

Pepperell Master Plan Advisory Committee
Climate Change and Sustainability Work Group
Agenda and Meeting Minutes – Final

Date/Time: July 26, 2018, 6:00 PM

Meeting Location: member's residence

Members Present: D. Fountain, K. Hartlage, S. Rosoff, R. Rand, R. D'Argento

Members Absent: P. Terasi (ad hoc member)

1. Review Work Group Ground Rules:

Discussion: Ground Rules were discussed at the July 12 MCAP meeting, but have not yet been issued. Based on Deb's review of the meeting video, the following rules apply to any meetings held by this group and we will follow this guidance unless advised otherwise.

- a. Document all meetings – agenda and meeting minutes
- b. Incorporate Town Counsel's email advice (not yet shared in writing) relative to work group structure, process, communications and compliance with Open Meeting Law
- c. Meet timelines established by NMCOG schedule for input of each plan element
- d. Designate a member responsible to be spokesperson/POC at MCAP meeting

Decision: Rob Rand volunteered and was unanimously voted to be designated individual responsible to act as the work group spokesperson at the MCAP meetings and the point of contact for work group communications.

2. **NMCOG Request:** Provide a general list of climate change issues that we wish to see addressed in the Master Plan so NMCOG can think about how the items can be woven into the document and how to best structure each section to accommodate as many of the issues as practicable. *See last page of this document for reference copy of our WG proposal.*

Discussion: Group considered several methods to provide NMCOG with requested information. Ken noted that there are three primary threats we should examine (numbered items below). We then discussed what hazards might be associated with each threat. We also believe at this time that there will be data, analysis, recommendations and possibly introduction/discussion paragraphs associated with each section relating specifically to Climate Change and Sustainability. There was some

Decision: Ken will start with this list and prepare a table of how each hazard correlates to the Master Plan elements. Work group will review at next week's meeting. General conjecture at this point is that Climate Change will be addressed in each master plan element.

1. Extreme heat events
 - Power grid impact
 - Fire/Emergency/ safety/DPW/ services/facilities/highway
 - Internet infrastructure
1. Extreme precipitation
 - Flooding
 - Health & safety issue
2. General temperature increase

- Vector borne disease
- Infrastructure / power grid
- Air pollution
- Allergies, heat stroke, cardiovascular impact
- Water quantity / drought/no snowpack
- Risk to endangered species & habitat
- Change in hydrological cycles to earlier in the year
- Less water going into aquifers
- Food security

3. Responses to Discussion Questions on Land Use and Zoning

Discussion: Some members have completed or nearly completed their replies to the questions. We began with a review of question #1, and discussed whether we should submit a completely separate response from the work group along with each person's individual reply. Initially, we felt that the answer should be "yes" with the caveat "but only if increasing density corresponds to an equal increase in conservation land. Possibly revisit the OSRD with Cons Comm in mind. We then decided to take a different approach, as noted in Decision below.

Decision: Members will share their individual replies with each other no later than July 31st. Each member should review their own replies and revisit them, keeping climate change in mind as they prepare their individual final response. There will be no work group reply. Also, the group felt that Ken should be allowed to respond to the questions as a subject matter expert, but we were not sure if the process allows this. Deb will send an email to Beverly asking if this is possible.

Rob made a motion that we appoint Ken as a consultant/advisor to our work group. Motion was seconded and passed unanimously.

4. Other Miscellaneous information or ideas shared

- a. Resources
 - i. IPANE – website for info and local tracking/impact of invasives
 - ii. Sherrill spoke with Fish and Wildlife, who referred us to the document titled: Climate Ready Boston @ Boston.com
 - iii.
- b. Approach/ Methods
 - i. Set up meetings with town staff as needed. Develop some "what if" scenarios based on data we collect and develop a set of questions to pose/discuss with the subject matter experts. Include their responses as recommendations.
 - ii. Take advantage of local subject matter experts – for example, the owner of Kimball Farms is already using alternative energy sources – solar and irrigation, and grows hydroponic vegetables
 - iii. Sherrill also believes that we need to take a regional approach where it makes sense to do so.
 - iv. Pack introductory paragraphs with importance of climate change
- c. Possible Recommendations

- i. There was a discussion on retention basins in developments and how the taxpayers end up being responsible for maintenance of the basins. This should be addressed in the Zoning Bylaws.
- ii. From Ken – Zoning bylaws need to change to address climate change issues that we identify. Specifics will be developed following specific findings.

Meeting adjourned at 8:20 PM. Next meeting date – July 31st, 2 PM, same location

Action Items:

Ken – prepare table for NMCOG to illustrate what the work group plans to address by Master Plan Element and share with the work group. Due July 31.

Ken – send NOAA Climate Change Tool link to members

Deb – Email Beverly Woods to ask if Ken can prepare his own replies to the Discussion Questions.

All – share your replies with group members – use .doc file format. Revisit your replies (if already completed) with Climate Change and Sustainability in mind.

All – Review meeting these minutes and be prepared to discuss edits or accept

Next Meeting Potential Agenda Items

1. Housekeeping
 - a. Meeting minute and Action Item review from July 26 meeting
 - b. Appoint meeting minute-taker
2. Review and finalize group response to NMCOG request
3. Review Discussion Questions (if completed)
4. Discuss next MPAC meeting – any group items we want on the agenda?
5. Other Miscellaneous

Submitted to MCAP – ref material for agenda item #2

Proposal to Create a Climate Change Adaptation Subcommittee

Proposal

We propose to create a Climate Change Adaptation Subcommittee to research and incorporate a Climate Change Adaptation Plan as part of the Town's Master Plan.

Why it's needed

Climate change is introducing threats that may have adverse impacts on Pepperell's infrastructure, public safety and health, local businesses and natural habitats. Projected increases in annual temperatures and precipitation may lead to increased frequency of severe storm activity, increased frequency of drought and shifts in seasonal hydrological patterns. These climate stressors may, in turn, induce a range of adverse impacts including increased flooding, increased frequency of heat-related emergencies, earlier onset period for Lyme disease, reduced water recharge and lower oxygen levels in our cold-water streams and rivers.

Pepperell's residents, businesses, infrastructure and natural habitats will have varying degrees of vulnerability to these climate change impacts. For example, the adequacy of our storm-water systems to handle extreme weather events and the ability of farms to withstand a drought are just two of the vulnerability issues to be addressed. We believe it is in our collective interest to study these issues and develop a plan to ensure the Town's resiliency.

What the climate change subcommittee will do

The proposed Climate Change Adaptation Committee would assess the climate change-related threats, vulnerabilities and impacts to Pepperell and make recommendations to enhance the Town's resiliency. The output of the process would be a *Climate Change Adaptation Plan*. The Adaptation Plan will provide the Town with:

- An assessment of the threats associated with climate change. The assessment would include a review of climate change projections related to temperature, precipitation, snow cover/runoff and evapotranspiration at the state level and, where possible, for our region.
 - While there is a significant body of literature and climate tools available to use, some consultation with experts may be necessary.
- Based on the threat assessment, an evaluation of potential impacts and our vulnerability to those impacts.
 - The vulnerability assessment will require resources with knowledge and expertise corresponding to the asset being evaluated. These include, but are not limited to: Stormwater systems, water supply, the electrical grid, public health and public safety, forest habitats, cold-water fisheries etc.
- A list of proposed risk-based priorities and actions to increase Pepperell's resiliency to climate change
- A recommended organizational structure to coordinate, monitor and, as necessary, adjust progress toward goals

Next steps

- Form subcommittee
- Create climate change adaptation team
- Establish a mandate and terms of reference; vested powers and authority, and accountability

