CAPE COD CLIMATE INITIATIVE

Cape Cod Climate Action Plan: Housing and Development

Stakeholder Meeting Summary

Virtual Meeting No. 1 | October 22, 2020 | 9am-12pm ET

Meeting in Brief[1]

On October 22, 2020, the Cape Cod Commission (Commission) held a meeting to engage stakeholders on the topic of Housing and Development on Cape Cod to contribute to the development of a Cape Cod Climate Action Plan.

The Commission is currently working with many stakeholders and partners to develop a Cape Cod Climate Action Plan, and this meeting was the first in a series of three planned Stakeholder Meetings as part of the public engagement process being held this fall.

The objectives of this first Housing and Development working group meeting were to:

- Orient the working group to the task and each other
- Discuss what is known about the sector's contributions to greenhouse gasses (GHG) and vulnerabilities to future climate impacts
- Develop criteria for use in selecting among potential strategies and actions

This series of meetings will help to inform a strategic framework and a broad collaborative process to address the region's contributions to and threats from climate change. After hearing presentations from Cape Cod Commission Staff on the Climate Action Plan process, climate hazards and vulnerabilities, and the results of the recent GHG Emissions Inventory, participants were split up into small groups to discuss how mitigation and adaptation priorities intersect with other Cape Cod priorities, and which criteria should be applied to prioritize the resulting climate action strategies.

To view the full presentation slides, please click here.

Introduction to the Cape Cod Climate Action Plan Process

Cape Cod Commission staff provided a brief presentation on the Cape Cod Climate Initiative and the process to develop the Cape Cod Climate Action Plan. This presentation covered an overview of the Climate Action Plan process and timeline, components of the Climate Action Plan as they pertain to mitigation and adaptation, results of the recent Greenhouse Gas (GHG) Inventory, varying community engagement pieces, and specific information relating to Housing and Development. In particular, Cape Cod Commission Executive Director Kristy Senatori, impressed upon the group the scale of the current initiative and the work that has been done to

[1]For additional detail, please visit the Cape Climate Initiative website: https://www.capecodcommission.org/our-work/climate-change/

date and, importantly, the work still to come. She emphasized that planning for climate action is multifaceted and will need to rely on a dual approach of adaptation *and* mitigation.

Below are participant questions and comments that followed Ms. Senatori's presentation. Participant questions are bolded and answers from the Commission are italicized.

Do you have any indication of receptivity around the Cape to this initiative? What are the groups that are pushing/pulling or endorsing? What groups are resisting?
The Cape Cod Commission issued a call for participants for this process, as well as for organizations and received an overwhelming response. The Commission is excited that there are many stakeholders and organizations that want to see action and is thinking through ways to best engage the broader citizenry. The organizations are convening focus groups, and will be sharing information with their broader membership. No one has come out as a detractor for the initiative.

Is there a mission statement or vision for this project that has been developed, or is that part of our charge here?
The plan has a purpose statement that the Commission has been working with a subcommittee of Cape Cod Commission members to develop and that can be shared after the meeting.

Adaptation – What We Know Today about Hazards and Vulnerabilities

Cape Cod Commission Chief Planner, Chloe Schaefer, reviewed risks of existing climate hazards relative to Housing and Development. She explained at a high level, that over the next 80 years Cape Cod will experience increases in precipitation, rising temperatures, significant sea-level rise (SLR), and more extreme whether events. A series of maps displayed during the presentation helped illustrate the extent of flooding and SLR that could occur. Based on these predictions, she then highlighted some effects specific to Housing and Development, including (but not limited to):

- Flooding can damage businesses, causing economic losses
- Flooding and erosion can alter shorelines, damaging homes, businesses and may force relocation
- Flooding can transport sewage, hazardous materials; affect human and environmental health
- Shoreline protection against erosion can affect larger coastal ecosystem
- Erosion of beaches and coastal recreation areas can affect economy
- Erosion and coastal flooding can devalue coastal properties; tax base

Additional suggested effects from participants included:

- Potential damage to shellfish propagation, especially with chemicals going into estuaries from rainfall events
- Closing swimming beaches
- Overtopping of the aquifer and saline incursion
- Increasing realities of the need for an emergency shelter system, both temporary and long-term

Ms. Schaefer then highlighted the following definition of adaption: *adjustments in human and natural systems that moderate harm or take advantage of beneficial opportunities* and provided some examples:

- Setting up cooling centers
- Elevating roadways and buildings
- Relocating buildings out of floodplains

Participants held small group discussions to address the following questions regarding adaptation actions:

- How do these hazards/vulnerabilities intersect with other Cape priorities (within this sector) (for better or worse)?
- What are the key areas of authority and influence in this sector on the Cape? What can Cape players influence regarding these hazards?

Below is a brief synthesis of the results of this conversation by question. Participants worked in three small groups to identify intersecting priorities between the hazards and vulnerabilities to Housing and Development that were presented and other existing Cape priorities. After identifying these priorities, participants were asked to consider which spheres of influence would be key to implementing any adaptation actions developed by the committee and how the Cape Cod community at large plays a role in this.

For detailed answers, please see the respective question in Appendix B.

How do these hazards/vulnerabilities intersect with other Cape priorities (within this sector) (for better or worse)?

Several themes emerged with respect to the hazards and vulnerabilities presented that intersected with existing Cape priorities:

- **Emergent and immediate needs:** There is a need to address buildings and infrastructure that are vulnerable now. Additionally, it was noted that COVID-19 has and will have an impact on real estate, making the housing situation more challenging.
- **Aging population:** The Cape's population is aging and will require more services from the government. Additionally, it was suggested that leadership on climate planning is an opportunity to work to attract new people to the Cape that are passionate about climate change adaptation and mitigation work.
- **Affordable housing:** Multiple participants raised concerns about the future of affordable housing, noting that climate adaptation and mitigation could lead to additional costs for housing production and that affordable housing production is already inefficient. It was suggested that measures should be put in place to ensure that affordable housing isn't developed in vulnerable locations (using tools like incentives and disincentives), as people with fewer means will have a more difficult time repairing or insuring homes or relocating.

- **Floodplain development:** Participants noted that higher standards with regards to floodplain development are good, but they come with a higher cost, and the expansion of the floodplain comes with its own challenges and costs.
- **Economic development:** Participants raised concerns about the impacts of businesses being located in SLOSH zones and cited an inherent conflict of interest between towns' climate planning to address vulnerabilities and the desires and need for a strong tourism industry, highlighting the importance of beach access. Participants asked if the Cape's economy can sustain a growing employee base.
- **Increasingly tough decisions:** Participants highlighted that decisions and tradeoffs around resources will become tougher, predicting a competing availability for housing and commercial/industrial development as safe/appropriate land becomes a less available commodity. Participants also suggested there would be increased competition for developing around wastewater infrastructure and that second and vacation home development would be at odds with freshwater resource protection.

What are the key areas of authority and influence in this sector on the Cape? What can Cape players influence regarding these hazards?

When asked about key areas of authority and influence in the Housing and Development sector on the Cape and what Cape players have influence regarding these hazards, participants highlighted the following:

- **Municipal governments:** Participants noted that towns, including planning and zoning boards, will be important partners for climate planning, and they will need clear and adoptable methods coming out of this initiative to implement, specifically with regards to zoning codes (e.g., affordable housing, more compact development, and floodplain regulations).
- **State and federal governments:** Participants commented that state and federal governments and agencies play an important role in granting emergency assistance as well as setting building codes.
- **Conservation commissions and land trusts**
- **Commercial sector:** Participants named businesses and commercial development as important voices and perspectives for Housing and Development climate planning.
- **Real estate organizations and developers**
- **Home buyers**

Participants also highlighted that support for and action on climate planning on the Cape will rely on both strong leadership across sectors, where there are opportunities for different groups to step up, as well as effective public education and communication around the importance of this initiative.

