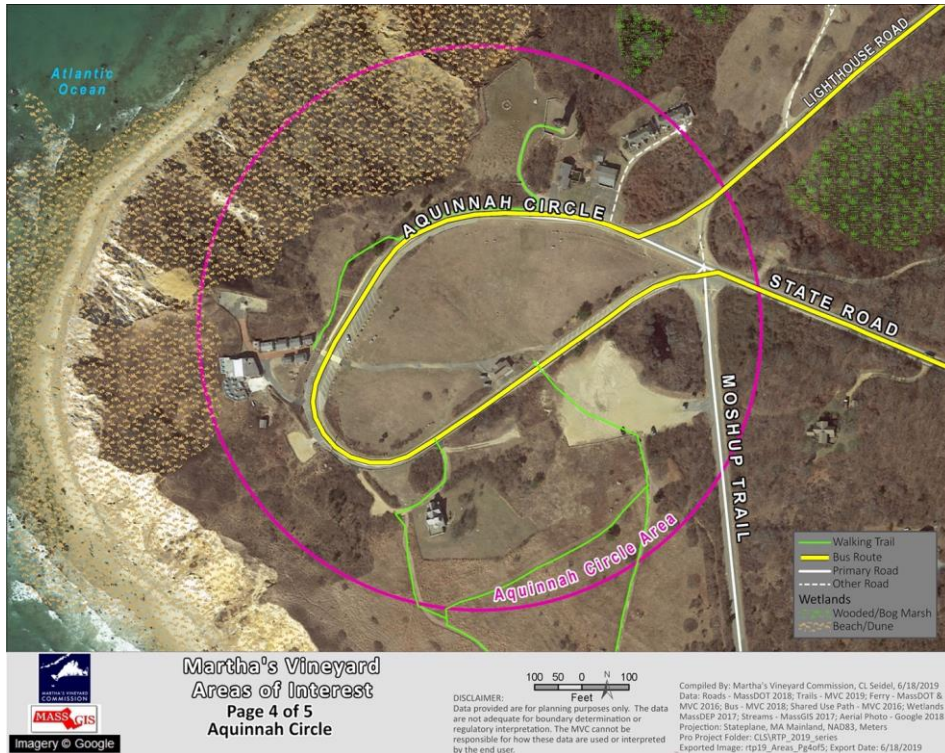
The Triangle

The convergence of Beach and Edgartown-Vineyard Haven roads can result in delays of 20 minutes or more, especially for vehicles entering and exiting Edgartown-Vineyard Haven Road. As with Five Corners and other key intersections down-Island, many suggestions have come up over the years, including the addition of turning lanes and the redirection of traffic on some roads. A proposal by Stop and Shop to expand its store on Upper Main Street, just south of the Triangle, drew new attention to the area in 2016, including a renewed discussion of whether to make Upper Main Street a three-lane road. (The Stop and Shop project is now mostly complete but does not appear to have significantly increased traffic in the area.) Still, no action on the Triangle has been taken, and any changes would depend heavily on community support, given the volume of traffic and the density of businesses and homes in the area.



Oak Bluffs Town Center

The 2019 Oak Bluffs Master Plan envisioned wide-ranging improvements to the town infrastructure, including the reconfigurations of County and Wing roads; County Road at Eastville Road (near the hospital); and Eastville Road at Temahigan Avenue. The plan aligns with this RTP in the sense that it prioritizes less reliance on automobiles in favor of walking, biking, transit, and other modes of travel; and seeks to prepare for the effects of sea-level rise on town infrastructure. The plan also focuses on parking in and near the downtown area, while maintaining the town’s unique character, including the possibility of a park-and-ride. Perhaps most progressively, the plan proposes working with the Steamship Authority “to increase the car fee, including congestion pricing approaches,” to reduce vehicle congestion in the summer. (The SSA has argued that doing so may exhaust the capacity of the parking lots in Falmouth.) Much of the streetscape project was completed in 2023, as outlined in Section 12.



Aquinnah Circle

The 2017 Aquinnah Circle Landscape Master Plan took a holistic look at various forms of travel that converge at Aquinnah Circle. The plan points out that vehicles tend to dominate the mix of travel modes at the Circle, with tourists and residents arriving by car, bus, van, bike, moped, and foot. Several proposed changes in the long-term include the redesign of parking areas, the widening of a portion of the road, a relocated bus stop and a number of changes aimed at bike and pedestrian traffic that could further reduce congestion.



Menemsha

Much of the Island, including the historic fishing village of Menemsha, was never intended to handle the volume of traffic seen today. The 2018 Menemsha Master Plan aims primarily to improve safety for pedestrians and cyclists by making the most of the narrow roads and limited parking in the area. Proposed changes include new signage to alert drivers to the presence of pedestrians walking between North Road and Menemsha Harbor, and engineering a new turnaround at the end of North Road big enough for most passenger vehicles. (North Road now turns 90 degrees at the Menemsha Channel—where it becomes Boathouse Road, which ends at the West Dock—and is often filled with customers eating at the Galley or Homeport restaurants.) Crosswalks, centerlines, movable walkways, parking limits, and other relatively simple fixes are also part of the plan. Along those lines, the town of Chilmark installed a stop sign at the corner of North and Basin roads this summer.

Further reducing the limited parking in Menemsha, the town select board in 2023 agreed to initiate the process of converting seven diagonal parking spaces on North Road to three parallel spaces, since the diagonal spaces were partly on private property and owner wanted them moved. The town administrator stated that the diagonal spaces couldn't simply be moved away from the property, given the narrow width of the roadway.

Capstone project in West Tisbury

Students at Northeastern University designed a potential solution to dangerous traffic conditions at the intersection of North and State roads in West Tisbury. Their design features a roundabout for vehicles, along with a safer path for pedestrians in the vicinity of a narrow bridge that crosses Mill Brook. The next step was for the town to submit a project notification form (PNF) to MassDOT, but much work remained in terms of further study and public review.

Context-Sensitive Design

The Vineyard's unique character is perceived largely by traveling along its roads, the preservation of which benefits both the tourism economy and the overall quality of life for many Islanders. In the past 49 years, the MVC has worked with towns and MassDOT to preserve the distinct character of the Island's scenic roads and to promote more context-sensitive design. In 1975, the MVC designated the Island Road District, setting limits on the placement of buildings and number of curb cuts along the main roads. This has effectively prevented the type of roadside strip development so prevalent in other parts of the country.

In reviewing Developments of Regional Impact (DRIs), the MVC considers impacts on scenic roads, including curb cuts, siting of buildings and parking, and the placement of vegetation. In 2012, the MVC adopted a DRI policy on site design and landscape that details some of those considerations. The policy could also potentially be used by town boards in their review of roadside development. Several town master plans also call for the preservation of scenic roads and trails in order to maintain each town's rural character.

In 2014, the MVC set up the Scenic Roads Initiative, which was overseen by representatives of the Commission and each Island town. The committee outlined a work program for how to better analyze and protect the Island's scenic roads, recommending a holistic approach that defines Island roads from an experiential point of view, with a focus on three components:

- The corridor (viewshed and vistas as seen from the road)
- The roadside (areas along but outside the public right of way, including adjacent buildings, entrances, fences, stone walls, roadside vegetation, commercial signage, and non-roadway lighting)
- The roadway itself (areas within the public right of way, including the alignment and geometry of the road, travel lanes, shoulders, drainage, sidewalks, pathways, and roadway lighting and signage)

The committee highlighted the influence of summer traffic and increasing residential development on Island roads, and voiced concerns about the Vineyard meeting the same fate as the Hamptons and other areas, where overdevelopment has led to wider or straighter roads and diminished the scenic qualities that made those places unique. (At least one committee member also argued that the standards associated with major or minor arterials, as defined by the state, are not always appropriate on the Vineyard, where narrow, winding roads form an

integral part of the landscape; among respondents to the 2023 RTP Survey, narrow roads were among the least pressing concerns.) The committee called for an official inventory of Island roads, along with a classification system based on characteristics and management objectives; and guidelines for preservation, maintenance, and improvements. That work would preferably result in a Martha's Vineyard road design manual, an idea the MVC unanimously endorsed around 2014. The Commission at the time selected the firms Lardner/Klein Landscape Architects of Alexandria, VA, and McCormick Taylor of Philadelphia to serve as consultants in the process, but a lack of federal funding has prevented the project from moving forward.

Transportation improvement projects must account for a variety of factors, including functional and safety requirements. They should also be designed to carefully maintain the character of places that residents and visitors recognize, appreciate, and support as having special value. Measures to help protect and enhance the Island's scenic roads include the following:

- Avoiding the addition of lanes to existing roads.
- In reconstruction projects, keeping the width of travel lanes and shoulders as narrow as possible, taking into account the various requirements related to traffic volumes and speeds. In some cases, it is possible to move the fog line within the overall pavement to narrow the travel lane and allow more room for bicyclists and pedestrians. Shoulders and overall pavement width can also be narrowed adjacent to shared-use paths.
- Preserving, enhancing, and restoring the historic tree canopies and vegetation along Island roads.
- Maintaining low speed limits and considering the possibility of lowering limits in some areas to allow for the preservation of existing road geometries and safer accommodation for bicyclists and pedestrians.
- Mitigating the impact of utility infrastructure on the visual and aesthetic character of the Island without compromising the dependability and security of vital services.
- Minimizing the number of signs on Island roads, and ensuring that all signs are useful, clear, well-designed, well-located, as small as possible, and in keeping with the Island character; using the distinctive Vineyard design for directional signs.
- Avoiding the use of traffic signals.
- Using roadside barriers compatible with the character of the Vineyard—generally wood barriers that are steel-backed (where needed), to meet crash-resistance requirements.
- Locating and designing new roadside development in rural areas to minimize its visibility from the road, and in village and other built-up areas to reinforce the distinct character of streetscapes and roadscaapes.

The following is a list of the Island's 15 most scenic roads, based on a survey carried out in conjunction with the 2016-2036 Regional Transportation Plan.

Middle Road, Chilmark
Lamberts Cove Road, West Tisbury
Beach Road between Edgartown and Oak Bluffs
Moshup Trail, Aquinnah
State Road from Beetlebung Corner to Gay Head Cliffs, Chilmark, and Aquinnah South Road, Chilmark

North Road, Chilmark
Tashmoo Overlook, Tisbury
West Tisbury Town Center
Chappaquiddick Road, Edgartown
Quitsa (Clam Cove) Overlook, Chilmark
Katama Road, Edgartown
Beach Road between the Hospital and Vineyard Haven
State Road from Tashmoo Overlook to West Tisbury
Edgartown-West Tisbury Road

Objectives

1. Support programs that discourage car use by using multi-modal means of transportation and that encourage use of electric cars and buses.
2. Improve road safety and congestion with improvements to infrastructure, traffic calming techniques, new or improved sidewalks and signage, and other measures. Prioritize areas with safety issues.
3. Ensure the maintenance of the road network while preserving the character of rural roads, including their existing footprints and designs. To maintain the Island's historic character, avoid street widening, new turning lanes, and traffic lights.
4. Put in place a process whereby a thoughtful commitment to rural road design reinforces the idea of roads as a resource in themselves.
5. Explore opportunities to improve the conditions of shared-use paths, in order to further encourage alternatives to automobile use.
6. Consider additional park-and-ride programs, pedestrian zones, new loop roads and the rerouting of traffic as means to improve traffic flow.
7. Reduce vehicle traffic passing through Vineyard Haven, Oak Bluffs, and Falmouth by eliminating non-essential ferry trips, such as passenger drop-off.
8. Adopt traffic management strategies in regionally significant corridors.
9. Explore methods to limit summer auto traffic so as not to exceed the capacity of the Island's roads and parking.
10. Continue working to preserve the character of Island roads, and to involve such discussion in all transportation planning and the review of Developments of Regional Impact.

Proposed Actions

Traffic Mitigation

- When appropriate, require transportation management associations (TMAs) and trip-reduction reports to the MVC.
- Investigate the feasibility of auto-restricted zones, "road pricing" strategies, and alternative work hours.
- Encourage employers to provide annual or seasonal transit passes for employees, and to monitor and report trip reduction.
- Investigate the feasibility of traffic-reduction ordinances.

- Coordinate traffic regulations across the Island.
- Work to provide improved information related to bottlenecks, to prevent a portion of additional vehicles entering the queue.
- Develop solutions for traffic calming along Edgartown Vineyard-Haven Road in the vicinity of the Martha's Vineyard Regional High School and YMCA, where a large number of vehicles enter and exit the roadway. (Speed limits there shift from 45 to 20 MPH, then to 15 MPH at the roundabout.)
- Investigate the possibility of limiting the total number of vehicles on the Island (refer to initiatives in Bermuda, Nantucket, and Catalina Island).
- Investigate the possibility of limiting the number of available rental cars and encouraging or requiring the use of electric and hybrid vehicles.
- Continue studying operations at the Triangle, including pedestrian and bicycle facilities.
- Use physical traffic-calming techniques to slow traffic and improve safety in neighborhoods. This was a primary objective identified in the 2009 Island Plan, and will likely require a traffic-calming workgroup to suggest project locations and proper techniques, which could include short-term efforts such as speed feedback signs and delineators, and more permanent improvements such as speed tables, curb extensions, and the narrowing of roads ("road diets").
- In reviewing Developments of Regional Impact (MVC) or other projects (towns), establish guidelines for the design of pedestrian and cyclist amenities.
- Expand the MVC's traffic data collection program to systematically compile information from all sources. Evaluate the capacity of Island roads and bridges to carry traffic, and establish a level of service (LOS) or congestion-level monitoring program.
- Keep consistent data using the MVC's six permanent traffic counters.

Roads and Bridges

- Examine the process by which MassDOT and town highway departments consider aesthetic, historic, and environmental issues in road and bridge decisions, and how they solicit and respond to community involvement in order to design projects that respond to the particular needs and circumstances of each community.
- Revive efforts begun on 2014 to develop a Martha's Vineyard Scenic Roads Design Manual, including guidelines for preservation, maintenance, and improvements of scenic roads; present to town select boards and planning board.
- Put in place a pavement management system for state and local roads (in conjunction with the Massachusetts Highway Department and Island towns), that would include information on the history of construction and repair, the physical design and conditions, and priorities for repair or improvement. Establish a regional road and bridge monitoring and information-sharing program. Conduct pavement-monitoring workshops.
- Enhance road vistas by identifying important viewsheds, and by establishing a vegetation planting and maintenance program.
- Develop a comprehensive and coordinated road signage program intended to clearly deliver essential messages while eliminating unnecessary repetitive signage.
- Experiment with prototype road and bridge design features that reconcile safety concerns with preservation of the Vineyard character. These could include road

guardrails (e.g. the use of steel-backed timber or Corten steel), bridge guardrails (e.g. the use of stone-covered concrete), shoulder design and maintenance (e.g. paving, parking, bus pull-off zones, trees, and other vegetation).

