MEMORANDUM

DATE: May 22, 2020
TO: Cape Cod Commission Members
FROM: Cape Cod Commission Staff
RE: May 28, 2020 Public Hearing – Climate Change Actions and Mitigation on Cape Cod

On April 2, 2019, the Commission received a citizens’ petition from 350 Cape Cod proposing various amendments to the newly adopted Regional Policy Plan (RPP). Provisions within Chapter C of the Code of the Cape Cod Commission’s Regulations of General Application, and Section 2 of Barnstable County Ordinance 91-8 allow citizens of Cape Cod the ability to request amendments to the RPP by a citizen’s petition and set out the corresponding required process.

Commission staff has prepared two attachments; Attachment 1 details the overall planning context within which the petition has been filed. Work relevant to the petitioner’s requests has been ongoing since the early days of the Cape Cod Commission and continues with work directly relevant to addressing climate change mitigation. Some of the current or ongoing tasks sustain longstanding policies that the RPP has promoted to create a more sustainable use of land on Cape Cod. Other tasks currently underway were identified as a direct result of the robust public process that informed the RPP update, where many commenters encouraged the Commission to do more to address climate change.

The work of the Commission sits within the context of the global community's efforts to reduce greenhouse gas emissions (GHGs) and the effects of climate change. The Commonwealth of Massachusetts has been a leader in identifying the sources of GHGs within the state and taking steps to reduce these sources at the sector level. Guided by the 2008 Global Warming Solutions Act, Massachusetts is currently studying how to achieve the ambitious climate goal of net-zero greenhouse gas emissions by 2050. Commission staff will continue to follow this process and use it
to inform our own work on a dedicated climate action effort. A brief summary of the state's legal framework for climate change action is included at the end of Attachment 1.

Attachment 2 is a point-by-point response to the petitioners' requests to change language within the RPP goals, objectives, actions, and performance measures.

The planning context and the petition response together aim to convey the depth and breadth of the Commission's work, its responsiveness to the public interests, and the consideration of balancing diverse individual, public, commercial, and institutional needs with the Commission's responsibilities under the Cape Cod Commission Act. With regard to the petitioners' request, the attachments provide more detail on the following points:

- **Balancing Responsibilities Under the Cape Cod Commission Act.** Protection of the environment and the mitigation of the region's contributions to climate change is inherent in the goals and objectives of the RPP. As currently written, and by its very nature, the RPP supports climate resiliency as it maintains the balance between environmental protection and economic progress required by the Act.

- **2018 RPP: Public Process.** The public process for the 2018 RPP was broad, inclusive, and transparent, and resulted in meaningful changes to the RPP. Over 20 public meetings and three subregional public hearings were held, and 135 individual comments were received.

- **2018 RPP: Climate Change Modifications.** The 2018 RPP contains goals, policies, and actions throughout that support climate mitigation and adaptation. Language to strengthen, clarify or supplement the drafted policies was added throughout the document before its adoption by ordinance.

- **Other Regional Plans.** The Commission has led, and will continue to lead, engage, and participate as an active partner in regional planning and the development of regional plans to address pressing issues that face the region. The RPP serves as just one regional plan for Cape Cod; it provides the framework for more in-depth plans aimed at addressing critical issues, such as the Cape Cod Area-Wide Water Quality Management Plan, the Regional Transportation Plan, and the Comprehensive Economic Development Strategy. These large scale regional challenges benefit from dedicated planning processes and their associated plans, each of which are supported by the framework set forth in the RPP. Climate change is a significant challenge for the entire region that must be addressed in a similar way.

- **Cape Cod Commission Mission-Driven Actions.** Attachment 1 details fifteen projects and planning efforts that support and reflect the Commission's core principles and the RPP's growth policy. Smart growth or sustainable planning principles, including directing growth toward activity centers, promoting walking, biking, and reducing the use of personal vehicles, protecting open space, and encouraging cluster development, are long-standing core RPP
policies geared toward redirecting the growth patterns of the mid-20th century toward a more efficient use of land and resources. The efforts described in this section detail long-term and new work in support of the Commission's purpose, all of which support climate resiliency. Two initiatives presently underway are intended to forward climate action and resiliency.

» **Cape Cod Resiliency Initiative**: Supported by a $1 million competitive grant from the US Economic Development Administration (EDA), this initiative will support, develop, and align efforts to increase local and regional environmental and economic resilience. Climate change is a critical component of this effort, given its impact on all aspects of our natural, built, and community systems. This comprehensive program will take a broad look at regional resiliency, identifying approaches and developing implementation strategies to ensure that the impacts to businesses, communities, and natural resources created by some of our region's most critical challenges are managed and minimized. Through this effort, the Commission will provide data and information that allows communities to better prepare for and respond to coastal hazards and climate impacts, develop a framework for improving resiliency, and create tools to promote better local decisions regarding critical vulnerable assets.

» **Cape Cod Climate Initiative**: A significant aspect of the broader resiliency initiative, the Cape Cod Climate Initiative is a community-focused, information-based effort to inform a strategic framework and collaborative approach to address the region's contributions to and threats from climate change. It is a dedicated planning process that will utilize the information developed consistent with the recommended actions in the RPP, such as the greenhouse gas emissions inventory, engage region-wide stakeholders to foster collaboration and action, and develop strategies to address both mitigation and adaptation to climate change.