Mitigation – What We Know Today about Regional Greenhouse Gas Emissions

Ms. Schaefer reviewed the results of the Cape Cod Greenhouse Gas (GHG) Inventory, focusing specifically on the results relevant to Housing and Development. The Inventory, which used 2017 as a baseline year to calculate a comprehensive accounting of total GHG emissions for all man-

made sources on the Cape, measured the different gases emitted and broke down emission sources into 6 sectors, 19 sub-sectors, and 60-sub-sector categories. Transportation and stationary energy were the largest sector emitters, accounting for 94.7% of all emissions. Within Transportation, on-road passenger cars were the highest emitting subsector category, followed by public transportation, air and rail transit, and off-road transportation. Residential building natural gas heating accounted for the largest portion of stationary energy emissions, followed by commercial and industrial stationary energy emissions. She noted that this inventory would be replicable the future and could help to continue identifying high emissions sectors to focus mitigation actions.

Ms. Schaefer then highlighted the following definition of mitigation: *limiting or preventing greenhouse gas emissions and enhancing activities that remove these gases from the atmosphere* and provided some examples for participants to understand what a mitigation action could be:

- Facilitate EV use
- Support work from home
- Promote biking and transit
- Promote walkable villages

Below are participant questions and comments that followed Ms. Schaefer's presentation. Participant questions are bolded and answers from the Commission are italicized.

Other than the transportation ferries, did you take other fleet emissions into account, such as fishing fleets?
Fleets were a challenge, and the Commission did their best to get data where available. Where the Commission didn't have specific information, they made assumptions. The Commission will continue to refine the GHG inventory as data becomes available.

How much would the Commission expect a fishing fleet to affect total CO_2 emissions?
Given the scale of other numbers (e.g., the Commission saw much larger GHG emissions associated with personal transportation), they expect it's a relatively low number. The Commission is tasked with thinking about where they have the ability to lower those numbers, and it is challenging to look at really specific fleet areas.

Did the Commission, or can the Commission, consider the energy intensity per use for things like leaf blowers, lawn mowers, etc. I know they are small, but they put an enormous amount of unburned fuel and carbon back into the air. It would be much better to use electricity for those types of activities.
To determine emissions for those activities, the Commission used estimates from EPA models of emissions put out from those activities. The Commission has seen models encouraging electric activities, and it is something they looked at and tried to quantify with the best data available.

Back in the early 1990s, I worked for Cape and Island Self-Reliance, and we researched and published the Barnstable County Energy Management Plan. Was there any reference to that in the Commission's research? We had to take into account the Canal Powerplant

burning bunker oil by the thousands of gallons per hour, contributing to CO_2 emissions and pollution. Has anyone looked at that as a starting point?
The Commission staff were not sure, but they will definitely take note of that resource. Staff know that the Canal Plant was certainly taken into consideration in the inventory at 2017 levels.

Did the analysis of the Canal occur when it was using its old combustion system? If it's from 2017, it's an old profile, as it is now burning different fuel and will have a lower emissions rate. It will be necessary to have an understanding of the plant's emissions moving forward. (It was recommended that the Commission look at DEP's review of the plant's compliance Title 5 regulations.)
Commission staff confirmed that the analysis is using 2017 data and that each sector has a detailed introduction, analysis, and data components that are outlined on the website. The Commission will continue to update that data and analysis as new information becomes available.

I was recently asked to consult on a case on the Jersey Shore where they had a similar profile of emissions. They determined that, in new construction, every garage was required to be wired to be capable of taking an electric car. Now, the regulators are in court because developers opposed the change. There is another town in New Jersey that put in an edict that all new construction should have an optional step-up plug in the kitchen so switching to an induction range was not a big change. That regulation is also in the courts now, with developers opposing it. It is interesting that developers have responded as strongly as they have.

Participants then addressed the following questions regarding adaptation actions:

- What other Cape priorities intersect (for better or worse) with efforts to decrease our emissions from this sector?
- What are the key areas of authority and influence in this sector on the Cape? What can Cape players influence regarding Cape sources of emissions?

Below is a brief synthesis of the results of this conversation by question. Participants worked in three small groups to identify intersections between reducing emissions from Housing and Development and other existing Cape priorities. Participants were then asked to consider which spheres of influence would be key to implementing mitigation actions and how the Cape Cod community at large plays a role in this.