- Require proper driveway location, spacing, and frequency.
- Specify proper turn restrictions and access controls.
- Coordinate local land-use permitting with MassDOT curb-cut applications.
- Conduct an RSA review of potential adjustments to the intersection of County and Edgartown-Vineyard Haven roads (a high-crash location) in order to develop recommendations and concepts for improvements.
- Carry out a series of demonstration projects that illustrate context-sensitive solutions to issues related to roadway design and pedestrian and bicycle facilities, including guardrails, road shoulders, roadway edges, roadside bicycle and pedestrian paths, barriers or vegetation between paths and roadways, bridge design, and dirt roads.

Parking

- Create an Islandwide parking plan to assess strategies to improve parking.
- Increase promotion of park-and-ride lots and make them more user-friendly, including by increasing the frequency of shuttles between park-and-ride lots and town centers, and possible limitations or increased fees for overnight commuter parking.
- Explore resident parking permits.
- Consider ways to ensure that in-town parking areas during the summer are used primarily for short-term parking (perhaps by establishing time limits and meters), and that park-and-ride lots remain an attractive and convenient alternative for longer visits.
- Explore the possibility of creating other park-and-ride lots for the peak season that are located farther from congested areas.
- Investigate the feasibility of other parking management programs in town centers, such as agreements for sharing private off-street lots during off-hours, and creating preferential parking for car- and van-pooling vehicles.
- Encourage the MVC and towns to develop project design guidelines concerning the location, size, landscaping, and use of parking areas for Developments of Regional Impact and developments regulated by the towns.

Environmental Issues and Climate Change

- Explore appropriate funding opportunities for electric vehicle purchases and infrastructure, and to zone and regulate for smart growth.
- For proposed transportation projects, consider stormwater measures that will enhance the environment and better mitigate flooding in flood-prone areas.
- Establish uniform best management practices in order to minimize the effects of stormwater runoff in environmentally sensitive areas.
- Work with towns and the state to develop a reliable permitting process for roads affected by climate change.
- Monitor the Level 3 chargers planned for the West Tisbury and Chilmark Schools, in terms of the frequency and duration of charges, and total energy use.

SECTION 10:

Bus and Van Service

Overview

Martha's Vineyard Transit Authority (VTA)

The VTA operates a fleet of 36 fully accessible vehicles with seating capacities ranging from around 18 to 37 passengers, and accounts for most of the bus and van service on the Island. Ten fixed routes (down from 12) serve the Island year-round, with an additional four (up from two) in the peak summer season. The VTA network is designed around central hubs, or key destinations, where each route generally corresponds to a spoke leading from one hub to another. Each VTA bus can also carry up to three bicycles.

VTA routes cover about 87 miles (not including overlapping routes), and nearly every major Island road, with access to downtown areas and public beaches, along with the park-and-ride lots in Vineyard Haven, Edgartown, and Chilmark. The VTA also partners with the four Councils on Aging (Edgartown, Tisbury, Oak Bluffs and Up-Island), and with schools and other groups to provide reduced-fare annual passes for younger, older, and disabled residents. A reduced fare is also available for veterans and active military personnel. Timed transfers at various locations allow passengers to plan longer trips more efficiently.

In accordance with the Americans with Disabilities Act, the VTA operates a paratransit van service that roughly traces the 14 regular routes. The VTA also provides contract transportation to the Martha's Vineyard Center for Living's Supportive Day Program and for senior lunch programs; and to Boston-area medical facilities once a week. Collectively, these services are known as The Lift. The medivan services is the most expensive options the VTA offers, and the population in need of this service is growing. (See Section 3.)

VTA Fare Schedule 2023				
	October 1 – May 18		May 19 – September 30	
	Full fare	Reduced fare ⁵		
1 Town	\$1.25	\$0.75	\$2.00	\$1.00
2 Towns	\$2.50	\$1.50	\$4.00	\$2.00
3 Towns	\$3.75	\$2.25	\$6.00	\$3.00
4 Towns	\$5.00	\$3.00	\$8.00	\$4.00
5 Towns	\$6.25	\$3.75	\$10.00	\$5.00
1-Day Pass	\$8.00	\$5.00	\$8.00	\$5.00
3-Day Pass	\$18.00	\$10.00	\$18.00	\$10.00
7-Day Pass	\$30.00	\$20.00	\$30.00	\$20.00
31-Day Pass	\$60.00	\$40.00	\$60.00	\$40.00
Annual pass	\$150.00	\$75.00	\$150.00	\$75.00
Youth	\$75.00	NA	\$75.00	NA
Island Senior ⁶	\$40.00	NA	\$40.00	NA
Island Youth ⁷	\$50.00	NA	\$50.00	NA
Medivan	\$30.00	NA	\$30.00	NA
The Lift (Per Town)	\$2.00	NA	\$2.00	NA
Park-and-Ride	Free	NA	Free	NA

The VTA is governed by an eight-member advisory board composed of one representative from each Island town, one member of the disabled commuter population, and one member of the general rider community. In 1998 the VTA also created a Consumer Advisory Group, which meets quarterly and consists of local social-service agency members, business community members, transit customers, VTA staff, and members of the public. The purpose of the group is to discuss transportation issues and provide input to help the VTA better plan its transportation system.

Fare-box revenue covered about 27% of the VTA's operating costs in FY 2022 (down from about 35% in FY 2019) with local, State, and Federal sources covering the rest. Annual financial planning for VTA operations and capital programs is complicated by the fact that guaranteed funds are often undetermined prior to the end of the fiscal year.

Several Island agencies benefit from the VTA's central fueling station at the MVY Airport in Edgartown. Those agencies include the Martha's Vineyard Regional High School, Martha's Vineyard Airport, Dukes County Sheriff's Department, several town public safety and highway departments, Island Elderly Housing, and the Martha's Vineyard Land Bank. The VTA estimates

⁵ For ages 65 and up, people with disabilities, and military veterans

⁶ Available at town councils on aging and Island Elderly Housing

⁷ Available at Island schools

that the pooling of fuel purchases on the Island has saved those groups tens of thousands of dollars each year. The facility sees about 30 transactions a day.

Other Bus Services

Tour Buses

Three Island companies that are regulated by the state provide tour bus service in the summer. The companies generally offer 2.5-hour trips originating at the Vineyard Haven and Oak Bluff ferry terminals, 3.5-hour charters, and transport for weddings and other large groups. As of 2015, the three companies were estimated to provide 2,000 tours, charters, and transfers per year, with an average of 30 passengers per trip.

In addition, charter tour companies from the mainland bring large coach buses onto the Island, especially in the spring and fall, with an estimated minimum of 25,000 passengers annually.

School Buses

The Martha's Vineyard Regional School District owns and operates 28 buses, distributed among six Island schools. The buses are maintained by the VTA, an arrangement that saves considerable time and money for the school district. The district also provides special-education transportation with two minibuses, and sends additional buses off-Island for field trips and sports runs. Separately, the Edgartown Elementary School provides bus service with four buses and one minibus; and the Martha's Vineyard Public Charter School in West Tisbury operates buses for its approximately 100 students.

Other Transportation Services

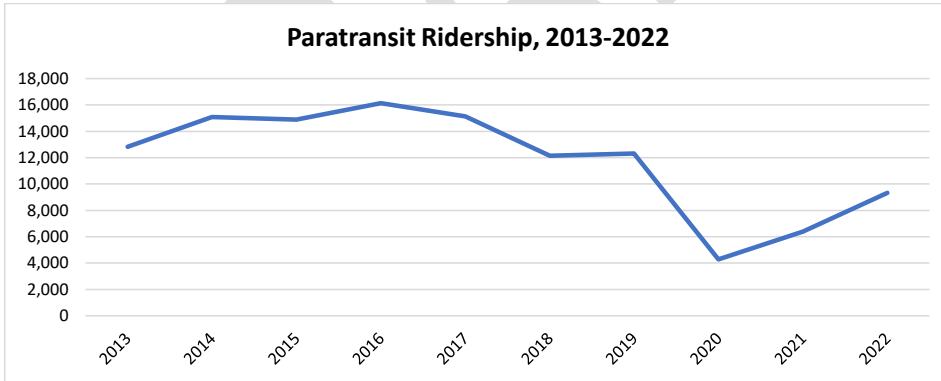
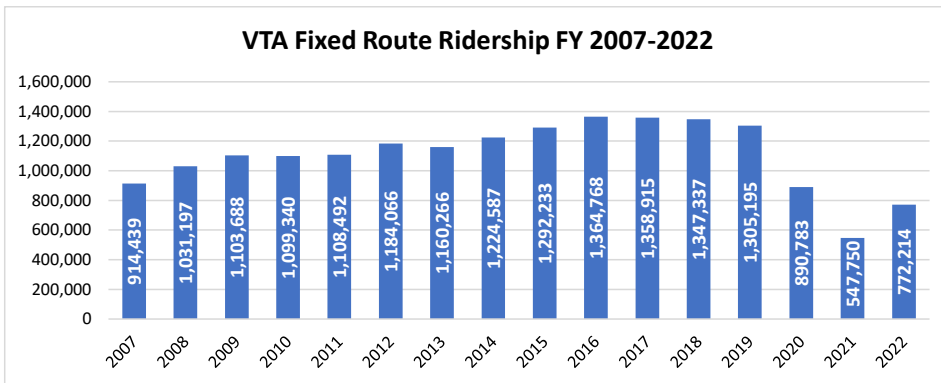
Vineyard Village at Home, a nonprofit based in West Tisbury, has offered on-demand transportation and other services to elder or disabled residents since 2007. The organization provided 13,161 trips to about 50 members in 2018, relying entirely on its network of volunteer drivers, with costs covered by fares, brokerage, and third-party reimbursements, along with state, federal, and local funds.

Other Island groups that have provided transportation to older adults include the Edgartown Ambulance Service, the Anchors (Edgartown Council on Aging), the Up-Island Council on Aging, Island Elderly Housing, Martha's Vineyard Cancer Support Group, and Martha's Vineyard Center for Living. In addition, Martha's Vineyard Community Services received a \$100,000 state grant in 2018 to fund its health-related transportation access program, which helps Islanders cover the cost of traveling to the mainland for medical treatment.

Trends and Issues

Vineyard Transit Authority

The VTA’s annual fixed-route ridership grew from 71,500 passenger trips in 1997 to about 1.3 million in 2019. Between 2007 and 2019 ridership increased about 43%, with growth in all seasons but especially July and August. The Lift saw a dip in ridership from 2010 to 2013 (at least partly as a result of better accessibility on the regular buses), but then increased about 7% in five years, logging 15,707 rides in 2017. With many seniors wishing to age in place at various locations around the Island, demand for The Lift and other paratransit services will likely continue to increase through at least 2040.



The Covid-19 pandemic, along with other factors such as the growth in rideshare services, caused VTA ridership to drop about 32% in FY 2020, from about 1.3 million to 894,000, including about a 65% decline in July and August. Total revenues dropped about 26%, due largely to the lower summer volume, although significant CARES Act funding through the Federal government and MassDOT helped the VTA during the pandemic. Ridership dropped another 39% in FY 2021 (starting July 1, 2020), perhaps the largest annual decline of any transportation mode on the Island during the pandemic. Ridership grew 41% in FY 2022, but was still about 41% less than in FY 2019, indicating what may be a slow recovery from the pandemic.

Also during the pandemic, the VTA implemented a permanent digital ticketing system. While improving convenience for many riders, the system is somewhat prone to misuse, since the QR codes must be updated regularly and some riders claim that they already paid using a previous code. However, the VTA reports that this is not an issue with most riders. New fareboxes to handle cash, coins, magnetic cards, and digital tickets were installed on the buses in 2023.

A driver shortage in 2022 caused the VTA to reduce service on nine of its 13 routes. Evening service in particular was reduced between Tisbury, West Tisbury and Edgartown (routes 3 and 6), Tisbury and Edgartown (route 13). Service to Chilmark, Aquinnah, Katama (South Beach), MVY Airport, and the hospital was also reduced. According to the VTA, the driver shortage was the result of several factors, including several drivers dropping out just before the summer season, and the challenges that drivers faced in getting their commercial licenses and certifications during the pandemic. Some of the reduced service has since been restored, including some evening service to Aquinnah, which is especially important for year-round residents living in Tribal Housing.

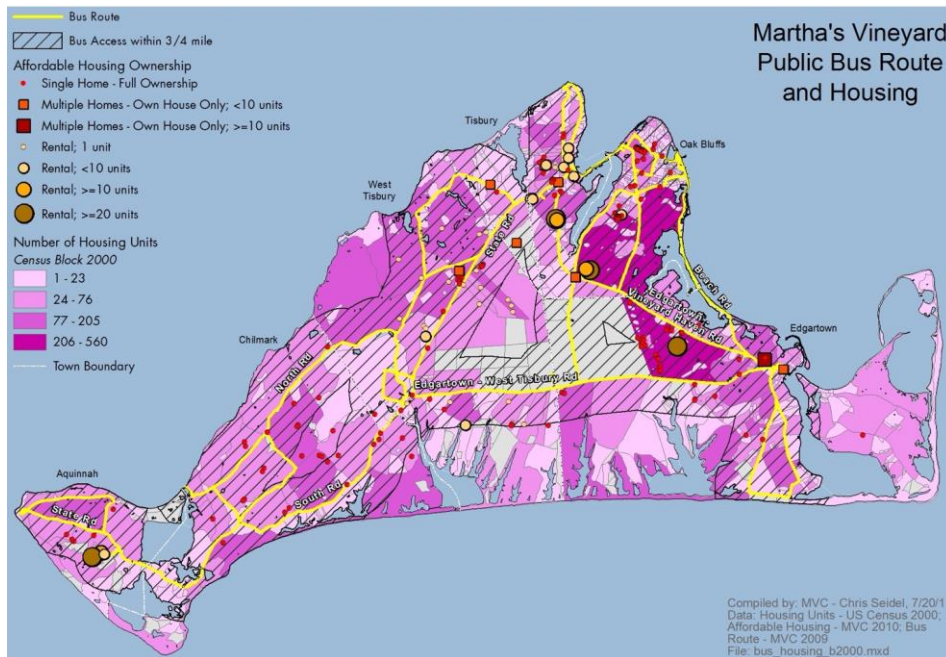
It is likely that changes to the schedules and routes have caused a certain level of confusion among people who might want to ride the bus but no longer know when or where it runs. The VTA should attempt not to alter its schedule more than once every few years, and to post the latest version prominently in public places including grocery stores, post offices, libraries, Steamship Terminals, and Councils on Aging.