**Citizens’ Petition Request.** The attached *Response to the Citizens’ Petition* provides a detailed response to each of the requested language changes to the RPP. Commission staff supports ongoing efforts to strengthen the region's collective response to climate change and has committed to climate adaptation and mitigation action. As discussed below, many of the requested additions are already addressed in existing Commission region-wide plans, regulations and technical bulletins and/or by local or state regulations, some would place restrictions on Commission actions that would run counter to the balancing of interests called for in the Cape Cod Commission Act, and as such, Commission staff does not recommend changes to the RPP as proposed by the petitioner.
INTRODUCTION

As part of the recently enacted 2018 Regional Policy Plan (RPP), the Commission recognized climate change as a pressing concern for the region, consistent with the public comments received throughout the RPP update process. The RPP contains actions and policies that seek to mitigate, minimize, or avoid the adverse effects of climate change on Cape Cod. Some of these policies and actions center on reducing greenhouse gas emissions widely recognized as a leading contributor to climate change. On April 2, 2019, the Commission received a citizens’ petition from 350 Cape Cod proposing various amendments to the newly adopted RPP. Provisions within Chapter C of the Code of the Cape Cod Commission’s Regulations of General Application, and Section 2 of Barnstable County Ordinance 91-8 allow citizens of Cape Cod the ability to request amendments to the RPP by a citizen’s petition and set out the corresponding required process.

Despite the fact that the citizens’ petition was not filed timely in accordance with the statutory requirements for 2019, the Commission held a public hearing on May 30, 2019 to give the petitioners and others an opportunity to be heard regarding their interest in making proposed changes to the RPP. Because the petition was not properly before them, the Cape Cod Commission did not consider amendments to the RPP at that time, but requested staff further examine the proposed amendments.

In an effort to accommodate the citizens who filed the petition, the Commission’s Executive Director waived certain requirements for petitioners to obtain and resubmit certified signatures, in order for their petition to be given a public hearing and be considered by the Commission in 2020.

This document, prepared by Commission staff, provides both an overview of the planning context, on-going and current work, and future climate-related actions within which the petition language may be considered, as well as a response to the requested changes to the RPP made by the petition, and points out how the current RPP achieves many of these objectives.
BALANCING RESPONSIBILITIES UNDER THE CAPE COD COMMISSION ACT

The Cape Cod Commission Act (Act) requires the RPP to be a strategic, relatively short-term plan that is updated at regular intervals. The RPP must support and balance a variety of regional goals, values, purposes, and interests related to the economy, environment, and communities on Cape Cod. The Act does not allow the RPP to be a single-purpose plan or one disproportionately focused on certain issues while neglecting others.

The most recent RPP was developed to strike this balanced and measured approach to planning. With this balanced plan, certain adopted policies and actions not directly identified as climate change actions have the indirect effect of advancing climate change adaptation and mitigation. For example, open space protection, among its other direct purposes, mitigates the detrimental effects of climate change in several ways, including in the natural carbon sequestration associated with forested areas.

In adopting planning goals, policies, and actions, especially within the RPP, the Commission must be mindful of the direct role such regional planning plays in its regulatory functions. The Commission requires in its regulatory reviews that projects are consistent with such regional goals and policies. Adopting planning goals and policies that are not in balance with one another may limit the Commission's decision-making in ways that are not consistent with the Act and regional needs, or may oblige the Commission to deny projects that may be beneficial to the region. Additionally, the Commission reviews only a small percentage of the development projects on Cape Cod, so the effect of applying certain regional goals and policies to a project may have limited regional significance or benefit. The Commission's planning efforts, data collection and analysis, model bylaw development, and decision support tools can have a broader and deeper effect on how the region permits new development activity with conscious regard for mitigating climate change impacts. In addition, disproportionately regulating individual developments of regional impact to enforce, for example, zero waste goals, could create a great or disproportionate impact or cost to the given project and private parties involved in contravention of the Act.

THE 2018 REGIONAL POLICY PLAN

The RPP, through the growth policy and the goals and objectives, has promoted the conservation and preservation of resources since the first RPP in 1991. The RPP supports and promotes the protection of water resources, wetlands and their buffers, coastal resources, habitat and restoration projects, and requires minimizing clearing of forested areas and reducing fragmentation of habitat, focusing development in activity centers, and protecting significant amounts of open space. Additionally, the 2018 RPP adopts the Placetype scheme which prioritizes the protection of natural areas and redirects growth and development toward activity centers. The Placetype scheme helps to
promote the conservation of resources in the built environment through promoting redevelopment, alternate modes of transportation, energy conservation, and stormwater management. Fundamentally, the RPP does more to protect the environment and advance sustainability on Cape Cod than the plans and regulations in many other places in Massachusetts.