For detailed answers, please see the respective questions in Appendix C.

What other Cape priorities intersect (for better or worse) with efforts to decrease our emissions from this sector?

Participants emphasized the importance of the following intersecting Cape priorities:

- **Affordable and workforce housing:** Participants suggested that policies and incentives, like subsidies, will need to be put in place to ensure that mitigation efforts don't run counter to developing affordable housing. Participants noted that insufficient workforce

housing leads to more people commuting onto the Cape, increasing transportation emissions. The question was also raised about what will happen to the housing needs of those who require "affordable" housing but do not qualify for government subsidized housing.

- **Wastewater treatment and sewering:** Participants noted that different approaches to wastewater treatment and sewering are appropriate in different locations, and the density of development can help inform the best approach.
- **Transportation:** Participants raised multiple intersections between Housing and Development and Transportation, asking, "How are people getting the Cape, and how are they moving around once they are here?" New approaches and connections to public transit, shifts to more Electric Vehicle (EV) usage, and increased bike and pedestrian infrastructure development were all opportunities suggested for alignment with climate planning for both sectors.
- **Land use planning:** Participants highlighted intersections with land use planning, including using land conservation as a mitigation measure and increasing carbon sequestration potential through open space and more forests and salt marshes.
- **Density of developments:** Participants suggested that a sprawled distribution of housing stock leads to increased emissions in the transportation sector, with poor access to public transit and increased reliance on personal cars.
- **Renewable energy:** Participants noted that requirements for green and energy efficient development would have an impact on Housing and Development, suggesting that renewable energy improvements to buildings may require tax benefits and that homes should be made into energy production centers to increase energy reliability on the Cape.

What are the key areas of authority and influence in this sector on the Cape? What can Cape players influence regarding Cape sources of emissions?

Participants identified multiple actors on and beyond the Cape with influence that could have an effect on emissions reductions in the Housing and Development sector, including advocacy groups; policymakers at the local, state, and federal levels; transportation authorities; developers; schools; and the Commission itself.

- **Advocacy groups:** Participants suggested a need to have advocacy groups in order to create an atmosphere for necessary changes, which will require education and communications efforts (e.g., weekly full-page communication about climate needs).
- **Policymakers:** Participants highlighted the important role of public policymakers at local, regional, and state levels, including planning boards. It was noted that policymakers can have an influence at the regional and local level on demonstrating climate leadership and promoting different development actions (e.g., fostering mixed-use development and promoting redevelopment of commercial buildings).
    - It was shared that the transportation and energy sectors are primarily legislated and regulated by the state, limiting local and regional capacity and authority to respond.

- **Transportation authorities:** It was also noted that the Commission may have a role to play in helping the Cape enact transportation climate actions, which could include an opportunity to reconstruct the canal bridge and promoting a shift away from gasoline-powered automobiles with increased public transit, EV proliferation, and carpooling incentives. The Regional Transportation Authorities (RTA) may be another key player to bring into the transportation conversation.
- **Schools and education:** It was suggested that, at schools, kids can take part in climate actions as well as push for actions, as attitudes get formed and values are shaped in schools. Beyond education and action in schools, participants called attention to the importance of public education efforts to improve understanding of emissions footprints and impacts in order to motivate civic and political climate action.
- **Developers:** Participants across discussion groups called attention to the role developers will play in climate planning in this sector.
- **Alternative energy actors:** It was highlighted that the current reliance on natural gas for heating buildings will likely need to shift towards electrification or other energy sources to lower emissions.

Developing and Prioritizing Criteria for Climate Action Strategies

Ms. Schaefer, provided examples of actions that would simultaneously have adaptation and mitigation benefits. She noted that one way to prioritize actions would be to look at those at the nexus of adaptation and mitigation for Housing and Development, such as:

- Smart growth/compact development
- On-site renewable energy development

Participants were then asked to brainstorm about criteria that would be important in the prioritization of their climate actions to include in the regional plan.