The VTA initiated a short-term microtransit pilot program in 2020, where smaller vehicles were used to pick people up as needed, including in areas where regular service was reduced during the pandemic. More recently, Healthy Aging Martha's Vineyard (the Island's elder advocacy group), the VTA, and two eye doctors on the Cape, with support from MVC staff, launched a pilot program to help Vineyard residents get to their medical appointments on the Cape. Patients of the two doctors, in Sandwich and Plymouth, are eligible for the service, which runs one Tuesday a month through Sept. 5.

In 2023, the VTA also ran a pilot program with an e-JEST electric minibus, which seats 22 passengers. The VTA has since ordered three of its own e-JEST buses to join the fleet. The smaller size could be better suited to the lighter-traffic routes in the off-season, and for paratransit.

[E-JEST PHOTO]

In general, the growth in transit use, and the consolidation of the year-round public transit service, has reduced the need for automobile trips and has improved the quality of life for residents and visitors. Transit users on the Island span all population groups, from older school-age children and teenagers, to the labor force, to older adults. Islanders ride the bus for varying purposes, including to work, shop, and play. However, data from the American Community Survey indicate that the VTA is vastly underutilized by year-round workers, only about 2% of whom reported using the service in 2016-2020.



The greatest obstacle preventing year-rounders from riding the bus is likely the Island's widely dispersed development patterns, where many houses are located down long dirt roads that are not on the bus routes. The distance from the front door to the nearest bus stop is likely enough for many residents to rule out the option of public transit, especially in the winter. Another obstacle may be a cultural predisposition where buses are associated with noise, pollution, and congestion, even though that may not be the case. Increased fares and reduced service in recent years may further dissuade people from making the shift to public transit. Efforts to increase VTA ridership should focus on removing obstacles (whether financial, physical, or cultural) and ensuring that the personal benefits outweigh the costs.

The VTA has taken steps in the last few years to increase ridership, including a "Love the VTA" campaign in February-April 2021 which publicized the benefits of the transit system. The program also offered free rides to students and their guardians during school vacation week, to anyone going to an Island business in April-May, and to anyone in February-April who was going to the hospital for a Covid-19 vaccination. As part of the state-funded "Try Transit Holiday" program, all VTA rides including paratransit were also free in November-December 2022. While ride-free programs should be encouraged, the VTA has stated that most riders during the free periods in 2022 were already regular pass holders. Future efforts should focus more on new riders, perhaps by targeting specific routes or demographics.

Some other possible methods to increase VTA ridership include the following:

1. Facilitate multi-modal travel by ensuring that every bus stop on the Island has parking space for at least a few bikes, so that people have an option to bike between their house and the nearest bus stop, and leave their bike behind.
2. As part of their permitting of Island businesses, town select boards should require that every business provide free year-round VTA passes to its employees.
3. Gather public opinion to indicate the extent to which VTA fares are a disincentive to ride the bus or use other VTA services. If appropriate, take steps to increase state subsidies and reduce or eliminate fares for year-rounders, older adults, and others.
4. Pursue grants to fund a “transit escort” program, where inexperienced VTA users, including older, younger, and disabled residents, can be accompanied on their routes in order to feel confident enough to continue using the VTA on their own. (This could be especially effective on routes where transfers are involved.)
5. Designate at least one month a year as “Ride Free MV,” where all residents can ride the VTA free of charge for any purpose. (A regular, recurring period with free rides would likely be more effective at gaining new riders than more sporadic periods.)
6. Take further steps to publicize the VTA to year-rounders, including regular ads in the Island newspapers, with links to the [bus-tracker app TransLoc](#), which allows riders to time their arrival on the road and flag down the bus if needed.
7. Explore the possibility of a permanent microtransit program on the Island, perhaps limited to certain areas where houses are more spread out.
8. Monitor monthly ridership on the new e-JEST minibuses, and consider using more of them on the lesser-used VTA routes instead of the full-size buses. The smaller size and unique appearance may generate wider acceptance on the Island.
9. Explore the possibility of a dedicated shopping run once a week to certain locations, with a VTA employee or community volunteer to help people carry their groceries and mail.

Healthy Aging Martha’s Vineyard (HAMV), an elder-advocacy group founded in 2013, issued a survey to Island elders in 2016, drawing more than 2,000 responses. Among other things, the survey revealed a strong desire for additional off-Island medical transportation, with one in seven respondents saying they went off-Island for basic health care. Working with HAMV and the MVC, the VTA in 2018 launched a one-year pilot program called Cape Area Minivan, which transported up to 17 people at once from the Island to the Cape once a week for medical appointments, including getting passengers on and off the ferry. The program was funded by a \$50,000 federal grant administered through MassDOT.

A follow-up survey by HAMV in 2020 drew about 2,480 responses and shed further light on the transportation needs of older adults. Many respondents said they often drive or walk to do errands, but rarely or never use the VTA, and transportation was not a major limiting factor in their lives. Respondents indicated that they would be only somewhat willing to use additional VTA fixed routes closer to their homes, microtransit options in rural areas, or on-demand door-to-door transportation service. However, numerous comments reaffirmed a need for access to off-Island medical facilities.

It is possible that some older adults would use the VTA to go shopping or check their mail if there were someone to help carry their groceries or packages on the bus. As mentioned above,

a dedicated shopping run once a week to certain locations could help address this need. HAMV also notes that riding the bus facilitates conversations and social interactions that older adults and others can benefit from, especially those who are otherwise isolated in their homes. However, the results of the HAMV surveys suggest that off-Island medical transportation should be the focus of transportation planning for the older population.

Another demographic with specific needs are students in grades K–12 who want to participate in Island youth organizations—including the Martha’s Vineyard Boys and Girls Club, YMCA, and Martha’s Vineyard Community Services—but whose options for getting there may be limited. Currently, students can take a school bus to each location on weekdays, but those traveling from home often rely on their parents or public transit. The YMCA and Community Services have a dedicated bus stop on Edgartown-Vineyard Haven Road, but the Boys and Girls Club in Edgartown is about a half mile from the closest stop. Students from every town make use of the facilities mentioned above, so they can’t always bike or walk, and many want the option of moving among the different facilities in a single day. Plans for a new Boys and Girls Club in Edgartown may include a bus stop and turnaround near the entrance, or a regular route (VTA or otherwise) that connects the club with the YMCA and Community Services.

The VTA has bicycle racks on most of its fixed-route vehicles, although some vans that have begun running on lesser used routes do not have racks. In 2022 the VTA carried 11,775 bicycles on its buses (down from 21,252 in 2014 and 16,055 in 2019), allowing that many cyclists to connect with public transit for part of their trips.

A high volume of Tisbury park-and-ride passengers in recent years is due partly to improved coordination with the Steamship Authority, which has made a commitment to wait for the park-and-ride shuttle to arrive at the terminal before a boat departs; and partly to increased downtown parking enforcement by the Tisbury Police Department. The Tisbury park-and-ride—paid for by the town and the Steamship Authority—significantly reduces traffic congestion around the Vineyard Haven terminal and Five Corners area. One issue in recent years is that many commuters from off-Island appear to use the park-and-ride during the workday and overnight, which leaves less space for Island residents. An extra fee for commuters (or other incentives for commuters to leave their cars behind and take the bus or carpool) should be explored.

The town of Chilmark in 2014 launched its own seasonal park-and-ride lot on Tabor House Road, to help ease congestion in Menemsha, where limited parking and a lack of bicycle and pedestrian infrastructure creates numerous hazards in the summer. The new service took some time to catch on, and carried about 3,300 passengers between Tabor House Road and Menemsha in FY 2019.

Occasional efforts over the years to establish a park-and-ride in Oak Bluffs have failed to get off the ground. The town selectmen agreed to move forward with a trial program in 2015, gaining support from the VTA, which agreed to provide the service, and from the SSA, which agreed to help fund it. The plan called for a shuttle that picks up passengers at a vacant lot behind the Catholic Parish Hall near the Oak Bluffs Town Hall, and drops them off at Ocean Park near the terminal. It was hoped that such a service would relieve congestion downtown, including in the neighborhood around Ocean Park, where ferry passengers and other visitors often park their

cars. But the selectmen dropped the plan when people who live near the Parish Hall raised concerns about noise and other potential effects on the neighborhood. At the time, selectmen said they were looking into a permanent park-and-ride option utilizing the town's former landfill, as was done in Tisbury. The 2019 Oak Bluffs Master Plan targets several improvements to the transit system, including a park-and-ride shuttle.

Electrification

As of 2022, the VTA had replaced 16 of its 36 buses and vans with electric battery-powered vehicles, using state and federal transportation funds. The entire fleet is expected to become electric by around 2028 (extended from 2024). Among other things, the transition will help reduce the VTA's maintenance costs and greatly lower its carbon footprint. The shift so far is the greatest single step taken toward the Island's goal of zero emissions by 2040.

Along with the new buses, the VTA completed a \$4.5 million solar energy and battery storage project at its Edgartown headquarters in 2021, with funding through Enel X (an energy management company), the Federal Transit Administration, Mass DOT, and the Massachusetts Clean Energy Center. According to the VTA, the new facility can generate enough energy to charge 40 buses, seven vans, and six cars. It is likely the first facility of its kind for transit authorities in the state, and will allow the electric buses and other vehicles to charge directly from the solar panels and/or battery storage units. As a further benefit, the battery units could be utilized as backup power during emergencies.

Because the range of the electric buses is still somewhat limited, the VTA is also developing inductive charging stations en route. The first was installed at the Church Street station in Edgartown in 2022, with funding through a Regional Transit Authority capital assistance program and the Federal Transit Administration. The project faced some neighborhood opposition focused on potential increases in traffic and noise, but the completed project has been well received. The new chargers are flush with the pavement and allow the buses to charge by contacting them from above. The street was also widened to accommodate any increase in traffic, and an outdoor area for passengers was upgraded with new seating and landscaping.

The VTA is among the Island's largest consumer of fossil fuels (along with the Steamship Authority and MVY Airport), and the electrification of its fleet is the Island's most significant contribution yet toward the greenhouse gas reduction goals laid out in the Vineyard Climate Action Plan and the state's 2021 Climate Law. It will also likely serve as an example as other regional transit authorities shift to electric vehicles in the coming years. However, to make the most of this advancement, the VTA, MVC, and others must work to significantly increase the number of year-round residents who take the bus instead of driving.

Objectives

1. Improve system efficiency, coordination of service, and promotion of all means of collective transportation on the Island, as an alternative to single-occupant automobiles.

2. Encourage greater use of public transit (and other alternatives to single-occupant automobile travel) among older children, teenagers, workers, and older adults.
3. Continue to optimize promotion and information related to public transit, including efforts to educate the public about the greenhouse gas emissions associated with different forms of travel.
4. Work with business associations and major employers to promote alternatives to single-occupant automobile use on the Island.
5. Enhance the degree to which smart-growth principles, including access and proximity to public transit, are considered in development projects at both the town (planning board) and regional (MVC) levels.
6. Promote a complete network of non-automobile transportation facilities—buses, tour buses, taxis—as a viable option to using a car.
7. Improve access to off-Island medical facilities for older adults.

Proposed Actions

- Work with the VTA and other groups to explore and/or implement items 1-9 on page X, in order to increase ridership.
- Conduct a year-long survey to collect information from the public about why they do or don't use the VTA, and what transit services they require.
- Ensure that VTA schedules and maps are posted prominently in each Island town.
- Improve information about travel options so that arriving visitors can quickly understand the relative merits of bus, taxi, and tour bus—for example, flyers that accompany first-time ferry tickets, brochures available in tourist information booths, and signage at ferry terminals and the Airport.
- Partner with the HAMV Transportation Coalition, HAMV Mobility Manager, and Councils on Aging on longer-term planning and solutions focused on older adults and public transit, and including a potential training program for how to use the VTA services (including the medivan) and off-Island buses.
- Work with the Steamship Authority to explore the idea of restoring bus ticket sales at the SSA terminals, as may older adults are more comfortable buying tickets in person.
- Install automatic passenger counters (APCs) aboard all public transit vehicles to provide data for planning purposes.
- Work with the VTA to commit to minimum fixed-route service levels on all routes year-round; explore additional microtransit options for routes that are less traveled and for demographics with specific needs.
- Resume efforts to establish a seasonal park-and-ride in Oak Bluffs, working with the town and VTA.
- Encourage employers to take advantage of tax incentives and buy transit passes for employees, requiring employees to leave cars at home or at park-and-ride lots and take the bus to work.
- Offer detailed trip planning, including the use of online and in-mobile applications; explore options for online ticketing.
- Further develop community outreach and education related to transit services to encourage new ridership.

- Support the exploration of transit improvements identified in the recent master plans for Oak Bluffs (2019), Menemsha (2017), and Aquinnah (2018), as well as other public planning initiatives on the Island.
- Assess sidewalk and bus stop needs for the transit system.
- Work with Island towns to allow transit vehicles on less-congested roads during peak travel times.
- Work with local zoning, approval, and licensing boards to make transit considerations part of the permitting process, as the VTA can (and does) substantially mitigate traffic congestion.
- Focus on the non-peak travelers by continuing to improve service in the off-season.
- Publicize the availability of off-season public transportation services by continuing to improve signage, coordinate scheduling; and utilize printed material, web sites, and other marketing techniques.
- Work with surrounding regions, especially Cape Cod and Nantucket, to lobby for changes in how federal and state transit capital and operating funds are distributed, so that they more strongly consider seasonal demands.
- Explore the feasibility of a multi-town board to perform some administrative functions related to transit funding and the handling of complaints.
- Increase operating assistance to the VTA from the Massachusetts Department of Transportation and rural federal funds.
- Continue programming capital funds for bus replacement.
- Continue coordinating funding efforts with VTA and MassDOT for system operations, capital expenditures, and infrastructure needs.
- Continue improving the locations and physical installation of bus stops, including, where appropriate, the construction of shelters, in harmony with the character of Island roads.

SECTION 11:

Taxis and Rideshare

Overview

About 15 taxi companies operate a total of about 70 vehicles on the Island, while rideshare companies Uber and Lyft employ an unknown number of private drivers. The rideshare services operate by way of a smartphone app that allows users to schedule a ride and see their fare ahead of time. Pricing is based on algorithms that take into account factors such as time of day, distance, and the presence of other rideshare vehicles in the area. Drivers set their own schedules, so the service is not guaranteed at certain times of year.