Public Process: The adoption of the 2018 RPP involved a robust public engagement process. Development of the RPP was informed by input from stakeholders that met subregionally over the course of a year to consider past and present development, regional challenges, and a vision for the future. The Commission released the draft plan for a 60-day public comment period and provided multiple venues and modes for providing feedback, including more than 20 public meetings with elected and appointed boards, town staff, and other stakeholders, and three subregional public hearings. A total of 135 individual comments were received, either via verbal testimony or in one of the 30 comment letters submitted. Nearly half of the comments received on the draft plan were related to climate change. The Barnstable County Assembly of Delegates also held a public hearing prior to adopting the 2018 RPP as a County Ordinance. Both the draft and final versions of the 2018 RPP reflects consideration of the many comments received during this broad public engagement process.

Climate Change Modifications: Modifications and additions were made throughout the draft RPP in response to the comments received. Language regarding climate change, impacts of climate change on Cape Cod systems, reliance on fossil fuels, and the need for mitigation was added throughout the plan. Modifications included significant revisions to the section on resiliency planning (titled Climate Change Planning in the 2018 RPP), the section on Coordinated Regional and Local Planning, and to the section on climate change in Key Challenges Facing the Region, to ensure the RPP incorporated and addressed both climate change mitigation and adaptation planning. The 2018 RPP specifically recognizes that the actions included related to climate change mitigation and adaptation positions the agency to develop a climate-specific plan in the future.

Reference to the Intergovernmental Panel on Climate Change (IPCC) report, which was released during the draft RPP public comment period, was added, to appropriately characterize the urgency of the issue and the Intergovernmental Panel on Climate Change's call for global action.

Many policies adopted in the RPP address carbon sequestration. Some of these strategies have been a part of planning on Cape Cod since the first RPP was adopted in 1991. Others, like the Placetypes scheme, refocus efforts to avoid impacts to Natural Areas and direct new and redevelopment toward activity centers. Some examples of these policies include:

- clustering development
- discouraging development in Natural Areas
■ protecting open space
■ restoring habitat
■ discouraging greenfield solar development

The 2018 RPP includes actions that support renewable energy development, advancing Green Communities designations, and other climate-related initiatives. A specific section on climate change response, readiness, and mitigation includes actions to engage communities to better understand regional greenhouse gas emissions and identify opportunities for mitigation.

OTHER REGIONAL PLANS

There have been and continue to be opportunities to develop other regional plans to complement the RPP. These types of plans – which the Commission or other regional bodies, such as the Metropolitan Planning Organization (MPO), have adopted regularly – can focus more on a single planning issue or set of related planning issues, such as transportation or water quality. Many of these plans include climate-related policies and actions.

Over the last several years the Commission has programmed annual grant funds and sought competitive grant funds to specifically pursue options regarding climate change mitigation and adaptation through region-wide plan development. The Commission has committed to developing a region-wide Climate Action Plan for Cape Cod to address climate mitigation and adaptation across sectors and governments as a component of the Cape Cod Climate Initiative described below in Cape Cod Commission Mission-Driven Actions. This focused plan will be developed collaboratively and provide a framework for the region to address necessary climate mitigation actions and adaptation strategies.

Examples of existing region-wide plans include:

■ Cape Cod Area-Wide Water Quality Management Plan (208 Plan): In 2015, Massachusetts Governor Charlie Baker and the US Environmental Protection Agency certified and approved this regional water quality plan. The 208 Plan has enabled the use of nature-based solutions, which address both water quality and climate change resiliency.

■ Transportation Planning: The Cape Cod Regional Transportation Plan includes a discussion of climate change impacts in the region, encourages strategies that result in fewer vehicle miles traveled, prioritizes projects that reduce greenhouse gas emissions, and recommends funding for climate change related work. Commission staff are working with the Regional Transit Authority on a number of climate change initiatives including the quantification of emissions from their fleet, investigation of low or no emission vehicles. The Transportation Improvement
Plan quantifies greenhouse gas emissions for each project it includes. As part of the MPO’s annual work plan, in fall 2020, Commission staff will begin an investigation of managed retreat best practices that could be considered for some vulnerable roadways on Cape Cod.

- **Comprehensive Economic Development Strategy (CEDS):** The CEDS is revised every five years and once approved makes the region eligible for EDA funds to advance economic development priorities. The recently approved update of the CEDS included four climate resiliency actions, including: Climate Change Mitigation and Adaptation Planning, creation of a Resilient Utilities Coalition, a Regional Economic Resiliency Information Clearinghouse, and an Obstacles to Opportunities Challenge. The Commission has recently received $1 million in competitive EDA Disaster Relief funding to advance environmental and economic resiliency initiatives.

- **Resilient Cape Cod:** While not a regional plan per se, the Resilient Cape Cod project had many elements of a broad planning effort. In 2016, the Commission was awarded a competitive National Oceanic and Atmospheric Administration Regional Coastal Resiliency Grant to develop resources to assist communities in making difficult decisions related to coastal impacts and resiliency. The Commission worked with 120 stakeholders and held 13 subregional meetings to discuss Cape Cod’s response to climate change. Resources developed include a database of adaptation strategies, adaptation strategy fact sheets, a story map that captures stakeholder experiences with climate change impacts, and the Cape Cod Coastal Planner, a decision support tool to assist communities in the decision-making process around a more resilient coastline. The Resilient Cape Cod process resulted in additional outreach requests and opportunities, and will continue to inform future work.

