

# Cape Cod Comprehensive Economic Development Strategy

July 2019 - June 2024

**FRAMING THE CAPE COD ECONOMY**

PREPARED BY CAPE COD COMMISSION STAFF ON BEHALF OF THE CEDS STRATEGY COMMITTEE



CAPE COD  
COMMISSION

**2019 CAPE COD COMPREHENSIVE ECONOMIC DEVELOPMENT STRATEGY  
JUNE 2019**

The maps and graphics in this document are for planning purposes only. They are not adequate for legal boundary definition, regulatory interpretation, or parcel level analysis.



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COMPREHENSIVE ECONOMIC DEVELOPMENT STRATEGY STRUCTURE

The five-year action plan was framed around the questions EDA uses in the CEDS guidance document:

1	WHO CREATED THE CEDS, WHAT IS IT, AND WHY AND HOW WAS IT CREATED?	Chapter 1: CEDS Structure & Process
2	WHERE ARE WE NOW?	Chapter 2: Regional Economic Overview
3	WHERE DO WE WANT TO BE IN 2040?	Chapter 3: CEDS Strategic Framework
4	HOW WILL WE GET THERE?	Chapter 4: CEDS Action Plan
5	HOW ARE WE DOING AND WHAT CAN WE DO BETTER?	Chapter 5: CEDS Evaluation Framework

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## REGIONAL VISION STATEMENT

# Cultivating creativity, diversity, and innovation to build a strong and resilient economy

Cape Cod's economy is linked closely to its environment, its coastal character and natural resources driving its major industries for centuries. The region currently faces economic challenges related to climate change impacts along the coast and the effects of seasonal population changes on its environment and infrastructure. Residents and business owners face unaffordable land and housing values fueled by Cape Cod's unique position as a seasonal and retiree destination. The high cost of living and doing business on the Cape impedes the region's ability to achieve economic resiliency and sustainability.

These challenges also provide opportunities for the region to collaborate, innovate, and lead. The 2019 Comprehensive Economic Development Strategy (CEDS) establishes a five-year action plan that responds to challenges and embraces opportunities to foster a resilient and sustainable regional economy. The strategy is the result of a collaborative planning process, with stakeholders representing an array of economic development concerns facing the region.



## WHAT IS THE CEDS?

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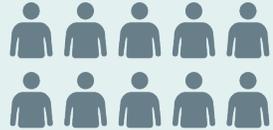
*A five-year strategic plan for economic development on Cape Cod*

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The CEDS is a tactical economic development plan consistent with the growth policy and goals of the Regional Policy Plan (RPP), which provides a vision of the future and a framework for collaborative action. The CEDS, like the RPP, recognizes the importance of Cape Cod’s interrelated natural, built, and community systems while speaking directly to the economic development needs of the region.

## WHO CREATED THE CEDS?

Development of the CEDS was led by the Cape Cod Commission, the regional planning agency for the region, in partnership with the Barnstable County Economic Development Council, an advisory board to the Barnstable County Commissioners. Stakeholders from across economic sectors and representing different elements of the community, from education to social services and government, agreed on nine regional objectives and developed a comprehensive action plan around these priorities.

**122**   
**STAKEHOLDERS**

**42** WORKING GROUP  
MEMBERS

**60** PARTICIPATING  
ORGANIZATIONS

**16** SECTORS  
REPRESENTED

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### **CEDS STAKEHOLDERS**

*The strategy is the result of a collaborative planning process, with stakeholders representing the array of economic development concerns facing the region.*

## WHY IS THE CEDS IMPORTANT?

This framework allows economic development stakeholders to better leverage limited regional capacity and attract outside resources to build a resilient economy. Once certified by the US Economic Development Administration (EDA), the 2019 Five Year CEDS will maintain the region's Economic Development District designation, the associated planning funds and regionwide eligibility for federal funding to accomplish projects identified within the plan.

## WHAT HAS THE CEDS HELPED ACHIEVE IN THE PAST?

Since 2009, the CEDS has played a pivotal role in garnering the resources and collaboration needed to address some of Cape Cod's most pressing and expensive regional issues.

The first major success was the building of the OpenCape middle-mile fiber-optic broadband network with federal, state, and regional funding, completed in 2013. This was followed by a county-sponsored regional area network connecting public facilities in 12 towns across the Cape and on-going efforts to advance e-permitting, data sharing, and regional GIS and IT services.

Next, the community addressed our serious water quality challenges with the adoption of the Cape Cod 208 Plan, a new, collaborative, and watershed-based framework for building wastewater treatment infrastructure necessary for economic prosperity and environmental health. This effort led to the establishment of the Cape Cod and Islands Water Protection Fund in 2018 and local and federal funding for wastewater treatment projects across the region – key priorities of the 2009 and 2014 CEDS.

The rapidly escalating cost of living on Cape Cod is the third major challenge to be addressed as a coordinated effort by CEDS partners. The Cape Cod Commission's Regional Economic Strategy Executive Team program has worked with towns across the region to overcome impediments to economic development and housing affordability through planning, regulatory changes, streamlined regulatory processes, and infrastructure investments. The Cape Community Housing Partnership was established in 2017 as a collaboration between Housing Assistance Corporation and Community Development Partnership to help Cape Cod towns address the economic crisis caused by a lack of housing affordable to working residents. Their Housing Institute, educating local policy makers on housing issues, has led to passage of new structures, by-laws and unprecedented funding for affordable housing in just two years.

## WHERE ARE WE NOW?

The region is closer to its goal of a sustainable, resilient economy since adoption and implementation of the CEDS over the past ten years, but the negative impacts of rapid population growth and development in the later half of the 20th century continue to impact the region. Environmental damage to our natural infrastructure and impacts from climate change has only begun to be remediated. The 2019 CEDS focuses on innovative approaches to adaptation and mitigation that create new economic opportunities in the region.

Affordability of land, housing, infrastructure, and goods and services continues to be challenged by strong demand for a limited supply of resources. This CEDS aims to continue protecting this special place while building an increasingly diverse, dynamic community and economy for residents and visitors alike.

## WHERE DO WE WANT TO BE?

This CEDS is dedicated to “Cultivating creativity, diversity, and innovation to build a strong and resilient economy.” Economic development on Cape Cod is about fostering local ingenuity and assets to solve problems while leveraging outside resources, trends, and opportunities. The vision for the region for Cape Cod to enjoy a robust year-round economy with a workforce that lives, plays, and shops locally. Our local economy will be supported by modern and resilient infrastructure, the strategic development of employment and business opportunities, and the resolute protection of the natural assets and historical character that define our region.

The strategic framework for the CEDS is articulated in six goals derived from the RPP and a set of nine regional priorities agreed to by stakeholders at the CEDS kick-off workshop.

### CEDS PLANNING AND DEVELOPMENT TIMELINE



**CEDS GOALS**

*Under the framework of the regional vision, the following six goals guide regional progress.*

 <p>Community Systems</p>	<p><b>GOAL: REGIONAL COLLABORATION AND JOINT COMMITMENT</b> <i>To provide a forum for local and regional organizations to identify and execute economic and environmental development policies and projects, and advance economic and environmental resiliency</i></p>	<p><b>GOAL: ECONOMY AND HOUSING</b> <i>To promote a sustainable regional economy comprised of a broad range of businesses, diverse employment opportunities, and an adequate supply of ownership and rental housing that is safe, healthy, and attainable for people with a variety of needs and income levels</i></p>
 <p>Built Systems</p>	<p><b>GOAL: BUILT RESOURCES</b> <i>To protect and enhance the unique character of the region's built and natural environment, including traditional development patterns, scenic resources, and cultural, historic, and archaeological resources</i></p>	<p><b>GOAL: CAPITAL FACILITIES AND INFRASTRUCTURE</b> <i>To advance reliable, resilient, and efficient infrastructure that is appropriately located, equitably distributed, and meets regional needs including energy independence, waste reduction, clean air and water, and multimodal transportation</i></p>
 <p>Natural Systems</p>	<p><b>GOAL: COASTAL RESOURCES</b> <i>To protect, preserve, or restore the quality and functions of ocean resources and to prevent or minimize loss of life, livelihood, and property or environmental damage resulting from climate change</i></p>	<p><b>GOAL: NATURAL RESOURCES</b> <i>To preserve, protect, and restore the region's natural resources including drinking water, surface water, and wetlands; plant and animal habitats; and open space and recreational resources</i></p>

## ACTION PLAN INITIATIVES

The CEDS Action Plan is organized into nine initiatives, tied to the regional priorities identified by stakeholders. Each initiative contains multiple projects that support achieving the initiative’s goal.



### LOCAL BUSINESS DEVELOPMENT INITIATIVE

Improve local business outcomes and increase employment opportunities to advance economic diversity and higher-wage employment opportunities across the region



### HOUSING ACCESS AND AFFORDABILITY INITIATIVE

Improve housing diversity and access across the region, but particularly in existing centers of activity, directing development to areas with existing infrastructure while managing impacts to natural resources



### REGIONAL INFRASTRUCTURE PLANNING INITIATIVE

Improve infrastructure planning to promote greater efficiency and coordination in infrastructure projects, protect the region’s resources, and improve resiliency to natural disasters



### BLUE ECONOMY SECTOR DEVELOPMENT INITIATIVE

Develop and fund local STEM education and workforce training programs, business development programs, and technology commercialization opportunities to support the marine science and technology, fishing, energy efficiency, and renewable energy industries



### CLIMATE CHANGE INNOVATION INITIATIVE

Continue efforts to mitigate climate change and address its potential impacts, including planning to move the region away from fossil fuels, encourage renewable energy, electrify transportation, and ensure protection of the region’s natural resources and natural carbon sinks, and identify and promote public and private opportunities for climate change mitigation and adaptation on a local and/or regional scale



### INFRASTRUCTURE DEVELOPMENT INITIATIVE

Improve and expand critical infrastructure in areas appropriate for increased development, mitigating impacts to and restoring natural resources, community character, and economic diversity



### COMPREHENSIVE AND ACTIVITY CENTER PLANNING PROJECTS

Work collaboratively with towns to complete and implement long-term comprehensive plans, area plans, and permitting improvements to effectively address local, sub-regional and regional needs, and concentrate growth away from sensitive natural areas and into areas efficiently served by infrastructure



### TRANSPORTATION AND AIR QUALITY IMPROVEMENT INITIATIVE

Identify and promote actions to reduce traffic and greenhouse gas emissions on Cape Cod



### INFRASTRUCTURE FUNDING INITIATIVE

Seek funding for infrastructure development that spreads the cost of infrastructure among residents, seasonal homeowners, and visitors to the region

Measurable objectives from the RPP relating to economic development are integrated into the CEDS, in addition to an objective for each regional priority. These objectives form the basis for measuring long-term success in realizing the region's vision.

## HOW WILL WE GET THERE?

CEDS stakeholders collaboratively developed a roadmap for addressing the priority issues impacting regional economic wellbeing over the next five years. Specific actions range from conducting feasibility and planning studies to building infrastructure and implementing programs, and address diverse topics such as housing, transportation, renewable energy, and workforce and business development. A variety of local partner organizations will work together to accomplish the deliverables laid out in the action plan. Projects may evolve over the CEDS five-year implementation timeframe as opportunities, circumstances, and resources change.

The Cape Cod Commission will lead many of the planning and infrastructure projects at the regional level, working closely with municipalities and community groups to effectively accommodate sustainable development while addressing the adverse impacts of past development. The regional and local chambers of commerce and industry associations will partner

with the public sector to strengthen local businesses, improve permitting processes, and embrace a modern "blue economy" that turns Cape Cod's challenges into economic opportunities.

Not-for-profit organizations across the region have committed to addressing housing access and affordability, climate change, and workforce needs and opportunities. All organizations will participate in regional efforts to reduce greenhouse gas emissions; improve transportation, energy, and telecommunication options; and advance economic resilience through strategic investments in infrastructure, planning, and technical assistance.

## HOW DO WE MEASURE PROGRESS?

The Commission will regularly compare performance against goals, adapt to changing circumstances and opportunities, and draft annual reports that outline any action plan changes.

Commission staff developed a comprehensive set of measures that benchmark regional progress against the past, the state, and the nation. These measures are based on the CEDS goals and objectives and EDA's measure of distress, and provide the first tier of evaluation on regional performance. The second tier focuses on regional practice, measuring how well the CEDS partners have collaborated to leverage local capacity and outside resources to implement the CEDS action plan.

The final tier looks specifically at what was achieved over the past year on the annual workplan for the Cape Cod Commission under the CEDS and by partners on individual projects.

*The CEDS facilitates a process by which the region promotes a resilient and sustainable economy.*

Turning Cape Cod's regional challenges into economic opportunities will require broad joint commitment and continued collaboration throughout the region. The CEDS facilitates a process by which the region, as One Cape, promotes a resilient and sustainable economy





# Preface

This is the 2019 Five Year Comprehensive Economic Development Strategy (CEDS) for the Cape Cod region (also known as Barnstable County). It has been prepared in accordance with US Economic Development Administration (EDA) guidelines for submission to the EDA on June 30, 2019. The EDA's mission, investment policy, and expectations regarding the CEDS document, planning process, and implementation are outlined on the following pages.

## **THE ECONOMIC DEVELOPMENT ADMINISTRATION (EDA)**

The mission of the EDA, an agency of the US Department of Commerce, is to support the formulation and implementation of economic development programs that create or retain full-time permanent jobs and income for the unemployed and underemployed in areas of economic distress. The EDA supports the efforts of regions and communities to devise and implement economic development programs.

## **EDA INVESTMENT PRIORITIES**

The EDA's investment priorities are designed to provide an overarching framework to guide the agency's investment portfolio (grants) to ensure its investments make the strongest positive impact on sustainable regional economic growth and diversification. Competitive applications will be responsive to the evaluation criteria listed under each individual funding announcement, including at least one of the following investment priorities:

**1. Recovery and Resilience:** Projects that assist with economic resilience (including business continuity and preparedness) and long-term recovery from natural disasters and economic shocks to ensure U.S. communities are globally competitive.

**2. Critical Infrastructure:** Projects that establish the fundamental building blocks of a prosperous and innovation-centric economy and a secure platform for American business, including physical (e.g., broadband, energy, roads, water, sewer) and other economic infrastructure.

**3. Workforce Development and Manufacturing:** Projects that support the planning and implementation of infrastructure for skills-training centers and related facilities that address the hiring needs of the business community (particularly in the manufacturing

sector) with a specific emphasis on the expansion of apprenticeships and work-and-learn training models. Also includes projects that encourage job creation and business expansion in manufacturing, including infrastructure-related efforts that focus on advanced manufacturing of innovative, high-value products and enhancing manufacturing supply chains.

**4. Exports and Foreign Direct Investment (FDI):** Primarily infrastructure projects that enhance community assets (e.g., port facilities) to support growth in U.S. exports and increased FDI – and ultimately the return of jobs to the United States.

## THE COMPREHENSIVE ECONOMIC DEVELOPMENT STRATEGY (CEDS)

The CEDS is both a document and a process. It is a process of establishing and maintaining a robust economic system by helping to build regional capacity (through hard and soft infrastructure) that contributes to individual, firm, and community success.<sup>1</sup> Certification of this document by the EDA allows the region and its towns to qualify for funding from the various EDA grant programs. Funding may be sought from EDA for the projects identified in this document as priorities for the 15 towns.

## THE CEDS PLANNING PROCESS

Regional Planning Agencies (RPAs) across the country are responsible for developing and implementing a CEDS

<sup>1</sup> EDA CEDS Overview. [https://www.eda.gov/ceds/#\\_ftn2](https://www.eda.gov/ceds/#_ftn2)

for their region. The RPA for Barnstable County is the Cape Cod Commission. The CEDS process begins with the selection of a CEDS Strategy Committee. The committee is responsible for convening the planning process and overseeing implementation of the plan. The committee must be representative of the economic development community within the region including business, industry, government, service and non-profit organizations, minority populations, and training and educational entities.

## THE CEDS DOCUMENT

There are two types of CEDS reports: the five-year CEDS and the interim annual reports.

The five-year CEDS must include a comprehensive summary of the region's economy, including identification of regional strengths and weaknesses as well as opportunities and threats

posed by forces outside the region. A comprehensive action plan, founded on a regional vision and a set of goals and priorities, must be included in the five-year CEDS along with a framework for evaluating progress on action plan implementation and reaching regional goals. The action plan is a set of key priority projects determined by stakeholders to address the most critical needs and have the greatest potential to improve the region's economy over the next five years.

During the interim years, the annual reports employ the evaluation framework to record progress toward meeting the region's economic development goals and completing the priority projects in the CEDS. The annual report documents any changes in regional conditions and priorities.

## CAPE COD ECONOMIC DEVELOPMENT DISTRICT (EDD)

Cape Cod was designated an Economic Development District (EDD) by the EDA on December 19, 2013.<sup>2</sup> The district is comprised of the 15 towns that make up Barnstable County. In conferring this designation, the EDA has committed to providing financial assistance to economic development in distressed communities on Cape Cod. To be designated an EDD, the applicant must have an EDA-approved CEDS and at least one geographical area within the designated service boundaries that meets the EDA's regional distress criteria.<sup>3</sup>

EDA assistance was essential in obtaining the EDD designation as well as completing and implementing the CEDS. Continued EDA funding will be instrumental in reducing distress in this region.

2 EDA Economic Development Districts. <https://www.eda.gov/edd/>

3 EDA Economic Distress Criteria legislation: <https://www.law.cornell.edu/cfr/text/13/301.3>





# 1. CEDS Structure and Process

## THE CEDS PLANNING STRUCTURE

### THE LEAD AGENCY

The Cape Cod Commission, as the regional planning agency for the Cape Cod region, works to balance environmental protection and economic progress for Barnstable County.

### The Cape Cod Commission Act

The Cape Cod Commission was established in 1990 through the Cape Cod Commission Act and a county-wide referendum.<sup>4</sup> The Act outlines the agency's purpose as follows:

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*The purpose of the Cape Cod Commission shall be to further: the conservation and preservation of natural undeveloped areas, wildlife, flora and habitats for endangered species; the preservation of coastal resources including aquaculture; the protection of groundwater, surface water and ocean water quality; as well as the other natural resources of Cape Cod; balanced economic growth; the provision of adequate capital facilities, including transportation, water supply, and solid, sanitary and hazardous waste disposal facilities; the coordination of the provision of adequate capital facilities with the achievement of other goals; the development of adequate supply of fair affordable housing; and the preservation of historical, cultural, archeological, architectural, and recreational values.*

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<sup>4</sup> Cape Cod Commission Act, 1989. <http://www.capecodcommission.org/index.php?id=15&maincatid=2>

The Act specifies that the Commission shall “promote the expansion of employment opportunities; and implement a balanced and sustainable economic development strategy for Cape Cod capable of absorbing the effects of seasonal fluctuations in economic activity.” The Commission Act and the Commission’s work recognize that the Cape’s economy is inextricably linked to the health and beauty of the region’s natural and built environment, the preservation of which will provide positive and durable returns both in terms of private investment and public benefit.

The Cape Cod Commission’s 19-member board includes representation from each town on Cape Cod, the County of Barnstable, the Governor, and the Native American and minority communities on Cape Cod. The Commission is supported by a staff of planners and technical specialists in water resources, transportation, housing,

natural resources, GIS and application development, community design, and economic development. The Chief Economic Development Officer is the CEDS Project Manager.

### Cape Cod Commission Members (April 2019)

- Fred Chirigotis (Town of Barnstable)
- Richard Conron (Town of Bourne)
- Elizabeth Taylor (Town of Brewster)
- Thomas Wilson (Town of Chatham)
- Richard Roy (Town of Dennis)
- Joyce Brookshire (Town of Eastham)
- Charles McCaffrey (Town of Falmouth)
- Jacqueline Etsten (Town of Harwich)
- Ernest Virgilio (Town of Mashpee)
- Leonard Short (Town of Orleans)
- Dr. Cheryl Andrews (Town of Provincetown)
- Harold Mitchell (Town of Sandwich)
- Kevin Grunwald (Town of Truro)
- Roger Putnam (Town of Wellfleet)
- John H. McCormack, Jr. (Town of Yarmouth)
- Ronald Bergstrom (Barnstable County Commissioner Representative)

- John D. Harris (Minority Representative)
- David Weeden (Native American Representative)
- Michael Maxim (Governor’s Appointee)

### THE STRATEGY COMMITTEE

The Barnstable County Economic Development Council (BCEDC) serves as the region’s CEDS Strategy Committee and, with the Cape Cod Commission, is the governing body of the EDD. The BCEDC is a 14-member advisory council to Barnstable County, representative of the regional economy in accordance with EDA regulations. The mission of the BCEDC is to guide economic development policy in a manner that will improve the quality of life for all, foster a healthy economy offering a range of employment opportunities at livable wages for year-round residents, and protect the region’s natural and built assets today and in the future.

The BCEDC guides regional economic development policy, the implementation of that policy through the CEDS, and the allocation of county funding from Cape and Islands License Plate fees in support of CEDS implementation.<sup>5</sup>

The BCEDC is also instrumental in the CEDS planning process. They contribute to and approve a public participation plan for the five-year CEDS, hosting public planning sessions and events and facilitating collaborations and information dissemination about both the development and implementation of the CEDS.<sup>6</sup>

## REGIONAL STAKEHOLDERS

CEDS stakeholders represent the business community, key segments of the labor force, municipalities, the Mashpee Wampanoag Tribe, and numerous organizations on Cape Cod with an interest in economic

### CEDS STRATEGY COMMITTEE (BCEDC)

- Alisa Galazzi, Cape Cod Housing Assistance Corporation (Social Services)
- Julie Wake, Arts Foundation of Cape Cod (Creative Economy)
- Peter Karlson, NeuEon (Information Technology)
- Robert Brennan, CapeBuilt Homes (Development)
- Duane Fotheringham, Hydroid (Marine Sciences)
- Tammi Jacobsen, Cape Cod Community College (Higher Education)
- Lauren Barker, Cape Cod Young Professionals (Workforce)
- Terri Ahern, Cape Cod Healthcare (Healthcare)
- David Augustinho, Cape & Islands Workforce Development Board (Workforce)
- Sheryl Walsh, Cooperative Bank of Cape Cod (Finance)
- Harold “Woody” Mitchell, Cape Cod Commission Chair (Public, non-voting)
- Ronald Beaty, Barnstable County Commissioner (Public, non-voting)
- Susan Moran, Barnstable County Assembly of Delegates (Public, non-voting)

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*The BCEDC serves as the region’s CEDS Strategy Committee. Members are representative of key sectors in our economy, they engage stakeholders throughout the CEDS planning process, and oversee its implementation.*

5 Cape Cod License Plate Grant Fund Webpage. <http://www.capeandislandsplate.com/index.php/about-the-plate/>

6 BCEDC Overview and Ordinance. <http://www.capecodcommission.org/index.php?id=673#tab=5>

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**CEDS STAKEHOLDERS**

*The strategy is the result of a collaborative planning process, with stakeholders representing the array of economic development concerns facing the region.*

development. Stakeholders contribute in many ways to a stronger regional economy, providing workforce training and education, business training and access to capital, networking and partnership development, market access and access to affordable commercial and residential property, and other necessary goods and services. The CEDS process outlined in this document engages these many different stakeholders in the development of the CEDS vision, goals, and action plan around which economic development will be conducted over the next five years. The CEDS Program Manager for the Commission also meets regularly with staff of other Economic Districts throughout the state and other EDA grant recipients and partners to coordinate efforts and improve CEDS outcomes.

**DEVELOPMENT OF THE CEDS FIVE-YEAR PLAN**

The public participation process and this document were organized around answering the five questions EDA uses to outline its CEDS guidance document:

1. What have we done in the past?
2. Where are we now?
3. Where do we want to be in 2040?
4. How will we get there?
5. How are we doing and what can we do better?

[Chapter 2](#) of this document includes a detailed assessment of where we have been and where we are today as an economic region. [Chapter 3](#) describes where the region would like to be in 2040, establishing the region’s vision for the future, six specific goals to guide regional progress, and a set of priority objectives for the next five years that guide the CEDS action plan.

The CEDS action plan, outlined in [Chapter 4](#), addresses how the region will make progress over the next five years to achieve the CEDS vision and goals. The action plan includes nine initiatives, each with its own set of projects, as well as a more specific implementation plan for the Cape Cod Commission to follow in Year 1 to advance the action plan. The final chapter of the CEDS, [Chapter 5](#), is the evaluation strategy that will be used annually to assess how the region is doing and what could be improved. The evaluation strategy will dictate the contents of the CEDS annual reports that document progress, changes, and challenges the region has faced each year in implementing the CEDS.