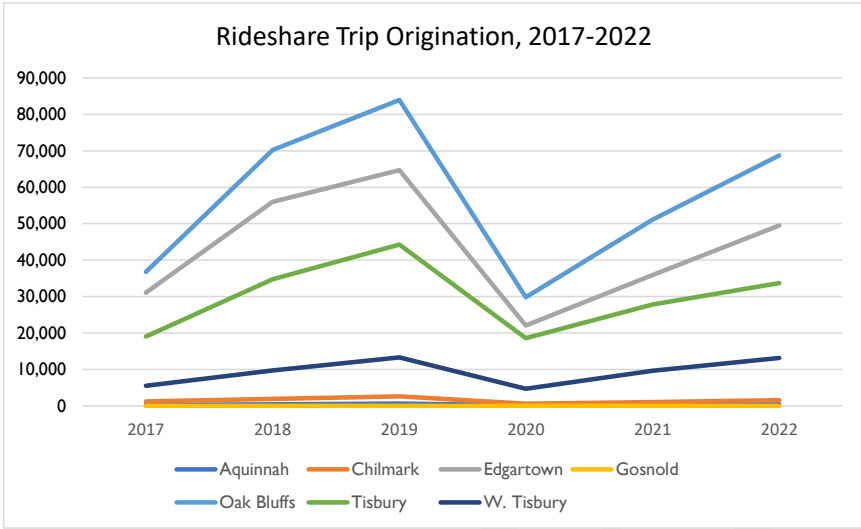
Trends and Issues

The arrival of the rideshare service Uber in the spring of 2015 stirred widespread opposition among Island taxi companies, many of which feared that the largely unregulated industry would put them out of business. Concerns at the time also focused on how Uber would affect traffic, parking, and infrastructure on the Island. Meanwhile, the public seemed to welcome the new service, voicing their own concerns about Island taxi companies, which tend to carry multiple passengers to multiple locations in a single trip, and charge less predictable fares.

Eight years after Uber made its Island debut, local taxi companies are still in business, although likely with fewer passengers and reduced revenues. About 33% of respondents to the 2023 RTP survey said they were “very likely” to use a rideshare service, compared to about 20% in 2019, while 37% said they would give it a try, compared to 33% in 2019. However, some respondents said they only use the service off-Island, and 30% said they didn’t want to use it at all. Among the reasons given for using rideshare were cost and convenience (including not needing to learn a bus schedule), reliability, and the ability to leave one’s car at home.

Statewide, rideshare trips peaked at about 91.1 million in 2019, then fell to about 35 million in 2020, rebounding to about 60.6 million in 2022. About 96% of all municipalities in the state had at least some rideshare activity in 2022.

Rideshare Trip Origination, 2017-2022						
	2017	2018	2019	2020	2021	2022
Aquinnah	239	396	633	194	163	389
Chilmark	1241	1913	2609	599	1055	1573
Edgartown	31050	55987	64693	22066	35927	49520
Gosnold	0	1	0	0	0	0
Oak Bluffs	36770	70256	83948	29810	51077	68782
Tisbury	19003	34798	44268	18577	27843	33721
W. Tisbury	5515	9745	13306	4700	9650	13181
TOTAL	93,818	173,096	209,457	75,946	125,715	167,166



	Rides Started	Rides Ended	Percent Only in-Town
Aquinnah	389	981	2%
Chilmark	1,573	2,601	10%
Edgartown	49,520	49,370	38%
Gosnold	0	0	0%
Oak Bluffs	68,782	65,133	39%
Tisbury	33,721	34,745	22%
W. Tisbury	13,181	14,213	9%

2022	Ave. Speed (MPH)	Ave. Distance (Miles)	Ave. Ride Time (Minutes)	Accidents Reported
Aquinnah	32.34	18.04	33.47	0
Chilmark	28.74	11.14	23.25	0
Edgartown	24.38	5.3	13.05	2
Gosnold	0	0	0	0
Oak Bluffs	21.75	4.26	11.74	1
Tisbury	21.74	4.37	12.06	0
W. Tisbury	24.53	6.75	16.52	0
COUNTY	21.9	7.1	15.7	3
BOSTON	15.76	4.55	17.33	1,965
STATE	31.6	13.5	22.6	NA

Rideshare data collected by the Department of Public Utilities provides some insight into Island traffic patterns in general. For example, the average speed of rideshare vehicles on the Vineyard in 2022 was about 31% lower than in the state, which is most likely a reflection of the

summertime congestion down-Island. (Average speeds were somewhat higher up-Island and in Edgartown, which cover more land outside the town centers.) At the same time, the average ride distance was about half the average for the state, and most rides started and ended in different towns. This likely reflects the much denser development up-Island, where many homes are within a few miles of the Steamship Authority terminals and town centers. The most in-town rides were in Oak Bluffs, followed by Edgartown and Tisbury, which may reflect larger seasonal populations in those towns, as well as a higher number of bars and social establishments in Oak Bluffs and Edgartown, where more patrons may need a ride at night.

The state Department of Public Utilities collects 20 cents per rideshare trip originating in Massachusetts, with half of the \$12.1 million collected in 2022 going to MassDevelopment and the Commonwealth’s Transportation Fund, and half going to cities and towns according to the number of rides originating in each community. In 2022, TNC funds for the Vineyard totaled \$16,716.60.

Municipal Rideshare Fund Distribution, 2017-2022						
	2017	2018	2019	2020	2021	2022
Aquinnah	\$23.90	\$39.60	\$63.30	\$19.40	\$16.30	\$38.90
Chilmark	\$124.10	\$191.30	\$260.90	\$59.90	\$105.50	\$157.30
Edgartown	\$3,105.00	\$5,598.70	\$6,469.30	\$2,206.60	\$3,592.70	\$4,952.00
Gosnold	\$0	\$0.10	\$0	\$0	\$0	\$0
Oak Bluffs	3,677.00	7,025.60	8,394.80	2,981.00	5,107.70	6,878.20
Tisbury	1,900.00	3,479.80	4,426.80	1,857.70	2,784.30	3,372.10
W. Tisbury	551.50	974.50	1,330.60	470.00	965.00	1,318.10
TOTAL	\$9,381.50	\$17,309.60	\$20,945.70	\$7,594.60	\$12,571.50	\$16,716.60

To help more older adults make use of rideshare options and other services, Healthy Aging Martha’s Vineyard has been partnering with GoGo Grandparent, a national company that helps customers access rides, deliveries, and home services without needing a smartphone. The partnership has been successful so far, although there is still some room for improvement, including communication and logistics surrounding the rideshares.

Conventional taxi companies may only pick up customers in the towns in which they are licensed, although taxis travel all over the Island. Some companies are licensed in multiple towns, and every company must also comply with the regulations in the towns where they drop passengers off. That puts them in a tricky situation of needing to comply with multiple, sometimes contradictory regulations.

In addition to the confusion surrounding fares and regulations, Island taxis often carry multiple passengers (staging until they are full), which makes them operate more like shuttles than conventional taxis. It is not surprising that customer confusion and complaints exist, even among Island residents.

Uniform licensing rules for the Island have been discussed periodically since the 1970s without much progress. Healthy Aging Martha’s Vineyard highlighted the confusion surrounding Island

taxi service in 2014, leading to renewed efforts among Island selectmen to improve taxi licensing in their towns. Discussions at the time looked at uniform licensing requirements and background checks for drivers, better identification of vehicles, and greater clarity and predictability in fares. But no new regulations resulted from the effort.

Theoretically, an Islandwide license would allow taxis to pick up passengers in multiple towns and could potentially improve efficiency by reducing deadheading (driving from one place to another without a passenger). The procedure could also increase the overall availability of taxis for customers. Reducing deadheading would benefit the larger community by reducing duplicate trips, which in turn would lower the number of vehicles on the road, along with the amount of fuel burned and the resulting greenhouse gas emissions.

In response to concerns surrounding Uber in 2015, the West Tisbury selectmen sought an opinion from town counsel, who clarified that the town regulations for taxis do not apply to rideshares, but that the selectmen had the authority to create new laws that do. Later, the selectmen in Edgartown approved rules that treat rideshare companies like taxis, requiring background checks and vehicle inspections, along with the same licensing and insurance procedures that apply to regular taxi companies. And in 2016 former Governor Charlie Baker signed legislation requiring background checks, vehicle inspections, insurance, special-needs accommodation, and other forms of compliance among rideshare companies and drivers statewide. Also in 2016, the Martha's Vineyard Airport, which provides staging areas outside its terminal, voted to apply its annual fee for taxis to rideshare vehicles as well. In 2023, the airport instituted a \$3.50 fee for all rideshare pickups at the airport and Business Park, partly in response to requests among taxi companies for a more equitable policy.

The Rideshare Driver's Justice Bill, filed in 2023, would establish various rights for rideshare drivers in Massachusetts, including a base rate of pay, unemployment insurance, vacation and sick time, and the right to form a union. If the bill passes, Massachusetts rideshare drivers would become the first in the nation not to be considered independent contractors. At present, drivers must pay for their own gas, insurance, and any damages from accidents, although many drivers prefer the flexibility of being an independent contractor. An earlier state ballot question that would have required rideshare companies to provide various benefits was supported by Uber, Lyft, Instacart, and DoorDash, but never made it on the ballot due to legal issues with the proposed language. Litigation filed by former Attorney General Maura Healey in 2020 to force rideshare companies to reclassify drivers as employees and provide benefits was still pending as of early 2023.

Martha's Vineyard Taxi Company, which is licensed in Tisbury and Edgartown, has worked to change with the times, developing a taxi-metering software (Taximeter), which tracks mileage using GPS, and calculates fees based on a variety of optional factors, including the number of passengers, the time of day, and the amount of traffic. Company owners presented the idea to selectmen in Tisbury, Edgartown, and West Tisbury, as well as other taxi companies in 2018, as a solution to some of the disparity among taxi fares and service on the Island. Selectmen in Tisbury and Edgartown voted to allow the new software in taxis licensed in those towns, while West Tisbury voted not to require its one licensed taxi company to make the change. (The

regulations in Edgartown and Tisbury do not require the use of the app, but taxi companies there must use either the app or the previous flat-rate system.)

Despite the significant influence rideshare companies have on the Vineyard, data on traffic patterns, numbers of cars, and other activity are mostly absent. Data related to taxi companies is also hard to come by, since each town follows slightly different recordkeeping procedures, and the records themselves are not always complete. Given that rideshare service on the Vineyard will likely expand in the coming years, more detailed data could be helpful in terms of long-term transportation planning.

Objectives

1. Provide efficient, convenient, and appealing taxi service as a beneficial component of the Island's transportation system.
2. Encourage the posting of taxi fares at main stands (ferries and Airport), and more effective postings in taxi vehicles.
3. Improve data collection and monitoring of taxi and rideshare services.

Proposed Actions

- Adopt a uniform procedure among towns for licensing taxi drivers and taxi vehicles.
- Work with taxi companies to track the performance of vehicles using the Taximeter app (see above) in comparison to flat-rate pricing.
- Inquire with the Department of Public Utilities about the possibility of including of including the number of vehicles and drivers in its public data about rideshare services in the state.
- Keep the public apprised of new and existing regulations that apply to taxi and rideshare services.
- In line with efforts related to public transit and Steamship Authority traffic, include information about taxi and rideshare options in public materials related to alternate modes of transportation on the Island.
- Work with taxi companies, the VTA, and others to explore the possibility of a central hub for taxis and micro-transit on the Island, in order to reduce congestion around ferry terminals and the Airport, and to improve intermodal connections.

SECTION 12:

Bicycles and Pedestrians

Overview

Many year-round and seasonal residents walk and bike at least some of the time, but these modes are greatly limited by the existing road and shared-use path network, which does not include safe access to many residential and business areas, or to Chilmark and Aquinnah. Improving bike and pedestrian options, for both the year-round and seasonal communities, is necessary to achieve the goals of this RTP, which include reduced automobile use, and the elimination of greenhouse gas emissions on the Island by 2040.

Walking and biking deliver many benefits not associated with motorized travel:

- Physical fitness.
- Lower carbon emissions and cleaner air.
- Means of experiencing the Vineyard’s natural character—a primary asset for both visitors and residents.
- Reduced demand on existing road infrastructure, which better enables retention of narrow roads and scenic qualities.
- Cost-effectiveness: Walking and cycling are generally cheaper than other modes of travel, in terms of public infrastructure, and also the cost to individual pedestrians and cyclists.
- Opportunities to interact with others en route.

The majority of Island visitors arrive on foot rather than by motor vehicle, and many arrive with a bike. Both walking and biking are popular recreational activities, and about half of the 2023 RTP Survey respondents (mostly year-rounders) say they bike at least some of the time. (See survey results below.) Group bicycle tours also operate in the summer and shoulder seasons. MassDOT emphasized walking and cycling (as well as public transit) through its Healthy Transportation Compact, which promotes planning concepts such as Complete Streets. (See Section 15.)

Most sidewalks and shared-use paths on the Vineyard lie in the down-Island towns of Tisbury, Oak Bluffs, and Edgartown, where relatively compact town centers are mostly conducive to walking, but not necessarily riding a bicycle. Gaps in the existing infrastructure, along with narrow rights-of-way and competition for vehicles traveling and parking, have impeded bike and pedestrian travel on both the SUPs and town sidewalks.

The bucolic, often narrow roads up-Island are less traveled by vehicles, but mostly absent of sidewalks or shared-use paths, which places a greater strain on the ability of those roads to accommodate the full variety of uses.

As a seasonal resort community, the Vineyard must consider the perspectives of its visitors as well as residents. Many visitors may be unfamiliar with the local roads, unaccustomed to being

in close proximity to high-volume traffic when cycling or walking, and ill-prepared to deal with obstacles such as narrow shoulders, sand, and bumps. A significant portion of residents and visitors are over 60 and may have difficulty with uneven or poorly illuminated sidewalks.

Description and Analysis of Existing Facilities

Four types of surface routes make up the network for both walking and biking on the Island: on-road, sidewalk, shared-use path (SUP), and trail. Walking and biking also have distinctions that must be taken into account if they are to be properly accommodated.

Roadways

Roadways are a key feature in both experiencing and defining the Vineyard character—from the intimate human scale of town centers to the winding, tree-canopied rural roads, and even the wider, more heavily traveled roads that connect the down-Island towns through forested and natural areas. Those attributes make Island roads attractive for cyclists and pedestrians alike, despite the hazards. Pedestrians and cyclists are often forced to use the roadways, when additional rights of way for a path, sidewalk, or trail are inadequate.

Competition by various transportation modes for use of limited road space, combined with the high speed of motor vehicles, reduces the level of comfort and safety for all modes of travel. This is especially true for pedestrians and cyclists, who may be less visible, less anticipated by motorists, and more physically vulnerable.