**CAPE COD COMMISSION MISSION-DRIVEN ACTIONS**

Commission policies have always been directed at the conservation of resources – land, water, wetlands, and habitats – and have thereby indirectly contributed to climate change mitigation since creation of the Commission. Planning principles often called smart growth or sustainable practices, include directing growth toward activity centers, promoting walking, biking, and reducing the use of personal vehicles, protecting open space, and encouraging cluster development, have all been geared toward redirecting the growth patterns of the mid-20th century toward a more efficient use of land and resources.

The Commission has been working for many years to apply the policies described above and address the impacts from climate change through regional planning efforts, resource and decision-support tool development, and local technical assistance. The work builds on itself, informing new actions and initiatives that may then be reflected into future updates of the RPP. Below are
examples of work that support the RPP goals and concomitantly have advanced climate mitigation and adaptation.

Past Projects, Tools, and Technical Support

- **Cape Cod Tidally Restricted Wetlands Atlas**: In 2001, the Commission completed the Tidally Restricted Wetlands Atlas, which has enabled the restoration of hundreds of acres of wetlands across Cape Cod and brought in federal funds to accomplish those efforts.

- **Multi-Hazard Mitigation Planning**: The Commission has assisted nearly all Cape Cod communities with developing or updating their local Multi-Hazard Mitigation Plans. Since 2014, staff has worked with 11 towns to complete new or updated plans. Staff is currently preparing to support towns that will be required to update their local plans beginning in 2021.

- **Effects of Sea Level Rise on Freshwater Resources**: Initiated in 2014, the Commission collaborated on a United States Geological Survey study on the effects of sea level rise on water table altitudes and depths to water on the Sagamore and Monomoy lenses. The final report was published in 2016.

- **Sea Level Rise Viewer**: This is an online tool that allows the user to view the extent of flooding on the Cape due to 1–6 feet of sea level rise. The viewer highlights roads and critical facilities that will be affected under different sea level rise scenarios.

- **Historic Structures in the Floodplain**: Since 2018, the Commission's historic preservation specialist has worked with the County floodplain manager on workshops to educate local officials and the public on protecting historic resources from flooding.

- **Cape Cod Coastal Planner**: The Cape Cod Coastal Planner is a decision support tool to assist communities in evaluating the environmental and economic tradeoffs associated with different approaches to managing the shoreline.

Ongoing Collaborations

- **Barnstable County Coastal Management Committee**: In 2018, the Commission worked with County leadership to establish the Barnstable County Coastal Management Committee (BCCMC) to focus on coastal management issues facing the region. This committee serves as a forum for collaboration and coordination on climate change and coastal resiliency issues, including development of model bylaws, coastal resource management, and town dredging needs. The County Commissioners have recently appointed town representatives to serve as a subcommittee of the BCCMC and report on coastal issues towns are grappling with: the newly
formed Barnstable County Coastal Resources Subcommittee met virtually for the first time on March 25, 2020.

- **Municipal Vulnerability Preparedness (MVP) Program**: In 2019 and 2020, the Commission assisted seven Cape Cod towns with the MVP planning process to identify climate change impacts and vulnerabilities and develop and prioritize strategies or actions to address those vulnerabilities. By June 2020, all 15 Cape towns will be designated MVP communities. As a result, these communities will have access to state funding to implement identified actions, such as improving education and communication, addressing low-lying roads, and changing development regulations in the floodplain. Commission staff are assisting Cape towns with the preparation of grant proposals to access state funding sources and advance their MVP plans.

- **Cape Cod Climate Change Collaborative**: The Commission is a founder of the Cape Cod Climate Change Collaborative and is a member of its Advisory Council. Commission staff attend monthly Climate Collaborative meetings, enhancing cross-Cape communication around climate change, and providing feedback on the Collaborative’s climate education and outreach efforts. Recently the Climate Collaborative has added banking and business leaders to its board membership and is working to improve communications about climate change advocacy opportunities through different social media and conventional methods.

**Current Planning Work and Technical Assistance**

- **Cape Cod Resiliency Initiative**: To support, develop, and align efforts to increase local and regional environmental and economic resilience, the Commission pursued an EDA Disaster Relief grant to identify approaches and develop implementation strategies to ensure that the impacts to businesses, communities, and natural resources created by some of our region’s most critical challenges are managed and minimized. Specific components of the initiative are detailed below.

  » **Data Collection, Analysis and Assessment**: To affect change across the region and encourage communities to take action to adapt and respond to coastal hazards and their impacts, data and information, such as updated aerial imagery and lidar, will be collected and made available and accessible for use in decision-making. Analyses and assessments, such as expansion of the storm tide pathways analysis and roadway vulnerability assessments and adaptation plans, will be completed.

  » **Stakeholder Engagement and Outreach**: Continued engagement and outreach is critical to sustain partnerships and foster collaboration to lead the region toward implementation of actionable strategies to increase climate resilience.
Commission will continue to engage all stakeholders in a region-wide process and identify new platforms and methods for broad public outreach.

» Local and Regional Land Use Planning and Regulation: To support Cape Cod communities as they manage development in the floodplain, resources for local planning and regulation, such as a model coastal resiliency bylaw and design guidelines for structures in the floodplain, will be developed.