## PUBLIC PARTICIPATION GOALS

CEDS stakeholders shaped the plan's strategic direction and the five-year action plan. The outreach goals for the CEDS included:

- Host planning and outreach activities accessible to all residents using a variety of methods for engagement and conveying information
- Obtain high quality input from stakeholders that provides insights into the region's economic and related challenges and opportunities
- Involve stakeholders in meaningful and engaging planning exercises worthy of their participation, time, and effort
- Establish a sense of community ownership of the plan and a commitment to its implementation to advance economic resilience

- Engage and obtain input from all stakeholders, particularly hard to reach communities and constituencies not typically engaged in regional planning
- Deliver clear and consistent communications that engage a broad audience from across the region

## PLANNING STAGES

### CEDS Strategy Committee – Adoption of the Strategic Framework

The CEDS Strategy Committee (BCEDC) refined and adopted the strategic framework for the CEDS which includes the regional economic vision, goals, priorities, and associated objectives. Extensive stakeholder outreach went into each of these elements, either as part of the CEDS process or the Regional Policy Plan (RPP) update process completed in 2018.<sup>7</sup> BCEDC members weighed in on the CEDS vision, first through a survey and then a face-to-face discussion, and

7 Cape Cod Commission Regional Policy Plan, 2018. [www.capecodcommission.org/rpp](http://www.capecodcommission.org/rpp)

a subcommittee of the BCEDC refined the language, which was adopted by the full BCEDC in December 2018. The goals and growth policy were derived from the RPP, reviewed and discussed by the BCEDC at their September 2018 meeting, and adopted into the CEDS at their December 2018 meeting. The priorities and objectives were developed through an extensive stakeholder process as part of the CEDS kick-off workshop.

### **CEDS Kickoff Stakeholder Workshop – Establishing Regional Priorities**

The CEDS kickoff workshop took place on January 31, 2019 at the Cape Cod Cultural Center (see Appendix 1 for workshop meeting materials). There were approximately 50 attendees, including municipal and county staff, and representatives of non-profits, chambers of commerce, employers, and educational and research institutions. Speakers discussed the present and future of Cape Cod's economy and

how to build its resilience, before breaking out into working groups to complete a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis (the full SWOT outcomes list is available in Appendix 2). The [SWOT analysis](#) then informed the identification of nine [regional priorities](#). The Consensus Building Institute facilitated the workshop.

The working group sessions were organized around three topics essential to economic development: Infrastructure; Sector and Workforce Development; and Business Climate and Development. The participants in these groups focused on the following:

- The *Sector and Workforce Development* groups assessed key and emerging industry sectors, such as tourism and marine technology, and education from K-12 to workforce and entrepreneurship training programs. They were asked to consider platforms for collaboration, availability and access to markets, labor, or educational services.
- The *Business Climate and Development* groups assessed resources for business growth, such as capital access and business planning, as well as local and regional regulations, business cost factors, and public costs associated with business activities. They were asked to consider the availability of support services, labor, and space; the clarity, fairness, and consistency of regulations and the permitting process; and the costs of business support services, regulatory processes, and the mitigation of externalities.

Each group reported out its top three issues identified in the SWOT process, discussed in a full plenary session (for more on the SWOT process and outcomes, see [Chapter 3](#)). Attendees

next considered which of these ideas were most achievable, would likely have the greatest impact, and would best promote economic resilience.

### Workgroup Process – Developing the Action Plan

Following the January CEDS kickoff workshop, the CEDS workgroup process helped to develop the action plan around the nine regional priorities identified

at the workshop. The workgroups were organized around the same key elements of economic development – infrastructure, sector and workforce development, and business climate and development. Each group identified projects and initiatives that could directly address the regional priorities within the five-year planning horizon. The full priority list was shared with each group, but attention was focused on stakeholders’ specializations.

The workgroups met twice, first to brainstorm and then to consolidate and refine their ideas. They discussed project goals, potential partner agencies, timeframes, potential costs and funding sources, and ways to identify and measure success. Workgroup meeting materials are provided in Appendix I.

*The CEDS Workgroup process helped to develop the action plan around the nine regional priorities identified at the kickoff workshop.*

Regional Priorities by Workgroup		
INFRASTRUCTURE	SECTOR AND WORKFORCE DEVELOPMENT	BUSINESS CLIMATE AND DEVELOPMENT
<ul style="list-style-type: none"> <li>■ Infrastructure in Activity Centers</li> <li>■ Last Mile Broadband – Financing Strategy</li> <li>■ Expanded Financing Tools for Infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>■ Expansion of the Blue Economy</li> <li>■ Business Development for Job Growth</li> <li>■ Education and Workforce Development for Wage Growth</li> </ul>	<ul style="list-style-type: none"> <li>■ Housing Diversity and Affordability</li> <li>■ Zoning and Regulatory Reform for Smart Growth/Activity Centers</li> <li>■ Regionalization for Greater Efficiency in Government</li> </ul>

## Public Comment

The draft CEDS was released for a 30-day public comment period on April 26, 2019. During this comment period, the Cape Cod Commission held three public listening sessions for members of the public to provide any feedback or comments on the draft plan. These public listening sessions were held in three different places across the region: Sandwich in the Upper Cape, Barnstable in the Mid Cape, and Eastham in the Lower/Outer Cape. In addition to these listening sessions, two workgroup follow-up sessions were also held where workgroup participants were invited to provide feedback on the draft plan, and in particular the action plan.

In addition to these meetings, Commission staff also presented an overview of the plan and asked for

feedback at meetings with town planners from across the region, the Work Smart Committee, and met with individual stakeholders upon request. Stakeholders could also provide comments by submitting them in writing via email. For more details on the comments and feedback provided during the public comment period and how that feedback was addressed, please see Appendix V.

## CEDS Webpage

The Cape Cod Commission provided information on the 2019 CEDS report on its website, located at <http://capecodcommission.org/ceds>. The website outlined the planning process, linked to other relevant regional plans and previous versions of the CEDS, listed CEDS participants (See Appendix III), and shared meeting dates and materials.

## THE CEDS APPROVAL PROCESS

The CEDS Strategy Committee endorses and the Cape Cod Commission adopts the CEDS on behalf of Barnstable County, as follows:

- Draft plan released for public comment period: April 26, 2019
- Barnstable County Economic Development Council endorsed the CEDS and recommended adoption by the Cape Cod Commission on behalf of Barnstable County and incorporated CEDS implementation into work plan: June 6, 2019
- Cape Cod Commission certified the CEDS as consistent with the Regional Policy Plan and adopted it for implementation: June 13, 2019
- EDA approved the 2019 CEDS document on October 16, 2019



## 2. Regional Economic Overview

*Where have we  
been and where  
are we now?*

### THE CAPE COD REGION

Southwest of Boston, Massachusetts and extending 60 miles into the Atlantic Ocean, Cape Cod is an iconic peninsula

of 15 towns home to approximately 214,000 year-round residents.<sup>8</sup> With over 500 miles of coastline and beaches, almost 1,000 freshwater ponds covering more than 17 square miles, more than 100,000 acres of habitat, wetlands, and protected open space, and rich cultural history, its natural beauty, environmental resources, and historic character provide Cape Cod with its intrinsic wealth. These features have made the region a globally recognized visitor destination, and the Cape's economy reflects this, presenting both significant challenges and opportunities.

The Cape Cod region is comprised of 15 incorporated towns that make up Barnstable County:

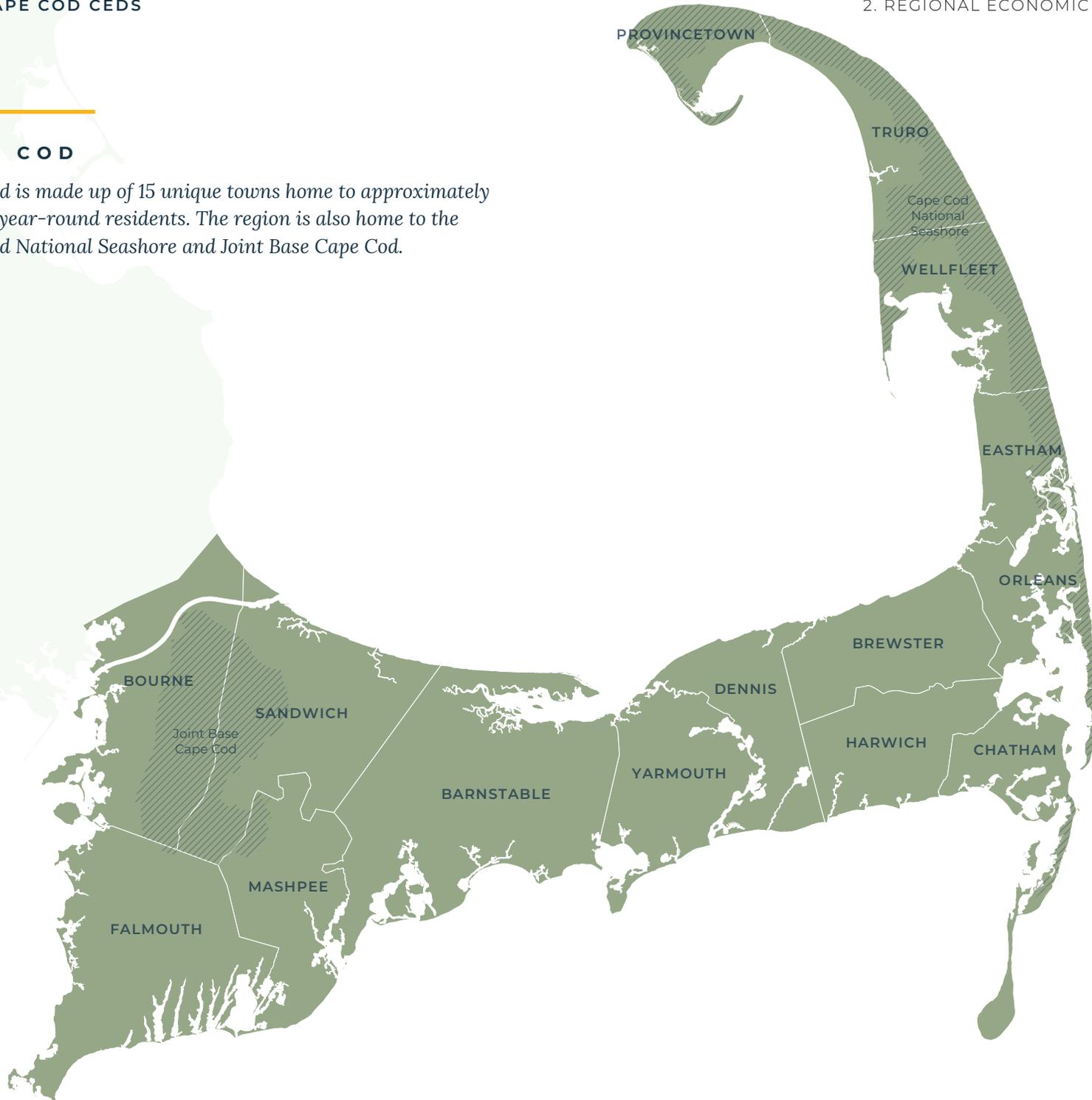
- Barnstable
- Bourne
- Brewster
- Chatham
- Dennis
- Eastham
- Falmouth
- Harwich
- Mashpee
- Orleans
- Provincetown
- Sandwich
- Truro
- Wellfleet
- Yarmouth

<sup>8</sup> U.S. Census Bureau; American Community Survey, 2017. <http://factfinder.census.gov>

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**CAPE COD**

*Cape Cod is made up of 15 unique towns home to approximately 214,000 year-round residents. The region is also home to the Cape Cod National Seashore and Joint Base Cape Cod.*



## SUBREGIONAL PROFILES

Though each town is unique, the Cape is often described as four subregions of towns with shared characteristics—Upper, Mid, Lower, and Outer Cape.

### UPPER CAPE

The Upper Cape subregion consists of four towns: Bourne, Sandwich, Falmouth, and Mashpee. This subregion of the Cape is closest to Boston and contains the Cape Cod Canal and the Bourne and Sagamore bridges. Although seasonality permeates the entire Cape region, the Upper Cape communities tend to be less seasonal than the Lower and Outer Cape towns, with Bourne and Sandwich having the lowest proportions of seasonal housing in the region and the youngest populations. The Upper Cape

tends to have higher median incomes than the other Cape towns, lower median home prices than the Lower and Outer Cape towns, and economies that are somewhat less focused on tourism.<sup>9</sup> Woods Hole Oceanographic Institute, Marine Biological Laboratory, the National Oceanic and Atmospheric Administration, and associated spin-off businesses in Falmouth and Bourne make the Upper Cape a key area for oceanographic research and related industries.

Also unique to this subregion is Joint Base Cape Cod (JBCC), a military installation of approximately 22,000 acres that currently hosts five military commands and the Massachusetts National Cemetery.<sup>10</sup> It includes land in parts of Bourne, Mashpee, and Sandwich and abuts the Town of Falmouth.

Approximately 15,000 acres of JBCC have been designated as the Upper Cape Water Supply Reserve.<sup>11</sup> This area is permanently protected open space for future water supply and wildlife habitat while allowing compatible military training. The Upper Cape is relatively densely developed outside of JBCC but does contain significant natural resources and open spaces.

### MID CAPE

The Mid Cape subregion is comprised of three towns—Barnstable, Yarmouth, and Dennis—and is home to almost 40% of the region's year-round population.<sup>12</sup> In addition to historic villages and downtowns, the Mid Cape also has large areas of suburban development, particularly in Barnstable and along Route 28 in Yarmouth. Barnstable has approximately one-third of all

<sup>9</sup> Regional Housing Market Analysis and 10-Year Forecast of Housing Supply and Demand for Barnstable County, Massachusetts (Cape Cod Housing Market Analysis). 2017. [www.capecodcommission.org/housing](http://www.capecodcommission.org/housing) and U.S. Bureau of Labor Statistics, 2017 ES-202 data via the Massachusetts Executive Office of Labor and Workforce Development: [http://lmi2.detma.org/lmi/lmi\\_es\\_a.asp](http://lmi2.detma.org/lmi/lmi_es_a.asp)

<sup>10</sup> Joint Base Cape Cod. <https://www.massnationalguard.org/JBCC/jbcc-overview.html>.

<sup>11</sup> Massachusetts Executive Order No. 414: Establishing the Upper Cape Water Supply Reserve and Commission: <https://www.mass.gov/executive-orders/no-414-establishing-the-upper-cape-water-supply-reserve-and-commission>

<sup>12</sup> U.S. Census Bureau; American Community Survey, 2016. <http://factfinder.census.gov>

## BOURNE



41 mi<sup>2</sup>

Population  19,749  
Total Housing Units  11,510  
Seasonal Housing Units  2,626 (23%)  
Top 3 Employment Sectors  
EDUCATION & HEALTH SERVICES (23%)  
LEISURE & HOSPITALITY (16%)  
RETAIL TRADE (15%)

Median Age 47.7  
Median Household Income \$69,157  
Town Area in Flood Zone 11%   
Building Square Footage  3,512,038 COMMERCIAL  
 16,234,795 RESIDENTIAL  
Town Area Protected Open Space 46% 

## SANDWICH



44 mi<sup>2</sup>

Population  20,605  
Total Housing Units  9,518  
Seasonal Housing Units  1,753 (18%)  
Top 3 Employment Sectors  
EDUCATION & HEALTH SERVICES (32%)  
LEISURE & HOSPITALITY (22%)  
RETAIL TRADE (11%)

Median Age 45.3  
Median Household Income \$83,305  
Town Area in Flood Zone 11%   
Building Square Footage  1,593,623 COMMERCIAL  
 15,703,796 RESIDENTIAL  
Town Area Protected Open Space 36% 

## FALMOUTH



46 mi<sup>2</sup>

Population  31,576  
Total Housing Units  21,976  
Seasonal Housing Units  7,731 (35%)  
Top 3 Employment Sectors  
EDUCATION & HEALTH SERVICES (28%)  
LEISURE & HOSPITALITY (18%)  
PROFESSIONAL & BUSINESS SERVICES (16%)

Median Age 51.6  
Median Household Income \$66,670  
Town Area in Flood Zone 15%   
Building Square Footage  4,928,455 COMMERCIAL  
 37,352,068 RESIDENTIAL  
Town Area Protected Open Space 24% 

## MASHPEE



26 mi<sup>2</sup>

Population  13,988  
Total Housing Units  10,048  
Seasonal Housing Units  3,570 (36%)  
Top 3 Employment Sectors  
EDUCATION & HEALTH SERVICES (23%)  
LEISURE & HOSPITALITY (22%)  
RETAIL TRADE (21%)

Median Age 50.5  
Median Household Income \$70,313  
Town Area in Flood Zone 10%   
Building Square Footage  2,001,872 COMMERCIAL  
 14,299,876 RESIDENTIAL  
Town Area Protected Open Space 27% 

# BARNSTABLE



Population 44,750

Total Housing Units 26,504      Median Age 47.9

Seasonal Housing Units 6,251 (24%)      Median Household Income \$59,711

Top 3 Employment Sectors EDUCATION & HEALTH SERVICES (32%)      Town Area in Flood Zone 20%

RETAIL TRADE (18%)      Building Square Footage 14,651,072 COMMERCIAL

LEISURE & HOSPITALITY (16%)      Town Area Protected Open Space 28%

46,419,130 RESIDENTIAL

# YARMOUTH



Population 23,680

Total Housing Units 17,226      Median Age 51.5

Seasonal Housing Units 5,601 (33%)      Median Household Income \$57,569

Top 3 Employment Sectors LEISURE & HOSPITALITY (23%)      Town Area in Flood Zone 25%

EDUCATION & HEALTH SERVICES (22%)      Building Square Footage 4,543,704 COMMERCIAL

RETAIL TRADE (12%)      Town Area Protected Open Space 26%

25,726,470 RESIDENTIAL

# DENNIS



Population 14,113      Median Age 55.2

Total Housing Units 16,285      Median Household Income \$53,381

Seasonal Housing Units 8,819 (54%)      Town Area in Flood Zone 26%

Top 3 Employment Sectors LEISURE & HOSPITALITY (26%)      Building Square Footage 3,130,991 COMMERCIAL

RETAIL TRADE (22%)      Town Area Protected Open Space 24%

EDUCATION & HEALTH SERVICES (13%)      28,437,402 RESIDENTIAL

## BREWSTER



26 mi<sup>2</sup>

Population 9,858  
Total Housing Units 7,708  
Seasonal Housing Units 3,252 (42%)  
Top 3 Employment Sectors  
EDUCATION & HEALTH SERVICES (39%)  
LEISURE & HOSPITALITY (22%)  
CONSTRUCTION (9%)

Median Age 54.7  
Median Household Income \$66,220  
Town Area in Flood Zone 5%   
Building Square Footage   
Town Area Protected Open Space 33%

## HARWICH



23 mi<sup>2</sup>

Population 12,205  
Total Housing Units 10,118  
Seasonal Housing Units 4,215 (42%)  
Top 3 Employment Sectors  
LEISURE & HOSPITALITY (23%)  
RETAIL TRADE (18%)  
CONSTRUCTION (16%)

Median Age 50.9  
Median Household Income \$68,267  
Town Area in Flood Zone 14%   
Building Square Footage   
Town Area Protected Open Space 16%

## ORLEANS



15 mi<sup>2</sup>

Population 5,874  
Total Housing Units 5,367  
Seasonal Housing Units 2,199 (41%)  
Top 3 Employment Sectors  
RETAIL TRADE (27%)  
LEISURE & HOSPITALITY (20%)  
EDUCATION & HEALTH SERVICES (18%)

Median Age 62.0  
Median Household Income \$64,861  
Town Area in Flood Zone 28%   
Building Square Footage   
Town Area Protected Open Space 30%

## CHATHAM



17 mi<sup>2</sup>

Population 6,129  
Total Housing Units 7,065  
Seasonal Housing Units 3,991 (56%)  
Top 3 Employment Sectors  
LEISURE & HOSPITALITY (33%)  
EDUCATION & HEALTH SERVICES (23%)  
RETAIL TRADE (13%)

Median Age 57.4  
Median Household Income \$67,587  
Town Area in Flood Zone 44%   
Building Square Footage   
Town Area Protected Open Space 27%

## PROVINCETOWN



10 mi<sup>2</sup>

Population 2,959

Total Housing Units 4,507

Seasonal Housing Units 2,469 (55%)

Top 3 Employment Sectors  
LEISURE & HOSPITALITY (44%)  
RETAIL TRADE (21%)  
EDUCATION & HEALTH SERVICES (12%)

Median Age 54.3

Median Household Income \$36,958

Town Area in Flood Zone 45%

Building Square Footage  
1,468,091 COMMERCIAL  
3,637,015 RESIDENTIAL

Town Area Protected Open Space 78%

## TRURO



22 mi<sup>2</sup>

Population 1,738

Total Housing Units 3,279

Seasonal Housing Units 2,404 (73%)

Top 3 Employment Sectors  
LEISURE & HOSPITALITY (28%)  
CONSTRUCTION (14%)  
EDUCATION & HEALTH SERVICES (11%)

Median Age 57.6

Median Household Income \$60,432

Town Area in Flood Zone 21%

Building Square Footage  
702,274 COMMERCIAL  
4,494,800 RESIDENTIAL

Town Area Protected Open Space 68%

## WELLFLEET



21 mi<sup>2</sup>

Population 3,011

Total Housing Units 4,497

Seasonal Housing Units 2,753 (61%)

Top 3 Employment Sectors  
LEISURE & HOSPITALITY (42%)  
RETAIL TRADE (11%)  
PROFESSIONAL & BUSINESS SERVICES (9%)

Median Age 62.2

Median Household Income \$45,735

Town Area in Flood Zone 26%

Building Square Footage  
602,825 COMMERCIAL  
5,772,930 RESIDENTIAL

Town Area Protected Open Space 54%

## EASTHAM



14 mi<sup>2</sup>

Population 4,932

Total Housing Units 6,024

Seasonal Housing Units 3,509 (58%)

Top 3 Employment Sectors  
LEISURE & HOSPITALITY (25%)  
CONSTRUCTION (21%)  
EDUCATION & HEALTH SERVICES (12%)

Median Age 56.6

Median Household Income \$60,760

Town Area in Flood Zone 25%

Building Square Footage  
708,218 COMMERCIAL  
9,177,448 RESIDENTIAL

Town Area Protected Open Space 33%

commercial building square footage in the region and Route 132 in Barnstable is the Cape's retail and commercial center, with a regional mall as well as several larger, national retailers.<sup>13</sup> The Town of Barnstable is the largest town on the Cape and has the largest population. Education and Health Services make up nearly one-third of all employment in Barnstable, but moving west to east within the Mid Cape, the towns generally become more seasonal and tourism-oriented both in terms of housing units and employment opportunities.<sup>14</sup>

## LOWER CAPE

The Lower Cape, consisting of the towns of Brewster, Harwich, Orleans, and Chatham, is where the typical development patterns of the region start to transition from denser suburban development to somewhat

more rural landscapes and includes large tracts of open space such as Nickerson State Park and Punkhorn Parklands. Year-round populations and the number of housing units in this subregion are a fraction of the Upper and Mid Cape towns, though still higher than the Outer Cape towns. The Lower Cape communities tend to have older populations and higher median incomes than the Mid Cape towns.<sup>15</sup> This subregion is much more seasonal than the Upper and Mid Cape, though not as seasonal as the Outer Cape. Though this region tends to have higher median incomes than the Mid Cape, housing is also more expensive, with Chatham and Orleans having the highest median house prices on Cape Cod.<sup>16</sup>

## OUTER CAPE

The four towns of Eastham, Wellfleet, Truro, and Provincetown make up the Outer Cape. These towns have significantly smaller year-round populations than the rest of the region: Truro's year-round population is only 1,738 people.<sup>17</sup> These towns are much more rural in nature than the rest of the region. Part of what makes this subregion unique and contributes to the rural and natural development patterns that typify these towns is the presence of the Cape Cod National Seashore. This National Park, established in 1961, contains more than 27,000 acres in the Outer Cape (as well as portions of Orleans and Chatham) and provides critical and stunning wildlife habitat, open space, and recreational opportunities, with limited development within its borders. In all towns within this subregion, more than half of the housing

13 Cape Cod Commission analysis using a Cape Cod Commission Parcel Data Set (2014), which uses individual town assessing data.

14 U.S. Bureau of Labor Statistics, 2017 ES-202 data via the Massachusetts Executive Office of Labor and Workforce Development: [http://lmi2.detma.org/lmi/lmi\\_es\\_a.asp](http://lmi2.detma.org/lmi/lmi_es_a.asp)

15 U.S. Census Bureau; American Community Survey, 2015 and 2016. <http://factfinder.census.gov>

16 Cape Cod Housing Market Analysis. 2017. [www.capecodcommisison.org/housing](http://www.capecodcommisison.org/housing)

17 U.S. Census Bureau; American Community Survey, 2016. <http://factfinder.census.gov>

stock is seasonal and housing units outnumber the year-round population. This subregion of the Cape experiences the most significant seasonal changes in population, housing, and the economy, and is very heavily focused on the tourism industry.