More specifically, participants were asked to think about and discuss:

- What are important values that should drive the prioritization of actions to mitigate our impact and plan for resilience?
- What are key principles and considerations when making choices on what and where to focus actions in a context of multiple needs and limited resources?

Participants shared that equity and accessibility, implementability, cost-effectiveness, alignment and coordination, and measurability were criteria that should help prioritize actions to mitigate the Cape's GHG emissions and plan for resilience. Below is a brief synthesis of the framing for each criteria and the key considerations raised by participants.

Please see Appendix D for the record of all submitted criteria by participants into the polling platform.

- **Equity and accessibility:** Participants raised the importance of actions meeting the needs of all citizens, and ensuring that all living beings, now and into future generations, are treated as we wish to be treated. It was also suggested that benefits to year-round residents be considered.
    - When asked what equity meant to them, participants used language like "meeting the needs of all income levels" and "making sure that climate planning efforts are accessing all communities that maybe we don't always include." It was also defined as, "Where there is a financial burden, it is not disproportionately born by those who can least afford it, but rather by those who can most afford it."
- **Implementability:** Participants suggested that actions should be evaluated by their ease of implementation. Participants noted that we are currently in a climate emergency, so there are emergent needs, but that actions should lead to long-term solutions. It was suggested that duration of implementation for actions should be considered.
- **Cost-effectiveness:** It was commented that the value of emissions reductions should be calculated for actions. It was also raised that economic feasibility could be the ultimate deciding factor for if an action comes to fruition.
- **Alignment and coordination:** Participants noted that actions should leverage opportunities to achieve multiple public benefits with single actions. It was suggested that actions should contribute to a broader call to action for an inclusive approach around climate planning.
- **Measurability:** It was highlighted that the effectiveness of actions be evaluated, and that actions should be research-based and come with accountability measures or a score card. One suggestion made was the creation of a tool so that Cape residents could see their individual contribution to emissions reductions.

Participants also highlighted coherence as an overarching guiding principle for climate action planning, noting that the clarity of the mission and vision of this initiative will be important, as well the thematic organization of priorities, for the communication of the climate planning narrative to the Cape more broadly. Commission staff offered to share the purpose statement for the Climate Planning Initiative ahead of the next meeting.

PUBLIC COMMENT

No public comment was made.

WRAP UP AND CLOSING

Cape Cod Commission staff thanked the working group members for their time and participation, reminding them to visit the Cape Cod Climate Initiative Website (https://www.capecodcommission.org/our-work/climate-change/) for further details.

CBI noted that it would send out a meeting summary to reflect back what was shared during the call and asked the participants to spend a bit of time reviewing materials that would be shared ahead of the next meeting on November 19, 2020. CBI invited each participant to share final thoughts and the meeting concluded.

APPENDIX A: LIST OF PARTICIPANTS

First Name	Last Name
Carla	Feroni
Ward	Ghory
Andrew	Gottlieb
Bette	Hecox-Lea
Shannon	Hulst
Maxine	Minkoff
Paul	Niedzwiecki
Matthew	Patrick
Kimberley	Pearson
Noelle	Pina
Ann	Robinson
Sharon	Rooney

APPENDIX B: SMALL GROUP DISCUSSION SUMMARIES - ADAPTATION

Group 1:

How do these hazards/vulnerabilities intersect with other Cape priorities (within this sector) (for better or worse)? (consider equity here)
• Infrastructure is vulnerable now • Measures should be put in place to ensure that affordable housing isn't developed in vulnerable locations - different incentives and disincentives • Competing availability for housing and commercial/industrial development as safe/appropriate land becomes a less available commodity. • We need to figure out how to address buildings that are already in vulnerable/hazardous areas • Towns are important partners - and they need clear and adoptable methods that they can pick up and implement, specifically with zoning codes. • Population is aging - Are there ways that this climate planning approach, and work to adapt to/mitigate the problems in the climate, could also link to attracting people and work for those people?
Notes: • Dangers and vulnerabilities will effect infrastructure in construction now. Sewers in Orleans hopefully are being engineered in a way to anticipate • To the extent that it's around affordable - the markey might eventually begin to respond to risk to certain properties. Make more vulnerable properties seem like less expensive places for acquisition. Putting housing and vulnerable populations into those vulnerable areas. Having some sense about, looking forward, to what future conditions might look like. Flagging vulnerable areas for a variety of reasons. Figure out where the high, dry places are likely to be and putting vulnerable housing there. Climate vulnerable areas will be in less desirable categories - less put affordable housing there. On the face of it, looks like the population   ○ Policy levers: having future scenario maps that lay out where the vulnerabilities are and establish standards for construction or reconstruction that either discourage what you don't want to see and also providing areas where there is good opportunity and creating development incentives to push meeting the need to those areas. "Meet the need through the market." Not just a CCC problem - finding ways for towns to effectively lay those scenarios out. Tax and land use incentives. • The amount of dev we have in vulnerable areas is a big issue. Finding ways to successfully remove that development is a real challenge we will have here. Developing policies around that is politically

- Preventing coming up with ways for localities to not allow rebuilding or intensification or developing in high risk areas. Know that folks are working on that and a first step.
- Affordable housing and other types of development too. Industrial development. Not primarily our coastal development.
  - As more pressure to move housing development inland, there will be less available places for industry. Competing interests on shrinking availability.
  - Wouldn't it be great if the Cape would attract more climate forward development in terms of businesses that work on this. Think tanks or engineering groups. Way for the Cape to the leading center for planning or development. Companies that were willing to provide the tools to locate here. Actively attracting the leading groups that want to work on this issue. Relates to housing in the zones that there is a transition going on. Who will be the next generations on the Cape? Are there ways that this push to improve the climate, mitigate the problems in the climate, could also link to attracting people and work for those people?

What are the key areas of authority and influence in this sector on the Cape? What can Cape players influence regarding Cape these vulnerabilities/hazards?

- Towns are the big players and implementers when it comes to Zoning - this process needs to result in clear and adoptable methods for towns to adopt.
- Future scenario maps

Group 2:

How do these hazards/vulnerabilities intersect with other Cape priorities (within this sector) (for better or worse)? (consider equity here)

- Affordable housing
  - concerns about additional costs for housing production
- Floodplain development
  - Higher standards are good, but also come with a higher cost
  - Equity considerations for those without access to vehicles
  - Expansion of floodplains presents challenges - costly
- Economic development
  - business zones in Slosh zones - devastating impacts
  - Can the economy sustain a growing employee base?
- Other intersections:
  - Wastewater needs - competition for resources
  - Aging population - in need of services

○ COVID-19 - impact to real estate - making housing situation even more challenging ○ Biological threats to shellfish ○ Beach access - key for the economy - public vs. private
Notes:
What are the key areas of authority and influence in this sector on the Cape? What can Cape players influence regarding Cape these vulnerabilities/hazards?
• Zoning needs to be changed ○ need more than two stories for affordability ○ more compact development patterns ○ Floodplain regulations • Authority: State has some (building code), town (much authority), CCC (mainly through DRIs) • Leadership is equally important - more groups can fill this role • Public education is key - needed to fund initiatives
Notes: Where will we make the investments - activity centers, mixed use, go vertical

Group 3:

How do these hazards/vulnerabilities intersect with other Cape priorities (within this sector) (for better or worse)? (consider equity here)
• Conflict with tourism • Second and vacation home development at odds with freshwater resource protection • Affordable housing production is not efficient (all single-family homes) • People with fewer means will have a more difficult time repairing or insuring homes or relocating; difficult to even prepare for storms based on affordable housing system
Notes: • Natural conflict between mitigating against vulnerabilities and the desire and need for tourism • Housing development, in terms of second homes and vacation homes is very aggressive; continued development of homes with private swimming pools drawing on freshwater which seems in conflict with precarious freshwater/aquifer situation • Affordable housing market is production of single-family homes rather than redevelopment and reusing existing structures

- People who are less wealthy will have more difficulty with repairs and insurance relevant to flooding and natural disasters
- Could be harder to get solar panels and/or battery pack in affordable housing

What are the key areas of authority and influence in this sector on the Cape? What can Cape players influence regarding Cape these vulnerabilities/hazards?