» Decision Support Tools and Resources: Building on the efforts of the Resilient Cape Cod project, additional functionality will be integrated into the Cape Cod Coastal Planner and new tools will be developed to track local and regional progress to reduce vulnerability and improve resilience. A strategy to convey and track progress toward greenhouse gas emissions is one component that will be included.

■ Cape Cod Climate Initiative: To further the actions in the RPP and address the identified challenge climate change poses for the region, the Commission launched the Cape Cod Climate Initiative. In Fall 2020, Commission staff held four professionally facilitated sub-regional community meetings to hear from stakeholders about how climate change planning and action should be structured, who should be engaged, and what kind of outcomes they would like to see as a result of the process. As a follow-up to these meetings, Commission staff organized an additional five facilitated focus groups to dig deeper into the concerns, opportunities, and outcomes identified through the community meetings. The feedback and input from these meetings is being analyzed to shape a broader public process to advance climate change action and response. In this next phase of the Climate Initiative, Commission staff is working to organize and hold a second round of stakeholder meetings across the region, potentially in late Spring 2020. This next phase will include several workgroups across the region gathered to focus discussions around specific topic areas and generate action items. Outcomes of this process will inform the next RPP update, technical bulletin updates, technical assistance, tool and model bylaw development and other regional plans and efforts.

■ Economic Assessment of Harbors: The Commission is collaborating with Urban Harbors Institute to assess the economic impact of harbors on the local and regional economy. An assessment survey developed by the Commission asks local business owners about their awareness of and investments related to climate change, specifically flooding- or erosion-related damage. Results of the assessment will be used to illustrate the value of harbors to the local economy and to encourage local support for maintenance and capital improvements to ensure the vitality and functioning of the Cape's harbors.

■ Evaluation of Regulations and Bylaws: In 2019, the Commission received grant funds through the Massachusetts Executive Office of Energy and Environmental Affairs FY20 Planning
Assistance Grant Program to identify best land use practices to promote climate resilience. Work has begun to evaluate existing zoning bylaws and regulations in four partner communities (Bourne, Sandwich, Brewster, and Eastham), and will follow with recommendations to incorporate best practices, and the development of a model coastal resiliency bylaw that could be utilized by any coastal community.

Progress to-date on RPP Actions

In the year-plus since the 2018 RPP was adopted, significant progress has been made on several of the RPP identified actions:

- **Develop an estimated baseline of greenhouse gas emissions for the region:** Commission staff have completed research and development of a methodology for a greenhouse gas emissions inventory, and have engaged a panel of experts to vet the methodology. Data is being compiled to complete the baseline assessment and a draft greenhouse gas emissions inventory is anticipated by July 2020.

- **Encourage Green Communities designation:** As of February 2020, ten Cape Cod towns have been certified as Green Communities, and the remaining five are on target to become Green Communities by Fall 2020. Nine Cape towns participate in the Community Rating System, and four are in the process of seeking eligibility. Two of the nine have recently increased their credits to further reduce insurance costs for property owners.

- **GIS screening analysis of potential electric vehicle charging station locations:** Commission staff have identified best practices for siting and design of EV charging infrastructure, including compiling resources for public and private stakeholder use. This work includes research of EV manufacturer projections, state and national trends and goals for EV and charging infrastructure adoption, as well as an analysis of future needs for Cape Cod. Commission staff identified current charging infrastructure on Cape Cod and have incorporated this data into a GIS application which can also help locate areas that can support future charging stations based on vetted siting criteria.

- **GIS analysis to identify sites for utility scale solar or energy storage:** Commission staff have identified criteria for land uses and resource areas that are more and less suitable for solar array development. The results of a GIS screening analysis will be available through an online tool illustrating the relative suitability of land and existing land uses for new solar installations.
Future Actions

The Commission will continue to lead on issues of climate change and coastal resilience.

- Staff will continue work on the projects and initiatives described above, including those recommended actions identified in the 2018 RPP.

- The annual One Cape Summit will convene the Cape community to review and assess progress toward climate resilience. Sessions will focus on ongoing efforts to address climate related impacts in the region, development of a regional baseline of greenhouse gas emissions, and engaging communities to further action.

- Two ordinances related to climate change were filed in 2019 by members of the Barnstable County Assembly of Delegates. Both proposals recognize and name the Commission as a participant. Following some initial review by a subcommittee of the AOD, these ordinances were tabled. However, Commission staff is prepared and would welcome the opportunity to work with the County to reconcile and advance these initiatives as appropriate.

- Moving forward, the Commission will continue to work with organizations, such as the Cape Cod Climate Change Collaborative, on a climate-specific plan for adaptation and mitigation actions for the region.

STATE LEADERSHIP ON CLIMATE CHANGE ACTION

The Commonwealth has a clear, comprehensive, and established regulatory and policy framework for addressing climate change issues. The framework centers on the Global Warming Solutions Act (GWSA) and Green Communities Act (GCA), both signed into law in 2008. The GWSA and GCA also further the Commonwealth’s approved air quality implementation plan (State Implementation Plans or SIPs) under the Federal Clean Air Act and the Environmental Protection Agency’s associated Clean Power Plan rulemaking. The uniform framework established by these Acts benefits municipalities and others in the Commonwealth and should hasten action towards meeting emissions reduction and renewable energy goals in the Commonwealth. Further, there is benefit in that the regulation is at the state level, it is predictable and consistent in application from town to town across the state.