## DEMOGRAPHIC AND SOCIOECONOMIC PROFILE

Though the region has been inhabited for thousands of years, Cape Cod began experiencing rapid population growth in the 1950s. By the 2000 Decennial Census, Cape Cod had grown over 400% in five decades, adding just over 175,000 year-round residents.<sup>18</sup> Cape Cod's year-round population peaked at about 228,000 residents around 2003, then declined by about 10,000-

12,000 according to the 2010 Decennial Census. Recent estimates have the population holding steady at about 213,400 year-round residents and around 160,000 housing units.<sup>19</sup>

Cape Cod has a number of vulnerable populations including minority populations, Environmental Justice populations, and a growing number of retired and elderly residents. The limited diversity of Cape Cod's population and its associated challenges are described in the [Economic and Resilience Challenges](#) section.

Cape Cod's population includes the Mashpee Wampanoag Tribe, which has inhabited present day Massachusetts for more than 12,000 years. The Mashpee Wampanoag Tribe became a federally recognized tribe in 2007, authorizing the tribe to acquire land and re-establish

their Indian Reservation. In 2015, the US Department of the Interior declared 150 acres of land in Mashpee as the Tribe's initial reservation, on which the Tribe can exercise its tribal sovereignty rights.<sup>20</sup>

Population projections vary, but a 2017 study of Cape Cod's housing supply and demand suggest that the resident population could grow by about 6,000 people between 2015 and 2025 (though other population projections indicate a continued loss of population in the region).<sup>21</sup> Declining natural growth has long characterized the region: since 1992 there have been more deaths than births every year. Since 2005, there are 1,000 more deaths each year on average than births. Population projections showing an increase in population attribute that increase to employment growth and in-migration.<sup>22</sup>

18 U.S. Census Bureau, Massachusetts State Census

19 U.S. Census Bureau; American Community Survey, 2010-2018. <http://factfinder.census.gov>

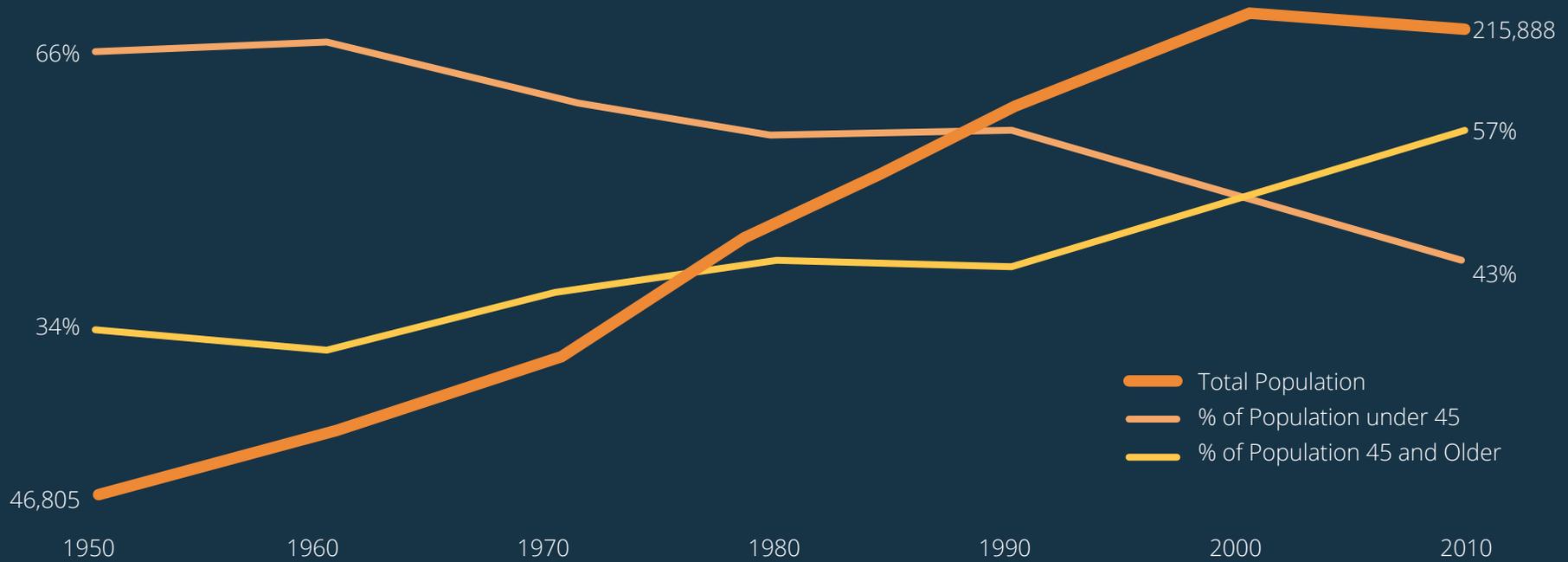
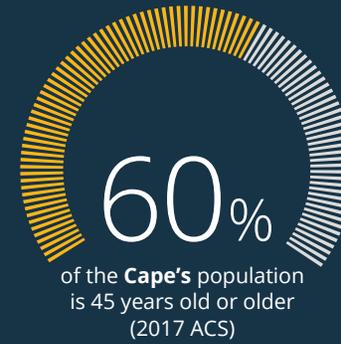
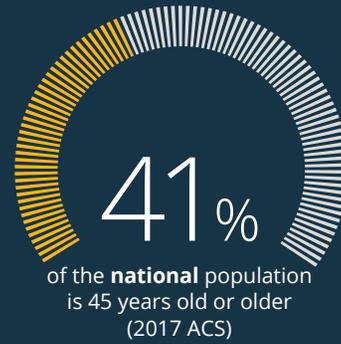
20 Mashpee Wampanoag Tribe. 2019. <https://mashpeewampanoagtribe-nsn.gov/>

21 Long-term Population Projections for Massachusetts Regions and Municipalities. Prepared for the Office of the Secretary of the Commonwealth of Massachusetts. March 2015. [http://www.pep.donahue-institute.org/downloads/2015/new/UMDI\\_LongTermPopulationProjectionsReport\\_2015%2004%20\\_29.pdf](http://www.pep.donahue-institute.org/downloads/2015/new/UMDI_LongTermPopulationProjectionsReport_2015%2004%20_29.pdf)

22 Cape Cod Housing Market Analysis. 2017. [www.capecodcommisison.org/housing](http://www.capecodcommisison.org/housing)

**POPULATION TRENDS**

*Cape Cod has experienced a dramatic population increase since the 1950s. Today the median age is significantly higher than the national average.*



With second homes making up more than 30% of the region’s housing, second home owners have long played a major role in the region’s economy and housing market.<sup>23</sup> Visitors are also an important segment of the Cape community, arriving mostly in the summer but also on weekends throughout the fall and spring (Cape Cod’s “shoulder season”).

### EMPLOYMENT AND INCOME DATA

The dominant industries in the region are related to Cape Cod’s seasonal economy and retiree population: 17% are in healthcare, 16% of jobs are in accommodations and food services, and 16% are in retail trade.<sup>24</sup> Just under a quarter of jobs on Cape Cod are in emerging industry sectors including creative economy sectors, financial and information sectors, and

professional services and technical services sectors, with wages around or above the average for the region.<sup>25</sup> The region’s marine assets, location, and the presence of global marine industry leaders provide valuable employment opportunities in the marine sciences and technology sector. Additionally, Cape Cod Community College, Bridgewater State College, Massachusetts Maritime Academy, and strong K-12 schools provide educational opportunities that contribute to the region’s economy.

The county’s labor force is over 110,000 residents, with over 95% of the population holding a high school degree and over 40% holding a bachelor’s or more advanced degree (compared with approximately 90% of all Massachusetts residents holding a high school degree and about 42% holding a bachelor’s

23 Cape Cod Housing Market Analysis. 2017. [www.capecodcommisison.org/housing](http://www.capecodcommisison.org/housing)

24 US Bureau of Labor Statistics, 2017 ES-202 data via the Massachusetts Executive Office of Labor and Workforce Development: [http://lmi2.detma.org/lmi/lmi\\_es\\_a.asp](http://lmi2.detma.org/lmi/lmi_es_a.asp)

25 Cape Cod Housing Market Analysis. 2017. [www.capecodcommisison.org/housing](http://www.capecodcommisison.org/housing)

Health Services  17%

Accommodation and Food Services  16%

Retail Trade  16%

#### TOP INDUSTRIES

*Nearly half of all jobs are related to Cape Cod’s seasonal economy and retiree population.*

**MEDIAN HOUSEHOLD INCOME**

*While the median household income (MHI) is higher than the national MHI, it is lower than the state.*



degree or higher).<sup>26</sup> The average age of Cape Cod’s workforce is also older compared with the state average: in 2017, 32.2% of residents in the workforce were aged 55-64 in Barnstable County, compared to 21.8% in Massachusetts. Conversely, in Barnstable County, 24.8% of residents in the workforce were aged 20-34, compared to 34.6% in Massachusetts.<sup>27</sup>

Over 48% of resident incomes come from non-labor income sources such as real estate, social security, and investments, which signifies the strength of its retired resident population.<sup>28</sup>

The median household income (MHI) for Barnstable County is about \$63,000, lower than the state’s MHI of over \$68,000, but higher than the national MHI of about \$54,000.<sup>29</sup> The average wages paid by Cape employers, when adjusted for inflation, have been largely

stagnant and consistently below state and national averages since 1990, even though employment growth in the region has been steady, nearly doubling from 76,400 jobs in 1980 to over 148,000 in 2016.<sup>30</sup> Employment growth is not distributed evenly among all sectors, but the following industries have all grown in recent years, and have location quotients that indicate economic specialization:

- Construction and manufacturing,
- Arts, entertainment, and recreation,

26 Cape Cod Housing Market Analysis. 2017. [www.capecodcommisison.org/housing](http://www.capecodcommisison.org/housing) and U.S. Census Bureau; American Community Survey, 2017. <http://factfinder.census.gov>

27 American Community Survey, 2017. <http://factfinder.census.gov>

28 Cape Cod Housing Market Analysis. 2017. [www.capecodcommisison.org/housing](http://www.capecodcommisison.org/housing)

29 U.S. Census Bureau; American Community Survey, 2015. <http://factfinder.census.gov>

30 Cape Cod Housing Market Analysis. 2017. [www.capecodcommisison.org/housing](http://www.capecodcommisison.org/housing)

- Administration and support,
- Waste management and remediation services,
- Transportation and warehousing, and
- Wholesale trade.<sup>31</sup>

Based on the 2017 Cape Cod Housing Market Analysis, average wages in all of the top seven Cape Cod sectors—accommodation and food services, retail trade, healthcare, professional and technical services, construction, local government, and administrative/waste services—are below the amount of household income per year required to afford a median priced house in the region. (The US Department of Housing and Urban Development defines housing affordability as paying 30% or less of a household's income on housing)<sup>32</sup>. Only

the highest paid employees within the county's major employment categories were able to afford owning a house in 2015.<sup>33</sup> Household income has not kept up with rising costs of housing on Cape Cod, an issue that will be greatly exacerbated given the forecasted trends in population and employment.

## INDUSTRY PROFILES

Cape Cod's environment is its economy. The water-dependent, "Blue Economy" is driven by the extensive shoreline and direct access to open water, acknowledges the fact that a healthy Cape Cod environment drives a healthy regional economy. The region's character and amenities attract a wide range of people who want to visit,

live, or work on the Cape, including scientists, entrepreneurs, fishermen, retirees, tourists, second homeowners, and artists. Most businesses on Cape Cod are small businesses (only one percent of the Cape's businesses have workforces greater than 100 people).<sup>34</sup> Additional resources, such as greater access to capital, more opportunities for mentorship, and a larger skilled workforce, could support entrepreneurs' ability to work and live on Cape Cod year-round.

Cape Cod's major industries and areas of growth and opportunity are highlighted on the following pages.

31 Cape Cod Housing Market Analysis. 2017. [www.capecodcommisison.org/housing](http://www.capecodcommisison.org/housing)

32 U.S. Housing and Urban Development: Affordable Housing. 2019. [https://www.hud.gov/program\\_offices/comm\\_planning/affordablehousing/](https://www.hud.gov/program_offices/comm_planning/affordablehousing/)

33 Cape Cod Housing Market Analysis. 2017. [www.capecodcommisison.org/housing](http://www.capecodcommisison.org/housing)

34 U.S. Census Bureau, American Community Survey, 2017. <http://factfinder.census.gov>.




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## MARINE SCIENCE AND TECHNOLOGY INDUSTRY

Marine science focuses on improving understanding of and protecting marine ecosystems and researching ways to leverage ocean resources to improve human wellbeing. The marine science sector relies on the region's coastline and pristine beaches and is anchored by the Woods Hole Oceanographic Institute (WHOI), the Marine Biological Laboratory, and the National Oceanographic and Atmospheric Administration. From these institutions a number of companies have been established locally, including Hydroid, McLane Labs, and Teledyne Benthos. The marine science and technology industry of Cape Cod and the surrounding region (Nantucket, Martha's Vineyard, and Southern Plymouth County) includes over 400 firms employing almost 5,500 people with over \$500 million in annual revenues.<sup>35</sup>

New economic sectors continue to emerge that are directly dependent on marine resources and Cape Cod is in a

strong position to embrace these new ventures. The Cape Cod Blue Economy Foundation identifies "dark blue" areas of the economy, industries that are directly depend on water. The dark blue industries are worth 6% of the region's revenues and employees 4% of the workforce, and its top five industries are shellfish fishing, marinas, environmental conservation organizations, finfish fishing, and recreational businesses like yacht clubs and charter boats.<sup>36</sup>

Other regional assets that support the expansion of the marine cluster include the educational and training opportunities provided by Massachusetts Maritime Academy in Bourne, the region's K-12 and technical school system, and Cape Cod Community College in Barnstable.

<sup>35</sup> Research, Education, Advocacy, Support Services and Marine Technology sector data from the Cape Cod Blue Economy Project: A Call to Action. Cape Cod Chamber of Commerce. 2017. Report available at <https://www.bluecapecod.org/implementation-plan>.

<sup>36</sup> Cape Cod Blue Economy Project Implementation Report, 2017. <https://www.bluecapecod.org/implementation-plan>



## FISHING AND AQUACULTURE

Historically, the Cape's blue economy was based on extracting resources from the sea, such as fish, whales, salt, or shellfish. Commercial fishing and aquaculture continue today along with new ventures around enjoying and understanding the region's blue resources. Cape Cod is proximate to rich fishing grounds, and local fishermen catch skate, scallops, mussels, Atlantic cod, oysters, clams, bluefin tuna, monkfish, and striped bass. In 2017, Barnstable County landings totaled over 61 million live pounds, worth nearly \$74 million.<sup>37</sup> Much of the fish landed by Cape Cod fishermen are exported internationally.<sup>38</sup>

The Cape supports almost 1,900 commercial fishermen (30% of all Massachusetts fishermen), though the population of the Cape's fishermen is aging, with less than one-third of commercial fishermen under the age of 40.<sup>39</sup> The local fishing industry is supported by several non-profit

organizations, including the Cape Cod Commercial Fishermen's Alliance, Community Development Partnership, and the Cape Cod Fisheries Trust.

Cape Cod is also creating year-round employment for fishermen by growing its aquaculture industry, primarily with oysters and quahogs. In 2016, there were 249 shellfish farms in Barnstable County span over 629 acres. Over 19.3 million oysters were landed totaling \$10.9 million dollars, and over 5.3 million quahogs were landed with a value of approximately \$1.2 million dollars.<sup>40</sup> A 2016 Cape Cod Aquaculture Capacity report noted that some towns (Provincetown, Orleans, Brewster, and Falmouth) could expand the aquaculture industry a substantial amount over a very short term.<sup>41</sup>

<sup>37</sup> 2017 Barnstable County Landings, Value and Effort. SAFIS Dealer Database. <https://www.accsp.org/what-we-do/safis/>

<sup>38</sup> Pier to Plate. Cape Cod Commercial Fishermen's Alliance. 2017. <https://capecodfishermen.org/piertoplate>

<sup>39</sup> Spring Appeal Overview. Cape Cod Commercial Fishermen's Alliance. 2018. [https://capecodfishermen.org/images/CCCFA\\_SpringAppeal18\\_digital\\_revised.pdf](https://capecodfishermen.org/images/CCCFA_SpringAppeal18_digital_revised.pdf)

<sup>40</sup> Aquaculture Production. Barnstable County Extension. 2016. <https://www.capecodextension.org/marine/semac/production/>

<sup>41</sup> Cape Cod Aquaculture Capacity, 2016. Michael Low. <http://capecodfishermen.org/images/documents/Cape-Cod-Aquaculture-Capacity-Michael-Low-Report-7.2016-FINAL.pdf>




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**HEALTHCARE**

Approximately 17% of the region's employment is in healthcare and social assistance, compared with about 20% statewide.<sup>42</sup> There are two hospitals on Cape Cod (Falmouth Hospital and Cape Cod Hospital in Hyannis) as well as numerous smaller medical facilities and offices. In 2017, there were 1,130 Healthcare and Social Assistance establishments in Barnstable County, and 17,072 employees (reflecting a 5.5% increase since 2013). The average annual wage per employee in 2017 was \$53,480, a 12% increase over 2013 wages.<sup>43</sup>

Cape Cod Healthcare, the parent organization for the Cape's two hospitals, employs more than 450 physicians, 5,000 employees, and 800 volunteers, fulfilling local needs for acute care, primary care, specialty care, homecare and hospice services, skilled nursing, assisted living and rehabilitation services, Cape-based laboratory services, blood donation programs, and numerous community health programs.<sup>44</sup>

As the Cape's population continues to age, healthcare will continue to be a major player in the region's economy.

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<sup>42</sup> Cape Cod Housing Market Analysis. 2017. [www.capecodcommisison.org/housing](http://www.capecodcommisison.org/housing)

<sup>43</sup> Quarterly Census of Employment and Wages, U.S. Bureau of Labor Statistics. 2017. <https://data.bls.gov/cgi-bin/dsrv?en>

<sup>44</sup> Community Health Needs Assessment Report and Implementation Plan, 2017-2019. <https://www.capecodhealth.org/app/files/public/3927/community-health-needs-assessment-2017-2019.pdf>




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## TOURISM & HOSPITALITY

Every year, the population of the region essentially doubles during the warmer months with seasonal residents and visitors coming to the region to enjoy the Cape's natural and cultural resources. One recent study looking at hotel accommodations on the Upper Cape found that occupancy in the peak season is up to 60% higher than during the off-season.<sup>45</sup>

About one-third of all employment in the region is directly related to tourism in the Accommodation and Food Services and Retail Trade industries, compared with about 20% or less statewide.<sup>46</sup> However, most jobs in these industries pay lower wages, making it difficult for employees to afford to live on the Cape.

The seasonal population and visitors bring resources to the region that increase economic output and generate jobs and wages. Visitors and seasonal residents

support arts, cultural, and other nonprofit organizations and shop at local stores for groceries and hardware supplies.<sup>47</sup>

Heavy reliance on the tourism industry is a risk to economic resilience, however. Visitor patterns change with national and international economic and political changes; typically, the Cape has weathered recessions well and been successful at attracting both international visitors and those from the larger northeast region to maintain steady levels across the decades.

The regional economy is also impacted by the changing nature of tourism. According to the Upper Cape Hotel Demand Study conducted in 2015, multiple hotel operators noted that the historical "high" season has eroded due to the second home market and alternate accommodations available on AirBnB.<sup>48</sup> The strength of the short-term rental market, compounded by the growth of websites like AirBnB and VRBO, is also a significant driver of Cape Cod's housing shortage.<sup>49</sup>

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45 Lodging Accommodation Demand Study for the Upper Cape, Cape Cod, MA. Pinnacle Advisory Group. 2015. <http://www.capecodcommission.org/>

46 Cape Cod Housing Market Analysis. 2017. [www.capecodcommission.org/housing](http://www.capecodcommission.org/housing)

47 Cape Cod Second Homeowners Survey, 2017. [http://www.capecodcommission.org/resources/economicdevelopment/Report\\_Cape\\_Cod\\_Second\\_Homeowners\\_2017\\_FINAL.pdf](http://www.capecodcommission.org/resources/economicdevelopment/Report_Cape_Cod_Second_Homeowners_2017_FINAL.pdf)

48 Lodging Accommodation Demand Study for the Upper Cape, Cape Cod, MA. Pinnacle Advisory Group. 2015. <http://www.capecodcommission.org/>

49 Quinn and Coxe, "Housing on Cape Cod: The High Cost of Doing Nothing". Cape Cod Housing Assistance Corporation. 2018. <http://www.haconcapecod.org/blog/editorial-the-high-cost-of-doing-nothing>




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**ARTS AND CULTURE**

Cape Cod's arts and cultural community has been a defining characteristic of the region since the 19<sup>th</sup> century. Provincetown became known as an arts colony when the Cape Cod School of Art was founded in 1899, and the region's unique environment continues attracting artists today.<sup>50</sup> Arts, entertainment, and recreation is a growing sector, employing 6,220 residents in 2017, compared to 5,184 in 2012.<sup>51</sup> Those 6,220 residents also represent a higher percent of the County's employment (4.1%) compared to the same sector for Massachusetts (2.7%).<sup>52</sup>

Cultural tourism includes performance, artistic, architecture, historical, recreational, and natural resources. The Cape's rich cultural heritage and historic character attracts visitors and residents, shaped by the region's Native American beginnings, maritime industries, and success as a resort destination.

Thousands of the Cape's buildings are listed on the National Register of Historic Places, either individually or in one of the region's 45 National Register Historic Districts, and many more are within the Cape's 16 Local Historic Districts.<sup>53</sup> These resources, including Cape Cod's rural areas and historic villages, are tangible connections to the region's rich past and play a key role in attracting and retaining residents and visitors to Cape Cod.

The industry is also an important economic driver, attracting visitors and second homeowners to Cape Cod. About three quarters of the respondents to Cape Cod's 2017 Second Homeowner survey reported actively supporting arts and cultural organizations and other non-profit organizations on the Cape, primarily through purchasing tickets or goods and making charitable contributions.<sup>54</sup>

<sup>50</sup> Cape Cod School of Art, History. 2019. <http://capeschoolofart.org/history/>

<sup>51</sup> U.S. Bureau of Economic Statistics. 2019. <https://www.bea.gov/data/all>

<sup>52</sup> U.S. Bureau of Economic Statistics. 2019. <https://www.bea.gov/data/all>

<sup>53</sup> Massachusetts Historical Commission MACRIS Data. 2018. <http://gis-ccccommission.opendata.arcgis.com/datasets/historic-places>

<sup>54</sup> Cape Cod Second Homeowners Survey, 2017. [http://www.capecodcommission.org/resources/economicdevelopment/Report\\_Cape\\_Cod\\_Second\\_Homeowners\\_2017\\_FINAL.pdf](http://www.capecodcommission.org/resources/economicdevelopment/Report_Cape_Cod_Second_Homeowners_2017_FINAL.pdf)

## ENVIRONMENTAL BASELINE

Natural systems are an integral part of life on Cape Cod, providing drinking water and supporting the habitats and landscapes that draw people to the region, guiding development patterns, and driving the region's economy. The following facets of Cape Cod's environment may influence the resiliency of the regional economy.

The natural systems of the Cape center around water, water-dependent resources, and habitat. One of the most productive groundwater systems in New England, the Cape Cod Aquifer provides 100% of the Cape's drinking water. The aquifer is designated a Sole Source Aquifer under the Safe Drinking Water Act by the Environmental Protection Agency, a designation that requires Federally-funded projects to assess project impacts to the aquifer.

Marine systems include open ocean, smaller segments such as Nantucket and Vineyard Sound, and estuaries and coastal embayments. The ocean waters support rich marine life, including many rare or threatened fish, birds, reptiles, and marine mammals, and complex ecosystems, and provide primary recreational areas for Cape Cod residents and visitors. The marine waters around Cape Cod also support the last population of the federally endangered North Atlantic Right Whale and continue to support fisheries that sustain recreational and commercial shellfishing and fin-fishing. The land under the ocean, seawater, and the space above the ocean surface are increasingly in demand for new marine uses.