- Planning boards with zoning changes and historical housing
- Select boards
- State and Federal agencies that grant or don't grant emergency assistance
- Conservation commissions and land trusts
- Businesses
- Real estate organizations and developers
- Home buyers
- Commercial development

Notes:

- Land trusts focus on buying land to protect watersheds
- Businesses can support or not support changes for issues such as sewer and wastewater
- Real estate interests may not be in sync with resource protection
- Consumers of real estate -- home buyer desires
- Zoning for commercial development dictates where commercial development exists, size, etc.
- No good buffer zone between the interests we've listed here and our houses, etc. More difficult to make an adverse judgment on the local level than at the state-wide or higher level; more personal implications. This can be both good or bad depending on who is making the decision and who will be impacted.

APPENDIX C: SMALL GROUP DISCUSSION SUMMARIES – MITIGATION

Group 1:

What other Cape priorities intersect (for better or worse) with efforts to decrease our emissions from this sector? (consider equity here)
• Policies and incentives, like subsidies, that will need to be put in place to ensure that mitigation efforts don't run counter to developing affordable housing - and what happens to the folks in the middle? • Wastewater treatment and sewering - different approaches are appropriate in different locations • Transportation - how people are getting here and how are they moving once they are here?

Notes:
• Legislation proposed recently (don't think it went far). Some talking about building without adding to the utility demand for an area. You can build, but you have to have a net zero energy consumption. You can do tat with renewables and/or energy efficiency. It's part incentive and part regulation.
• Wastewater efforts in Orleans are going through the sewering - hoping for more density than sprawl.
• Vacation density and people get here by car (impact of pandemic increasing season) - there is no easy way to get here by car for the average person.
• Concern about some of the mitigation possibilities is raising the cost of affordable housing.
  ○ Interesting irony is that a more energy efficient house will be less costly for its occupants, but more for its developer. I really think that we need to put in place the mitigation alternatives. I think that, for affordable housing, Commonwealth will realize that increased subsidies that will need to be available.
  ○ Hazard resilient construction just is expensive. Need subsidies.
  ○ Federal government and energy companies could be potential actors. We have a lot of high-end development on cape - look at the cost of construction. Factor in the value of the property. To make it more accessible for the people who actually work here. Can there be taxation for folks who want second homes and want to retire in more expensive places to let people who work here live here as well.
  ○ 40B - 10% of affordable housing. It would be great to see federal or state incentives tied to increasing that percentage
• The middle folks that don't qualify for low-income - there is also a place where they fall through the cracks.
• Several towns, like Falmouth, started looking at low intensity and onsite treatment with composting toilets. When you build sewers, it is the most energy intensive way of treating wastewater. It would encourage denser development, but there is a lot of

existing housing stock out there. Instead of trying to build sewers to all of these homes, it would be great to lend encourage to a nascent industry of onsite wastewater treatment that is less intensive - fertilizer locally.
- Are ADUs by right? Varies from town to town. Lots of towns loosened up restrictions. If that loosening can continue, to make it easier for people to put a unity in a basement if they want to or convert their second floor.

What are the key areas of authority and influence in this sector on the Cape? What can Cape players influence regarding Cape sources of emissions?

- RTA and mass transit groups
- Case studies from other localities

Notes:

- Maybe RTA in terms of transportation - don't know if they are the ones that would be responsible for bringing in alternative forms of transportation. More mass transportation options. If there was more demand for mass transportation, we could eliminate a lot of the autos in
- NJ trying to make provisions in new housing for EVs and such - I think that's something that should be considered on a state level or local level when we talk about zoning requirements. Although it may be slightly more expensive, it should be paid off in the long run.