Cyclists may prefer to use the roadway even when a shared-use path is available. This usually has to do with safety: Experienced road cyclists often travel at higher speeds (in excess of 15 miles per hour), which is sometimes too fast to safely mix with slower-moving cyclists, pedestrians, and others on shared-use paths. Debris on the roadway shoulders may also force experienced cyclists farther into the travel lane.

The American Association of State Highway and Transportation Officials (AASHTO) sets the standard for desirable shoulder width at five feet—which is uncommon on the Vineyard. Up-Island roads in particular often lack any usable shoulder, so bicyclists must either stay off the pavement or to the left of the fog line (the white line on the outer edge of the travel lane). The width of a paved shoulder, if any, often varies considerably.

As with mopeds, motorists waiting to pass slower-moving cyclists can increase congestion and impatience, especially in the summer. Motorists are not always aware that bicyclists have as much right to use the roadway as they do, even when a shared-use path is available. Cyclists on the road are responsible for conducting themselves as if they are in a motor vehicle, including by riding with motorized traffic, in single file when cars are present, and as far to the right as safely possible. As of 2023, motorists are legally required to give bikes, pedestrians and other “vulnerable” road users a minimum four feet of clearance when passing and to do so at a reasonable speed.

In areas where it is impossible to provide bike lanes or shared-use paths, the designation of bike routes—roads best suited to handle bicycle traffic because of lighter motorized traffic or the presence of shoulders—can help cyclists find the safest routes.

Sidewalks

Town centers, particularly down-Island, see heavy pedestrian activity in summer. The dense, historic layouts of the town centers in Vineyard Haven, Oak Bluffs, and Edgartown make it difficult to accommodate large volumes of pedestrians, bicyclists, and motor vehicles, despite the many existing and planned amenities for pedestrians and bicyclists. Narrow public rights-of-way often leave little room for sidewalks, let alone wider shared-use paths. The condition of the sidewalks, and pedestrian congestion, effectively prevent their use by cyclists, who are often relegated to the roadway, which can further congest motor vehicle traffic.

Many sidewalks are less than four feet wide, obstructed in many places with utility poles, signs, and mailbox posts; or have uneven surfaces. Such limitations are especially problematic for the handicapped and elderly, people with strollers, and visitors with luggage. Even without obstructions, sidewalks can overflow with pedestrians near ferries in Vineyard Haven and Oak Bluffs, shopping areas in all of the down-Island towns, and by queues for buses. Pedestrians often spill out onto the roadway, which frequently conflicts with automobiles. The recently completed Oak Bluffs streetscape improvements on Circuit and Kennebec Avenues (see below) has helped increase the sidewalk capacities in those areas.

In certain downtown areas, pedestrian ways are sometimes indicated only with lines painted on the asphalt, or not delineated at all. In many cases, the right-of-way is insufficient to dedicate a pedestrian area. The absence of a continuous pedestrian pathway network forces pedestrians to walk in the roadway, a safety concern that can also increase traffic congestion.

In other areas, such as Upper State Road and Beach Road in Tisbury and Upper Main Street in Edgartown, sidewalks exist but the layout of buildings is oriented more towards automobiles, with large parking lots and frequent curb cuts undermining the principle that pedestrians have priority. Such layouts are not always conducive to walking from business to business.

The much less developed up-Island towns have few sidewalks. West Tisbury's Paths by the Roadside Committee successfully worked with MassDOT and abutting landowners to create hybrid sidewalk paths alongside two busy roads. These four-foot-wide asphalt paths without curbs complement the town's rural character, meandering around trees and undulating with the terrain— yet accommodate wheelchairs. They typically are within the road right-of-way but separate from the pavement. While the paths are sometimes used by cyclists, they are not generally suitable for cycling due to their narrowness, which, as with sidewalks, makes it difficult to pass other bikes or pedestrians.

West Tisbury has also added more traditional curbed sidewalks in segments of its town center, which is a growing hub for events, activities, and transit. Both Chilmark and Aquinnah have explored ways to create dedicated pedestrian infrastructure in order to improve safety at key locations.

Shared-Use Paths

The first “bike paths” on the Island were constructed in the mid-1970s along Beach Road from Edgartown to Oak Bluffs, and around most of the perimeter of the State Forest. Those paths are generally eight feet wide. SUPs constructed in the 1980s and ‘90s spanned most of the main roads in between. Newer additions in Edgartown and Tisbury, circa 2000, as well as the most recent extension of the Beach Road SUP between Tisbury and Oak Bluffs, have been 10 to 12 feet wide—AASHTO’s minimum and standard width, respectively.

Thirty-eight miles of shared-use paths down-Island and around the State Forest now link the major population centers with many primary tourist destinations and West Tisbury. The paths are used by a mix of skilled and less-skilled bicyclists, pedestrians, joggers, in-line skaters, and horseback riders. Motorized vehicles—including mopeds—are prohibited, but Segways (lateral stand-up scooters), which cannot use the roadway like a bicycle, are increasingly common. Having been stitched together over more than 45 years, the Island SUPs vary in width, condition, and separation from motor traffic. It should be noted that apart from additions in 2000 and 2023, the Island’s SUP network has remained mostly static since the 1990s.

With the exception of the State Forest paths, nearly all of the SUPs lie within the adjacent rights-of-way, running parallel and usually three to five feet from the pavement. The 1970s-era Beach Road SUP, with about a four-foot separation, remains the only roadside path with a vertical physical barrier of more than 100 feet in length. The others have vegetation, including some with shrubs and mature trees, but mostly just grass. The absence of a physical barrier means that vehicles could potentially pull off onto the SUPs, which may obstruct foot and bike traffic. Along roads with more development, the frequency of vehicles crossing the horizontal buffer results in wheel ruts and the absence of vegetation. Horizontal separations of less than two feet are often patched with asphalt.

Remaining gaps in the Island’s SUP network were examined in a study commissioned by the MVC in 2009. The resulting [Pre-Feasibility Study of the Extension of the Martha’s Vineyard Network of Shared-Use Paths](#) examined the most critical missing links and evaluated alternatives for each segment. The bike paths provide direct links between the down-Island towns, but stop at the perimeter of the downtown areas and, notably, do not connect to the ferries. Bicycles are thus reintegrated with motor vehicles at the very places where the roadways are most congested and dangerous. Bicyclists face downtown access and parking issues similar to those faced by motorists. Although not identified as a missing link in the 2009 study, there are no SUPs connecting West Tisbury to Chilmark or Aquinnah.



Major gaps in the SUP network:

- Contiguous path through or around Vineyard Haven and Oak Bluffs.
- Connections into the hearts of town centers, including West Tisbury—particularly to the ferry terminals.
- Northeast quadrant of the State Forest perimeter.
- Up-Island towns of West Tisbury, Chilmark, and Aquinnah.

Public rights-of-way are often insufficient to accommodate a separate SUP. Even when the right-of-way width is adequate to fit both a roadway and SUP, the roadway typically meanders within the right-of-way, eliminating a continuous remaining right-of-way of uniform width for a path along one side. In some cases a large number of easements would be required to following the actual road, and avoid certain features like stone walls and trees that should be preserved as important features of the landscape. There is also concern that paths along some of the narrower or more heavily vegetated roads could widen the appearance of the roadway, which would permanently alter their rural character and promote faster vehicle speeds. Vegetation or railings between the road and the SUP could potentially help mitigate such effects.

Even where SUPs exist, safety issues remain:

- Narrow width in relation to the volume and variety of users: The combination of pedestrians, cyclists, and in-line skaters traveling at different speeds (or stopped

altogether), along with dog walkers, strollers, can complicate travel along an SUP. A center line for at least portions of SUP segments could help address this issue.

- Inadequate buffer from roadways: Significant segments have no physical barrier from the roadway—only a few feet of earth or grass. This provides a less forgiving situation should either path user or motorist veer off course. This also enables the casual (and usually illegal) use of SUPs by vehicles for stopping, turning, and even for parking. Such use is evident in many locations on the Island where high motor traffic has worn away vegetation in the buffer area, further blurring the separation of road and path.
- Frequent vehicle crossings: When parallel to a roadway, an SUP crosses all roads and driveways intersecting the roadway. Those crossings are especially dangerous for cyclists, as motorists tend to focus more on other vehicles and pedestrians, and less on cyclists, who may be farther away but traveling at a higher speed. The narrow separation of SUP and roadway often results in vehicles blocking the path as they wait to enter traffic. Some towns' practice of placing stop signs for bikes at many of these crossings—often only a driveway—is counter-productive in that they cannot be legally enforced. They also falsely suggest to both motorists and cyclists that the motorist has the right of way at such crossings.
- Insufficient maintenance: Some SUPs on the Island have cracks, potholes, debris, or overgrown vegetation, all of which reduces safety and deters use. In some places, sand, erosion, or motor-vehicle crossings pose a particular threat to cyclists. The most heavily used SUP, along Beach Road between Oak Bluffs and Edgartown, runs the length of an exposed barrier beach and is regularly covered in sand, in addition to being rutted and cracked, and effectively only four feet wide at several points. The Island's MassDOT superintendent has acquired a small sweeper specifically for the SUPs, but sand remains an obstacle along SUPs and road shoulders across the Island.

Trails

The Vineyard has a large network of unpaved paths and trails many times more extensive than the shared-use paths network. As with the SUPs, the trails provide walkers, and often cyclists, an important alternative to the roadways. More importantly, the trails greatly expand the available network for non-motorized traffic, connecting neighborhoods to one another and to public lands, or providing shortcuts to nearby destinations.

The trails vary considerably in surface material, grade, and width—from narrow grass-covered footpaths to overgrown eight-foot-wide dirt roads—even along the length of a single trail. Such variability limits their utility for handicapped use, strollers, and bike trailers, and for road cyclists. The trails may also be used by equestrians and—illegally—by motorized dirt bikes and all-terrain vehicles.

More than a dozen trails contain some historical connection to the Vineyard's past, with remnants of old cart paths pre-dating even European settlement of the Island. Many of those trails—commonly referred to by the loose designation “ancient ways”—are former Indian paths and settler roads that connect villages and provide access to coastal ponds and woodlots.

The Island community recognizes the importance of the trail network. One of the first Districts of Critical Planning Concern (DCPC) the MVC established at its inception in 1975 enabled towns

to protect those paths as Special Ways. All but one town has at least one such Special Way. The designation is meant to prevent destruction and inappropriate use of the paths, and preserves their viability for future use. In addition, Island citizens created the Martha's Vineyard Land Bank Commission in 1986 to protect important areas from increasing development. One of the Land Bank's primary objectives is to protect and expand the existing network of trails and conservation properties across the Island. Several towns have trails and byways committees with the same purpose.

Trends and Issues

A number of planning initiatives in recent years (and at least two completed projects) aim to improve bicycle and pedestrian travel on the Island, and highlight the extent to which those modes of travel intersect with automobile traffic, public transit, and the ferry system.

Beach Road improvements (2023): A long-planned MassDOT/town project to better accommodate bicyclists and pedestrians traveling along the main road between Tisbury and Oak Bluffs was completed in 2023. The MVC had identified the area as a missing link in the Island's bike and pedestrian network in 2009 (see above), and talks with the state began around 2013. The \$6 million project focused on a half-mile section of Beach Road, including new wider sidewalks, a reconstructed roadway with directional bike lanes, and relocated utility poles. The project originally included updated drainage infrastructure and a shared-use-path between the Tisbury Market Place and Wind's Up near the Lagoon Pond landing, rather than the directional bike lanes, but plans were revised after MassDOT discovered existing sewer infrastructure that conflicted with the design.

The project connects with another MassDOT/town project in Oak Bluffs, which extended the shared-use path in Tisbury from the drawbridge east to the intersection of County Road and Eastville Ave. As a result, bikes and pedestrians now have dedicated access for about 1.6 miles between Five Corners and County Road, including a direct route to the hospital.

Now that the above projects are completed, the MVC offers the following observations regarding the bike and pedestrian infrastructure:

1. The new bike lanes are marked with a white line, along with arrows and bike symbols within the lanes. However, the arrows and bike symbols are far apart and may not be adequate to alert drivers and cyclists (especially those not familiar with the area) that the bike lanes exist. With many businesses and curb cuts along Beach Road, vehicles continue to obstruct the bike lanes and sidewalks when pulling in and out. Repainting the white lines and markings with green paint, which the state indicates may be used for conflict points and areas with driveways and intersections, could help address this issue.
2. The revised design requires that bikes shift from the bike lane to the SUP (and vice versa) west of the drawbridge. A small sign facing east is in place to alert cyclists of the transition, but the sign is positioned on the far side of the parallel sidewalk, where cyclists are unlikely to see it, and the white line continues unaltered over the bridge. As a result, cyclists might continue on the shoulder over the bridge, and need to stop later to go over the curb onto the SUP. Along with green markings to delineate the bike lanes,

a right-pointing arrow added to the pavement on the eastbound bike lane at the transition point could address this issue.

3. While extending a critical section of the SUP network, the north-south portion in Oak Bluffs stops abruptly at County Road. Continuing on Eastville Ave. to the Oak Bluffs town center requires riding or walking on a narrow shoulder, then connecting to the typically busy New York Ave. which becomes Lake Ave., which eventually connects to the Beach Road SUP. Alternatively, bikes can turn south on County Road, which includes an SUP and connects to Edgartown. Further bike and pedestrian infrastructure connecting to the harbor area and subsequently to the existing Beach Road SUP, should be prioritized in order to help complete the down-Island SUP network.

Oak Bluffs Streetscape Project (2023): A major streetscape project in Oak Bluffs focused on Circuit, Kennebec, and Lake Avenues. The Circuit Ave. portion included resurfacing the road and changing a portion from diagonal to parallel parking, adding brick crosswalks, widening the sidewalks by several feet, and adding benches, signs, streetlights, and potted trees. On Kennebec Ave., sidewalks were also widened and a bike lane added. Healey Park, which connects the two avenues, was redesigned with brick pavers, benches, curbs, and landscaping. The project saw some pushback, including in regard to the loss of 12 parking spaces and the removal of trees on Circuit Ave., but also support for the new layout. To offset the impact on parking, the town planned to repaint parking spots along the harbor (Lake Ave.) to accommodate about 12 more vehicles.

Up-Island Shared-Use Path Planning (2020-2021): MVC staff, along with Commissioner Jim Vercruyse of Aquinnah, initiated efforts in 2020 to extend the shared-use path network up-Island. Following an alternatives analysis, staff identified North Road (connecting State Road in West Tisbury with Menemsha in Chilmark) as the best candidate, and early input was sought from the West Tisbury and Chilmark planning boards and the public, including residents along the road. A separate plan to develop an SUP along State Road to connect the rest of the Island network, was also discussed. An SUP on North Road would require numerous easements in order to avoid the many stone walls, geologic features, and specimen trees that give the road its unique character. Although West Tisbury residents in 2020 voted almost unanimously to redesignate the roadside land for recreational use and allocate Community Preservation Act funds for a feasibility study, Chilmark residents rallied against the idea, with concerns focused on the potential scenic impacts. In response, the Chilmark select board voted unanimously to oppose the concept, opting instead to endorse a campaign to improve bike safety.