Nearly 80% of the region's land area drains to 53 coastal embayments and estuaries, and the Cape's groundwater and stormwater runoff discharge to surface water in ponds, lakes, rivers,

streams, coastal waters, and wetlands. As part of the regional aquifer system, the Cape's nearly 1,000 freshwater ponds are directly linked to drinking water and coastal estuaries. The freshwater ponds are particularly sensitive to additions of phosphorous, which is associated with development and land uses close to a pond such as wastewater, fertilizer, and stormwater sources.<sup>55</sup>

The Cape has approximately 30,000 acres of wetlands that support much of the plant species and wildlife that makes the Cape such an environmentally rich and interesting place.<sup>56</sup> Wetlands play a vital role in regulating the environment by absorbing and filtering storm and flood waters, providing natural removal of nitrogen, recharging the aquifer, storing carbon in wetland peat and vegetation, and providing vital habitat.

55 Cape Cod Area Wide Water Quality Management Plan Update (208 Plan Update), 2015. <http://www.capecodcommission.org/208>

56 Cape Cod Commission analysis on assessed land only in the region; 2012 assessing data.



The entire Cape Cod peninsula is located within the southeastern Massachusetts pine barrens eco-region. Pine barrens are a globally rare habitat type comprised of a unique assemblage of plants and animals that thrive on the nutrient-poor soils and variable climate found on Cape Cod. Within the pine

barrens eco-region, there are many and varied habitat types, including pitch pine-oak woodlands, transitional hardwood-pine forests, streams and rivers, ponds and lakes, vernal pools, shrub and forested swamps, estuaries, salt marshes, dunes, beaches, grasslands, and others. This rich mosaic of habitat types supports 132 state listed rare plant and animal species, including Important Bird Areas, as well as hundreds more species that rely on Cape Cod habitats year-round or seasonally when migrating through or for breeding.

The open space of the Cape – over 90,000 acres of which is protected in perpetuity – is critical to the health of the region’s natural systems, economy, and population.<sup>57</sup> Open space provides habitat for the region’s diverse species and protection of the region’s drinking water supply. Wooded open space

provides a carbon sink for mitigating the impacts of climate change, both through the storage of carbon that would otherwise be lost to the atmosphere through development, and through the carbon-absorbing capacity of trees. Open space contributes significantly to the natural and rural character of the region and supports key industries. The beaches, farms, woodlands, and marshes of the Cape provide recreational outdoor activities that attract visitors and residents to the region and provide the necessary land and resources for the Cape’s agricultural activities. When healthy naturally functioning habitats are protected from the impacts of development, humans benefit from the many ecosystem services that these habitats provide.

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57 MassGIS Protected and Recreational Open Space Data. 2018.

## CAPITAL INFRASTRUCTURE ASSETS

The built environment, comprised of human-made infrastructure and resources, accommodates the people who visit and live on Cape Cod. Protecting and enhancing the built environment, including providing infrastructure that supports the region and vibrant activity centers, is vital for supporting the Cape's population. Infrastructure, such as wastewater treatment, is necessary to improve and maintain the integrity of the region's natural environment. These systems must serve not only the year-round population but the doubly large seasonal population, which requires building and maintaining infrastructure that functions under the strain of the peak season without negatively impacting Cape Cod's community character.

Clean and reliable drinking water is essential to support the population of Cape Cod. Throughout the Cape, this need is met through a combination of public and private water supply infrastructure. Approximately 85% of Cape Cod is serviced with public water. The remaining 15% relies on private or privately-owned small volume wells that serve the public in portions of East Sandwich, West Barnstable, Eastham, Wellfleet, and Truro. Since 2000, public drinking water suppliers have pumped, on average, about 10.7 billion gallons of groundwater per year from Cape Cod's Sole Source Aquifer.<sup>58</sup>

Ensuring that development does not significantly degrade water quality on the Cape requires effective wastewater management. Title 5 septic systems are the predominant type of wastewater management on Cape Cod, and only 3% of the parcels or 15% of total wastewater flows on Cape Cod are handled with

shared or centralized public or private wastewater treatment facilities. Barnstable, Chatham, Falmouth, and Provincetown are the four Cape Cod communities with municipally owned and operated centralized wastewater treatment facilities; across Cape Cod there are 60 smaller, typically privately owned, wastewater treatment facilities. Portions of the Buzzards Bay section of Bourne utilize the Wareham Wastewater Treatment Facility.<sup>59</sup>

The generally permeable soils throughout the Cape region make on-site Title 5 systems highly effective for wastewater disposal, and the relatively low density of development can make the cost of collecting and conveying wastewater to centralized treatment facilities expensive. Consequently, less than 4% of the state's population lives on Cape Cod yet the region is home to 20% of the standard Title 5 septic systems. There are more than 123,000 standard

58 Cape Cod 208 Plan Update, 2015. <http://www.capecodcommission.org/208>

59 Cape Cod 208 Plan Update, 2015. <http://www.capecodcommission.org/208>

Title 5 septic systems and more than 1,700 denitrifying septic systems installed on Cape Cod.<sup>60</sup>

Varying levels of stormwater infrastructure exist on Cape Cod, from gray infrastructure (systems of curbs, gutters, and conveyances to divert the flow of stormwater from buildings, streets, and parking areas) to green or Low Impact Development infrastructure that have been designed to mimic natural hydrologic processes and improve the quality of stormwater runoff while still allowing for aquifer recharge. While stormwater infrastructure may vary, 12 of the 15 towns on Cape Cod are now required, under the Environmental Protection Agency's Municipal Separate Storm Sewer permit (MS4) permit, to inventory existing infrastructure and identify problems such as illicit discharges.<sup>61</sup>

Numerous subsystems make up Cape Cod's transportation network including vehicular roadways, railways, public transit, air travel, marine transportation, and pedestrian and bicyclist accommodations and networks. These systems are responsible for safely and effectively moving the people and the goods they rely on throughout the region. Central to Cape Cod's transportation system is its over 3,800 miles of roadways, 80% of which are smaller, local roads. Route 6, Route 28, and Route 6A—the three major arteries of the Cape—only account for 6% of the region's roadways. The remaining 14% of roadways are medium-sized local or state roads.<sup>62</sup>

Although bicyclists and pedestrians face numerous challenges on roadways, destinations and pathways for bicyclists and pedestrians to use on Cape Cod are abundant. Cape Cod has over 90 miles

60 Cape Cod 208 Plan Update, 2015. <http://www.capecodcommission.org/208>

61 Massachusetts Small MS4 General Permit, 2016. <https://www.epa.gov/npdes-permits/massachusetts-small-ms4-general-permit>

62 Massachusetts Department of Transportation. 2018.





of multi-use paths, including the Cape Cod Rail Trail and Extension, Cape Cod Canal Bike Paths, Shining Sea Bike Path and Extension, and numerous paths in the Cape Cod National Seashore and Nickerson State Park.<sup>63</sup> While these pathways provide safe, separated accommodations for bicyclists and pedestrians, they frequently do not connect to one another, inhibiting bicyclists' and pedestrians' abilities to use them to travel throughout the region.

Today the extent and usage of rail is reduced to a single rail line, the Cape Cod Line, which travels through Bourne before branching off to termini in Hyannis, Yarmouth, and Joint Base Cape Cod. Together, these branches and the single line form a network of rail infrastructure for freight services, scenic rail excursions, and CapeFlyer seasonal weekend passenger service. The Cape Cod Regional Transit Authority (CCRTA) provides public transit throughout the region and connects Cape Cod to neighboring

communities and regions. The CCRTA offers several types of services, including fixed route service, flexible route service, and demand-response or paratransit service. Six of the fixed CCRTA routes run year-round, primarily through the Upper, Mid, and Lower Cape subregions. Ride sharing is also increasing in popularity in the region, providing another transportation option in the region.

Water also plays a large role in the transportation network of Cape Cod. Harbors and channels provide connections between marine transportation and land transportation routes and nine ferry routes connect Cape Cod to Martha's Vineyard, Nantucket, Boston, and Plymouth.

Electricity supply to the Cape comes from many fuel sources and is primarily distributed through miles of overhead wires. Eversource is the local distribution company and is responsible for distributing electricity to the region.

63 Cape Cod Commission. 2018. <http://gis-cccommission.opendata.arcgis.com/>

The Cape Light Compact Joint Powers Entity (JPE) is the largest single energy supplier for residents and businesses on the Cape; however, electric customers may choose their competitive supplier. Natural gas lines are not provided everywhere on Cape Cod, and there are no lines north of Eastham, but approximately 100,000 customers get natural gas from National Grid, the sole natural gas service provider on Cape Cod. For municipalities, schools, counties and local fire/water districts, the Cape & Vineyard Electric Cooperative (CVEC) provides installation guidance for municipal renewable energy projects. To date CVEC has managed the installation of over 33 megawatts of renewable energy. Municipal, residential and commercial renewable energy systems contribute significantly to the electric profile of Cape Cod, with over 3% of the Cape's electric needs met with locally installed renewable energy<sup>64</sup>.

Energy Efficiency programs are administered by the towns through the Cape Light Compact JPE. The energy efficiency programs invest over \$30 million dollars annually into the residents and businesses on Cape Cod to reduce their kilowatt hour consumption, lower the operating costs, and reduce their carbon footprint. The region also has a nascent electric vehicle charging network.

Residential internet service is available virtually throughout the region and is primarily served by a single provider (Comcast). Depending on where a business is located, it may have a choice of internet service providers with continual expansion of OpenCape's fiber optic internet services infrastructure. Most of the region is served by multiple wireless communications providers, but there remain some places underserved or without service. Maintaining and enhancing the wireless communications infrastructure is increasingly critical to

the region's need for emergency and non-emergency communications but must also be developed in a way that protects the region's scenic and historic character. Education, government, energy, healthcare, and other service and innovation sectors of the economy rely on effective and reliable access to broadband and telecommunications.

Cape Cod is an intricate web of natural, built, and community systems. The challenge Cape Cod continues to face is balancing the protection of the environment and natural systems while supporting the residents, business owners, workers, and visitors with the services and infrastructure necessary to thrive over the long term.

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64 Cape and Vineyard Electric Cooperative

## ECONOMIC RESILIENCE

### WHAT DOES IT MEAN TO BE ECONOMICALLY RESILIENT?

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*Economic resilience is “positive adaptability” to disruptions and change with little long-term loss of function or potential for growth.*<sup>65</sup>

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The US EDA notes that economic resilience includes “three primary attributes: the ability to recover quickly

from a shock, the ability to withstand a shock, and the ability to avoid the shock altogether.”<sup>66</sup>

Resilience is achieved through planning with the intent to prevent loss and evaluate unavoidable impacts; anticipate and build capacity to withstand change; recover from disruptions quickly; and ultimately improve overall economic conditions.

Cape Cod has a long history of economic resiliency defined by its relationship with the environment. As a region, the Cape has evolved from an agricultural economy to a whaling and maritime economy to a tourism economy over the course of 300 years. Cape Cod’s economic history is one of repeated reinventions in response to changes in technology, resources and competition.

With creative planning and leadership, the region can build capacity to withstand shocks and disruptions. The 2019 CEDS is the perfect opportunity for the region to commit to advancing economic resilience across Cape Cod.

### ECONOMIC AND RESILIENCE DISTRESS FACTORS AND CHALLENGES

The challenges to Cape Cod’s economic sustainability and resiliency are related to its geographic location, development patterns, and demographic profile.

The attributes that make Cape Cod a popular place to live, work, and play also make the region vulnerable to environmental degradation. Climate change, sea level rise, and increased storm intensity and frequency impact the region’s fragile coastline. Excess nitrogen

<sup>65</sup> Martin, R. and Sunley, P., 2015. On the notion of regional economic resilience: conceptualization and explanation. *Journal of Economic Geography*, 15(1), pp.1-42.

<sup>66</sup> US EDA, Comprehensive Economic Development Strategy Content Guidelines: Economic Resilience. <https://www.eda.gov/ceds/content/economic-resilience.htm>

impairs the region’s water quality, primarily from the abundance of septic systems across the Cape.

Historic development patterns, an increasing wealth gap, a significant retiree population, and seasonality on Cape Cod have all led to housing affordability issues, further exacerbated by the limited availability of developable area due to existing development or protections. The limited capacity, availability, and age of the region’s infrastructure discourages and impedes future development. All of these factors contribute to making the Cape an expensive place to live and work, further compounding and reinforcing the Cape as a resort and retirement destination and challenging the ability of the year-round population to flourish. These challenges were acknowledged in the SWOT analysis at the stakeholder kickoff meeting as key challenges to the region’s economic future (see Appendix II).

### Climate Change

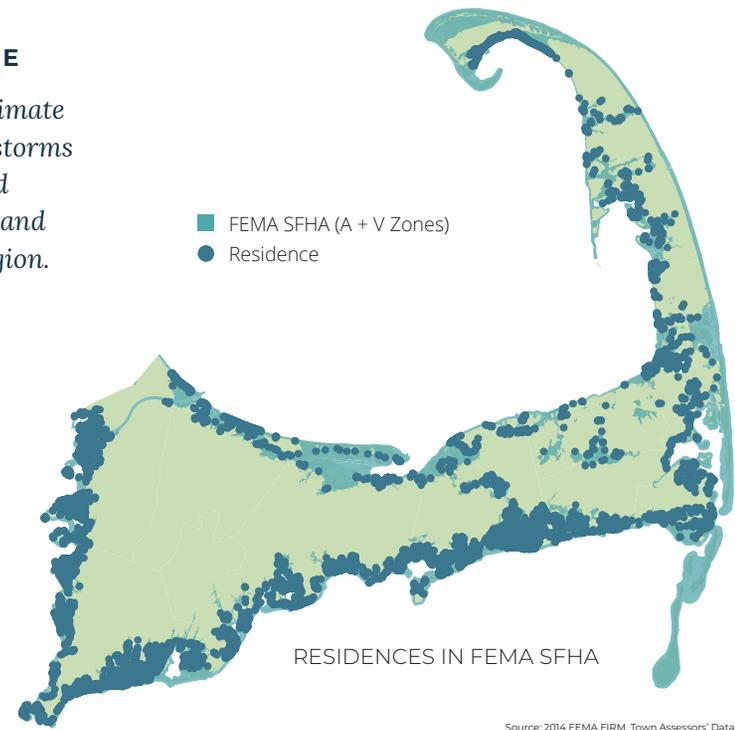
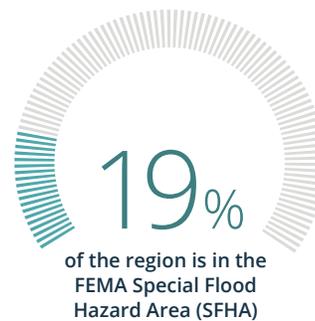
Cape Cod faces threats due to climate change that can cause loss of life, damage to buildings and infrastructure, impairment of coastal environments, interruptions to supply chains, and

otherwise impact a community’s economic, social, and environmental well-being.

Under existing conditions, flooding threatens more than 19% of the region’s land area—with a combined assessed value of tens of billions of dollars—

#### CLIMATE CHANGE

*Scientists anticipate that climate change will bring stronger storms with more precipitation and the threat of more frequent and extensive flooding to the region.*



Source: 2014 FEMA FIRM, Town Assessors' Data

located within the Federal Emergency Management Agency special flood hazard areas.<sup>67</sup>

Scientists anticipate that climate change will bring stronger storms with more precipitation and the threat of more frequent and extensive flooding to the region. Recent storms have resulted in power outages, limiting access to necessary services, and increased storm activity is likely to further impact the region's power resources. Temperatures are anticipated to continue rising, degrading air quality, straining local indigenous flora and fauna, increasing foreign pest migration, exacerbating health-related problems, and, significantly for Cape Cod, changing sea surface temperature and the viability of the coastal environments for the region's native wildlife.

The 2018 Intergovernmental Panel on Climate Change Special Report projects continued sea level rise into the next century, with the rate of rise depending on how future greenhouse gas emissions are managed.<sup>68</sup> Sea level rise is a major threat, as Cape Cod has over 500 miles of vulnerable, tidal shoreline; projected sea level rise will increase flooding, both elevating the height of storm and non-storm surges and flood levels, and worsen inundation and storm surge. Floodwaters will flow further inland, resulting in potential impacts to critical facilities (such as first response facilities) and substantial loss to property, habitat, and negative impacts on economic prosperity. Increased sea level rise also threatens Cape Cod's groundwater with potential higher groundwater levels and saltwater intrusion.

## Water Quality

Nitrogen is impacting Cape Cod's coastal water quality. The physical characteristics of Cape Cod's embayment watersheds make them susceptible to nitrogen impacts; 34 have been found to be impaired and require nitrogen reduction to meet water quality goals. The Massachusetts Estuaries Project identified wastewater as the primary source of nitrogen to the Cape's coastal embayments. About 80% of the nitrogen that enters Cape Cod watersheds is from septic systems. The conditions it creates destroy animal habitat and result in frequent violations of water quality standards indicated in part by fish kills and diminished shellfisheries. The Cape Cod seasonal economy relies on the water that surrounds the region and the degraded water quality is negatively impacting important economic drivers including coastal property values.<sup>69</sup>

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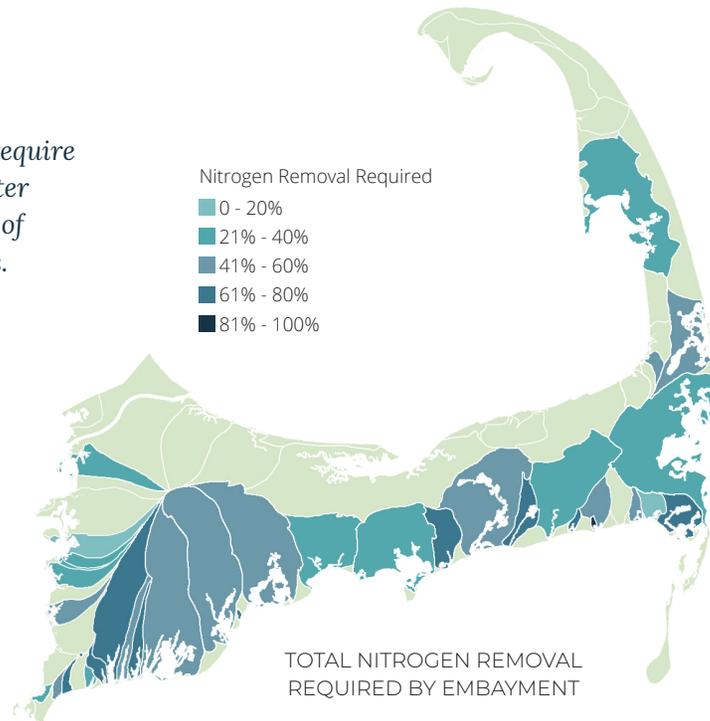
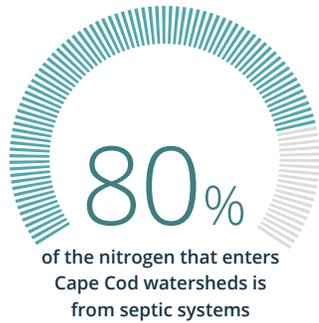
67 2018 Cape Cod Commission analysis using 2014 FEMA FIRM maps and individual town assessing data.

68 International Panel on Climate Change. Global Warming of 1.5°, 2018. <https://www.ipcc.ch/sr15/>

69 Cape Cod 208 Plan Update, 2015. <http://www.capecodcommission.org/208>

**WATER QUALITY**

34 of Cape Cod's embayment watersheds are impaired and require nitrogen reduction to meet water quality goals. The main source of nitrogen is from septic systems.



Source: Massachusetts Estuaries Project

Cape Cod's freshwater ponds are fragile systems especially vulnerable to pollution and human activity. Water quality in Cape Cod ponds is significantly impacted by surrounding development. The key nutrient of concern for freshwater ponds is phosphorus. A comparison

of 1948 and 2001 dissolved oxygen concentrations suggest that many of these pond ecosystems are not only impacted, but also seriously impaired.<sup>70</sup>

Water quality is also affected by stormwater runoff. The same highly

permeable soils that allow precipitation to recharge the Cape Cod Aquifer also readily allow infiltration of runoff from roofs, parking lots, and roadways. These stormwater flows recharge the aquifer but can contain toxic substances (such as petroleum products, pesticides, and heavy metals) as well as nutrients (nitrogen and phosphorus from fertilizers and animal waste).

**Housing**

Cape Cod's housing supply lacks diversity. Detached, single-family homes comprise more than 80% of the region's housing stock, compared with just over 50% for Massachusetts as a whole and 62% nationwide.<sup>71</sup> There are limited housing options available for people who cannot afford or do not need a single-family home. Younger families lack housing options that are often a building block to long-term financial stability. Similarly, older individuals looking

70 Cape Cod 208 Plan Update, 2015. <http://www.capecodcommission.org/208>

71 U.S. Census Bureau; American Community Survey, 2016. <http://factfinder.census.gov>

to downsize struggle to find suitable options and often stay in single-family homes that are oversized for their needs, further constraining the housing market.

High demand for housing by both year-round residents and second-home owners combined with low average wages on Cape Cod result in a housing

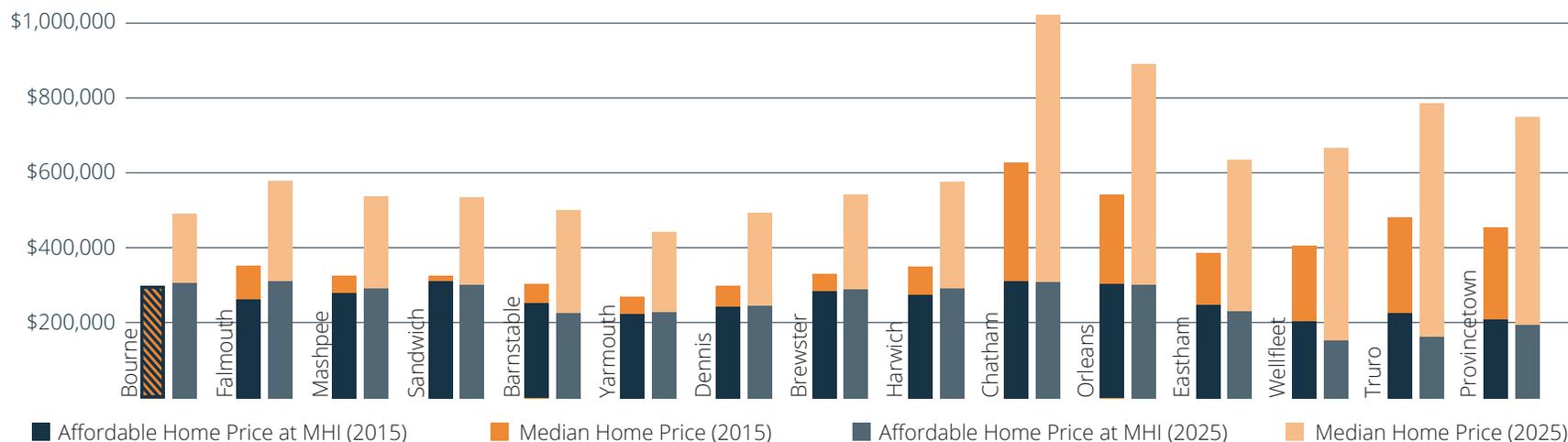
market that is unaffordable for many year-round residents. About 22,000 Barnstable County households earning \$90,000 or less experience housing-cost stress, meaning they spend more than the recommended 30% of their income on housing costs. In all but one of the 15 towns on the Cape (Bourne), the median home value exceeds the affordable

home price for residents earning the median household income.<sup>72</sup> Additionally, rental housing is limited on Cape Cod given that over one-third of homes in the region are seasonal and many property owners earn more money renting their property for six weeks in the summer compared to year-round.

72 Cape Cod Housing Market Analysis. 2017. [www.capecodcommisison.org/housing](http://www.capecodcommisison.org/housing)

## HOUSING

*In 2015 in all but one town—Bourne—the median home value exceeded the affordable home price for those earning the median household income (MHI) of homeowners. Without changes, this problem is projected to become more acute in the next several years as the median household incomes and related affordable median home prices are only expected to increase minimally, if at all. Source: Crane/EPR 2017*



In the future, it is anticipated that Cape Cod will experience an increase in housing stress due to a continued decline in household size and an estimated net new demand for 2,715 year-round housing units.<sup>73</sup> Nearly half of the region’s population is projected to experience housing-cost stress in 2025, even for employees earning over the median household income.<sup>74</sup> The existing supply of homes will not meet the community and economic needs of the region in the future; the region’s housing stock must diversify.

### Seasonal Economy

Cape Cod’s economy is better characterized as a “second homeowner economy,” rather than a tourism economy. Cape Cod attracts residents and visitors due to its natural resources

and beauty, arts and cultural heritage, and unique historic character. More than one-third of all employment in the region directly relates to the tourism industry, but this industry has some of the lowest wages in the region.<sup>75</sup> Accommodations and food services and retail trade wages are \$500-\$600 weekly, significantly lower than the regional average weekly wage of nearly \$900.<sup>76</sup> In addition to low wages, because the tourism industry is most active in the summer months and many tourism-related businesses close during the winter, unemployment rates fluctuate drastically throughout the year, especially in Lower and Outer Cape towns.<sup>77</sup> In the summer and fall, businesses typically employ seasonal laborers, including international workers.

