

Climate Action Plan

THE VINEYARD WAY

CONNECTED TO OUR PAST
COMMITTED TO OUR FUTURE

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Climate Action Plan

Plan Overview

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What Motivates Us

Island Contributions to Climate Change

Climate Projections and Impacts

Emissions

The CATF found that the Island emitted approximately 270,000 metric tons (606 million pounds) of CO₂ in 2018, equivalent to the emissions of approximately 60,000 cars in one year. Emissions comprise the following figures:



44%

Transportation
(cars, ferries, planes, boats)



28%

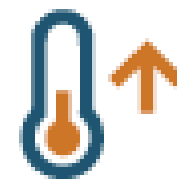
Heating and hot water
(oil and propane)



28%

Electricity

Hazard



Rising Temperatures

Greenhouse gasses (e.g. carbon dioxide and methane) trap heat in the atmosphere, causing global temperatures to rise.

Local Projections

Annual average temperatures on Martha's Vineyard are projected to increase by 2.4–5.2°F by 2050, and 3.0–9.1°F by 2100.

Annually, we expect to see 2–10 more days with maximum temperatures over 90°F by mid-century, and 4–31 more days by 2100.

We expect 19–39 fewer days per year with minimum temperatures below 32°F by mid-century, and 23–63 fewer days by 2100.

Impacts

- Higher demand on water resources
- Damage to crops and food plants; unpredictable growing seasons making global food supply less stable
- Increased vector-borne disease
- Heat stress, especially among elders
- Increased risk of wildfire
- Increased potential for invasive species

CAP Guiding Values*

1. Healthy Natural Resources
2. Equity & Inclusion
3. Community Collaboration
4. Resilience Building
5. Local Action



**developed through the kick-off meeting of over 100 people*

Climate Change and Our Environment

Climate change is threatening our environment and the benefits it provides. Ecosystems that are already degraded will be less resilient to the changes underway. Taking actions to protect and strengthen these ecosystems is therefore one of the best tools we have to create resilience in the face of climate change.

A healthy environment provides the foundation for our health, safety, economy, and quality of life. Some of nature's benefits are obvious, while others are not.

"As a Wampanoag woman, I ask that people recognize that these are our homelands and we as Wampanoag people are interconnected with this land. We cannot be separated from these lands and waters. What happens to these finite ecosystems affects my people, it affects all life that inhabits Noepe."

Carole Vandal
- Tribal Elder & CAP Wampanoag Tribe
Community Liaison

Beaches & Dunes

and coastal vegetation provide a natural barrier to waves and storm surge, habitat, as well as recreational and economic opportunities.



Coastal ponds

and eelgrass beds provide nursery, juvenile, and adult habitat for many of our highly valued commercial and recreational species such as clams, scallops, mussels, flounder, and striped bass.



Salt marshes

absorb water to prevent flooding, filter pollutants, provide habitat and food sources for an abundance of species, and trap carbon from the atmosphere.



Inland wetlands

absorb water to prevent flooding, filter out pollutants and clean water, provide habitat for an abundance of species, and trap carbon from the atmosphere.



Native meadows

filter rainwater, capture carbon, and provide habitat for pollinators and food for wildlife.



Forests

provide shade, capture carbon, and clean the air and provide recreational opportunities. In combination with meadows, they reduce erosion of lands by trapping soil and they support habitat for a wide variety of species including those that are rare and endangered.



Aquifer

We have one major aquifer, an underground freshwater lens, that provides the Island with its drinking water.

Aquifer

Freshwater

Ocean

Climate Change and Our Environment

Climate Change and Equity



Equity Considerations for Martha's Vineyard

65-74

Fastest growing age group in both the state and the county.¹

600

Number of low-income electricity ratepayers whose household income does not exceed 60% of the estimated state median income.

274

Number of structures located in the velocity zone, coastal areas subject to high-velocity wave action from storms.²

1,126

Number of structures that are located in the 100-year flood zone, which doesn't account for sea level rise.