Bicycle-Pedestrian Advisory Committee (2019-present): In addition to the projects and documents advanced since the previous Regional Transportation Plan in 2019, the seven-member MVC Bicycle-Pedestrian Advisory Committee (revived in 2019) has been working with Island towns, Dukes County, State Forest administrators, conservation organizations, and the Island business community to address issues related to pedestrian and cyclist mobility and safety. BPAC activities over the last five years include the following:

- Worked with MVC to assess potential for improving bicycle and pedestrian access between Chilmark and Aquinnah, via the Menemsha bike ferry, in the summer season.

Consulted with the West Tisbury Complete Streets Committee on possible bike routes and SUP evaluations up-Island.

- Helped examine a possible bike connection between Tisbury and West Tisbury via an old cart path through conservation land.
Worked with towns to evaluate and publicize existing and potential bike routes.
- Advocated for road and path safety, including promotion of “Share the Road” signs.
- Proposed center line stripping for congested SUPs, along with other markings and/or signage directing users to stay right and give audible warnings before passing on the left. (BPAC continues to promote more consistent instructions for all users where SUPs intersect roads and driveways.)
- Partnered with the Martha’s Vineyard Chamber of Commerce to create a flyer promoting SMART bicycling tips. The flyer was published in the Vineyard Visitor brochure in 2022, and distributed throughout the 2023 season with funding through Dukes County.
- Began updating a multi-fold Visitor Map to orient it more to bicycling. These efforts shifted to a digital format for personal devices, for reasons of convenience and reduced waste.
- Partnered with Sheriff’s Meadow Foundation to add curated bike routes to its popular TrailsMV app, which was launched in 2018.
- Began developing a suitability classification for different roads and paths so users can better assess how a route meshes with their personal capabilities.
- Provided input on state legislative efforts related to e-bikes, to expand cycling opportunities for people with different physical capabilities. BPAC also met with each Island police chief in 2023 to discuss the effects of e-bikes.
- Broadened awareness of the need for bike racks, apart from the traditional grid racks, to accommodate wider tire widths and more spacing between bikes. BPAC also worked with MVC staff to procure and install post-and-ring bike racks at the MVC building. This style of rack was subsequently incorporated into Oak Bluffs’ Circuit Ave Streetscape Project (see above).

E-Bikes and Bike Shares

Electric bikes (e-bikes) now account for a large portion of bike rentals on the Vineyard. Some Islanders have argued that e-bikes come with the same problems as mopeds (untrained riders, increased congestion, etc.), but others point out the differences: E-bikes generally go slower than mopeds (up to 20 mph), and may travel on SUPs or designated bike routes, rather than having to sharing the road with other motorized vehicles. Because e-bikes require less physical strength to operate, they may also be a more viable alternative for older residents or those with physical limitations. As with other electric vehicles, e-bikes require charging infrastructure that will need to expand as sales and rentals increase.

Amendments to the state’s Transportation Bond Bill in 2022 include the following definitions for e-bikes:

- Class 1: *an electric bicycle or tricycle equipped with a motor that provides assistance only when the rider is pedaling and that ceases to provide assistance when the bicycle reaches the speed of 20 miles per hour.*
- Class 2: *an electric bicycle or tricycle equipped with a motor that may be used exclusively to propel the bicycle and that is not capable of providing assistance when the bicycle reaches the speed of 20 miles per hour.*

Under state law, e-bike riders have the same rights as regular cyclists, but are not permitted on sidewalks. Local jurisdictions may enact their own e-bike regulations, or prohibit e-bikes altogether, following the required hearing process. E-bikes are also not allowed on natural trails, unless the local jurisdiction determines otherwise.

Bike-share companies such as Bluebikes and Ant Bicycle have seen growing popularity in Massachusetts, and may eventually have a presence on the Vineyard, although Island towns have likely not discussed that possibility in depth. As with vehicle rideshare networks (Uber and Lyft), the arrival of bike-share companies on the Vineyard would likely disrupt conventional business models. (A small number of Island companies account for most bike rentals in the summer and shoulder seasons.) Competition among rideshare companies could also see the arrival of electric rideshare scooters, which have some presence on the mainland.

2023 RTP Survey Responses

Bicycle infrastructure and safety were key issues among respondents to the 2023 RTP Survey. Almost half of all respondents said they bike on the Island, but only 5% said biking was their primary mode of transportation. The need to improve bicycle conditions was the highest ranked safety concern, with 87% of respondents calling it an “important” or “very important” concern, even surpassing roadway conditions and intersection designs (70%). Bicycle and pedestrian amenities were the second-highest priority in terms of transportation funding (61% of respondents), after congestion and pollution (64%). In terms of mobility needs, almost 80% listed bike lanes and off-road bike paths as “important” or “very important,” and 62% listed the same for bike and pedestrian amenities like bike racks. Pedestrian improvements were also an important concern, with 5 Corners and Beach St. / State Rd. in Tisbury among the highest ranked priorities.

Many specific comments in the survey related to bicycle infrastructure and safety, including the following (edited for space and clarity):

Needs/requests:

- More bike lanes and electric bike-share options.
- Bike lanes and/or SUPs on Chappaquiddick, which has none currently. (One comment also discouraged this.)
- Enforcement of new 4-foot passing law.
- Ensure the bike paths are well maintained so that cyclists use them instead of the road.
- Bike safety education: Helmets, bright clothing, etc.

- Require license and registration for e-bike users, and don't allow e-bikes in the state forest.
- Redirect bike traffic in downtown Edgartown (Cooke and Main Streets).

Concerns:

- Width and extent of SUPs affecting the environment and Island character.
- Danger in biking along North and State Roads in West Tisbury / Chilmark.
- Danger in biking from downtown Edgartown to Katama.

Objectives

1. Promote and facilitate walking and bicycling as an alternative to single-occupant automobile travel, as a way to promote healthy lifestyles, increase mobility, reduce traffic congestion, and reduce emissions.
2. Work with towns and public safety departments to ensure that existing laws for motorists, bicyclists, and pedestrians are enforced, including the new four-foot law.
3. Continue to expand the network of safe, off-road, shared-use paths linking the town centers, key residential areas, secondary commercial areas, and the State Forest.
4. Ensure a complete network of safe and unobstructed sidewalks in town centers and other areas of medium or high pedestrian activity.
5. Extend the network of trails to link all significant destinations across the Island.
6. Provide adequate directional and informational signage, as well as rest areas, seating, bicycle parking, and other amenities.
7. Ensure regular, ongoing SUP and bike lane maintenance, including the removal of sand.
8. Continue to support activities of town Trails and Byways committees.
9. Expand the network of Special Ways designated by the towns.
10. Address bicycle safety and access in the planning, design, construction, operation, and maintenance of transit, airport, highway, and bridge projects.

Proposed Actions

Actions: Bicycles

- Work with MassDOT and Tisbury to address potential improvements to the new bike lanes along Beach Road.
- Develop an educational campaign to inform people of the rules of the road and safety measures.
- Selectively post "Share the Road" signs and paint "sharrow" road markings, including where SUPs are adjacent to the road.
- Provide information to individuals and organizations about bicycle commuting.
- Involve the private sector in promoting and providing for bicycle travel.
- Set up a bicycle working group (perhaps within the BPAC) with the mandate to analyze the network with respect to safety and convenience (especially for the Vineyard's many novice riders), and prepare a program for path upgrades. Look particularly at the design

of SUP intersections with roads and driveways, and opportunities for improving the barriers dividing the paths from roadways.

- Work with towns to identify and establish new bicycle-parking areas (with racks or post-and-ring units), to promote bicycling and reduce motor vehicle use in town centers.
- Set up a campaign in schools and for the general public promoting bike safety and the idea of drivers sharing the road.
- Improve bicycle access to transit, bus, air, ferry terminals, and park-and-ride lots, and provide bicycle-parking facilities at those locations.
- Work with towns and businesses to ensure that e-bike charging infrastructure is appropriate to the number of e-bike users on the Island.
- Work with town officials and the public to identify potential regulations surrounding e-bikes.

Actions: Pedestrians

- Work with schools to identify “Safe Routes to School” and necessary improvements.
- Encourage walkers by increasing the appeal of the pedestrian environment, particularly in village and commercial areas, and by providing continuous and adequately-dimensioned sidewalks and well-marked crosswalks, and other services.
- Create and upgrade walking routes—including off-street, low-maintenance footpaths—that connect residences, parks, workplaces, tourist and shopping attractions, and public transit stops.
- Encourage supplemental activities such as business district improvements and fitness programs that help promote a suitable and effective environment for walking.
- Redo Edgartown sidewalks between Upper and Lower Main Street, while maintaining widths and materials appropriate to the town character.

Actions: Bikes and Pedestrians

- Through the BPAC, continue advancing the programs and initiatives begun since 2019, including those listed above.
- Work with Oak Bluffs to design a new SUP segment connecting Eastville Ave. and the Oak Bluffs Harbor.
- Create an SUP along the eastern and northeastern perimeters of the Manuel Correllus State Forest to complete the perimeter loop of the forest. (Edgartown)
- Create a short SUP segment connecting the northeast corner of the State Forest to the Vineyard Haven-Edgartown Road shared-use path (Oak Bluffs).
- Continue working to design an SUP between the West Tisbury town center and Chilmark (linking Beetlebung Corner, Menemsha or both to the existing SUP network starting at the State Forest).
- Realign additional portions of County Road to provide buffer space between the road and the existing shared-use path (Oak Bluffs).
- Ensure that town codes and MVC development review promote pedestrian and bicycle access to adjacent neighborhoods and to public roads, including a standard condition for any new housing or commercial developments reviewed by the MVC.

- Conduct an inventory of road, SUP, and sidewalk signs, with the intent of minimizing clutter and providing clear information.
- Evaluate road speed limits for appropriateness and propose measures for traffic calming.
- Inform visitors of the existence of SUPs and trails, as well as the natural, cultural, and historic attractions available to touring bicyclists.
- Paint centerlines on SUPs as appropriate.
- Plan for adequate snow removal.

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SECTION 13:

Mopeds

Overview

Mopeds are given their own section in this Regional Transportation Plan, as they occupy a class of their own—neither a bicycle, e-bike, or motorcycle—and have a particular influence on summer traffic. Various tragic incidents on the Island, including fatal crashes, have also renewed public concern surrounding the hazards that mopeds present to operators and other travelers.

The Massachusetts Department of Transportation defines “moped” as “either a pedal bicycle with a helper motor or a non-pedal bicycle with a motor” that also has the following characteristics:

- A cylinder capacity of no more than 50 cubic centimeters
- An automatic transmission
- A maximum speed of up to 30 miles per hour
- Compliance with federal motor vehicle safety standards

Moped operators may use any public way in the state, except where signs indicate that bikes are prohibited. They may also use bike lanes, but not shared-use or other recreational paths. All moped operators must comply with regular traffic laws and regulations in the state, and signal with their hands for stopping and turning. In addition, several state restrictions and registration requirements apply to moped users and rental companies. Among other things, operators must be at least 16 years old with a valid driver’s license or permit and wear a helmet.

On the Vineyard, mopeds are generally perceived as being non-pedal bicycles, and often associated with summertime congestion and accidents. Longstanding concerns focus on the fact that riders may not have proper training or experience prior to getting on a moped; that mopeds usually travel slower than the speed limit, forcing other vehicles (including trucks and buses) to wait for a break in oncoming traffic before passing; and the sometimes fatal accidents that involve mopeds every summer. The problems with mopeds relate mostly to Island visitors who rent them, since moped owners tend to have more experience.

Trends and Issues

In 2016, four businesses in Oak Bluffs and one in Vineyard Haven provide about 350 rental mopeds in the summer—a major decline from the 1980s, when about 1,000 rental mopeds were available from 11 Island companies; and from 2001, when about 630 moped rentals were available. The Vineyard Haven business closed during the pandemic, and the town select board voted in 2023 not to approve a new business permit due to safety concerns, leaving Oak Bluffs as the only Island town where mopeds can be rented. (Oak Bluffs has a cap of 308 rental mopeds per year.)

Various accidents in recent years have renewed calls to ban rental mopeds on the Island, including an accident on Barnes Road in 2016 where a college student lost her leg, and a fatal accident on South Road in Chilmark in 2021. By some accounts there have been at least nine fatal accidents on the Island in the last 40 years, and likely hundreds of injuries.

More than 1,500 people signed a petition in 2016 asking state officials to require people who rent mopeds to have special licenses. A Vineyard Gazette survey the following year drew 2,390 responses, with 90% saying they would support eliminating mopeds altogether if that were legal. About 95% said they would support further regulations if an outright ban were not possible. The accident that year also further energized the Mopeds Are Dangerous Action Committee (MADAC), which filed a series of complaints with the town of Oak Bluffs, alleging among other things that three moped rental companies had not complied with a 2004 moped bylaw, including a provision that rental companies provide a test track to help train moped users. A similar complaint was filed against the one rental company in Tisbury. In response, the Oak Bluffs selectmen passed a series of amendments to strengthen the moped bylaw (although a judge ruled that the test-track requirement was unfair to businesses), and a warrant article at the Oak Bluffs town meeting in 2018 asking whether to file a home-rule petition allowing the town to ban moped rentals passed unanimously. The petition was delivered to the state that year, but died in committee. It was later refilled, but again failed to advance.

One dealer in Oak Bluffs volunteered to exchange 40 of his moped rental licenses for automobile licenses in 2016, a decision welcomed by town officials.

Following the fatal accident on South Road in Chilmark in 2021, Oak Bluffs again voted to send a home-rule petition to the state, and Rep. Dylan Fernandes and former Chilmark Police Chief Timothy Rich testified before the Joint Committee on Municipalities and Regional Government in 2022. Island moped business owners testified against the bill, arguing that the dangers of mopeds have been overstated, including the number of deaths. Fernandes also testified at a hearing before the committee in June 2023. As of July, the bill was still in process.

Objectives

1. Promote the use of conventional bicycles and public transit as an alternative to both mopeds and single-occupant automobiles.
2. Be proactive about community discussions surrounding moped regulation, perhaps in the run-up to the summer season.
3. Improve moped safety and education.

Proposed Actions

- Enforce all traffic laws and other regulations related to moped operation and rentals on the Island.
- Provide one-page fact sheets or pamphlets to the public, outlining state and local regulations regarding mopeds, and safety procedures.
- Keep roadways and bike lanes clear of sand and other debris to lower the risk of accident.