73 Cape Cod Housing Market Analysis. 2017. [www.capecodcommisison.org/housing](http://www.capecodcommisison.org/housing)  
 74 Cape Cod Housing Market Analysis. 2017. [www.capecodcommisison.org/housing](http://www.capecodcommisison.org/housing)  
 75 US Bureau of Labor Statistics, 2017 ES-202 data via the Massachusetts Executive Office of Labor and Workforce Development: [http://lmi2.detma.org/lmi/lmi\\_es\\_a.asp](http://lmi2.detma.org/lmi/lmi_es_a.asp)  
 76 US Bureau of Labor Statistics, 2017 ES-202 data via the Massachusetts Executive Office of Labor and Workforce Development: [http://lmi2.detma.org/lmi/lmi\\_es\\_a.asp](http://lmi2.detma.org/lmi/lmi_es_a.asp)  
 77 U.S. Bureau of Labor Statistics Local Area Unemployment Statistics. 2019. <https://beta.bls.gov/dataViewer/view/timeseries/LAUCN250010000000004>

### SEASONAL ECONOMY

*More than one-third of all houses in the region are seasonal or second homes, and visitors and second homeowners nearly double the population of the region during the summer months.*

Seasonal Homes  38%

**61,000 HOUSING UNITS**

Seasonal & Visitor Population  2x

**POPULATION DOUBLES IN SUMMER MONTHS**

The imbalance between wages and cost of living is a threat to the economy and social structure of the region.

The seasonal population in the county, when averaged over a full calendar year, is equivalent to 68,856 full-time residents and this number will steadily increase based on population projections.<sup>78</sup>

According to a 2017 survey of second homeowners on Cape Cod, 19% of respondents anticipate converting their second home into their primary residence over the next 20 years. This shift would imply that about 11,000 second homes on Cape Cod would become primary residences, growing the number of older residents potentially seeking employment opportunities in the region.<sup>79</sup>

Cape Cod second homeowners are actively involved in and supportive of their local community, with about

three quarters of respondents actively supporting arts and cultural organizations and other non-profit or charitable organizations based on the Cape.<sup>80</sup>

Strong seasonal demand makes housing unobtainable to many year-round residents. While second homes have been part of Cape Cod's landscape and economy for decades, the Great Recession, housing crisis, and subsequent recovery by households near Boston and New York, resulted in a historically large number of new seasonal unit demand, including new additions and conversions from year-round units.

Continued growth in seasonal units and the strength of the short-term rental market (e.g. VRBO, AirBnB) will likely make it more difficult for year-round households to find year-round units at affordable prices, as increasing seasonal

unit demand puts upward pressure on housing prices. Seasonal unit demand will grow by 6% or twice as fast as year-round units, and a majority of the projected 4% growth in the total housing stock through 2025 will serve seasonal home buyers.<sup>81</sup>

The region's seasonality drives Cape Cod's economy, but the seasonal and tourism industry is heavily reliant on external factors such as disposable income, the impacts of which were strongly felt in the 2008 Recession. To help improve the region's economic resiliency and ability to weather such external shocks, as well as provide jobs with wages in line with the Cape's cost of living, the region should strive for a more balanced and diverse economy.

78 Cape Cod Housing Market Analysis. 2017. [www.capecodcommisison.org/housing](http://www.capecodcommisison.org/housing)

79 Cape Cod Second Homeowner Survey: Technical Report of 2017 Findings. [http://www.capecodcommission.org/resources/economicdevelopment/Report\\_Cape\\_Cod\\_Second\\_Homeowners\\_2017\\_FINAL.pdf](http://www.capecodcommission.org/resources/economicdevelopment/Report_Cape_Cod_Second_Homeowners_2017_FINAL.pdf)

80 Cape Cod Second Homeowner Survey: Technical Report of 2017 Findings. [http://www.capecodcommission.org/resources/economicdevelopment/Report\\_Cape\\_Cod\\_Second\\_Homeowners\\_2017\\_FINAL.pdf](http://www.capecodcommission.org/resources/economicdevelopment/Report_Cape_Cod_Second_Homeowners_2017_FINAL.pdf)

81 Cape Cod Housing Market Analysis. 2017. [www.capecodcommisison.org/housing](http://www.capecodcommisison.org/housing)

### Demographic Diversity

Cape Cod has limited demographic diversity. The 2017 American Community Survey data indicate that 92.2% of the total population is White, 2.7% is Black or African American, 0.5% is American Indian or Alaska Native, and 1.5% is Asian. Out of the total population, 2.7% of residents identify as Hispanic or Latino.<sup>82</sup>

Minority populations identified for their origin or language include about 8% of regional residents who speak a language other than English at home; most of those (70%) speak English as well. About

2% of the region’s population (over 5 years of age) speak little or no English. The largest number of non-English speakers are Portuguese speaking (and this represents 1% of the county population).<sup>83</sup>

Barnstable County has several Environmental Justice populations, typically due to income criteria (household earns 65% or less of statewide median household income, at the Census 2010 block group level). Barnstable also has many native Portuguese speakers that meet the English isolation criteria, where

25% or more of households have no one over the age of 14 who speaks English only or very well.<sup>84</sup>

Cape Cod also faces limited age diversity, as the region’s natural growth rate, births over deaths, is currently negative and the resident population continues to age. The Cape’s population is older and more homogeneous than both Massachusetts and the nation. While the median age of the population is getting older across the US, as a retirement community Cape Cod’s median age, 51 in 2016, is significantly higher than the national median age of 38 and Massachusetts’ median age of 39.<sup>85</sup> In 1990 most of the population (58%) was under the age of

#### DEMOGRAPHIC DIVERSITY

*Cape Cod has limited demographic diversity.*



8% of regional residents speak a language other than English at home



51 is Cape Cod's median age - significantly higher than the national median age of 38

82 U.S. Census Bureau; American Community Survey, 2017. <http://factfinder.census.gov>

83 U.S. Census Bureau; American Community Survey, 2017. <http://factfinder.census.gov>

84 Massachusetts 2010 Environmental Justice Populations: Southeast Region. <https://www.mass.gov/files/documents/2016/07/rh/southeast-ej-2010-map.pdf>

85 U.S. Census Bureau; American Community Survey, 2016. <http://factfinder.census.gov>

45, but now about 60% of the population is over the age of 45, compared with about 40% nationwide.<sup>86</sup>

### Limited Developable Areas and Infrastructure

Over 80% of the region's land is either developed or protected, leaving little opportunity for new development. Limited vacant land, coupled with regulations that create sprawling development patterns, particularly for housing, leads to increased land costs and therefore a higher cost of living and development in the region. These development patterns also make providing adequate infrastructure more expensive on a per-unit or per-user basis, as networks are typically more spread out, with fewer users able to utilize and pay for the same systems or materials. These development patterns also require greater development and disturbances of natural resources. The issue of limited developable land will likely become more acute as sea levels rise and flooding

#### LIMITED DEVELOPABLE AREAS AND INFRASTRUCTURE

*Over 80% of the region's land is either developed (dark blue) or protected open space (dark green).*



intensifies, and coastal development becomes less feasible and sustainable. Existing infrastructure fundamentally limits the region's ability to grow in a way that balances economic and social wellbeing with the protection of natural

and cultural resources. The appeal of Cape Cod has long resulted in backups at the two bridges, crowded beaches and downtowns, and parking frustrations. Road congestion has increased year-round and can result in complete

<sup>86</sup> Cape Cod Housing Market Analysis. 2017. [www.capecodcommisison.org/housing](http://www.capecodcommisison.org/housing). and U.S. Census Bureau, American Community Survey, 2016. <http://factfinder.census.gov>

gridlock on the main arterials in the summer. Ambulances cannot reach hospitals in a timely manner, goods cannot reach businesses efficiently, and workers have difficulty reaching their places of employment.

Lack of investment in wastewater treatment systems has also hindered growth in the regional economy; without wastewater infrastructure, there is little incentive to expand businesses or build more affordable housing options.

The region's utility-owned electricity and telecommunications networks are primarily carried through above ground wires, vulnerable to high winds and frequently knocked out during storms. Energy independence through microgrids and renewables paired with storage offer better resilience during

storm events as well as lowered electric costs. Additionally, while businesses can connect to the OpenCape fiber optic network, much of the region does not have access to the high-speed internet that is becoming ever more necessary in today's economy. Access can provide significant opportunities for remote work and healthcare, allowing more people to live and work on the Cape.

Development has also reduced drinking and surface water quality in ways that threaten human health and have already diminished the productivity of our marine habitats for shell and fin fishing. High demand for land and natural resources has led to high land and housing prices and biodiversity loss. Low density patterns have led to loss of tree cover, impacting air quality, and distorted

the native hierarchy of plant and animal systems, resulting in over-populations of certain species and infiltration by non-native invasive species further reducing habit availability and resulting in conflicts between humans and animals

Directed, improved, and expanded transportation, water, wastewater, electric, and broadband infrastructure that mitigates and adapts to climate change will be necessary to support long-term regional economic stability. Independent regional electric and internet networks must be resilient and ubiquitous, bringing the benefits of regional investments to the people, businesses, and institutions that are the backbone of the economy.

## Threats to Community Character

The popularity of Cape Cod coincided with the post-war growth in suburbs guided by low-density, single-use zoning conflicts with more traditional development styles and patterns. Automobile-oriented, suburban style development used up available land and led to higher land, housing, and infrastructure costs.

Suburban commercial development undercut downtown village centers and small business viability, as well as wages. On a per acre basis, strip malls underperform downtown businesses in terms of property tax revenue while expanding areas of impervious surface for parking and one-story box structures. In an area dependent on tourism, the abundance of suburban commercial strips threatens Cape Cod's traditional character. The importance of being unique should not be underestimated in this era of standardization.



## ACHIEVING RESILIENCY GOING FORWARD

Resiliency provides the framework for regional economic development, informing how Cape Cod can embrace its challenges to create a more diverse, vibrant economy.

### Resiliency Tools

There is a suite of tools available to decisionmakers and stakeholders to build regional economic resiliency, including:

- **Integrated Planning** involves using scenario planning to understand systems and interconnections. This method aligns local planning efforts into a larger regional vision, and across issue areas, political jurisdictions, and governance scales (from municipalities to federal government).
- **Infrastructure Assessment** identifies vulnerable infrastructure and dependencies to better understand the link between infrastructure

and economic activity, and the cost of shocks and disruptions on the economy and workforce.

- **Disaster Preparedness** addresses the response, recovery, governance network of public and private organizations. Programs may include counseling and training for households, individuals, and businesses before and after disruptions; coordinated communications systems for post-disaster response and recovery; and developing business resources and support available to improve recovery from shocks and disruptions.
- **Economic research** leverages robust data and data systems that describe the regional economy, improving our understanding of the existing economy and developing projections that can guide current resiliency and planning efforts.
- **Ready money identification** plans for funding availability before shocks or disruptions happen, and cultivates local resources and insurance options for when they do. Providing training in federal or state funding rules and procedures better prepares communities to leverage financial resources in the wake of major events.
- **Recovery by Local Businesses** is critical to the resilience of a community. Recovery networks and procurement procedures can be pre-emptively established to allow for quick action following an emergency. Similarly to ready money identification, providing training in federal or state funding rules and procedures, including procurement, can better prepare local businesses to leverage financial resources in the wake of major events.
- **Business Continuity Planning** can reduce local businesses' dependency on government action. Establishing a system for providing necessary equipment to operate in an emergency situation, such as generators, may also reduce the amount of recovery time needed following an external shock. Communities can also pre-emptively establish expedited emergency recover permitting procedures to speed recovery efforts.

- ***Vulnerable Populations & Workforce Support*** should be provided by communities in the form of ongoing training, displacement procedures and support systems, and household readiness and coping systems to address basic needs in order to build resiliency into the workforce.
- ***Economic Diversification*** involves developing alliances and partnerships to expand business opportunities and markets. Communities should analyze and address vulnerabilities in commercial activities and supply chains and encourage redundancies where appropriate.

### Implementing Resiliency Tools

Cape Cod communities can strengthen their economic resiliency by assessing their existing, baseline economic conditions to better understand future impacts of disruptions and shocks. Developing a framework for an organizational network that can guide planning, information sharing, and actions can also better leverage each organization's distinctive roles, provide leadership on resiliency issues, and coordinate resources to better support economic development.

Economic development and regional sector growth depend on a healthy natural environment, resources that

support a strong workforce and infrastructure, effective regulatory and land use policies, and early, coordinated planning to mitigate impacts to resiliency. Cape Cod faces significant economic and resilience challenges, but many can be transformed into opportunities to improve quality of life long-term.

The 2019 CEDS infuses resiliency planning into its vision, goals, objectives, and action plan, establishing a community-wide effort to lead Cape Cod into a more sustainable economic future.





### 3. Strategic Direction: Vision, Goals, and Objectives

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#### *Where do we want to be in 2040?*

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Economic development on Cape Cod begins with the protection of the natural, built, and community assets that make this region unique. Cape Cod has the enviable advantage of having international name recognition and a reputation for being a special place of great beauty. The Cape Cod character has attracted not only tourists, retirees,

and second homeowners, but also scientists, entrepreneurs, artists, and professionals.

The Cape's traditional industries, such as cranberry cultivation and fin fishing, are also dependent on the health of the region's ecosystems and have been the first to suffer from a failure to cultivate the links between the economy, land use, and environment. The decline of these traditional industries, combined with the use of suburban zoning, a changing climate, and the entrance of national formula businesses, threaten

the Cape's unique character and the ability for residents to make a living in traditional ways.

The CEDS process was designed to find a way forward that honors the region's character, industries, and natural environment, while identifying a plan to address the region's challenges and ensure its economic resiliency. The vision, goals, and priorities lay the groundwork for the CEDS action plan.

## THE REGIONAL POLICY PLAN

The [Cape Cod Commission Act](#) calls for the development of a Regional Policy Plan (RPP) to outline a coherent set of planning policies and objectives to guide development on Cape Cod and protect its resources. The Act requires that the RPP identify the Cape's critical resources and management needs, articulate a growth policy for the Cape, set regional goals, and establish a policy for coordinating local, regional, and other planning activities.

The 2018 RPP focuses on the interrelated natural, built, and community systems that comprise Cape Cod.<sup>87</sup> Protecting and enhancing the built environment, including providing infrastructure that supports the region and robust activity centers and protects the natural environment, is vital to supporting the Cape's population. The

needs of the built environment must be balanced with maintaining the integrity of the region's natural environment.

Cape Cod's community systems, which include the culture, people, and economic activity of the area, are critical for fostering and maintaining vibrant communities and social networks that serve and support the people who live, work, and recreate in the region.

To support the regional vision, the RPP establishes a basis for economic development planning on Cape Cod that envisions interconnectivity between economic development and the protection and preservation of the Cape's resources and heritage. The Plan outlines four core economic development principles:

- Protect and build on the region's competitive advantage, the unique natural environment, historic village character, harbors, and cultural heritage

- Use natural assets, capital facilities, infrastructure, and human capital and land use patterns efficiently
- Foster balance and diversity through a mixture of industries, businesses, workers, ownership types, and employment options
- Expand opportunity and regional wealth by increasing exports, substituting imports locally, attracting capital, and fostering local ownership

Additionally, the updated RPP includes a goal and objectives for the region's economy to guide future development, planning efforts, and policies.

### Economy Goal

To promote a sustainable regional economy comprised of a broad range of businesses providing employment opportunities to a diverse workforce.

### Economy Objectives

- Protect and build on the Cape's competitive advantages

<sup>87</sup> Cape Cod Commission Regional Policy Plan, 2018. [www.capecodcommission.org/rpp](http://www.capecodcommission.org/rpp)

- Use resources and infrastructure efficiently
- Foster a balanced and diverse mix of business and industry
- Encourage industries that provide living wage jobs to a diverse workforce
- Expand economic activity and regional wealth through exports, value added, import substitution,<sup>88</sup> and local ownership

Though the Cape Cod Commission does not have the authority to dictate local zoning or regulations, the RPP establishes a growth policy for the region that local and regional plans must be consistent with, including the CEDS. The CEDS adopts this growth policy to guide the CEDS action plan and implementation, because economic development goals are unlikely to be realized without alignment with land use policies and zoning.

<sup>88</sup> Import substitution means creating products locally that were previously imported from areas outside the region.

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## GROWTH POLICY FOR BARNSTABLE COUNTY

*Growth should be focused in centers of activity and areas supported by adequate infrastructure and guided away from areas that must be protected for ecological, historical or other reasons. Development should be responsive to context allowing for the restoration, preservation and protection of the Cape's unique resources while promoting economic and community resilience.*

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The CEDS builds upon the RPP, considering economic development from a land use and resource protection perspective and recognizing that these issues determine the mix and size of economic activities on the Cape. The focus in economic development is often on job creation or quality, workforce availability, or how to attract or grow businesses. However, if land use policy and zoning are not aligned with economic goals, the goals are unlikely to be realized.

## THE ECONOMIC VISION FOR CAPE COD

Cape Cod's long-term economic vision, developed by the [CEDS Strategy Committee](#), is based on the economic development principles articulated in the RPP and the principle of sustainability: the opportunities of today shall not undermine the opportunities of future generations.

## ECONOMIC VISION FOR CAPE COD

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*Cultivating creativity,  
diversity, and innovation  
to build a strong and  
resilient economy*

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CAPE COD ENJOYS A ROBUST YEAR-ROUND ECONOMY WITH A WORKFORCE THAT LIVES, PLAYS, AND SHOPS LOCALLY. OUR LOCAL ECONOMY IS SUPPORTED BY MODERN AND RESILIENT INFRASTRUCTURE; STRATEGIC DEVELOPMENT OF EMPLOYMENT AND BUSINESS OPPORTUNITIES; AND RESOLUTE PROTECTION OF THE NATURAL ASSETS AND HISTORICAL CHARACTER THAT DEFINE OUR REGION.

**CEDS GOALS**

The CEDS goals support the CEDS regional economic vision established by the BCEDC and reflect the RPP’s growth policy, goals, and organizing framework: community, built, and natural systems. The CEDS goals are also consistent with EDA Guidelines and have been prioritized based on regional needs and stakeholder input.

**GOAL: REGIONAL COLLABORATION AND JOINT COMMITMENT**

To provide a forum for local and regional organizations to identify and execute economic and environmental development policies and projects, and advance economic and environmental resiliency

**GOAL: ECONOMY AND HOUSING**

To promote a sustainable regional economy comprised of a broad range of businesses, diverse employment opportunities, and an adequate supply of ownership and rental housing that is safe, healthy, and attainable for people with a variety of needs and income levels

Community Systems



**GOAL: BUILT RESOURCES**

To protect and enhance the unique character of the region’s built and natural environment, including traditional development patterns, scenic resources, and cultural, historic, and archaeological resources

**GOAL: CAPITAL FACILITIES AND INFRASTRUCTURE**

To advance reliable, resilient, and efficient infrastructure that is appropriately located, equitably distributed, and meets regional needs including energy independence, waste reduction, clean air and water, and multimodal transportation

Built Systems



**GOAL: COASTAL RESOURCES**

To protect, preserve, or restore the quality and functions of ocean resources and to prevent or minimize loss of life, livelihood, and property or environmental damage resulting from climate change

**GOAL: NATURAL RESOURCES**

To preserve, protect, and restore the region’s natural resources including drinking water, surface water, and wetlands; plant and animal habitats; and open space and recreational resources

Natural Systems



## DEVELOPMENT OF REGIONAL PRIORITIES

Regional priorities were developed through the CEDS stakeholder outreach process, initially identified at the [kickoff workshop](#) through the SWOT analysis process.

## SWOT ANALYSIS AND IDENTIFICATION OF REGIONAL PRIORITIES

Kickoff workshop attendees identified the internal and external factors impacting the region's economy and discussed priorities for action going forward.

The top strengths identified at the workshop were:

- The natural environment, which draws people to Cape Cod
- Small businesses that foster innovation and talent in the community

- Entrepreneurial/creative spirit, especially in emerging leader groups
- Public education, including Cape Cod Community College and the diversity of educational opportunities
- Competitive advantage of the Blue Economy
- Strength of the scientific community, especially WHOI and its collaboration with MIT

The top opportunities identified at the workshop are:

- Wastewater, providing employment opportunities and new revenue streams to reduce the impacts on low-income households
- Opportunity Zones<sup>89</sup>, a federal designation for economically distressed communities where new investments, under certain conditions, may be eligible for preferential tax treatment
- Blue Economy and potential opportunities in marine science and technology for students and the workforce

- Zoning changes for higher density and mixed-use development, facilitating more appropriate development types throughout the region
- Changing face of retail, with more people shopping online and retail becoming more experience driven

The top weaknesses identified at the workshop are:

- Insufficient workforce training and lost opportunities in education-workforce collaboration
- Inadequate infrastructure to support housing and other development, including wastewater, transportation, broadband, and telecommunications
- Lack of affordable housing
- Outdated zoning

The top threats identified at the workshop are:

- The high cost of living on Cape Cod
- Disconnect between incomes and price of housing

89 Opportunity Zones overview. <https://www.irs.gov/newsroom/opportunity-zones-frequently-asked-questions>

- Concerns that the high cost of living and housing, combined with low wages, will result in a smaller working age population cohort
- Climate change and sea level rise, including their impacts on infrastructure and insurance rates
- Limited funding to address regional issues, including infrastructure, workforce development, and climate change threats

The full list of SWOT analysis feedback is available in Appendix II.

## REGIONAL PRIORITIES

Each group shared their key findings from the SWOT analysis in a full plenary session, and major regional concerns were grouped into nine regional priorities. Following are the identified regional priorities.

### Housing Diversity and Affordability

Increase diversity of ownership types (more rentals and year-round housing). Ease permitting of accessory dwelling units and support changes in zoning to allow for density in activity centers. Improve housing affordability through density, subsidies for moderate as well as low income housing, tax incentives, and other public subsidies. Allow for home offices and mixed-use buildings.

### Infrastructure in Activity Centers

Target and coordinate investment in infrastructure (wastewater systems, telecommunications, transportation improvements, and others) to allow for development of activity centers and key economic sectors. Train a local workforce and employ local construction companies in the construction, maintenance, and management of infrastructure.

### Last Mile Broadband – Financing Strategy

Link OpenCape and other high-speed internet middle-mile options with the home/business (i.e., build the last mile). Evaluate business plan and financing options considering technological changes and public services currently met through agreements with cable providers. Consider options for public financing and management structures that encourage competition.

### Zoning and Regulatory Reform for Smart Growth/Activity Centers

Strategic reform of local zoning and regulations, as well as state and regional regulations, to support job creation and greater housing diversity and affordability within activity centers. Revise zoning and regulations to facilitate development of dense, mixed-use, pedestrian, and transit-friendly centers that provide a diversity of business and residential options. Consider zoning and

regulations in light of sea level rise and access to the water in support of marine based businesses, including but not limited to tourism.

### **Expansion of the Blue Economy**

Capitalize on the region's unique location relative to the sea and the Cape's inland ponds and estuaries, to develop new business and employment opportunities that provide livable wages and help to address challenges faced by the region from water quality, habitat and species protection, sea level rise, and climate change.

### **Education and Workforce Development to Support Wage Growth**

Focus educational and workforce training programs on our existing and emerging industries, such as marine sciences and technology, to support job growth, wage equity, and economic resilience through diversity. Develop educational

programs around areas of need, such as wastewater and renewable energy, and external challenges the region will face, such as climate change. Expand understanding and awareness of career options, especially construction trades, and build training programs as needed to ensure a local workforce in the future.

### **Targeted Business Development to Support Job and Wage Growth**

Cultivate industries that directly address the region's internal and external challenges. Help reduce the costs of doing business, including healthcare and property costs, to support a continued base of locally-owned businesses and entrepreneurship. Consider federal Opportunity Zones and other financing mechanisms to capture private funding for businesses and entrepreneurs. Identify areas well suited to business growth in emerging industries or employing emerging technologies and reform local and regional regulations to support their development in

those areas, including simplifying and reducing the cost of permitting while still protecting the Cape's regional resources.

### **Expanded Financing Tools for Infrastructure**

Identify revenue streams that could help fund infrastructure improvements that mitigate the affordability challenges felt by the workforce and local business community and capitalize on the financial assets brought to the region through tourism and second home ownership. Support resiliency for multiple infrastructure types, including: wastewater, renewable energy, broadband, transit, and the bridges.