Generally, the GWSA and GCA impose certain mandates on agencies and bodies of the Commonwealth; provide certain incentives to private actors to further the purposes and meet certain goals of the Acts; and create state agency regulatory requirements on certain industries and economic sectors regulated by the Commonwealth. The “unit” of emissions regulation under the GWSA is at the sector or large emissions category level: for practical and other reasons, it is not at the individual building, vehicle, etc. level. One of the principal purposes of the GCA is to assist the Commonwealth in meeting target emissions reductions goals established under the GWSA. The
Commonwealth has neither expressly preempted nor mandated local government action and regulation with respect to climate change issues, but has set a regulatory and policy framework within which local communities and governments may contribute to address climate change issues and assist the state in meeting its target reductions goals as set out in the GWSA and GCA. Ultimately, the Commonwealth is the responsible party in meeting state-established emissions reduction goals. The Commission will continue to support the state and region to realize state goals for climate resiliency consistent with its responsibilities under the Act.

2050 Roadmap: This spring, the Executive Office of Energy and Environmental Affairs initiated a series of stakeholder meetings to gather feedback on the 2050 Roadmap. Guided by the 2008 Global Warming Solutions Act, Massachusetts is currently studying how to achieve the ambitious climate goal of net-zero greenhouse gas emissions by 2050. The meetings were an opportunity to hear about the state's research effort to achieve this goal, implementation plans, as well as to provide feedback on the state's 2050 emissions limit. Commission staff will follow this process and use it to inform our own work on a dedicated climate action effort.
Attachment 2

CITIZENS PETITION REQUEST RESPONSE

The citizens petition submitted included a list of specific, proposed changes to the goals, objectives, plans, and actions of the 2018 RPP. Commission staff compiled responses to each of the requested changes, as detailed below. The material presented includes the existing language in the 2018 RPP and the requested language change in bold. In some cases the requested change would be added to the existing language and in other cases it would replace words, phrases, or sentences in the existing language. Following the requested change is a response detailing Commission staff recommendations regarding the appropriateness of the change.

CCC Member Role in Considering Proposed RPP Amendments:

The Commission must decide whether to vote to approve, approve with modifications, or deny the proposed changes to the RPP. This decision should reflect careful consideration of the changes’ effects upon the entire statutory scheme of the RPP, and the potential unintended consequences of these changes. Additionally, particular proposed language changes may have such broad impact that the Commission should conduct a public process consistent with that completed for the 2018 update, to allow all interested parties to participate and weigh in on the proposed changes.

GROWTH POLICY FOR BARNSTABLE COUNTY

Existing language with proposed new language in blue

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 resiliency. Given the threats posed to Cape Cod by climate change, growth and development should be consistent with reducing regional greenhouse gas emissions and increasing natural carbon sequestration on a scale and time frame aligning with targets and limits set under present and future state laws, policies, and regulations.
Response

The proposed new language would focus the Growth Policy around the single issue of climate change. The Act requires the Commission and the Regional Policy Plan to balance multiple interests identified in the Act. The Growth Policy as written meets that statutory requirement.

At the same time, the interest in changing the RPP to address climate change and emissions reduction is in fact already addressed in the growth policy through an articulated vision for land use that aims to focus development within activity centers, support housing and economic development within our downtowns, thereby helping to reduce vehicle miles travelled, redirect development away from sensitive natural areas, and incentivize an alternative to “sprawl” type development that results in more extensive clearing of undeveloped, forested areas (See Section 3, A Regional Vision for Cape Cod).

COMMUNITY DESIGN: OBJECTIVES

Existing language

- Promote context sensitive building and site design
- Minimize the amount of newly disturbed land and impervious surfaces
- Avoid adverse visual impacts from infrastructure to scenic resources

Proposed change (new language in blue replaces existing 2nd bullet)

- Minimize the amount of newly disturbed land, vegetation clearing, and impervious surfaces and promote tree planting and other restorative practices

Response

The RPP goals and objectives are intentionally broad and simply worded to guide and inform all manner of Commission, municipal, and private planning and regulatory work around the region. How the goals and objectives are achieved is described in the technical bulletins for Development of Regional Impact (DRI) review, where the “how” to build with context sensitivity within each Placetype is detailed. Language similar to that proposed, including minimizing clearing and land disturbance and encouraging restoration, is found within the technical guidance for Wildlife and Plant Habitat (WPH) as well as Community Design. In terms of the RPP regulatory framework, the technical bulletins are the appropriate location for site-specific requirements such as tree planting. Tree
planning is important but may not be appropriate for every site across the region (solar farms, utility installations, or substations for example).

**CAPITAL FACILITIES AND INFRASTRUCTURE: GOAL**

Existing language with proposed new language in *blue*

To guide the development of capital facilities and infrastructure necessary to meet the region's needs while protecting regional resources and minimizing greenhouse gas emissions.