- Facilitate proactive community discussions surrounding moped regulation and safety.

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SECTION 14:

Safety and Security

Martha's Vineyard has relatively few vehicle crashes compared to state and national statistics. However, instances of people losing control or not paying attention are common, and sudden unexpected movements can result in serious problems. As a result, the Joint Transportation Committee reviews local incidents and weighs safety as its first priority when rating transportation projects. Due partly to the Island's small size and population, transportation-related mishaps are rare. However, the Island's broad range of travel modes in a small space every summer creates congestion that may result in unsafe conditions.

Federal rules (23 CFR 450.306[h]) mandate that the Regional Transportation Plan (RTP) is consistent with the Strategic Highway Safety Plan (SHSP), as discussed in 23 U.S.C. 148. The Massachusetts SHSP presents safety-related data, identifies safety problems, and develops strategies to reduce the number of crashes. This RTP recognizes the potential for the SHSP to be applied in the Martha's Vineyard, where the number of annual crashes can be further reduced. The SHSP focuses on six main "emphasis areas":

- Data Systems (using information to identify problem areas and drivers)
- Infrastructure (increasing the safety of problem areas through design)
- At-Risk Behavior (combating speeding, impaired driving, etc.)
- Higher-Risk Transportation System Users (working with young drivers, older drivers, pedestrians, cyclist, and motorcyclists)
- Public Education and Media (increasing public awareness of problems)
- Safety Program Management (developing effective processes for safety)

While the Island remains generally safe for travelers of all types, improvement to its transportation system and facilities should be pursued. Every effort will be made to continue to review, identify, and improve the safety of the system and the system's infrastructure.

Safety in Air and Water Transportation

The Steamship Authority, the Coast Guard, and the harbormasters of the various towns are responsible for boating safety on the Vineyard. While recreational boating mishaps do occur, the safety record of the Steamship Authority is exemplary. The Martha's Vineyard Airport (MVY) also boasts an excellent safety record (six incidents have been listed in the National Transportation Safety Board database since 1995, two of which were fatal). The parties responsible for water and air continually strive to increase safety.

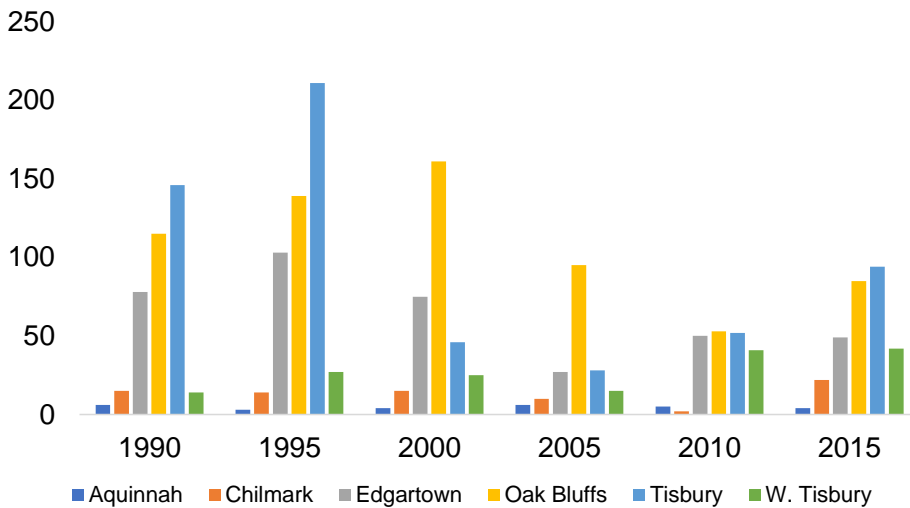
Vehicle Safety

According to the Registry of Motor Vehicles, from 1990 to 2016, a total of 8,207 crashes were reported in the Island towns, an average of about 316 per year. Crashes were about three times more common in 2016 than 2011, but have declined significantly from a high of 552 in 1994.

NEWER CRASH DATA FROM STATE IS STILL PENDING. Not surprisingly, most crashes occur

down-Island, where there are more vehicles, roads and busy intersections. The state data includes crashes reported locally or by the State Police, and crashes, from which reports MassDOT was able to determine a specific geographic location. Not all crash locations could be identified, due to the lack of crash reporting by local towns; or in some cases the reported crash information may not be sufficient to geo-code the location.

Crashes by Town, 1990–2015



Locations with the most crashes are listed by town, based on their Equivalent Property Damage Only (EPDO) index. The EPDO is a system of ranking intersections based on the severity of crashes. It gives greater significance to crashes where injuries and fatalities occurred. Points are applied to each crash in the following manner: one point for a crash involving property damage only; five points for a crash involving an injury; and 10 points for a crash in which a fatality occurred. The intent of the ranking system is to determine the locations where crashes have the most severe consequences: An intersection with fewer crashes can be ranked higher (more dangerous) than other intersections with more crashes that are less severe.

Transit Safety

The Martha’s Vineyard Transit Authority has an exemplary safety record, averaging less than one incident (e.g., quick stop, collision) requiring medical attention per year. Drivers undergo rigorous training to prevent such occurrences.

Pedestrian and Bicycle Safety

Owing to the Island’s small size and recreational nature, walking and biking are popular and effective modes of transportation. These modes mix in the summer, generally without serious

mishap, although data from Martha's Vineyard Hospital indicates that more than 100 bicyclists seek medical attention at the hospital each year.

The JTC has identified a large number of projects that will increase the safety and convenience of travel modes by improving amenities for cyclists and pedestrians:

- Create an SUP along the eastern and northeastern perimeter of the Manuel Correllus State Forest (Edgartown) to complete the perimeter loop of the Forest.
- Create a short SUP segment connecting the northeast corner of the State Forest to the Edgartown-Vineyard Haven Road SUP (Oak Bluffs).
- Create a continuous SUP from the drawbridge to Sunset Lake (Oak Bluffs).
- Realign portions of County Road to provide buffer space between the road and the existing shared-use path (Oak Bluffs).
- Redo sidewalks between Upper and Lower Main Street (Edgartown).
- Ensure that town codes and MVC development review promote walking and bicycling access to adjacent neighborhoods and to public roads.
- Develop an educational campaign informing people of the rules of the road and safety measures.
- Post "Share the Road" signs including in areas where SUPs are adjacent to the road.
- Conduct an inventory of road, SUP, and sidewalk signs with the intent of minimizing clutter and providing clear information.
- Evaluate road speed limits for appropriateness and propose measures for traffic calming.
- Set up a bicycle-path working group with a mandate to analyze the present network of cycle paths with respect to safety and convenience (especially for the novice riders), and prepare a program for upgrading them. Look particularly at the following:
 - The design of intersections with roads and driveways, including the presence of stop or warning signs, lines of sight, and the presence of vegetation and debris.
 - The presence of barriers (with low shrubs or wooden barriers) dividing paths from adjacent roadway to protect cyclists.
 - The presence of signs too close to the paths that narrow the effective width.
 - The identification of dangerous stretches of bicycle path (e.g., the Eastville Avenue path).
 - The painting of centerlines on SUPs, where appropriate.
 - Appropriate bicycle accommodations (paths or easements, parking areas) are included in new projects through town or MVC review.
 - Setting up a campaign in schools and for the general public promoting bike safety and the idea of drivers sharing the road.
 - Addressing bicycle safety and access in the planning, design, construction, operation and maintenance of transit, airport, highway, and bridge projects.
 - Developing other new SUP links. (See section 12.)
 - Working with schools to identify "Safe Routes to School" and necessary improvements.
 - Encourage walkers by increasing the appeal of the pedestrian environment, particularly in village and commercial areas, providing continuous and

adequately-dimensioned sidewalks and well-marked crosswalks and other services.

- Create and upgrade walking routes,—including off-street, low-maintenance footpaths—connecting residences, parks, workplaces, tourist and shopping attractions, and public transit stops.

Security

The Department of Homeland Security requires the RTP to be consistent with the Regional Transit Security Strategy. Beyond that, there is a recognized need for heightened awareness and security measures for all venues in which large numbers of people assemble. Those include aircraft, passenger vessels, and terminals.

The Vineyard transportation system contains few areas or structures where security is necessary or feasible, but throughout the system, efforts are continually made to identify and resolve any flaws in security. The Steamship Authority, the Vineyard Transit Authority, and Martha's Vineyard Airport, which carry large number of people in the summer and increasingly in the fall and spring as well, must remain especially vigilant in regard to security.

Steamship Authority Security

The Steamship Authority made the following changes to its operations in compliance with the Maritime Transportation Security Act of 2002, but declined to comment any security changes in recent years:

- Only baggage accompanied by a ticketed passenger will be permitted on the luggage carts.
- Access for personnel other than ticketed passengers will be limited to those possessing official Steamship Authority identification.
- Walk-on passengers will be closely monitored by Steamship Authority personnel and, when appropriate, law enforcement authorities.
- Random confirmation of passenger identification will be employed and random screening of passengers and their belongings may also be conducted.
- Once aboard a vessel, passengers are not be permitted to disembark until the vessel has reached its destination.
- Because of the time requirements associated with security measures, vehicles must arrive at least 30 minutes prior to the scheduled departure.
- Only vehicles properly screened by terminal personnel will board a vessel.

Martha's Vineyard Airport

Martha's Vineyard Airport does not make its security plan public, but has implemented procedures in cooperation with the Department of Homeland Security's Transportation Security Administration and the Federal Aviation Administration. Current efforts to renovate its 1999 terminal building focus largely on providing more adequate spaces for security screening.

Vineyard Transit Authority

The VTA requires all of its drivers to complete the National Transit Institute's security training course, System Security and Awareness for Transit Employees. According to NTI materials, the "course covers skill sets for observing, determining, and reporting activities, packages and substances that are suspicious or out-of-place. It encourages employees to use common sense when faced with various circumstances so operations can run safely, smoothly, and efficiently. A focus is also placed upon an employee's initial priorities at the scene of a threat or incident."

The VTA also participates in the Massachusetts State Transit Security Awareness Program, known as Transit Watch, which encourages passengers to be alert, prepared, and informed about threats to public safety aboard transit.

The VTA, Steamship Authority and MVY Airport would provide major assistance in the event of a natural disaster, critical incident, or terrorist attack. In addition to enhancing mobility in a time of crisis, the knowledge of these organizations advances the following goals:

- Enhance regional ability to assess risk and prevent future terrorist attacks or critical incidents.
- Improve regional ability to collect, analyze, disseminate, and manage key information.
- Improve the region's preparedness by enhancing coordination among all public safety officials.
- Improve the ability of first responders to communicate at the scene of a terrorist attack or critical incident in the region.
- Improve the region's ability to recover from a terrorist attack or other critical incident.

SECTION 15:

Livability in Transportation

A livable community is one that has affordable and appropriate housing, supportive community features and services, and adequate mobility options, which together facilitate personal independence and the engagement of residents in civic and social life.

– American Association of Retired People

Livable communities offer:

- *Choices in housing, shopping, recreation, and job opportunities.*
- *Transportation alternatives, interweaving spaces for pedestrians, bicycles, buses, trains, and cars.*
- *A variety of open spaces and places for active recreation, walking, and public gatherings.*
- *A shared identity and sense of pride that results from the visual character and vitality of the community.*

– American Institute of Architects

Overview

The concept of livability has evolved since it was first articulated in the 1970s. Typically, a livable place has housing, employment, schools, retail, and services that are accessible without an automobile. In addition, the livable place will also have little or no crime, living wages, and affordable food and housing. Some organizations have developed online rankings of top livable places, using methodologies based partly on community size.

The U.S. Department of Transportation recognizes six livability principles or goals:

1. Provide more transportation choices to reduce transportation costs, as well as environmental and public health costs.
2. Promote equitable, affordable housing by increasing the mobility and lowering the transportation costs of people of all ages, incomes, and ethnicities.
3. Enhance economic competitiveness by providing easier access to businesses, employment education, and other needs.
4. Support existing communities by focusing on community revitalization, with the added benefit of protecting rural landscapes.
5. Coordinate and leverage federal policies and investment that will support livability efforts nationwide.
6. Value communities and neighborhoods by investing in healthy, safe, and walkable neighborhoods—urban, suburban, and rural.
7. In addition, the U.S. DOT defines six approaches to livability that also apply to the transportation planning process:

8. Visioning is a forward-thinking, unconstrained, comprehensive, flexible, inclusive, and action-oriented approach to develop a clear understanding of transportation choices and potential outcomes that incorporate non-transportation issues.
9. Planning is the more concrete process of engaging stakeholders to reach the goals of livability, with an emphasis on real community input and an accounting of the true costs of transportation decisions.
10. Policy recognizes that livability goals may require changes to existing policies and even laws through a political process, and within budgetary restraints.
11. Partnership is an understanding that the public, private, institutional, and civic sectors are all fundamental in seeing transportation projects through to fruition.
12. Design requires bringing the concepts of livability to the technical work of the transportation planner and engineer, and may require that longstanding practices or standards are re-thought.
13. Implementation and funding bring the process of planning for livability to completion, often in a climate of severe budgetary constraints.
14. Martha's Vineyard has many livable aspects as a community. Everyday destinations are often within walking distance, and the transit system is extensive compared to other similarly populated areas. Thanks largely to its small size and isolation from the mainland, the Vineyard has avoided much of the car-centric development that has occurred in other parts of the country, although cars now overwhelm much of the Island infrastructure in the summer.

The down-Island towns where most of the Island population lives still offer access to a wide variety of services without a car. And walking, cycling, and public transit make up a significant part of the Island transportation network. Due in part to the limited space for vehicles carried on the Steamship Authority vessels between the mainland and Island, many people arrive without a vehicle. The Vineyard vacation is an ideal opportunity to travel car-free.

But livability across the Island could still improve. Most recent development has taken place outside of the town centers, which places a heavy emphasis on cars for everyday travel. Many of those areas that were developed in the last 50 years are less than hospitable to alternative modes such as transit and bicycling. And while the Island has an excellent public transit system, it is generally in the summer months, when traffic and parking are difficult and the weather is fine, that walking, cycling, and transit use are at their highest.

In many ways, Island agencies have always thought in terms of livability, even if the term was not used until recently. Because of the relatively limited development over the years, it will be easier for the Island to preserve, and in some cases rediscover, livability aspects, rather than engage in the much harder process of creating a livable environment from one that was designed for the convenience of the automobile.

Considerable effort has been made in recent decades to address the Island's chronic lack of affordable housing. Many affordable units are centrally located, including several major public developments, although the remote location of some new affordable housing can be seen as a step in the wrong direction. However, the extremely high property values in town centers may leave little choice but to seek less expensive land outside of town. New opportunities may arise

in the future to redevelop downtown properties in disrepair, but property owners are generally unwilling to sell at lower than market values.