### **Regionalization for Greater Efficiency in Government**

Identify and pursue opportunities for inter-municipal collaborations and regionalization to reduce overhead costs for both government and businesses. Identify collaborations

and regionalization that will facilitate the region’s ability to address housing affordability, climate change, infrastructure, and other regional needs.

The graphic lists the final set of priorities identified and how the stakeholders characterized them based on which are most achievable, which would likely have the greatest impact, and which would best promote economic resilience.

The regional priorities directly address the [CEDS goals](#).



**CEDS GOALS AND SUPPORTING REGIONAL PRIORITIES**

*The regional priorities directly address and support the six CEDS goals.*

Community Systems	Built Systems	Natural Systems
<p><b>GOAL   REGIONAL COLLABORATION AND JOINT COMMITMENT</b></p> <p>SUPPORTING PRIORITIES:</p> <ul style="list-style-type: none"> <li>■ All regional priorities require regional collaboration and joint commitment</li> </ul> <p><b>GOAL   ECONOMY AND HOUSING</b></p> <p>SUPPORTING PRIORITIES:</p> <ul style="list-style-type: none"> <li>■ Housing Diversity and Affordability</li> <li>■ Infrastructure in Activity Centers</li> <li>■ Last Mile Broadband – Financing Strategy</li> <li>■ Zoning and Regulatory Reform for Smart Growth/Activity Centers</li> <li>■ Expansion of the Blue Economy</li> <li>■ Education and Workforce Development to Support Wage Growth</li> <li>■ Business Development to Support Job Growth</li> <li>■ Expanded Financing Tools for Infrastructure</li> <li>■ Regionalization for Greater Efficiency in Government</li> </ul>	<p><b>GOAL   BUILT RESOURCE</b></p> <p>SUPPORTING PRIORITIES:</p> <ul style="list-style-type: none"> <li>■ Housing Diversity and Affordability</li> <li>■ Zoning and Regulatory Reform for Smart Growth/Activity Centers</li> </ul> <p><b>GOAL   CAPITAL FACILITIES AND INFRASTRUCTURE</b></p> <p>SUPPORTING PRIORITIES:</p> <ul style="list-style-type: none"> <li>■ Infrastructure in Activity Centers</li> <li>■ Last Mile Broadband – Financing Strategy</li> <li>■ Expanded Financing Tools for Infrastructure</li> <li>■ Regionalization for Greater Efficiency in Government</li> </ul>	<p><b>GOAL   COASTAL RESOURCES</b></p> <p>SUPPORTING PRIORITIES:</p> <ul style="list-style-type: none"> <li>■ Infrastructure in Activity Centers</li> <li>■ Expansion of the Blue Economy</li> </ul> <p><b>GOAL   NATURAL RESOURCES</b></p> <p>SUPPORTING PRIORITIES:</p> <ul style="list-style-type: none"> <li>■ Infrastructure in Activity Centers</li> <li>■ Zoning and Regulatory Reform for Smart Growth/Activity Centers</li> <li>■ Expanded Financing Tools for Infrastructure</li> </ul>

## CEDS OBJECTIVES

The CEDS objectives are specific, measurable, and concrete methods for achieving the goals and vision outlined in this section. Objectives were set in the 2018 RPP, and in the stakeholder process through establishing [regional priorities](#).

## ECONOMIC DEVELOPMENT OBJECTIVES FROM RPP

The objectives for the 2018 RPP [Economic Development goal](#) are:

- Protect and build on the region's competitive advantages
- Use resources and infrastructure efficiently
- Foster a balanced and diverse mix of business and industry
- Encourage industries that provide living wage jobs to a diverse workforce
- Expand economic activity and regional wealth through exports, value added, import substitution, and local ownership

These objectives are based on the principles of economic development and are measured using the Balanced Economy Benchmarks developed by the Commission over the past decade. They will be tracked annually as part of the evaluation process and documented in the CEDS Annual Reports. These benchmarks and the CEDS evaluation process are covered in detail in [Chapter 5](#).

## REGIONAL PRIORITIES AS OBJECTIVES

Based on the stakeholder SWOT and prioritization exercises at the CEDS kickoff workshop, measurable objectives were developed for each regional priority.

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*“The CEDS objectives are specific, measurable, and concrete methods for achieving the goals and vision outlined in this section.”*

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**REGIONAL PRIORITIES AS OBJECTIVES**

OBJECTIVE	REGIONAL PRIORITY	DATA SOURCE
Increase the number and affordability of housing options Cape-wide and particularly within RPP identified activity centers	HOUSING DIVERSITY AND AFFORDABILITY	Census ACS and CCC
Increase the parcels within RPP identified activity centers that are connected to effective wastewater treatment systems, transit, electric vehicle networks, renewable energy, and broadband	INFRASTRUCTURE IN ACTIVITY CENTERS	CCC
Increase the number or last mile connections to the OpenCape middle-mile network or the equivalent	LAST MILE BROADBAND – FINANCING STRATEGY	OpenCape
Increase the number of activity centers with zoning and regulations that allow for housing density, mixed-uses, and business diversity	ZONING AND REGULATORY REFORM FOR SMART GROWTH/ ACTIVITY CENTERS	CCC/Towns
Increase the number of “dark blue” businesses and jobs on Cape Cod (particularly those paying wages consistent with the cost of living)	EXPANSION OF THE BLUE ECONOMY	CC Chamber
Increase in annual Earned Income among Barnstable County residents	EDUCATION AND WORKFORCE DEVELOPMENT FOR WAGE GROWTH	ACS/BEA REIS
Increase business creation and longevity (positive business churn) and overall employment by firms in Barnstable County	BUSINESS DEVELOPMENT FOR WAGE AND JOB GROWTH	Census/BLS ES202
Adoption of new revenue streams to fund the building and operating of necessary infrastructure	EXPANDED FINANCING TOOLS FOR INFRASTRUCTURE	CCC/Towns
Increase the number of local public services consolidated or facilitated through regional systems and investments	REGIONALIZATION FOR GREATER EFFICIENCY IN GOVERNMENT	CCC/Towns



## 4. CEDS Action Plan

*How are we going  
to get where we  
want to be?*

The CEDS action plan lays out a roadmap for the entities involved in economic development on Cape Cod to coordinate their resources to achieve the greatest impact towards meeting CEDS goals and objectives.

### **THE STRUCTURE OF THE CEDS ACTION PLAN**

The CEDS action plan uses the goals and regional priorities as its framework (see [Chapter 3](#)).

The action plan consists of two parts: the overall [five-year action plan](#) and the [year-one tactical implementation plan](#) for the Cape Cod Commission, describing initiatives and projects that address the nine [regional priorities](#).

### **WHAT IS AN INITIATIVE OR PROJECT?**

The CEDS action plan consists of both initiatives and projects. An initiative is a broad program without a defined start and end date but with a clear purpose and approach; a variety of related projects may be included under an initiative. Projects are specific actions that use the SMART framework: Specific, Measurable, Achievable, Realistic, and with a specific Timeframe. Projects will end with a tangible result, such as a structure, policy, report, or program, and are grouped under broad initiatives in the action plan.

## HOW WERE THE INITIATIVES AND PROJECTS PRIORITIZED?

The prioritization process began at the CEDS kickoff workshop where stakeholders identified the nine most pressing regional issues that needed to be addressed in this action plan through a series of facilitated working sessions.

To prioritize initiatives and projects Commission staff evaluated their consistency with the RPP and regional growth policy, CEDS goals, and EDA resiliency factors and investment priorities. Projects are either capital investments in infrastructure, a planning effort, or a technical assistance program to workers or businesses. They direct growth to activity centers, improve the number and quality of jobs in the region directly or indirectly, attract

private investment directly or indirectly, and/or foster regional solutions and partnerships.

## POTENTIAL FUNDING SOURCES

Potential funding sources for projects include private investment and funding from towns, Barnstable County, Cape Cod license plate grants, the Cape Cod and Islands Water Protection Fund, the Commonwealth of Massachusetts, and federal grants. Additionally, some of the initiatives and projects identify possible new funding sources such as a lodging tax set-aside, a jet tax, congestion-pricing, development of a housing affordability trust, and other issue-specific funds.

## THE FIVE-YEAR ACTION PLAN

The action plan contains nine initiatives and 53 individual projects. Many of the individual projects are included in other subject area plans, such as the Regional Transportation Plan<sup>90</sup>, or are tasks identified by partner organizations in their strategic planning efforts. The full descriptions, goals, agencies, timeline, potential funding, and evaluation measures are described in Appendix IV.

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90 Cape Cod Regional Transportation Plan 2019 Update. [www.capecodcommission.org/rtp](http://www.capecodcommission.org/rtp)

## ACTION PLAN INITIATIVES

The CEDS Action Plan is organized into nine initiatives, tied to the regional priorities identified by stakeholders. Each initiative contains multiple projects that support achieving the initiative's goal.



### LOCAL BUSINESS DEVELOPMENT INITIATIVE

Improve local business outcomes and increase employment opportunities to advance economic diversity and higher-wage employment opportunities across the region



### BLUE ECONOMY SECTOR DEVELOPMENT INITIATIVE

Develop and fund local STEM education and workforce training programs, business development programs, and technology commercialization opportunities to support the marine science and technology, fishing, energy efficiency, and renewable energy industries



### COMPREHENSIVE AND ACTIVITY CENTER PLANNING PROJECTS

Work collaboratively with towns to complete and implement long-term comprehensive plans, area plans and permitting improvements to effectively address local, sub-regional and regional needs, and concentrate growth away from sensitive natural areas and into areas efficiently served by infrastructure



### HOUSING ACCESS AND AFFORDABILITY INITIATIVE

Improve housing diversity and access across the region, but particularly in existing centers of activity, directing development to areas with existing infrastructure while managing impacts to natural resources



### CLIMATE CHANGE INNOVATION INITIATIVE

Continue efforts to mitigate climate change and address its potential impacts, including planning to move the region away from fossil fuels, encourage renewable energy, electrify transportation, ensure protection of the region's natural resources and natural carbon sinks, and identify and promote public and private opportunities for climate change mitigation and adaptation on a local and/or regional scale



### REGIONAL INFRASTRUCTURE PLANNING INITIATIVE

Improve infrastructure planning to promote greater efficiency and coordination in infrastructure projects, protect the region's resources, and improve resiliency to natural disasters



### TRANSPORTATION AND AIR QUALITY IMPROVEMENT INITIATIVE

Identify and promote actions to reduce traffic and greenhouse gas emissions on Cape Cod



### INFRASTRUCTURE DEVELOPMENT INITIATIVE

Improve and expand critical infrastructure in areas appropriate for increased development, mitigating impacts to and restoring natural resources, community character, and economic diversity



### INFRASTRUCTURE FUNDING INITIATIVE

Seek funding for infrastructure development that spreads the cost of infrastructure among residents, seasonal homeowners, and visitors to the region



## LOCAL BUSINESS DEVELOPMENT INITIATIVE

Improve local business outcomes and increase employment opportunities to advance economic diversity and higher-wage employment opportunities across the region

### POTENTIAL PARTNERS

Cape Cod Chamber of Commerce, Cape Cod Commission, Towns, Arts Foundation of Cape Cod, Local Chambers of Commerce, Local Technical High Schools, Cape Cod Community College, K-12 schools, colleges and universities in the region, Cape Cod & Islands Association of Realtors, Cape Cod Young Professionals, Community Development Partnership, Coastal Community Capital, Small Business Administration, SCORE, Cape Cod Technology Council,

Love Live Local, Cape Cod Commercial Fishermen's Alliance, Farm Bureau, Aquacultural Research Corporation, Massachusetts Brewers Guild, Job Training and Employment Corporation, Local Banks, Small Business Groups, E for All, State and Federal Government Agencies, Home Builders & Remodelers Association of Cape Cod, MassHire Cape and Islands Workforce Board, Local Economic Development Industrial Corporations, MA Office of Business Development, Cape Light Compact, Cape & Vineyard Electric Cooperative, Bridgewater State University, Cape Cod Culinary Incubator, Massachusetts Clean Energy Center

**PROJECTS**

- **Business Development Institute**  
Establish an institute for small businesses and public officials to coordinate resources, discuss needs and concerns, and work together to improve business outcomes
- **The Trades Workforce and Business Development Program**  
Coordinate and work to expand trades-related workforce and business training programs at technical high schools, colleges, and universities
- **Creative Economy Sector Integration**  
Evaluate the economic benefits of the creative economy, including its fine and performing arts sector, and identify opportunities to integrate the sector into economic development efforts, including infrastructure investment, activity center planning, and housing

- **Buy Fresh, Buy Local Cape Cod Program**  
Expand Cape Cod's Buy Fresh, Buy Local program to raise awareness of and access to locally-sourced products, including facilitating business-to-business opportunities for producers, restaurants, and wholesale establishments
- **Cape-First Construction and Procurement Program**  
Encourage private developers and municipal governments to use local businesses for construction and other services
- **Entrepreneurship Revolving Loan Fund**  
Establish a program that will identify workforce and business retention issues on Cape Cod, and support potential solutions such as ways to defray the cost of childcare and housing
- **Workforce and Business Retention Program**  
Identify ways to expand funding programs to support local start-ups and existing small businesses

**MEASURES**

- Number of residents in workforce
- Number of jobs and annual average wages per industry
- Annual gross regional product
- Number of apprenticeship & mentor programs and number of participants in each
- Number of business and workforce training programs and number of participants in each
- Number of positive evaluations of business and workforce training programs
- Number of businesses with resiliency plans
- Survival rates for businesses by industry, especially locally-owned firms
- Ratio of public sector Requests for Proposals bid on by local firms compared to projects awarded to local firms
- Number of local businesses started in each town



## BLUE ECONOMY SECTOR DEVELOPMENT INITIATIVE

Develop and fund local STEM education and workforce training programs, business development programs, and technology commercialization opportunities to support the marine science and technology, fishing, energy efficiency, and renewable energy industries

### POTENTIAL PARTNERS

Blue Economy Foundation, Cape Cod Commission, Towns, Association to Preserve Cape Cod, Center for Coastal Studies, Woods Hole Oceanographic Institution, Massachusetts Technology Collaborative, Massachusetts Clean Energy Center, Private Marine Technology Companies, Cape Cod Community College, Massachusetts Maritime Academy, Cape Cod Commercial Fishermen's Alliance, UMass Dartmouth, National Oceanic and Atmospheric Administration, Aquaculture Research Corporation, Local Technical Schools, Self-Reliance, Cape Cod Chamber of Commerce, Cape

and Islands Harbormasters Association, Cape Cod National Seashore, Cape Light Compact, Cape & Vineyard Electric Cooperative, Cape Cod Technology Council, Cape Cod Young Professionals

### PROJECTS

- **Blue Technology Commercialization Center**  
Expand Blue Economy Foundation's work to establish a Blue Technology Commercialization Center for the development of new technologies and businesses related to the Blue Economy
- **Coastal Resiliency Innovation Center**  
Establish an innovation center to support the development of materials, technologies, and businesses focused on resilience to or mitigation of climate change
- **Wastewater Treatment Innovation and Testing Center**  
Expand the existing Massachusetts Alternative Septic Systems Tech Center to identify and test affordable options for distributed wastewater

treatment and build expertise in new water quality and wastewater-treatment related technology

- **Regional Harbor and Dredge Services**  
Expand the County's capacity to help communities maintain harbors and navigation channels for commercial, transportation, and recreational boating
- **Economic Sector Impact Assessments**  
Assess the economic impacts of key and emerging industry sectors and identify industry cluster development opportunities based on supply chain analysis
- **Tourism and Leisure Economy Assessment**  
Assess changing trends in the tourism and leisure sector, including patterns of vacationing, retirement, seasonal homeownership, ecotourism, and the potential future impacts of climate change on this sector

#### MEASURES

- Number of residents in workforce in 'blue sectors'
- Number of jobs and annual wages per industry in 'blue sectors'
- Annual gross regional product in 'blue sectors'
- Number of licenses and patents issued to Cape-based entities in the Blue Economy
- Total sales or revenue for Cape-based entities in the Blue Economy
- Annual catch totals for Cape-based fishermen
- Number of active fishing boats based out of Cape Cod harbors
- Number of commercial shellfish permits issued to Cape Cod residents
- Estimated number of seasonal visitors based on bridge crossings and National Seashore visitation data
- Number of retired residents on Cape Cod
- Number of second homeowners on Cape Cod
- Total revenues from tourism industry



**COMPREHENSIVE AND  
ACTIVITY CENTER  
PLANNING INITIATIVE**

Work collaboratively with towns to complete and implement long-term comprehensive plans, area plans, and permitting improvements to effectively address local, sub-regional and regional needs, and concentrate growth away from sensitive natural areas and into areas efficiently served by infrastructure

**POTENTIAL PARTNERS**

Cape Cod Commission, Towns, Cape Cod Chamber of Commerce, Cape Cod Young Professionals, Local Chambers of Commerce, Association to Preserve Cape Cod, State Agencies, Community Development Partnership, Cape Cod Housing Assistance Corporation, Home Builders & Remodelers Association of Cape Cod, Cape Cod & Islands Association of Realtors, Cape & Vineyard Electric Cooperative, MassHire Cape and Islands Workforce Board

**PROJECTS**

- **RESET Project: Assessing Centers of Activity**  
Commission staff will work with towns through RESET projects to evaluate centers of activity for housing diversity and affordability; economic diversity and locally-owned businesses; multi-modal transportation and transit; waste and utility infrastructure; and public amenities and community character
- **Local Comprehensive Planning**  
Commission staff will work collaboratively with towns to update, certify, and implement Local Comprehensive Plans
- **Local Capital Planning**  
Commission staff will work with towns to complete, update, and implement local capital plans that focus development in centers of activity
- **Regulating for Housing and Economic Diversity**  
Commission staff will work collaboratively with towns to complete, update, and implement housing and economic strategies that focus development in centers of activity

- **Zoning Analysis Tools**  
Commission staff will collaborate with towns to increase public access to and understanding of local regulations through continued implementation of online tools such as OpenCounter
- **Model Bylaws for Zoning and Design**  
Commission staff will work to support adoption of form-based code, hybrid zoning, and/or design guidelines/standards where appropriate that address individual towns’ needs, respond to and complement the local context, and will help fulfill visions for their communities
- **Housing Prototype Library**  
Commission staff will actively engage the developer community to develop a library of housing building prototypes designed to help addresses regional housing needs, including affordability and mixed use

- **Expedited Permitting**  
Coordinate with state and local agencies to identify, support, and pursue opportunities to streamline permitting and regulations to support economic development, public-private partnerships, and private investment
- **E-Permitting Expansion**  
Encourage towns to adopt electronic permitting and similar online tools to improve the clarify and efficiency of local and regional permitting

**MEASURES**

- Density of structures, residential density in activity centers
- Ratio of residential to commercial uses in activity centers
- Square footage of new development in activity centers compared to square footage outside activity centers
- Number of towns with Certified local comprehensive plans
- Number of local plans consistent with town’s local comprehensive plan
- Number of master plans for regional activity centers and town-proposed activity centers
- Number of towns adopting form-based code, hybrid zoning, or design guidelines/standards
- Number towns using OpenCounter
- Number of towns offering e-permitting
- Average length of time needed to obtain local and regional development permits
- Percent of development in activity centers served by wastewater infrastructure
- Number of energy storage facilities and their capacity



## HOUSING ACCESS AND AFFORDABILITY INITIATIVE

Improve housing diversity and access across the region, but particularly in centers of activity, directing development to areas with existing infrastructure while minimizing impacts to natural resources

### POTENTIAL PARTNERS

Cape Cod Commission, Towns, Cape Cod Chamber of Commerce, Cape Cod Young Professionals, Local Chambers of Commerce, Association to Preserve Cape Cod, State Agencies, Community Development Partnership, Cape Cod Housing Assistance Corporation, Home Builders & Remodelers Association of Cape Cod, Cape Cod & Islands Association of Realtors, Habitat for Humanity

### PROJECTS

- **Regional Housing Plan**  
Commission staff will develop a comprehensive regional housing plan that supports sustainable development of affordable and varied housing options for Cape Cod residents of all income levels and ages

- **Housing Affordability Resource Development Program**  
Provide housing affordability information and a forum for advancing understanding of housing affordability and its importance to economic development in the region
- **Housing Affordability Trust/ Workforce Housing Fund**  
Assess the feasibility of establishing local and/or regional workforce housing funds to support development and ownership of “missing middle” housing types, especially those affordable to low- and middle-income residents
- **Year-Round Resident or Rental Property Tax Exemption**  
Evaluate models and potential impacts of year-round resident property tax exemptions by Cape Cod towns and provide information to towns interested in adopting the exemption for its permanent residents

**MEASURES**

- Number of new and existing housing units by type of housing
- Average and median home prices by town
- Density of housing in activity centers
- Length of time required to permit affordable housing projects
- Number of affordable units by income requirement categories
- Number of housing units constructed as a percent of local and regional housing supply goals
- Percent of population in workforce compared to percent of retired population
- Percent of households considered housing stressed (housing costs 30% or more of gross income)
- Number of public Community Solar developments serving low-income communities



**CLIMATE CHANGE  
INNOVATION INITIATIVE**

Identify and promote public and private opportunities for climate change mitigation and adaptation on a local and/or regional scale

**POTENTIAL PARTNERS**

Cape Cod Commission, Cape Cod Climate Change Collaborative, Towns, Association to Preserve Cape Cod, Center for Coastal Studies, Woods Hole Oceanographic Institution, Waquoit Bay National Estuarine Research Reserve, MA Department of Environmental Protection, MA Department of Energy Resources, US Environmental Protection Agency, Cape Cod & Islands Association of Realtors, Cape Light Compact, Cape & Vineyard Electric Cooperative, Utilities

**PROJECTS**

- **Climate Change Mitigation and Adaptation Planning**  
Establish a methodology for and complete an inventory of greenhouse gases for the region, to ultimately develop a climate change action plan for Barnstable County
- **Resilient Utilities Coalition**  
Improve coordination among utilities, government entities, towns, and independent energy providers to support resilient development in centers of activity, including efficient development of wastewater, telecommunications, and energy distribution infrastructure
- **Regional Economic Resiliency Information Clearinghouse**  
Establish a clearinghouse focused on preparation for and recovery from economic and natural disasters
- **Obstacles to Opportunities Challenge**  
Coordinate and implement community events and/or competitions centered around proposing creative solutions, technologies, and approaches that address climate change and other regional resiliency challenges

**MEASURES**

- Regional greenhouse gas emissions
- Number of electric vehicles in municipal fleets
- Number of Municipal Vulnerability Preparedness communities
- Number of installed charging stations for electric vehicles
- Number of installed utility-scale solar installations
- Number of battery storage systems
- Percent of electricity from non-utility scale, distributed sources
- Miles of utilities placed underground
- Miles of transportation network at risk
- Percent of assessed value of residents in and out of FEMA Flood Zones
- Number of businesses with resiliency strategies
- Number of critical facilities with battery storage available
- Number of public Community Solar developments
- Number of coastal resiliency projects designed, implemented




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**REGIONAL  
INFRASTRUCTURE  
PLANNING INITIATIVE**

Improve infrastructure planning to promote greater efficiency and coordination in infrastructure projects, protect the region's resources, and improve resiliency to disasters

#### **POTENTIAL PARTNERS**

Cape Cod Commission, OpenCape, Towns, Cape and Islands Vineyard Electric Commission, Cape Cod Chamber of Commerce, Public Access TV, State Agencies, Joint Base Cape Cod, Barnstable County Department of Health and Environment, Sustainable Practices, Local Departments of Public Works, Bourne Transfer Station, Association to Preserve Cape Cod, Cape & Vineyard Electric Cooperative, Cape Light Compact, Utilities, Cape Cod Young Professionals, SWANA Southern New England

#### **PROJECTS**

- **Regional Capital Plan**  
Commission staff will seek funding for and develop a regional capital plan to identify key needs, priorities, and available funding options for capital infrastructure, and create tools for communities to help identify potential efficiencies
- **Natural and Green Infrastructure Assessment**  
Assess and support the use of natural and green infrastructure to meet land use, resiliency, and economic development needs
- **Cape-wide Drinking Water Plan**  
Update 208 Plan to expand drinking water protection and increase the protection of ponds and other freshwater resources
- **Local Water Quality Planning**  
Support development and adoption of local water quality plans to restore drinking water and surface water quality
- **Zero-waste Policies**  
Identify and evaluate existing and potential zero-waste programs, policies, and regional and municipal

regulations that could be adopted on Cape Cod as part of a regional solid waste planning and education effort

■ **Renewable Energy Siting and Permitting Study**

Conduct a study of potential utility-scale, renewable energy sites and local policies around energy generation