**Response**

This subtle change could be contrary to the Act's mandate that capital facilities should be planned and provided to support development; the priority, as set out in the Act, is to ensure adequate capital facilities and infrastructure for Cape Cod. Practically speaking, the Commission does not have the final say in permitting energy delivery and generation projects, which is reserved to the state. The state maintains and requires an alternative energy portfolio for power suppliers that are carbon-based alternative energy sources that minimize greenhouse gas emissions, which will be important as we transition from carbon-heavy fuels to renewable and non-carbon sources. In its regulatory review of energy distribution and generation projects, the Commission retains the authority, under the current RPP, to analyze options for alternative energy production on a case by case basis.

The issue is more broadly addressed through adoption of the stretch code in all Cape communities and other local regulations that affect all development permitted on the Cape. Ten Cape Cod towns have adopted the stretch code as of February 2020, and the remaining five towns are anticipated to do so by fall 2020. Additionally, the state Building Code was updated in February 2020, incorporating the energy standards of the International Energy Conservation Code into the Massachusetts building code applicable state-wide.

**TRANSPORTATION: GOAL**

Existing language with proposed new language in *blue*

To provide and promote a safe, reliable, and multi-modal transportation system *that minimizes greenhouse gas emissions and accelerates electrification.*
Response

Placing emphasis on the electrification of the transportation system is not appropriate at the goal level and within the short-term planning horizon of the RPP, and may be overly restrictive in all applications of this goal. Electrification and emissions reduction are factored into transportation planning in other ways, including within the objectives, strategies, and policies of the Regional Transportation Plan (RTP). An objective of the current RTP is to “reduce Greenhouse Gas (GHGs) generated by all transportation modes.” The RTP identifies a number of strategies and policies to support this objective.

At the DRI project level, the provision of electric vehicle charging stations is one method detailed in the RRP Energy Technical Bulletin for meeting Objective EN3.

Note also that multi-modal transportation supports reducing greenhouse gas emissions. Planning for and promoting a multi-modal transportation system for Cape Cod is a long-standing priority for Commission planning and regulatory work. Required multi-modal accommodations at the DRI project level are detailed under Objective TR2 in the RPP Transportation Technical Bulletin.

ENERGY: GOAL

Existing language

To provide an adequate, reliable, and diverse supply of energy to serve the communities and economies of Cape Cod.

Proposed change (new language in blue)

To accelerate the transition to 100% renewable energy, minimize greenhouse gas emissions, and provide a secure, adequate, affordable, and reliable supply of energy to serve the communities and economies of Cape Cod.

Response

The Goal was drafted to be broad, while accommodating the interests of energy diversification. The proposed language is better suited to objectives and methods: to wit, renewable energy is an objective and a method in the technical bulletin and includes on-site or green power purchase agreement as options.
Practically speaking, the Commission does not have the final say in permitting energy delivery and generation projects, which is reserved to the state. The state maintains and requires an alternative energy portfolio for power suppliers that are carbon-based alternative energy sources that minimize greenhouse gas emissions, which will be important as we transition from carbon-heavy fuels to renewable and non-carbon sources. In its regulatory review of energy distribution and generation projects, the Commission retains the authority, under the current RPP, to analyze options for alternative energy production on a case by case basis.

The issue could be more broadly addressed through adoption of the stretch code, as discussed above in Capital Facilities.

**ENERGY: OBJECTIVES**

### Existing language

- Support renewable energy development that is context-sensitive
- Increase resiliency of energy generation and delivery
- Minimize energy consumption through planning and design (energy efficiency and conservation measures)

### Proposed change (new language in blue replaces existing 3rd bullet and adds 4th bullet)

- Support renewable energy development that is context-sensitive
- Increase resiliency of energy generation and delivery
- *Promote electrification of heating and transportation systems*
- *Promote net-zero construction through planning and design, conservation and efficiency measures, and onsite renewable energy.*

### Response

With regard to the proposed new third bullet, and as noted above in Transportation, electrification of the transportation system is addressed in the Regional Transportation Plan and additional guidance, such as the Technical Bulletin for meeting Objective EN3.

Electrification of buildings is more broadly addressed through adoption of the stretch code and other town-level regulations that apply to every building constructed. In its DRI reviews, the
Commission retains the authority, under the current RPP, to analyze options for electrification of heating and cooling systems.

With regard to the proposed new fourth bullet, the addition of net-zero construction to this objective is misplaced. As a practical matter, net-zero has many different potential definitions which would need to be addressed, including whether net-zero is an absolute requirement or aspirational, and how to achieve that objective. Near-zero construction concepts could be incorporated into the Community Design and Energy technical bulletins. Net-zero construction is more broadly addressed through adoption of the stretch code and other town-level regulations that apply to every building constructed.

Additionally, the concepts behind near-zero construction are all currently addressed in the existing language of this objective; energy conservation and efficiency through planning and design, promotion of renewable energy, and incorporation of renewable energy into all projects whether on-site or as a power-purchase agreement.

**HOUSING: OBJECTIVES**

Existing language with proposed new language in *blue*.