4

Number of designated environmental justice populations based on minority, income, and language isolation status.³

Climate Change Initiatives

2003-2009

2003

Vineyard Energy Project founded - actions include installing a series of solar demonstration sites around the Island and workshops on energy efficient building

2009

Vineyard Power founded - a community non-profit that works to produce electricity from local, renewable sources

2011-2017

2011

Vineyard Gazette - 15-part series, Climate Change on Martha's Vineyard, by Liz Durkee

2017

Establishment of the Vineyard Sustainable Energy Committee (VSEC) - collaboration of all six Island town energy committees

2019

2019

MVC Climate Action Task Force established to address Island-wide climate change adaptation and mitigation

2019

Climate Action Plan Phase I - data collection, community listening sessions, climate adaptation booklets prepared for towns

2019

Island Climate Action Network formed to disseminate climate change information and quickly gained over 600 members

2019

First Island Youth Climate Summit - Mass Audubon, MVRHS Protect Your Environment Club, Charter School

2019

All towns have completed MVP Community Resilience Building workshops and reports with detailed recommendations and are eligible for MVP action grants

2020

2020

MV Center for Education and Training begins training for wind farm technicians and continues to expand a climate-job related workforce

2020

Climate change planner position established at MVC

2021

2021

Vineyard Wind - the nation's first commercial scale offshore wind project - gets the green light in partnership with Vineyard Power

2021

MVC Climate Action Task Force's Energy Working Group completes a road map to meet the 100% renewable Island energy goals

2021

MV Community Foundation establishes a Climate Action Fund

2021

Vineyard Transportation Authority unveils solar energy project, has 16 electric buses and commits to an all electric fleet by 2027

2021

All six towns and the MVC Commissioners have adopted 100% Renewable Energy Island by 2040 resolutions

2021

All six Island towns have established Climate Committees

2022

2022

MV Vision Fellowship funds two Island energy positions at Vineyard Power and MVC

2022

All Island Towns have joined the MA Green Communities Program, eligible for financial and technical support to reduce municipal energy use

2022

Tribal Climate Action Plan completed, Wampanoag Tribe

MV Climate Action Plan - The Vineyard Way

Connected to Our Past, Committed to Our Future is completed

MV Climate Change Milestones



A Community-Based Process

Pre-Planning Activities

- 20 listening sessions with
15 stakeholder groups
- 3 new town Climate Committees formed
- 6 meetings with Select Boards to
introduce the planning process



Youth Engagement

- 6 monthly student led climate cafes
- 10 school outreach events
- 64 students submitted art in the
Vineyard Conservation Society
climate change art contest

Planning Meetings

40

thematic working group meetings were held and over 108 participants (including representatives from Towns, the Tribal Community, NGOs, businesses, and students) developed goals, objectives, and actions

Planning Meetings

93

town government
board/committee
members attended
6 online workshops

Planning Meetings

13

participants attended
an in-person tribal
engagement event



Engaging our Community

General Communication & Outreach

- 25 stakeholder group
presentations
- 40 Island newspaper stories
and commentaries, magazine
stories, and radio reports on
climate change issues
- 19 monthly public events/
presentations (focused on
thematic working group



Climate Action Week

- 7 days with over 40 organizations
that hosted events
- 1400 participants attended events
- 90 climate action pledges signed
- 31 electric vehicles (EVs) in the first-
ever EV Fleet



Thematic Planning Area Sections

- Thematic Area Description and Climate Impacts
- What's Happening Now
- Equity and Questions to Consider
- Goals and Measures of Success
- Objectives, Actions, Leads, Cost, Co-Benefits

Land Use, Natural Resources and, Biodiversity

GOAL #1

By 2040, land use decision-making prioritizes public safety and ecosystem values potentially impacted by climate change.

Objective 1:

By 2024, identify and map coastal and inland land vulnerable to flooding, land vulnerable to extreme wildfire risks, associated ecosystems, and land suitable for undevelopment that significantly contribute to climate resilience and public safety. (Some actions support Overarching Goal 1)

Co-Benefits/ Collaboration:



Actions	Lead	Due Date	Cost
Action 1.1 All existing, relevant mapping is collected and synthesized.	Martha's Vineyard Commission	2023	0
Action 1.2 Required new mapping is identified, created, and added to the overall synthesis.	Martha's Vineyard Commission	2023-24	\$
Action 1.3 Review maps to identify areas of priority concern related to extreme flooding, wildfire, and contributors to climate resilience.	Martha's Vineyard Commission	2024	0
Action 1.4 With other working groups, develop a collaborative long-term vision and land use decision-making framework that builds environmental and socioeconomic resilience.	Martha's Vineyard Commission and all thematic working group reps	2025	\$\$\$\$

Objective 2:

By 2028, develop tools to protect and enhance prioritized ecosystems that provide public safety benefits. (Some actions support Overarching Goal 1)

Co-Benefits/ Collaboration:



Actions	Lead	Due Date	Cost
Action 2.1 Complete pilot Sengokontacket Pond Salt Marsh Migration Study.	OB Planning and Conservation, Martha's Vineyard Commission	2022	\$
Action 2.2 Design an education program about the connection between the health of marsh ecosystems, climate resilience, and public safety.	Vineyard Conservation Society	2024	\$\$
Action 2.3 Commission a comprehensive shoreline management plan for future public beach and coastal management.	Martha's Vineyard Commission	2025	\$\$\$\$
Action 2.4 Assess health and migration potential of Island salt marshes and ID priority salt marshes for restoration.	Martha's Vineyard Commission, Young	2025	\$\$\$



- 15 Goals
- 56 Objectives
- 191 Actions

Lead Organizations/Groups:

Ag Society, C&D Waste Committee, Vineyard Vision Fellowship, Cape Light Compact, Dukes County Emergency Managers Association, Dukes County health sub-committee, local CERT teams, Fire Chiefs, I2, Island Grown Initiative, Island Health Care, Kinship Heals, Morning Glory Farm, MV Center for Education and Training (formerly ACE MV), MV CLC Reps, MV Fishermen's Preservation Trust, MV Shellfish Group, MV Food Waste Initiative Committee, MV Seafood Collaborative, MV Shellfish Group, Cottage City Oysters, MV Tick Program, Martha's Vineyard Commission, MVC Climate Action Task Force, Polly Hill, BiodiversityWorks, President of Health Council, Prospective Emergency Manager, Steamship Authority, Town energy committees, Vineyard Conservation Society, Vineyard Power, Vineyard Sustainable Energy Committee

Land Use, Natural Resources, and Biodiversity Actions

- Development in harm's way is discontinued or managed
 - updating the towns' floodplain bylaws
 - address relocation of damaged or at-risk coastal structures
- Assess and prioritize restoration areas to enable salt marsh migration
- set maximum disturbance limits for new development and standards for native plantings;
- protecting coastal pond water quality and our drinking water through increased collaboration and enhanced regulations.



Transportation, Infrastructure, and Waste Actions



- protection or relocation of critical roads including nature-based strategies,
- assess carrying capacity of inland transportation routes and potential for new connectors
- collaborate with the Steamship Authority to build resilient port infrastructure,
- assess/ address supply chain vulnerabilities
- reduce solid waste starting with a focus on food waste and constructions.

Public Health and Safety Actions

- bilingual community outreach on health-related climate impacts;
- hire full time regional emergency manager
- development of an Island-wide emergency preparedness, response and recovery plan;
- establish a self-sustaining Island-wide CERT network
- One or more regional emergency shelters, stocked and staffed with certified volunteers
- implementation of the regional Community Wildfire Protection Plan.



Economic Resilience Actions



- establish an economic subcommittee to develop an Island-wide framework to adapt and diversify the economy
- identify climate resilient job skills and careers,
- train residents for climate-related jobs, and
- support the transition of vulnerable businesses (fossil fuel-related businesses and those in at-risk locations).

Food Security Actions

- develop standards for climate-friendly farming practices;
- ensure a consistent food supply is in place for the food insecure and during emergencies;
- increase access to lands for the Indigenous community traditional practice;
- increase aquaculture production;
- Develop a business plan to analyze the potential for building an on-Island shellfish processing facility
- establish a training/mentoring program for aspiring fishers/hunters
- SNAP/HIP and Fresh Connect accepted at Farmer's Markets and local farmstands



Energy Transformation Actions



- increasing efficient electric home heating, the use of electric vehicles, and solar energy;
- microgrids and battery storage at critical facilities;
- advocacy for the transition of ferries to electric power;
- collaboration with Eversource for sufficient electric grid capacity
- energy transition assistance for low-and-moderate income residents is a priority.
- all Island towns adopt proposed net zero building code
- all new construction and major renovations in all six towns are required to be 100% electric



Overarching Goals

- Framework for Land Use Decision Making
- Sustainable Source of Adaptation Funding
- Capacity Building for Climate Action

Moving Forward



The Vineyard Way website
(www.thevineyardway.org)



The MVC will oversee
and coordinate plan
implementation



The Steering Committee
will continue working
together



The Six Thematic
Working Groups will
each meet at least twice
a year



An annual meeting of
the entire planning team



Collaboration with The
Island Climate Action
Network (ICAN)

THANK YOU FOR YOUR TIME & FEEDBACK!

Please keep checking back on our progress at:
www.thevineyardway.org

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