■ **Last-mile Broadband Deployment Strategy**

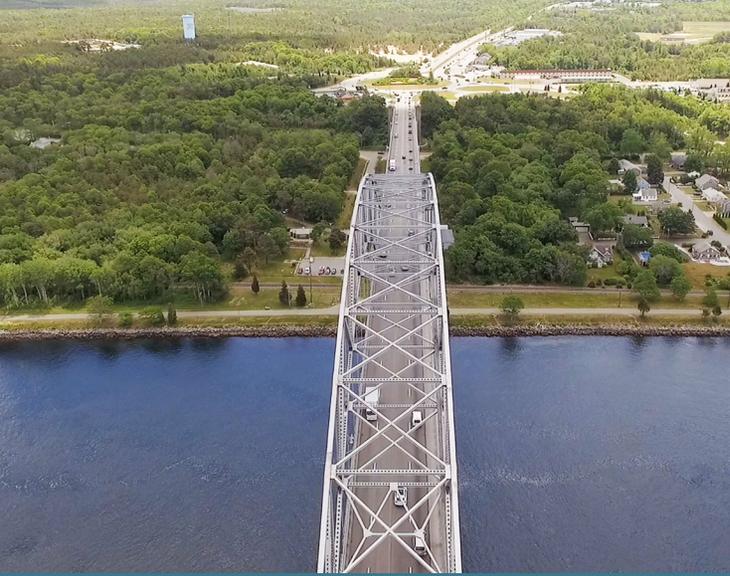
Determine the optimal management structure and deployment plans for last-mile buildout of the OpenCape broadband network

■ **Regional Solid Waste Planning**

Identify improvements and ideas for regional solid waste planning, including feasibility for and funding of a Materials Recovery Facility, if appropriate

**MEASURES**

- Number of towns with comprehensive wastewater plans
- Number of towns with comprehensive drinking water plans
- Percent of amount of drinking water requiring treatment for contaminants in groundwater
- Acres of protected drinking water supply areas
- Pond and coastal water quality
- Air quality index changes
- Acres of salt marsh, unfragmented forest, and other natural infrastructure
- Tons of municipal and construction waste shipped off Cape Cod
- Percent of energy utilized from renewable sources
- Number of public Community Solar developments
- Percent of businesses (including home-based businesses) served by high-speed internet
- Cost of infrastructure maintenance and operations
- Number of installed utility-scale solar installations
- Number of projects identified and included in the Regional Capital Plan inventory
- Number of coordinated capital projects begun and/or completed
- Miles of utilities placed underground



**TRANSPORTATION  
AND AIR QUALITY  
IMPROVEMENT INITIATIVE**

Identify and promote actions to reduce traffic and greenhouse gas emissions on Cape Cod

#### POTENTIAL PARTNERS

Cape Cod Commission, Cape Cod Regional Transit Authority, State Agencies, Towns, Cape Cod Chamber of Commerce, Local Chambers of Commerce, MassHire Cape and Islands Workforce Board, Cape & Vineyard Electric Cooperative, Cape Light Compact, Cape Cod Young Professionals

#### PROJECTS

- **Public Transit Expansion Feasibility Analysis**  
Evaluate strategies for transit improvements to better facilitate movements within and among towns
- **Complete Regional Multiuse Path**  
Seek design and construction funding to complete a regional multiuse path

- **Hyannis Access Buildout**  
Carry out and implement the recommendations from the Hyannis Access Study
- **Electric Transit**  
Identify the resources needed to electrify the transit vehicle fleets that serve Cape Cod
- **Buildout Electric Vehicle Infrastructure**  
Plan for buildout of electric vehicle charging stations and other infrastructure that does not rely on fossil fuels to support use of vehicles
- **Expand Commuter Rail to Hyannis**  
Support extension of the MBTA Commuter Rail to Buzzards Bay and later Hyannis, with rail upgrades for speed and on-Cape stops along the way
- **Water Ferry/Taxi System**  
Support expanding water-based transit services to and from Cape Cod, and between Cape Cod's harbors
- **Autonomous Vehicle Planning**  
Evaluate the potential impacts of autonomous vehicles to Cape Cod

- **Canal Bridges**

Support upgrades to the Sagamore and Bourne bridges to reduce traffic congestion, lower maintenance costs and disruption, and maintain the iconic character of the bridges

#### MEASURES

- Number of chronic congestion areas during peak season
- Number of transit riders by type of transportation
- Number of transit stops and frequency of travel
- Air quality index changes
- Number of alternative methods of reaching Cape Cod and moving between Cape town centers
- Number of automobile rentals that are electric vehicles
- Number of miles of off-road bike routes
- Number of miles of on-road bike routes
- Number of bike-related crashes
- Number of motor vehicle-related crashes
- Number of serious injury crashes per year
- Number of charging stations for electric vehicles
- Percent of electric versus gas powered vehicles owned by Cape Cod residents
- Percent of transit system that is powered by electricity
- Cost of infrastructure maintenance and operation



## INFRASTRUCTURE DEVELOPMENT INITIATIVE

Improve and expand critical infrastructure in areas appropriate for increased development, mitigating impacts to and restoring natural resources, community character, and economic diversity

### POTENTIAL PARTNERS

Cape Cod Commission, OpenCape, Towns, Utilities, Association to Preserve Cape Cod, Cape Cod Chamber of Commerce, MA Department of Environmental Protection, Cape & Vineyard Electric Cooperative, Cape Light Compact

### PROJECTS

- **Buildout of Last-Mile Broadband**  
Complete buildout high-speed telecommunications based on the outputs of the last-mile broadband planning assessment
- **Wastewater Infrastructure in Centers of Activity**  
Continue to build wastewater infrastructure, particularly for

existing centers of activity, and through regional and sub-regional collaborations among towns, JBCC, and other entities

### MEASURES

- Percent of drinking water requiring treatment for contaminants in groundwater
- Percent of activity centers served by wastewater treatment infrastructure
- Pond and coastal water quality changes
- Air quality index changes
- Tons of municipal and construction waste reused, and tons shipped off Cape Cod
- Number of installed charging stations for electric vehicles
- Percent of businesses (including home-based businesses) served by high-speed internet
- Cost of infrastructure maintenance and operation



## INFRASTRUCTURE FUNDING INITIATIVE

Seek funding for infrastructure development that spreads the cost of infrastructure among residents, seasonal homeowners, and visitors to the region

### POTENTIAL PARTNERS

Cape Cod Chamber of Commerce, Cape Cod Commission, Association to Preserve Cape Cod, Towns, MA Department of Environmental Protection, Cape Cod & Islands Association of Realtors, Home Builders & Remodelers Association of Cape Cod, Municipal Airports, OpenCape, Barnstable County, State Agencies, Cape & Vineyard Electric Cooperative, Cape Light Compact

### PROJECTS

- **Congestion Pricing on Bridges**  
Conduct a feasibility and impact study on a vehicle fee system, using congestion-related pricing for travel to, movement within, and parking on Cape Cod (such as bridge tolls), with potential consideration of fuel type in determining the fee schedule

- **Last-Mile Buildout Fund**  
Identify and pursue new funding streams to finance last-mile buildout development
- **Lodging Tax Set-aside for Infrastructure**  
Support the establishment of a municipal infrastructure fund that channels new and existing lodging tax revenues into funding for building critical infrastructure, particularly in centers of activity
- **Expand Infrastructure Funding**  
Identify and pursue new funding streams to finance wastewater, energy, and other regionally-significant infrastructure development
- **Jet Tax**  
Assess the feasibility and impacts of taxes or fees on private jet transport on- and off-Cape Cod as a way to fund regional wastewater and infrastructure initiatives affected by seasonal visitors and second homeowners

### MEASURES

- Amount of off-cape funding received for infrastructure development
- Percent of infrastructure funding coming from property taxes
- Percent of infrastructure funding from user fees

## THE YEAR-ONE TACTICAL IMPLEMENTATION PLAN

Successful implementation of the CEDS requires County leadership. The Commission must obtain and maintain the resources necessary to coordinate and collaborate with stakeholders to complete projects over the CEDS' five-year implementation timeframe. The year-one implementation plan describes the Commission's initial work plan for the projects and initiatives it is directly responsible for. Commission staff will engage partners and stakeholders on additional projects and initiatives identified in the action plan (see Appendix IV).

### YEAR-ONE TACTICAL IMPLEMENTATION PLAN ELEMENTS

#### ADMINISTRATION AND GENERAL PLANNING

#### OUTREACH AND INFORMATION SHARING

#### TARGETED TECHNICAL ASSISTANCE TO TOWNS

- Local Comprehensive Plan (LCP) Development
- RESET Projects: Assessing Centers of Activity
- Cape-wide Drinking Water Plan

#### REGIONAL INITIATIVES AND PROJECTS IMPLEMENTATION

- Comprehensive and Activity Center Planning Initiative
- Creative Economy Sector Integration
- Regional Capital Plan
- Regional Housing Plan
- Model Bylaws for Zoning and Design
- Climate Change Mitigation and Adaptation Planning

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*The above outlines the initial work plan for the Commission during the first year of implementation of the CEDS.*

The Commission's year-one implementation plan includes the following four main elements:

- Administration and General Planning
- Outreach and Information Sharing
- Targeted Technical Assistance to Towns
- Regional Initiatives and Projects Implementation

## ADMINISTRATION AND GENERAL PLANNING

CEDS implementation requires the continuous involvement of the CEDS Strategy Committee (BCEDC), which is engaged in the annual implementation review process and is responsible for granting partner agencies funding for CEDS projects and initiatives.

Commission staff supports the BCEDC in these efforts and works with partner agencies to plan and obtain funding for CEDS projects and initiatives. Examples of Commission support include regulatory review of large-scale projects

in municipalities, technical assistance to towns using planning or regulatory tools to incentivize development in centers of activity, and support in submitting funding applications to the EDA and other federal and state agencies.

## OUTREACH AND INFORMATION SHARING

Outreach is essential to the implementation of the CEDS and to maintaining the partnerships upon which it's built. The Commission has worked with partners throughout the region to hold an annual conference on issues relating to economic development, beginning in 2010 with the Smarter Cape Summit Series. Since 2015, the Commission has held the annual OneCape Summit that brings together hundreds of local elected leaders, municipal staff and appointed board members, industry practitioners, and community activists to discuss environmental and economic issues

and solutions for Cape Cod. The 2019 Summit will continue to explore the intersection of the environment and economy and ongoing efforts to become a more resilient region.

Commission staff members also make regular presentations to the Cape Cod Commission Members, BCEDC, Barnstable County Board of Regional Commissioners, Barnstable County Assembly of Delegates, and other stakeholder groups, as opportunities arise or upon request.

The Commission continues to seek new ways to make information more accessible. STATSCapeCod continues to be the Commission's primary vehicle for data relative to the economy. Through tools and resources, such as those offered by ESRI and Tableau, the Commission provides information in a flexible, often map-based, format. The Commission is also working with several Cape Cod communities to make

local regulations more accessible to the public through an online tool called OpenCounter. Commission staff will continue to seek additional opportunities for data sharing and interpretation.

### TARGETED TECHNICAL ASSISTANCE TO TOWNS

The Commission continually provides targeted technical assistance to towns throughout the region on specific issues. The Regional Economic Strategy Executive Team (RESET)<sup>91</sup> approach was developed in the 2009 CEDS and has provided the Commission the opportunity to lend its multi-disciplinary staff to towns to tackle impediments to economic development.

The Commission also supports towns through District Local Technical Assistance (DLTA) projects, based on annual municipal requests for assistance.<sup>92</sup> The DLTA Program is

funded annually by the Commonwealth of Massachusetts to help municipalities with sustainable development and to encourage communities to form partnerships to achieve planning and development goals consistent with state and regional priorities.

The Commission will continue these efforts, prioritizing technical assistance to towns on:

- **Local Comprehensive Plan (LCP) Development:** completing and/or updating LCPs consistent with the RPP, amended regulations, and guidance, as described above, including development of local housing production plans and local capital plans
- **RESET Projects: Assessing Centers of Activity:** evaluating centers of activity for housing diversity and affordability, economic diversity and business climate, multi-modal transportation and transit, waste and utility infrastructure, and public amenities and community character

- **Cape-wide Drinking Water Plan:** supporting development and adoption of local water quality plans to improve the quality of the region's groundwater, surface water, and drinking water quality

### REGIONAL INITIATIVES AND PROJECTS IMPLEMENTATION

The year-one implementation plan focuses on six foundational projects and initiatives:

#### Comprehensive and Activity Center Planning Initiative

Supporting the development and implementation of long-term plans in centers of activity that address both local and regional needs is consistent with the RPP and is necessary to sustain and improve upon a robust economy. Within the year one the Commission will update Local Comprehensive Plan (LCP) regulations and guidance to streamline

91 Cape Cod Commission RESET Program. <http://www.capecodcommission.org/initiatives/RESET>

92 Cape Cod Commission DLTA Program. <http://www.capecodcommission.org/index.php?id=50&maincatid=23>

the LCP update and certification process and encourage more communities to develop LCPs consistent with the RPP. Through the amended process and direct technical assistance, the Commission will begin collaborating with towns to update, certify, and implement LCPs that address infrastructure needs, housing diversity and affordability, resource protection, and climate change across land use types.

### **Creative Economy Sector Integration**

The Commission will work with partners to evaluate the economic benefits of Cape Cod's creative economy, including its arts and culture sector, and identify opportunities to integrate the sector into economic development efforts including infrastructure investments, activity center vitalization, and housing. The project includes an update to "Leveraging Cultural Assets for

Economic Development," a guide for towns previously published by the Cape Cod Commission.

### **Regional Capital Plan**

To support LCP development and investment in regional infrastructure, the Commission will seek funding for and develop a regional capital plan. A regional capital plan will identify key needs, priorities, and funding options for capital infrastructure and create tools for communities to help evaluate and identify potential efficiencies. Development of the regional capital plan will include creating an inventory of planned infrastructure improvements, planning and implementing a facilitated public process around capital planning efforts, and identifying tools/resources needed to improve coordination and efficiency in planning. Additionally, the Commission will develop a decision support tool to identify coordination opportunities among towns and potential related funding opportunities.

### **Regional Housing Plan**

To support housing diversity and affordability, the Commission will seek funds to develop a comprehensive regional housing plan that supports sustainable development of affordable and varied housing options for Cape residents of all income levels and ages. The plan will identify regional, subregional, and town-specific housing supply goals and appropriate areas for housing development, especially multi-unit development. It will identify policies, actions, and strategies for furthering the goals of the plan, including how to foster infrastructure investment to support an increase in housing supply, and will include a community engagement strategy for education, visioning, and planning purposes.

### **Model Bylaws for Zoning and Design**

Building on the work of the Community Resilience by Design project, the Commission will work to support adoption of form-based code, hybrid zoning, and/or design guidelines/standards, where appropriate, that address individual towns' needs, respond to and complement the local context, and will help fulfill the visions for their communities. The Commission will draft a form-based code framework and work with towns to develop and adopt form-based code, design guidelines or standards, or hybrid zoning tailored to the unique needs of the community.

### **Climate Change Mitigation and Adaptation Planning**

The region must continue to plan for mitigating climate change and adapting to its potential impacts. Planning is needed to move the region away from fossil fuels, encourage energy efficiency and renewable energy, electrify transportation, and ensure protection of the region's natural resources and natural carbon sinks. The Commission will establish a methodology for, and complete, an inventory of greenhouse gases for the region, with the intention of contributing to the work of the Cape Cod Climate Change Collaborative and other stakeholders, to ultimately develop a climate action plan for Barnstable County. The Commission will

also complete two analyses to identify appropriate sites across the region for electric vehicle charging stations and utility-scale solar installations. In addition, the Commission plans to continue working with communities to implement state and local planning efforts to build climate and coastal resilience, such as the Municipal Vulnerability Preparedness Program and Green Communities.

## INTEGRATION WITH OTHER REGIONAL PLANS

The 2019 CEDS is closely aligned with other regional plans developed by the Commission through its vision, goals, and objectives.

## REGIONAL POLICY PLAN

The RPP is both a planning and a regulatory document that articulates a vision and growth policy for the region. While it serves as an overarching plan that guides the Commission's efforts across multiple issue areas, particular challenges or issue areas such as wastewater planning, transportation planning, and housing, require their own focused planning efforts.

The full plan is available here: <http://capecodcommission.org/rpp>

## 208 PLAN UPDATE

The Cape Cod Section 208 Area Wide Water Quality Management Plan (208 Plan Update), certified and approved by the Governor of the Commonwealth of Massachusetts and the Environmental Protection Agency in 2015, provides a path forward to define watershed-based solutions for the restoration of the waters that define Cape Cod. Watersheds, however, rarely follow political boundaries. The Commission worked across municipal boundaries and brought towns together to deal with this problem at the most effective and appropriate level—the watershed.

The 208 Plan Update recommends actions to make complex information more transparent and available to citizens, abate nitrogen-induced costs already impacting the region, provide more support to local community water quality efforts, eliminate unnecessary costs, and streamline the regulatory pathway for more efficiently and

effectively achieving water quality goals through the development of targeted watershed management plans that address nutrient remediation through a variety of approaches. One aspect of the streamlined regulatory approach is the Commission's review of municipal water quality plans and projects, which are no longer reviewed as developments of regional impact, or DRIs, but instead for consistency with the 208 Plan Update.

The full plan is available here: <http://www.capecodcommission.org/208>

## REGIONAL TRANSPORTATION PLAN

As a document that establishes the vision for the transportation system for the region, the Regional Transportation Plan (RTP) sets the framework for development of the transportation network on Cape Cod. The RTP is currently being updated in 2019. This framework is built on a performance-based planning approach with a

vision statement, goals, objectives, performance measures and targets, strategies, and policies.

The overarching vision of the RTP is as follows:

*“The Cape Cod Metropolitan Planning Organization envisions a transportation system that supports the environmental and economic vitality of the region through infrastructure investment that focuses on livability, sustainability, equity, and preservation of the character that makes our special place special.”*

The goals of the RTP expand on the vision statement in seven areas of emphasis: safety, environmental and economic vitality, livability and sustainability, multimodal options/ healthy transportation, congestion reduction, system preservation, and freight mobility. The RTP also contains quantifiable targets that the region will work to achieve over the coming years through implementation of a series

of strategies and policies, particularly strategies that underscore the link between transportation, climate change, and land use planning in the region. The anticipated funding in the region over the next 25 years totals approximately \$1.1 billion. This total includes spending on transit, roadways, bridge, sidewalk, and multiuse path projects. The majority of projects funded through this plan have supported projects that improved access to the region’s activity centers.

The full plan and information on the update process are available at <http://www.capecodcommission.org/rtp>.

### **CLIMATE CHANGE AND HAZARD MITIGATION AND ADAPTATION PLANNING**

The Commission actively engages in planning efforts to increase the region’s resilience to the effects of severe storms and climate change.

### **Resilient Cape Cod Project**

In 2015, the Commission and several partners were awarded a three-year grant from the National Oceanic and Atmospheric Administration to complete the Resilient Cape Cod project (<http://ccc-plans.org/resilientcapecod>). The purpose of the Resilient Cape Cod project is to investigate the environmental and socio-economic effects of local and regional coastal resiliency strategies, and to share this information broadly through stakeholder engagement, public outreach, and a pilot project in the Town of Barnstable. The Commission compiled the information from the stakeholder engagement process, adaptation strategies data collection, and environmental economic analysis into an online decision support tool, the Cape Cod Coastal Planner (<http://www.capecodcoast.org>). The tool will help facilitate local discussions about the tradeoffs associated with implementing different adaptation strategies.

### Multi-hazard Mitigation Plans

The Commission provided technical assistance to eight Cape communities to prepare multi-hazard mitigation plans. These plans, customized by each community to address local threats, focus on addressing vulnerabilities to sea level rise, coastal storms, and erosion. Completed plans are submitted to the Massachusetts Emergency Management Agency and the Federal Emergency Management Agency for approval. The federally-funded Hazard Mitigation Assistance programs provide significant opportunities for communities to reduce, minimize, or eliminate potential damages to property and infrastructure from natural hazard events.

### Municipal Vulnerability Preparedness Program

The Municipal Vulnerability Preparedness (MVP) program provides support for cities and towns in Massachusetts to plan for and implement key climate change

adaptation actions for resiliency. The state awards communities with funding to complete vulnerability assessments and develop action-oriented resiliency plans through intensive stakeholder workshops. Communities who complete the MVP program are eligible for MVP Action Grant funding and other opportunities (<http://ccc-plans.org/MA-MVP>). The Commission is a certified MVP provider and assisted five Cape communities in completing the assessment and resiliency plan using the Community Resilience Building Framework (<http://ccc-plans.org/MA-MVP-CRB>).

## FUTURE REGIONAL PLANNING EFFORTS

### Renewable Energy Planning

To assist in the planning, siting, and design of on-site renewable energy facilities, the Commission will complete site screening analyses and/or develop guidance on:

- Siting and building design consideration to accommodate future solar installations and paired storage
- Identification of potential grayfield sites such as parking lots that would be suitable for installation of solar photovoltaic panels with paired storage
- Siting and design considerations for public electric vehicle charging stations and energy storage.

The Commission will consider requiring an energy audit for development and redevelopment reviewed as Developments of Regional Impact. The Commission also encourages Cape towns to become Green Communities and can assist in providing education for the development community about the state building code requirements.

### Regional Housing Plan

The 2017 Regional Housing Market Analysis is the first regional benchmark analysis of Barnstable County's housing market. The study involved

the development of an economic and demographic forecast model specific to Barnstable County, which provides estimates for the population by age cohort, workforce and employment rates, household formation rates, household incomes, and housing unit supply for each municipality and for Barnstable County. It also identifies current and potential gaps between what households are willing and able to pay (demand) versus the supply of housing stock to meet demand.

The 2017 analysis laid the groundwork for a regional housing plan by explaining the housing challenges and needs across the region. While it outlines next steps for addressing these challenges, it does not specify actions needed to accomplish these next steps. A regional housing plan will lay out specific actions and policies to

implement at both the regional and local level to improve housing affordability and availability.

### **Regional Capital Plan**

The Commission is charged under the [Cape Cod Commission Act](#) with anticipating, guiding and coordinating the rate and location of development with the capital facilities necessary to support development. Because fifteen independent local governments and numerous sub-districts may currently prepare individual capital infrastructure and facilities plans across the region, there is an opportunity for regional coordination and collaboration through the development of a Regional Capital Plan.

Commission staff will develop a regional framework to characterize, quantify, plan, and advocate for regional

infrastructure and facilities and the planning, forecasting, decision making and financial tools to support Cape Cod communities. The Regional Capital Plan would encourage towns include a broader, more policy-oriented capital infrastructure plan within their local comprehensive plans that is consistent with the RPP and the goals of the Regional Capital Plan. To carry out this charge, the Commission will Regional capital planning must be consistent with protecting the region's natural and historic resources, and advancing a balanced economy, mixed housing options, and social diversity.



## 5. CEDS Evaluation Framework

*How are we doing  
and what can we  
do better?*

CEDS implementation is evaluated on an annual basis culminating in an annual report delivered to the EDA on June 30<sup>th</sup> of each year.

Evaluation of CEDS implementation happens at three levels:

- Evaluating the Region's Progress

- Evaluating the CEDS-Led Regional Collaboration
- Evaluating the CEDS Annual Implementation Plan

The evaluation process involves the CEDS Strategy Committee and other stakeholders involved in CEDS planning and implementation. Quantitative and qualitative measures are used to gauge progress towards the CEDS goals overall or towards the goals of specific projects or initiatives. The evaluation framework drives successful implementation and guides action plan adjustments along the way.

### **EVALUATING THE REGION'S PROGRESS**

The first level of evaluation focuses generally on how well the region is doing relative to the long-term vision and goals of the CEDS. These measures reflect long-term structural changes to the economy and will therefore only show small changes on a year-to-year basis. Changes in the regional economy are measured in three ways:

- Regional Balanced Economy benchmarks
- Regional priority objectives
- EDA distress criteria

## REGIONAL BALANCED ECONOMY BENCHMARKS

Commission staff is developing a set of benchmarks to track the progress of the region’s economy and the economic well-being of its residents. The measures are designed around the [four principles of economic development](#):

- **Protect and build on your competitive advantage**

The Cape’s competitive advantage is its unique natural environment, historic village character, working agricultural land, harbors, and cultural heritage.

- **Use your resources efficiently**

Resources include natural assets, capital facilities, infrastructure, and human capital. Population and land use patterns affect efficiency.

- **Foster balance and diversity**  
Economic strength and sustainability benefit from a mixture of industries, businesses, workers, ownership types, and employment options that support year-round employment.
- **Expand opportunity and regional wealth**  
Methods include increasing exports, substituting imports locally, attracting capital, and fostering local ownership.