Group 2:

What other Cape priorities intersect (for better or worse) with efforts to decrease our emissions from this sector? (consider equity here)

- Housing development
  - Development of large houses
  - Distribution of housing - sprawl, poor access to transit
  - Green and energy efficiency in new building - subject of local
  - Solar - Restoration of prior rebates; tax benefits
- Tackling transportation
  - New approaches to public transit
  - EV chagrin expansion
  - Public transit connection to new development
  - Bicycle path development - safety improvements, lighting solar lighting

Notes:
What are the key areas of authority and influence in this sector on the Cape? What can Cape players influence regarding Cape sources of emissions?

• Housing and development role
  ○ Planning board review/zoning
  ○ Developers role
• CCC role in transportation, Towns have a limited role in transportation
  ○ Canal bridge reconstruction opportunity - Shift away from automotive focus; Other investments in parallel - transit, EV proliferation, carpooling incentives
• Education - let folks understand their footprint - commuting, business operation, begin to understand way to bring the numbers down and consider offsets - most cost-effective

Notes: Graphic display of GHG emissions; impacts of seasonality; Coordination between towns - regional opportunities for cost effectiveness

Group 3:

What other Cape priorities intersect (for better or worse) with efforts to decrease our emissions from this sector? (consider equity here)
• Need reliable energy; making homes more energy production centers • Reliance on private automobile use and lack of public transportation infrastructure, also with bringing tourists here • Conservation as a mitigation measure, land use choices • More sequestration potential through open space and more forests and salt marshes • Insufficient workforce houses leads to more people commuting onto the Cape
Notes: • Energy is difficult to control; need a greater push for renewable energy • If largest part of transportation is from private vehicles, getting people out of their cars is a challenge • Makes the most sense to tackle transportation and energy -- work done in Germany on energy production, where they made a big push to get away from centralized sources of energy and incentivized more energy production in homes/decentralized energy production, would need a state-level push with incentives • Land use choices can remove a lot of emissions; salt marshes are particularly valuable • Protecting open space, creating more forests • Businesses cover the entire Cape--a lot of area to cover in vehicles

What are the key areas of authority and influence in this sector on the Cape? What can Cape players influence regarding Cape sources of emissions?
• Advocacy groups • Public influencing policymakers • Advocating state policy and demonstrate leadership • Supporting mixed-use development • Schools
Notes: • Need to have advocacy groups to create a climate for changes to take place, which will take education and communications channels; e.g., weekly full-page communication about climate needs • Huge informational need -- public is who will motivate political action • Transportation and energy primarily controlled by state legislation/regulation; limiting local and regional action/authority; proportionality of response • Demonstrate leadership • Need actors at several levels • Can have influence at the regional and local level on fostering mixed-use and promoting redevelopment of commercial buildings -- opportunity to redevelop into mixed use or housing, especially in light of COVID • Need for community education and consensus • Reliance on natural gas -- shifting towards electrification or other energy sources • At schools, kids can take part in actions as well as push for actions; attitudes get formed and values are shaped in schools • Recognized need for vaccine for COVID -- need similar mobilization to deal with climate change

APPENDIX D: COMPLETE LIST OF MEMBER CRITERIA SUBMITTED IN POLL

- Equity
- Efficiency
- equitability
- Cost
- We are in a climate emergency.
- Accessibility
- Ease to implement
- value of emissions reductions
- Meets needs of all citizens
- Effectiveness
- equity
- Long-term solutions
- Research-based
- leveraging opportunities to achieve multiple public benefits with single actions.
- Speed at which an action can be implemented
- long-term (50-100 years) cost
- consideration of future conditions that will continue to evolve
- Coordinated solutions
- contributes to a call to action for an inclusive approach around climate
- Duration of implementation
- Cost effectiveness, Cost per some unit of greenhouse gas removed.
- benefits to year-round residents
- "Values" vs. "Realities". Equity is an important value as is Stewardship; i.e., preserving the Cape for future generations. However, unless a plan is economically feasible, it will not come to fruition. As they say at NASA, "no bucks, no Buck Rogers.
- At the local level encourage Planning and Zoning to give greater consideration to the CCC recommendations for areas of development
- accountability measures
- Ensure all - living beings --animals, humans, plants, -now and into future generations, are treated as we wish to be treated.