An important element of livability is a transportation system that provides all sectors of the community access to jobs and services. The map in Section 10 illustrates the extent of the VTA bus network in relation to areas of high-density housing and concentrations of lower-income residents. Many lower-income residents live in newer subdivisions on the outskirts of the down-Island towns. But if the Island is to retain its rural character and healthy environment, it would be preferable to focus housing development on already developed areas.

Livability in Development and TIP Projects on Martha's Vineyard

The planning process on Martha's Vineyard is a cooperative effort among the six towns and a number of regional, tribal, and non-profit entities. The MVC, as the Regional Planning Agency and the repository of planning expertise used by the towns, works to advance livability concepts in transportation planning. A good example is the process for reviewing Developments of Regional Impact (DRIs), during which the MVC often requires developers to consider multi-modal connections and options. That may include simply improving transit access from the roadway to the building, adding bicycle parking on site, rethinking the location of buildings and circulation, or adding walkways from the street to the building.

The MVC and towns also work to incorporate livability concepts in the design of Transportation Improvement Program (TIP) projects. For example, considerable community effort focused on the two Sengekontacket Pond inlet bridges and the Lagoon Pond Drawbridge, helping ensure that those designs incorporated shared-use paths and pedestrian accommodations, while harmonizing with the character of their surroundings. Another example is the role the MVC and towns played in the construction of the Roundabout in Oak Bluffs.

Funding and implementing transportation projects in a highly constrained budgetary environment require that a community identify and focus on priorities. The transportation priorities reflected in this Regional Transportation Plan, as well as in the 2020–2024 TIP and various town projects and initiatives, largely support the goals of livability, including better bus transit, improved cycling and walking facilities, and safer roads.

In some ways, the principles and approaches that define “livability” are second nature on Martha's Vineyard, where the harmonization of natural and built environments is critical to the economic and cultural wellbeing of the community. With robust planning expertise and a supportive population, the Vineyard is well-positioned to continue improving livability in Island towns, even in the face of development pressure.

Complete Streets

“Complete Streets” refers to a consideration of all transportation options, such as walking, bicycling, public transit, cars, and trucks, in the design and implementation of new road construction and roadway improvements. Completing such projects may be accomplished in various ways, and may include shared facilities for different user types.

The Massachusetts Highway Department Project Development and Design Guide reworked the previous state design guidance to encourage integration of all travel modes; more outreach during project development including visuals; and flexibility for context considerations, such as the environment, historic, land-use, and rural or urban character of an area.

The Bicycle-Pedestrian Advisory Committee (BPAC), a sub-committee of the Joint Transportation Committee, reestablished itself briefly in 2014 and drafted a Complete Streets Policy template for Island towns. The committee again reformed in 2019 after a period of dormancy, and will continue working, along with the MVC and JTC, to incorporate Complete Streets principles in development projects and local planning discussions.

Multimodal Links

The various components of the Vineyard transportation network are described throughout this RTP. There are many points of interconnectivity among systems, the most notable being at the ferry terminals and airports. However, systems interface in more dispersed ways as well, such as wherever someone parks a car, rents a bike, or walks to a destination.

The connectivity among modes is often the weakest part of a transportation system. Trips to the Island are especially complex in that they usually involve more than one mode. The congestion around the Island ferry terminals (see Section 6), illustrates the difficulty in making smooth transitions from one part of the system to another, although the bike racks and general ease of travel on VTA buses illustrates the opposite. The down-Island town centers generally serve as the hubs for different travel modes, but that is also where the constraints of the Island's historic character are most acute—especially in regard to parking.

While the town centers bear the brunt of the connections between modes, efforts have been made to reduce the impacts on those areas, primarily through park-and-ride lots outside the town centers, and through an emphasis on development at the Airport.

The success of the Island transportation network depends to a great extent on the public's awareness of what choices are available, including where and when, how much it will cost, and how it will benefit both themselves and the Island as a whole.

Objectives

1. Improve the coordination of operations and the promotion of various transportation modes, especially those that reduce the use of private automobiles.
2. Strive to create and promote a network of non-car transportation systems (bus, taxi, bike, pedestrian) so effective that residents will want to drive less and more visitors will want to leave their cars on the mainland.

Proposed Actions

Inter-Modality

- Complete plans for intermodal transportation facilities in the Oak Bluffs harbor and ferry areas (North Bluff) dealing with the various ferry services (staging, pick up, drop off, waiting areas), along with cruise ships, marina, bike and car rental facilities, public transit and tour buses, taxi, parking, etc. While some improvements have been made (new ferry terminal, better staging for other ferries), other improvements in the area (repaving and the addition of amenities) have not, although plans are in place.
- Update plans for the Vineyard Haven terminal area, including adjacent streets and parking areas dealing with the SSA ferry dock (staging, pick-up, drop-off, waiting areas), the marina, bike and car rental facilities, public transit and tour buses, taxi, parking, etc.
- Increase the range of the bicycle network by facilitating the transport of bicycles on all VTA buses and vans. Consider developing and promoting a special shuttle from West Tisbury to the Gay Head Cliffs.
- Analyze the possibility of establishing a major parking and service center at the Airport that would include long-term park-and-ride for the ferry, ticket sales, baggage services, parking of rental car fleets, bus connections to key locations, and other services. Such a facility could substantially reduce the number of vehicles, especially from Edgartown or up-is-land, traveling to the ferry terminals to pick up or drop off passengers.
- Investigate the feasibility of joint ticketing and inter-service marketing programs.
- Participate actively in the Cape and Islands Passenger Transportation Coordinating Council to establish roles and responsibilities pertaining to the development, marketing and financing of enhanced and coordinated public transportation services between Martha's Vineyard and Cape Cod.
- Develop ADA-compatible design guidelines to integrate pedestrian areas, bikeways, and public transportation routes and facilities.

Transportation Information

- Make complete, timely, and coordinated regional transportation information available on Internet websites—including ferry and bus routes and schedules, the availability of taxis, bicycle routes, and rental and safety information.
- Cooperate with local business associations or other private organizations to distribute transportation information at strategically located visitor centers.
- Review and improve Martha's Vineyard publicity material to ensure it clearly explains the Island's transportation environment and prepares residents and visitors to make good transportation choices.
- Promote the idea of Martha's Vineyard as a different way of life, with an emphasis on the use of transit and courteous driving. Incorporate in Island advertising, tourist brochures, and flyers to be placed in first-time SSA ticket envelopes.
- Research the applicability of advisory signage and radio.
- Improve the flow of information to the news media.
- Improve the information provided to arriving visitors about their travel options so they can quickly understand the relative merits of bus, taxi, and tour bus—for example, flyers with ferry tickets, brochures available in tourist information booths, and signage at ferry terminals and the Airport.

SECTION 16:

Financial Information and Projects

Financial Analysis and Constraints

This section estimates revenues from existing and available sources, along with proposed expenditures for highway projects, and the maintenance and capital improvements associated with transit operations.

We also include a forecast of federal and state spending through 2044, taking into account existing state and federal legislation; and demonstrate that the estimated funds required to construct, maintain, and operate all components of the Island transportation system—all existing and proposed highway and transit projects recommended in the 2020–2040 Regional Transportation Plan—are matched by estimated available funds.

The RTP funds are estimated for the years 2024–2044, for federal-aid-eligible roadways, multimodal projects, bicycle and pedestrian facilities, bridges, and a substantial portion of the maintenance, operation, and capital needs of the Vineyard Transit Authority. Capital improvements and ongoing maintenance are funded and carried out in the following ways:

- State roads and bridges: Improvements to state road and bridge projects, including associated sidewalks and bicycle paths, are planned and implemented by MassDOT, which remains responsible for maintenance.
- Local federal-aid roads: Some other roads—namely those classified as arterials and collectors—are the responsibility of the towns, but the cost of improvements to these roads are eligible for federal and state funding under the Transportation Improvement Program, which is updated every year by the Committee of Signatories (MPO), based on the recommendations of the Joint Transportation Committee. Certain other enhancement projects such as bicycle paths and inter-modal facilities may also receive federal funding through a special approval process. The towns remain responsible for ongoing maintenance of those facilities.
- Other local roads: The responsibility for implementing and financing improvements and maintenance to local roads, sidewalks, bicycle paths, and other facilities lies with the towns, while state Chapter 90 funding allows for some design and improvements. In addition to property taxes, other possible sources for local improvements and maintenance may include the SSA ferry surcharge, car rental surcharges, and development impact fees.
- Vineyard Transit Authority: The VTA receives state funding for operations, and applies for grants to fund the purchase of buses and other equipment or facilities. The VTA does not receive 5307 Urban Formula funds, relying instead on 5311 Rural Grant operating funds as the sole source of federal operational funding. The 5311 funds are distributed by the state. Regions have an expectation to receive a reasonable distribution of 5311 operating funds based on a rural-service-based formula. The VTA has reported continued growth in ridership, and a stable source of operational assistance with room for growth has improved the planning of services.

- Martha’s Vineyard Airport: The Airport may also receive federal and state funding for improvements, but those sources and funding estimates are not included in this RTP.
- The Woods Hole, Martha’s Vineyard and Nantucket Steamship Authority (SSA) draws largely from revenues to fund projects related to its ferry system and other infrastructural needs. However, there are additional needs, and aging infrastructure that requires maintenance or replacement over time. As with all transportation systems on the Island, the maintenance and operation of SSA ferries and infrastructure are instrumental to providing a safe, reliable, and efficient service to the public.

Projected Federal Highway and Transit Funding

The following table outlines the Federal Highway Administration funding estimated to be available for programming for Martha’s Vineyard, as provided by MassDOT for FHA-funded projects and programs.

Projected Federal Highway Administration Funding for Martha’s Vineyard MPO 2024–2044	
Time Frame	Funding Available for Martha’s Vineyard MPO (0.31% of Total for All MPOs)
2024-2028	5,032,664
2029-2033	6,010,230
2034-2038	6,642,608
2039-2043	7,343,413
2044	1,553,928
Totals for 2024-2044	26,582,844

Proposed Projects

Under federal laws and guidance, the RTP project recommendations must fit within the estimated available funds for the region. The MVC and Joint Transportation Committee prepared a list of possible projects that were evaluated and prioritized according to the criteria in this plan. For the years 2024–2033, we identified specific projects that may qualify for FHA funds. (Projects listed for the years 2024–2028 have already been funded and are included in the 2024–2028 Transportation Improvement Program (TIP) for the Vineyard.) Given the uncertainty in budgeting more than 10 years into the future, we identified program types and budget sizes, rather than specific projects, for the years 2034–2044.

Projects: 2024-2033			
Town	Project	Estimated Budget	Time Frame
Tisbury	Drainage improvements on State highway	\$1,685,790	2024-2028 (TIP)
Edgartown	State Forest bike path construction	\$1,722,600	2024-2028 (TIP)

Commented [MA1]: Does unused money go into the 2029-2033 budget?

Total for 2024-2033		\$3,408,390	
Aquinnah	Aquinnah Circle improvements	\$250,000	2029-2033
Chilmark	Menemsha Corridor improvements	\$240,000	2029-2033
Edgartown	Redo sidewalks between Upper and Lower Main Sts.	\$500,000	2029-2033
Edgartown	Upper Main St. improvements	\$300,000	2029-2033
Multi-town	Bus racks at new and existing bus stops	\$30,230	2029-2033
Multi-town	Drainage and right-of-way improvements on Edgartown-Vineyard Haven Rd. (Edgartown, Oak Bluffs, Tisbury)	\$1,500,000	2029-2033
Multi-town	Electric vehicle infrastructure, including Level 2 and Level 3 chargers	\$200,000	2029-2033
Multi-town	Climate change assessments and planning (see Vineyard CAP pages 40-43)	\$250,000	2029-2033
Multi-town	Design and permitting for SUP between West Tisbury and Chilmark	\$175,000	2029-2033
Multi-town	Conduct detailed evaluation of VTA services and ways increase ridership	\$150,000	2029-2033
Multi-town	Develop case studies of islands and other resort destinations that limit automobile use, with recommendations for the Vineyard	\$20,000	2029-2033
Oak Bluffs	Edgartown-Vineyard Haven Rd. improvements near	\$500,000	2029-2033

	high school, including intersection of Village Rd.		
Oak Bluffs	Design and permitting for SUP between Eastville Ave. and Sunset Lake	\$175,000	2029-2033
Tisbury	5 Corners and State Rd. drainage improvements	\$1,500,000	2029-2033
West Tisbury	Culvert improvements	\$250,000	2029-2033
Total for 2029-2033		\$6,010,230	

Commented [MA2]: Has this already been done?

Programs and Budget Sizes: 2034-2044				
	Percent Allocation	2034-2038	2039-2043	2044
Bike and Pedestrian Improvements	30%	\$1,992,782	\$2,203,024	\$466,178
Climate Change Mitigation/Adaptation	30%	\$1,992,782	\$2,203,024	\$466,178
Intersections and Safety Improvements	20%	\$1,328,522	\$1,468,683	\$310,786
Roadways and Corridors	20%	\$1,328,522	\$1,468,682	\$310,786
Totals	100%	\$6,642,608	\$7,343,413	\$1,553,928

Summary and Conclusion

The 2024–2044 Regional Transportation Plan has assessed federal highway, bridge, and transit funding, from both an operational and enhancement standpoint, and demonstrates that proposed investments are consistent with estimated revenue sources provided by MassDOT. In sum, the RTP complies with applicable federal regulations and shows the required financial constraint.

Moving forward, the MVC staff will continue to review with partners the key issues, safety information, reliability, problem areas, and opportunities for multi-modal improvements on the Island. In regard to its transportation planning and review processes, the MVC will also implement measures to mitigate and adapt to climate change, using the most up-to-date methods, data, and projections, and on a time frame that acknowledges the pace of sea-level rise and coastal erosion; and continue to encourage alternatives to single-occupancy vehicle use across the Island, in line with state legislation focused on greenhouse gas reduction.

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Appendix

Materials in the Appendix are currently available upon request. Please send an email to Alex Elvin at elvin@mvcommission.org.

[PERFORMANCE MEASURES]

[MVC PROJECT EVALUATION SCORING METHODS]

[STATE FUNDING PROJECTIONS FOR ALL MPOS]

[2023 RTP SURVEY RESULTS]

[OTHER PUBLIC COMMENTS]

[UMASS DONAHUE INSTITUTE POPULATION AND EMPLOYMENT PROJECTIONS]

[VINEYARD CLIMATE ACTION PLAN GOALS AND OBJECTIVES]

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