Each Balanced Economy benchmark is made up of numerous individual measures that are tracked over time and compared to state and national trends whenever possible. Observed trends are specified by benchmark, based on data collected by and for the federal Census Bureau, Bureau of Economic Analysis, and Bureau of Labor Statistics. They are all available on [STATSCapeCod.org](#).<sup>93</sup>

The following tables provide a quick overview of trends by benchmark and list the individual measures within each of these benchmarks.

The trends illustrated by these benchmarks may be shaped by local action and planning, but in many cases may also require larger regional or structural changes to shift undesirable trends.



### STATSCAPECOD

Data for balanced economy benchmarks are available on [STATSCapeCod.org](#)

93 STATSCapeCod is developed in collaboration with STATSAmerica and the Indiana Business Research Center at Indiana University.

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**ECONOMIC DEVELOPMENT OBJECTIVES AND BENCHMARKS**

ECONOMIC DEVELOPMENT OBJECTIVE	BENCHMARKS*	DESIRED TREND	ACTUAL TREND
BALANCED, DIVERSE ECONOMY	Population Diversity	↑	↓
	Housing Diversity	↑	↓
	Seasonality	↓	↑
	Employment Diversity	↑	↑
	Wage Diversity	↑	= / ↓
	Business Diversity	=	= / ↓
REGIONAL WEALTH	Productivity	↑	↑
	Value Added	↑	=
	Exports/New Money	↑	↑
	Wellbeing	↑	TBD*
LOW IMPACT COMPATIBLE DEVELOPMENT	Smart Growth Pattern	↑	TBD*
	Quality of Life	↑	TBD*
	Environmental Quality	↑	TBD*

\*Benchmarks under development

**BALANCED, DIVERSE ECONOMY BENCHMARKS AND MEASURES**

*To promote a balanced regional economy with a broad business, industry, employment, cultural, and demographic mix capable of supporting year-round and quality employment opportunities*

BENCHMARK	MEASURES	DESIRED TREND
POPULATION DIVERSITY	Resident Population Change	↑
	Net Population Migration	↑
	Working Age Out Migrants	↓
	Retirement Age of In Migrant	↓
	Number and Share of Non-White Residents	↑
	Resident Median Age	↓
	Number and Share of Residents Under 65	↑
	Labor Force as % of Total Population	↑
	Median Household Income	↑
	Share of HH in LOW income cohort (inflation adjusted)	↓
	Share of HH in MIDDLE income cohort (inflation adjusted)	↑
	Share of HH in HIGH income cohort (inflation adjusted)	=
HOUSING DIVERSITY	Total Housing Units	↑
	Number and Share Rental Units	↑
	Number and Share Seasonal Units	=
	Number and Share of Single-family homes	↓
	Number and Share of Multifamily Homes	↑
	Number and Share of Units 800 SF or less	↑
	Median Home Price	↓

**BALANCED, DIVERSE ECONOMY BENCHMARKS AND MEASURES (CONTINUED)**

*To promote a balanced regional economy with a broad business, industry, employment, cultural, and demographic mix capable of supporting year-round and quality employment opportunities*

BENCHMARK	MEASURES	DESIRED TREND
SEASONALITY	Gap between Jan and July Unemployment Rates	↓
	Number and Share of Seasonal Jobs (estimate)	↓
	Peak Season Population	=
	Resident Population v. Peak Population	=
EMPLOYMENT DIVERSITY	Total Employment	↑
	Number and Share of Employment in on-tourism Clusters	↑
	Number and Share of Employment in High Wage Industries	↑
	Number and Share of Employment in Emerging Industries	↑
	Number and Share Arts and Culture Industry Employment	=
	Number and Share Employment in High Wage Occupations	↑
	Number and Share Employment in STEM Occupations	↑
	Number and Share Self-Employed	=
WAGE DIVERSITY	Number and Share of jobs in High Wage Industries	↑
	Number and Share of Jobs at Minimum Wage	↓
	Average Wages (Real\$)	↑
	Average Self-Employment Wage (Real \$)	↑
BUSINESS DIVERSITY	Number and Share of Establishments in Core Industries	=
	Number and Share of Establishments in Emerging Industries	↑
	Number and Share of Small Establishments	↑
	Number and Share of Large Retail Establishments	↓

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**REGIONAL WEALTH BENCHMARKS AND MEASURES**

*To promote economic activity that retains and attracts income to the region and benefits residents, thus increasing economic opportunity for all*

BENCHMARK	MEASURES	DESIRED TREND
PRODUCTIVITY	Gross Regional Product (Real \$)	↑
	Total Payroll (Real \$)	↑
	Total Resident Income (Real \$, in thousands)	↑
	Total and Share of Income from Earnings (Real \$)	↑
	Total and Share of Income from Transfers (Real \$)	=
VALUE ADDED	Business Receipts	↑
NEW MONEY	Rooms Tax Receipts	↑
	Meals Tax Receipts	↑
	Income Earned Off-Cape (Real \$, in thousands)	↑
WELLBEING	Poverty Rate	↓
	Number of People in Poverty	↓
	Gap between Income and Median Housing Prices	↓
	Percent of Residents Paying More Than 30% of Income on Housing	↓
	Annual Homelessness Count	↓

**LOW IMPACT COMPATIBLE DEVELOPMENT BENCHMARKS AND MEASURES**

*To promote the design and location of development and redevelopment to preserve the Cape’s environment and cultural heritage, use infrastructure efficiently, minimize adverse impacts, and enhance the quality of life*

BENCHMARK	MEASURES	DESIRED TREND
SMART GROWTH PATTERN	Number and Share of New Development in Activity Centers	↑
	Number and Share of Total Residential Units in Activity Centers	↑
	Number and Share of Total Commercial SF in Activity Centers	↑
	Housing Density in Activity Centers (units/acre)	↑
	Un-development Outside Activity Centers	↑
	New Development in Priority Protection Areas	↓
QUALITY OF LIFE	Alternative Transportation/Transit Use	↑
	Average Commute to Work Duration	↓
	Acres of Recreational Open Space	↑
	Land Use Diversity in Activity Centers	↑
ENVIRONMENTAL QUALITY	Drinking Water Quality	↑
	Surface Water Quality	↑
	Impervious Surface	↓
	Manicured Lawn	↓
	Tree Coverage	↑
	Number of Historic Structures (Pre-1950)	=

## REGIONAL PRIORITIES AS OBJECTIVES

The regional priorities identified by CEDS stakeholders are integrated into the 2019 CEDS as objectives. Each priority has an associated, quantitative measure to track progress during implementation. The data for these will be compiled by Commission staff and tracked throughout the five-year implementation period.

OBJECTIVE	REGIONAL PRIORITY	DATA SOURCE
Increase the number and affordability of housing options Cape-wide and particularly within RPP identified activity centers	HOUSING DIVERSITY AND AFFORDABILITY	Census ACS and CCC
Increase the parcels within RPP identified activity centers that are connected to effective wastewater treatment systems, transit, electric vehicle networks, renewable energy, and broadband	INFRASTRUCTURE IN ACTIVITY CENTERS	CCC
Increase the number of last mile connections to the OpenCape middle-mile network or the equivalent	LAST MILE BROADBAND – FINANCING STRATEGY	OpenCape
Increase the number of activity centers with zoning and regulations that allow for housing density, mixed-uses, and business diversity	ZONING AND REGULATORY REFORM FOR SMART GROWTH/ ACTIVITY CENTERS	CCC/Towns
Increase the number of “dark blue” businesses and jobs on Cape Cod (particularly those paying wages consistent with the cost of living)	EXPANSION OF THE BLUE ECONOMY	CC Chamber
Increase in annual Earned Income among Barnstable County residents	EDUCATION AND WORKFORCE DEVELOPMENT FOR WAGE GROWTH	ACS/BEA REIS
Increase business creation and longevity (positive business churn) and overall employment by firms in Barnstable County	BUSINESS DEVELOPMENT FOR WAGE AND JOB GROWTH	Census/BLS ES202
Adoption of new revenue streams to fund the building and operating of necessary infrastructure	EXPANDED FINANCING TOOLS FOR INFRASTRUCTURE	CCC/Towns
Increase the number of local public services consolidated or facilitated through regional systems and investments	REGIONALIZATION FOR GREATER EFFICIENCY IN GOVERNMENT	CCC/Towns

### EDA DISTRESS CRITERIA

The final element of evaluating CEDS progress will be through tracking EDA distress indicators. The two criteria that the EDA uses to determine distress within census tracts are:

- Unemployment rate that, averaged over the most recent 24-month period for which data are available, is at least 1% greater than the national unemployment rate for the same period
- Per capita income that, for the most recent period for which data are available, is 80% or less of the national average per capita income for the same time period

The number of census tracts considered distressed, using the EDA criteria, has steadily increased over time. The population within these tracts, is just below its peak of 24% of the region’s total resident population.

CAPE COD CENSUS TRACTS CLASSIFIED AS DISTRESSED OVER TIME					
YEAR	HIGHER THAN AVERAGE UN-EMPLOYMENT	LOWER THAN AVERAGE PER CAPITA INCOME	ALL DISTRESSED CENSUS TRACTS		
	# OF TRACTS	# OF TRACTS	# OF TRACTS	POPULATION	% TOTAL POPULATION
2000	7	3	9	29,448	13.3%
2009	5	2	5	21,048	9.5%
2010	10	1	11	33,844	15.6%
2011	11	3	12	36,851	17.0%
2012	11	3	12	38,851	18.0%
2013	13	3	14	46,381	21.5%
2014	11	3	13	40,848	19.0%
2015	14	3	16	50,763	23.6%
2016	13	3	15	49,603	23.1%

Source: 2000 Decennial Census and American Community Survey 5 Year Estimates – STATSAmerica Distress tool

The following table lists the 13 census tracts in Barnstable County that the EDA considers distressed.<sup>94</sup> There are 56 census tracts in the County. The

data is based on year-round residents only; second homeowners and seasonal workers are not included.

94 Distress Criteria Statistical Report. STATSAmerica. 2019. [STATSAmerica.org](https://www.statista.com)

CENSUS TRACTS QUALIFYING AS DISTRESSED							
CENSUS TRACT	VILLAGE (GENERALLY)	TOWN	2016 UNEMP. RATE	THRESHOLD CALC.	2016 PCMI	THRESHOLD CALC.	2015 POP.
101.00	Provincetown	Provincetown	8.9	1.5	\$43,984	147.5	2962
102.06	Wellfleet	Wellfleet	11.6	4.2	\$35,042	117.5	3109
103.06	N. Eastham	Eastham	9.4	2	\$33,373	111.9	1644
115.00	S. Dennis	Dennis	10	2.6	\$31,619	106	1975
120.02	S. Yarmouth (S)	Yarmouth	12.7	5.3	\$31,181	104.5	2948
121.02	W. Yarmouth (S)	Yarmouth	9.6	2.2	\$36,677	123	3020
126.01	Hyannis (132)	Barnstable	9	1.6	\$24,729	82.9	2839
126.02	Hyannis (Res)	Barnstable	8.2	0.8	\$21,425	71.8	3419
128.00	Centerville (N)	Barnstable	9.3	1.9	\$38,056	127.6	2707
130.02	Osterville	Barnstable	8.8	1.4	\$67,261	225.5	5114
141.00	JBCC	JBCC	0	-7.4	\$16,815	56.4	4750
145.00	Waquoit	Falmouth	8.7	1.3	\$31,452	105.4	4258
146.00	E. Falmouth	Falmouth	9.1	1.7	\$37,790	126.7	4560
150.02	Mashpee (NW)	Mashpee	9.1	1.7	\$34,059	114.2	3379
153.00	Hyannis (Com)	Barnstable	8	0.6	\$21,672	72.7	2919
<b>TOTAL POPULATION WITHIN CENSUS TRACTS CLASSIFIED AS DISTRESSED</b>							<b>50,763</b>

Source: 2015 American Community Survey 5 Year Estimates – STATSAmerica Distress tool

## EVALUATING REGIONAL COLLABORATION

An important element of CEDS implementation is transforming the high level of community involvement during the 2019 CEDS process into action. The region is committed to collaborative approaches to address economic development challenges.

## REGIONAL COLLABORATION AND JOINT COMMITMENT GOAL

To provide a forum for local and regional organizations to identify and execute economic development policies and projects, and advance economic resiliency.

Two measures are used to gauge how well the region is doing relative to this goal:

- Financial resources garnered to implement the CEDS
- Forums established to foster regional partnerships

These are both process and outcome measures that track both effort and impact. The following metrics attempt to capture regional collaboration and joint commitment.

		PROCESS MEASURES	OUTCOME MEASURES
<b>IMPLEMENTATION RESOURCES</b>	Federal Funding	# of Grants Submitted	# Businesses/Jobs Impacted
		\$ of Funds Awarded	\$ of Private Investment
	State Funding	# of Grants Submitted	# Business Jobs Impacted
		\$ of Funds Awarded	\$ of Private Investment
	County Funding – License Plate Grant Program	# of Grants Submitted	# Business Jobs Impacted
		\$ of Funds Awarded	\$ of Private Investment
<b>REGIONAL FORUMS FOSTERING PARTNERSHIPS</b>	Regional Partnerships	# of Formal Partnerships	Joint Actions Taken
		# New Partnerships/ Collaborations	Programming Efficiencies
	Regional Meetings of Partners	# of Regional Meetings	Measures of Regional Progress
		# of Organizations Attending	Increased jobs and investment
		# of Organizations Sponsoring	Public/Private Partners Efforts

## EVALUATING THE ANNUAL IMPLEMENTATION PLAN

The final step in evaluating CEDS implementation and impact focuses on the CEDS action plan and the previous year's tactical implementation plan. The annual implementation plan outlines exactly what elements of the five-year action plan the Commission has committed to accomplish each year. Partner agencies responsible for specific elements of the action plan will also be asked to provide updates on their projects and initiatives. As described in [Chapter 4](#), the Commission's annual implementation plan is made up of four elements:

- Administration and General Planning
- Outreach and Information Sharing
- Targeted Technical Assistance to Towns
- Regional Initiatives and Projects Implementation

Process measures have been developed for these four elements and they may evolve and be refined through CEDS action plan implementation. Evaluation of the annual implementation plans will also consider the success of projects and initiatives in relation to EDA investment goals. These can include looking at the funding leveraged for the projects and initiatives, the impact on higher-wage and higher-skilled jobs in the region, the fostering of partnerships and collaboration, the entrepreneurship

and innovation aspects of the project or initiative, and the quality of development the project or initiative supported.

The remainder of this section outlines the actions and associated measures specifically related to the Commission's [Year-One tactical plan](#). The CEDS Annual Reports include both an evaluation of the prior year's efforts and a new tactical implementation plan for the next year describing the actions to be taken and measures of success.

**ADMINISTRATION AND GENERAL PLANNING MEASURES**

*Commission staff support the ongoing engagement of CEDS stakeholders and the implementation of CEDS projects.*

ACTIONS	MEASURES
BCEDC/CEDS STRATEGY COMMITTEE	# of meetings annually Representation of members Value of and number of grant funds distributed
ASSISTANCE TO PARTNER AGENCIES	# DRI reviews # Chapter H applications # GIZ applications/renewals # Towns assisted annually \$ Funding for CEDS projects

**OUTREACH AND INFORMATION SHARING MEASURES**

*The Commission is committed to outreach and information sharing, presenting to local and regional stakeholders, facilitating data sharing through STATSCapeCod and web applications, and hosting the OneCape conference annually. The following metrics help to track these efforts:*

ACTIONS	MEASURES
RESEARCH/DATA ANALYSIS	# of articles and press releases written # of Presentations given annually # of Reports and plans published
DATA DISSEMINATION	Updates to STATSCapeCod STATSCapeCod user statistics # of new features on STATSCapeCod # of datasets available on region GIS # Towns on OpenCounter
ONECAPE SUMMIT	# of Organizations Attending # of Businesses Attending Total Attendance # of presentations related to Economy

**TARGETED TECHNICAL ASSISTANCE TO TOWNS MEASURES**

*The Commission continually provides technical assistance to towns on a variety of targeted issues. This CEDS identifies that the Commission will prioritize technical assistance to towns for LCP development, activity center evaluations, and water quality plan development. The following are measures by which the Commission will evaluate progress on these actions.*

ACTIONS	MEASURES
LCP DEVELOPMENT	# of Towns assisted
	# of certified LCPs
RESET PROGRAM	# of Towns assisted
	\$ or length of time per engagement
	Associated Investments in Activity Centers
INDIVIDUAL RESET PROJECTS	Actions Recommended
	Actions Taken by the Town or Region
	Specific Outcomes due to Actions Taken
WATER QUALITY PLAN DEVELOPMENT	# of Towns Assisted
	# of Town Water Quality Plans Completed

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**REGIONAL INITIATIVES AND PROJECTS IMPLEMENTATION MEASURES**

*The initiatives and projects identified in the year-one tactical implementation plan are the first steps in fulfilling the vision of the 2019 CEDS. The regional priority initiatives all have identified quantitative and/or qualitative measures of success based on their goals and benefits. Partners embarking on the individual projects may choose to track additional project-specific metrics.*

*The following describes the priority initiatives and projects from the year-one implementation plan and identified deliverables and measures for each.*

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**COMPREHENSIVE AND ACTIVITY CENTER PLANNING INITIATIVE**

Work collaboratively with towns to complete and implement long-term comprehensive plans and permitting improvements to effectively address local, sub-regional and regional needs, and concentrate growth away from sensitive natural areas and into areas efficiently served by infrastructure

INITIATIVE GOAL	DELIVERABLES	MEASURES
To manage growth to reduce impacts to the natural environment and create vibrant, diverse centers of activity affordably served by infrastructure	<ul style="list-style-type: none"> <li>■ Scope of work with team, timeline, and budget</li> <li>■ Plan/strategy document including implementation plan, potential funding sources and budget</li> <li>■ Identified projects or recommendations completed</li> </ul>	<ul style="list-style-type: none"> <li>■ Number of Certified LCPs</li> <li>■ Number of local plans developed consistent with the LCP</li> <li>■ Master plans in all regional activity centers (and key town-proposed activity centers)</li> <li>■ Number of Towns using OpenCounter</li> </ul>

**CREATIVE ECONOMY SECTOR INTEGRATION**

The Commission will work with partners to evaluate the economic benefits of Cape Cod’s creative economy, including its fine and performing arts sector, and identify opportunities to integrate the sector into economic development efforts including infrastructure investments, activity center planning, and housing. The project includes an update to “Leveraging Cultural Assets for Economic Development,” a guide for towns previously published by the Cape Cod Commission.

PROJECT GOAL	DELIVERABLES	MEASURES
To provide data and recommendations to towns and arts/culture/historical entities for collaboration that support year-round employment and community building activity	<ul style="list-style-type: none"> <li>■ Economic impact assessment</li> <li>■ Updated Leveraging Cultural Assets for Economic Development guide</li> <li>■ Outreach materials on best practices and case studies</li> <li>■ Online tools to share arts/culture resources</li> </ul>	<ul style="list-style-type: none"> <li>■ To be determined based on the recommendations in the updated guide</li> </ul>

**REGIONAL CAPITAL PLAN**

To support local comprehensive planning and regional infrastructure investment, the Commission will seek funding for and develop a regional capital plan. The regional capital plan will identify key needs, priorities, and funding options for capital infrastructure and create tools for communities to help identify potential efficiencies. Development of the regional capital plan will include creating an inventory of planned infrastructure improvements, planning and implementing a facilitated public process around capital planning efforts, and identifying tools/ resources needed to improve coordination and efficiency in planning. Additionally, the Commission will develop a decision support tool to identify opportunities for collaboration to find efficiency, reduce cost and limit disruption, and to better coordinate access to funding sources.

PROJECT GOAL	DELIVERABLES	MEASURES
To coordinate regional capital planning and address infrastructure needs efficiently	<ul style="list-style-type: none"> <li>■ Regional Capital Plan</li> <li>■ Scope of work with team, timeline, and budget</li> <li>■ Plan/strategy document including implementation plan, potential funding sources and budget</li> <li>■ Inventory of planned infrastructure improvements</li> <li>■ Decision support tool to help identify coordination opportunities and potential funding</li> </ul>	<ul style="list-style-type: none"> <li>■ Number of projects identified and included in capital planning inventory</li> <li>■ Number of coordinated projects begun/completed</li> <li>■ Others to be determined based on the outcomes of the completed plan</li> </ul>

**REGIONAL HOUSING PLAN**

The Commission will develop a comprehensive regional housing plan that supports sustainable development of affordable and varied housing options for Cape Cod residents of all income levels and ages. The plan will identify regional, subregional, and town-specific housing supply goals and appropriate areas for housing development, especially multi-unit development. It will identify policies, actions, and strategies for furthering the goals of the plan, including how to foster infrastructure investment to support an increase in housing supply, and will include a community engagement strategy for education, visioning, and planning purposes.

PROJECT GOAL	DELIVERABLES	MEASURES
To increase access to affordable and diverse housing that addresses the “missing middle” and affordability issues of the region	<ul style="list-style-type: none"> <li>■ Scope of work with team, timeline, and budget</li> <li>■ Plan/strategy document including implementation plan, potential funding sources and budget</li> <li>■ Completed Regional Housing Plan</li> </ul>	<ul style="list-style-type: none"> <li>■ Number of housing units constructed compared with the identified regional, sub-regional, and town-specific housing supply goals identified in the plan</li> <li>■ Implementation of recommended policies, actions, and strategies identified in the plan</li> <li>■ Others to be determined based on the recommendations of the completed plan</li> </ul>

**MODEL BYLAWS FOR ZONING AND DESIGN**

Building on the work of the Community Resilience by Design project, the Commission will work to support adoption of form-based code, hybrid zoning, and/or design guidelines or standards where appropriate, which address individual towns’ needs, respond to and complement the local context, and will help fulfill the visions for their communities. The Commission will draft a form-based code framework and work with towns to develop and adopt form-based code, design guidelines or standards, or hybrid zoning tailored to the unique needs of the community.

PROJECT GOAL	DELIVERABLES	MEASURES
To facilitate implementation of zoning updates to address the region’s identified planning needs	<ul style="list-style-type: none"> <li>■ Model bylaws Plan/strategy document including implementation plan, potential funding sources and budget</li> <li>■ Form-based code framework</li> <li>■ Updated regional design guidelines that could serve as models for towns, as needed</li> </ul>	<ul style="list-style-type: none"> <li>■ Number of towns adopting form-based code, hybrid zoning, or design guidelines/standards</li> </ul>

**CLIMATE CHANGE MITIGATION AND ADAPTATION PLANNING**

The region must continue to plan for mitigating climate change and addressing its potential impacts. Planning is needed to move the region away from fossil fuels, encourage energy efficiency and renewable energy, electrify transportation, and ensure protection of the region’s natural resources and natural carbon sinks.

During the first year of CEDS implementation, the Commission will establish a methodology for and complete an inventory of greenhouse gases for the region (with the intention of contributing to the work of the Cape Cod Climate Change Collaborative and other stakeholders) to ultimately develop a climate action plan for Barnstable County. The Commission will also complete two analyses to identify appropriate sites across the region for electric vehicle charging stations and utility-scale solar installations. In addition, the Commission plans to continue working with communities to implement state and local planning efforts to build climate and coastal resilience, such as the Municipal Vulnerability Preparedness Program and Green Communities program.

PROJECT GOAL	DELIVERABLES	MEASURES
To build climate resilience on Cape Cod through local and regional planning efforts	<ul style="list-style-type: none"> <li>■ Scopes of work with team, timeline, and plan for a regional greenhouse gas emissions inventory, siting analysis for electric vehicle charging stations, and utility-scale solar arrays</li> <li>■ Scopes of work with team, timeline, and plan for Municipal Vulnerability Preparedness program participation</li> <li>■ Regional greenhouse gas emissions inventory</li> <li>■ Analysis of sites for electric vehicle charging stations</li> <li>■ Analysis of sites for utility-scale solar installations</li> </ul>	<ul style="list-style-type: none"> <li>■ Current regional greenhouse gas emissions (and future changes)</li> <li>■ Implementation/adoption of actions and policies to reduce regional greenhouse gas emissions, based on information from the regional greenhouse gas emissions inventory</li> <li>■ Number of Municipal Vulnerability Preparedness communities on Cape Cod</li> <li>■ Number of electric vehicle charging stations installed at identified sites</li> <li>■ Number of utility-scale solar installations installed at identified sites</li> </ul>

## CONCLUSION

Implementing the CEDS will help the region flourish economically and address its resiliency challenges while preserving and honoring the natural and cultural resources so critical to Cape Cod. Through regional collaboration and coordination, carrying out the identified initiatives and priorities will ensure the Cape is a region that cultivates creativity, diversity, and innovation, builds a strong and resilient economy, and supports vibrant and robust communities.





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