- Promote an increase in housing diversity and choice
- Promote an increase in year-round housing supply
- Protect and improve existing housing stock
- Increase housing affordability
- *Promote net-zero construction to reduce energy bills and increase affordability*

Response:

The proposed language to add net-zero construction as an objective of Housing is misplaced. The priority of the Housing goal and objectives is the development of housing. Inserting net-zero construction requirements here could conflict with the other Housing objectives in that it could create a barrier to housing development. As discussed earlier, near-zero construction concepts could be incorporated into the Community Design and Energy technical bulletins (which would be applied to all housing projects reviewed by the Commission). Net-zero construction is more broadly addressed through adoption of the stretch code and other town-level regulations that apply to every building constructed.
As a practical matter, the Commission has not and should not opine on the costs of energy and whether net-zero construction will save on utility bills. Ultimately, state and federal policies will determine the cost of renewable energy sources as compared to traditional energy sources, especially as those costs may impact regionally needed, diverse housing production.

RENEWABLE ENERGY PLANNING AND DEVELOPMENT: TECHNICAL BULLETIN ELEMENTS

Existing language

...To assist in the planning, siting, and design of on-site renewable energy facilities, the Commission will develop a technical bulletin for Developments of Regional Impact and/or use by municipal officials in local review including:

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

Proposed change (new language in blue replaces existing 1st bullet)

- *siting, design, and construction considerations to encourage net-zero buildings and require solar readiness;*

Response

Agreed, net-zero buildings and solar readiness could be promoted through amendments to the Community Design Technical Bulletin and Energy Technical Bulletin and could include near-zero building construction as a method. Requiring net-zero construction is more broadly addressed through adoption of the stretch code and other town-level regulations that apply to every building constructed. As an example, the updated building code includes provision for solar-ready roofs, which applies to every new residential and commercial building.
REGIONAL CAPITAL PLANNING

Existing language with proposed new language in *blue*

...The Regional Capital Plan will consider the following:

- **Long-Term Sustainability**: Locate Infrastructure to effectively protect natural resources, strengthen Activity Centers and villages, discourage low density sprawling development, reduce disaster vulnerability, and preserve historic structures and pre-1950s development patterns.

- **Existing Needs First**: Build infrastructure to serve existing needs and mitigate impacts of current development as well as re-development and new development within identified Activity Centers.

- **Safety, Access, Equity & Quality**: Provide safe, accessible, high quality services, facilities, and infrastructure that meet the needs of all residents and property owners.

- **Efficiency & Affordability**: Invest in, locate and use Infrastructure efficiently to limit over building, reduce long-term costs, promote community interaction, and direct growth into Activity Centers.

- **Resilience**: Incorporate changing conditions and risks posed by deliberate attacks, accidents, or naturally occurring threats or incidents, into infrastructure planning and investments to reduce current and future loss of life, and the other costs of recovery, and to promote economic stability.

- **Decarbonization**: Support and invest in electricity, communications, transportation, and other infrastructure that reduces the Cape’s reliance on fossil fuels, increases energy efficiency, and accelerates progress toward 100% renewable energy.

Response:

While the Regional Capital Infrastructure Plan could address decarbonization in concept, the term "invest" is problematic as the Commission has limited jurisdiction and authority to require or influence decarbonizing our infrastructure. Efforts to decarbonize should be addressed widely, not just through capital planning. Following the Cape-wide greenhouse gas emissions inventory (in process), decarbonization may be targeted at sectors shown to be the greatest contributors to the problem and where there are available options or alternatives. These concepts and initiatives may be most meaningfully and widely implemented through a Cape Cod climate action plan.
REGIONAL PERFORMANCE MEASURES

New proposed performance measure (new language in blue)

Greenhouse gas emissions: Rapid and substantial emission reductions at all levels are necessary to prevent the worst effects of climate change. Increases or decreases in regional emissions over time will show whether Cape Cod is doing its part.

Response:
The performance measures in the 2018 RPP are a subset of the many possible performance measures identified. Those that are included have existing data sources to inform and measure change. The Commission is in the process of completing a greenhouse gas emissions inventory. Once the baseline inventory has been established, then adding a greenhouse gas emissions performance measure would be appropriate.

CLIMATE CHANGE RESPONSE, READINESS, AND MITIGATION: REGIONAL PLANNING ACTIONS

Existing

- Encourage and engage communities to better understand regional greenhouse gas emissions and identify opportunities for mitigation.
- Develop an estimated baseline of greenhouse gas emissions for the region using available models and data.
- Encourage more communities to seek Green Communities designation, which would facilitate greater funding opportunities for municipal energy efficiency and renewable energy initiatives and participation in the Community Rating System to reduce insurance costs.
- Conduct GIS screening analysis of potential electric vehicle charging station locations.

Proposed new 2nd bullet (new language in blue)

- Develop an inventory of anthropogenic greenhouse gas emissions and estimate natural carbon fluxes for the region using available models and data, benchmark results against the state’s annual inventory and its emission reduction targets, identify priority emission reduction and carbon sequestration strategies and measures, and take a leadership role in advancing comprehensive energy-climate planning, policy, and regulation for Cape Cod.
Response

As noted above, the methodology for a baseline greenhouse gas emissions inventory is in development. Once the baseline inventory is complete we will know if we will be able to use it to identify priority emission reduction strategies and/or carbon sequestration strategies. Our ability to make policy decisions from the results of the inventory will rely on the availability of data.

As detailed in Attachment 1, the Commission staff is presently engaged in several planning efforts to identify sources of greenhouse gases and planning for expanding renewable energy access and generation. Additionally, the Commission is taking a leadership role in climate change planning and response with the Cape Cod Climate Initiative.