

City of Cambridge

CLIMATE PROTECTION ACTION COMMITTEE

Minutes

December 14, 2017

City Hall Annex  
344 Broadway

*Attendees:* Lauren Miller (chair), Johanna Jobin (vice chair), Rosalie Anders, Melissa Chan, Thomas Chase, Keith Giamportone, Brian Goldberg, Lyn Huckabee, Ted Live, Anthony Michetti, Christopher Nielson, Paula Phipps, David Rabkin, Quinton Zondervan; *staff:* Bronwyn Cooke, John Bolduc

*Guests:* Sylvia Parsons, Jim Brown, Henrietta Davis, Steve Nutter

Election of CPAC Officers

Melissa Chan, Chair

Olga Factorovich, Vice Chair

Tom Chase, Secretary

- Full slate approved
- Commend outgoing chair and vice chair service

Approval of Minutes

- September, October, and November approved, none opposed
- November comment: remove typo, "Topic 5"

ETP Director Report

- Alewife CCPR public meeting 11/30, currently seeking comments until 1/12 via digital platform, prioritization of each platform and optional written comments or via email or snail mail to John Bolduc. Comments will be incorporated into City-wide plan and will inform the next plan for the Port neighborhood. Plan consists in plan and handbook of strategies, also posted on the website are the presentation boards from 11/30.
- City, working with Watertown, received grant from Barr foundation to do BRT pilot on Mt. Auburn St.
- MIT Climate Changed Competition will look at how modeling (broadly defined) can help inform planning for climate resilience in MIT, Alewife, and East Boston areas. Ideas to be submitted by 2/2, award is \$15,000 in funding (from Leonardo DiCaprio foundation).
- Urban Forest Masterplan RFQ for consultants released, proposals received, interviews completed, consultant not yet selected. City task force for that project seeking members, applications open until January 19<sup>th</sup>, online application form on City website.
- State combined Hazard Mitigation and Climate Adaptation Plan under Governor's Climate Change E.O. to begin. First public meetings to be held in January.

- New England American Society of Adaption Professionals and Ecosystems Climate Adaptation groups forming.
- Seth Federspiel on maternity leave, new daughter born.
- Quinton Zondervan final meeting, first appointed in 2008, due to election to City Council. Committee thanks him for his long service.

#### Net Zero Action Plan Progress Report

- Update postponed to January meeting following Seth Federspiel's paternity leave.
- Draft completed, CPAC to form a sub-committee to review report and provide comments, recommendations and letter (of support and/or requesting changes) by early January.
- David Rabkin, Melissa Chan, and Keith Giamportone volunteered.

#### Climate Protection Goals & Objectives Review

- Goal H: "Is internationally recognized for climate education"
  - *Objective 13: Identify best practices in climate change education and implement climate change curriculum in Cambridge Public Schools*
  - Focus on Cambridge Public Schools
  - Informal feedback to committee members is that there is not a coordinated climate change curriculum, but one or more courses may be available at the high school but not universally at lower grade levels
- What are measurable metrics for this goal?
  - e.g. Number of classes teaching climate change
- Do we want to support climate change development with materials or ask the schools to develop curriculum
- CPAC could set guidelines
- Review of what already exists in Cambridge school
- Recommend structure/process in school system defining climate change curriculum, recommend sitting down with school representative
- When to have this issue resolved? January-February deadline for Climate Action Plan review of current actions and Envision Cambridge, including removal of barriers for CPAC. That meeting (February) would be ideal time to provide recommendation on process.
- Speak first with curriculum committee to review baseline? Science curriculum director has overviewed with CPAC in the past, at least 4 years ago, could engage the current person in this role
- Curriculum is run by School Committee with the State and Superintendent, without input from the City Manager
- What, if any, are barriers to climate change curriculum and how can CPAC engage in advocacy
- Guest comments:
  - Education First offered the High School opportunities to study climate change in after school program, ongoing
  - Work with City services to support this in afterschool or other programs such as the science festival
- Reframe goal to capture extent of current climate education beyond just schools

- Focus on science only neglects social, political, etc. aspects of climate change
- Perceived lack of understanding of connection between school programs like composting and recycling and climate
- Next Steps
  - review of existing curriculum
  - revisit definition to broaden beyond curriculum
  - review other existing climate education programs and opportunities
  - schedule meeting with school department and community climate education representatives to hear what is going on and what are current best practices and what goals are being set, what are constraints – potentially for February
- What is climate education? – both mitigation (Climate Action Plan) and adaptation (Resiliency/Preparedness Plan) should be included
- Climate Reality Training not available in Boston area
- John Sturman, MIT, Climate Roleplay sessions, could represent quick and effective approach
  
- Goal I: “Is a center for innovation for climate change solution”
  - *Objective 14: Grow community capacity in climate-change knowledge, technology, and entrepreneurship*
  - *Objective 15: Encourage collaboration to create leading models for a more sustainable future*
- What are measurable metrics for this goal?
  - e.g. Number of university programs, such as Environmental Solutions Initiative, MIT Energy Initiative; number of companies or non-profits promoting climate solutions
- Similar set of local experts to speak to on this topic, e.g. entrepreneurs
- Set metrics and observe progress, such as number of companies or number of people employed in industry
- Clean Energy Council and MA CEC have in the past been good sources of information
- How to measure? Don’t limit to clean tech or energy companies, or which companies to measure in their actions, products, services, etc.
- Where to include this action or recommendation – Climate Action Plan or something higher level like Envision Cambridge
- Just need a couple of data points for what is innovation and is it happening? Not necessary for it to be exhaustive – are there a few ideas we’re not capturing in other goals that we want to flag and include here?
- How is City innovating climate change solutions itself?
- Objective 14 points outward towards businesses and other leaders and Objective 15 points inward to municipal functions, and how both function as laboratories for innovation
- Objective 15 – Sustainability Compact is example of this objective being met, as is science festival, not necessarily the number of actions taking place as what are the necessary actions, mapping collaborations and actions would give CPAC sense of goal progress
- Laundry list of activities, add survey to understand participation by members of the community? Measuring engagement around innovative programs not awareness

- Still need measure for whether programs are innovative
- Inventory activities that are happening over time

### Cambridge Urban Forest Canopy Assessment Update

- 2<sup>nd</sup> Report on Cambridge Tree Canopy (in conjunction with UVM) distributed prior to the meeting, John Bolduc reviewed findings
  - dataset uses LIDAR data to measure edge of tree canopy and tree height, doesn't give individual tree count, species, or diameter
- Initial report
  - 30% of Cambridge land area was covered by trees in 2009 (year for which data were available)
  - coverage by neighborhood and land-use type
  - potential to expand canopy, technical maximum capacity would be 65%
  - used distance to buildings and age of building to approximate tree age, e.g. high proportion of older trees in West Cambridge
  - all data in GIS
- Follow-up
  - change since 2009 with 2014 data – overall canopy reduced to 28%, net loss
  - aggregate land use categories: residential, commercial/institutional, transportation, public, water
    - greatest loss of tree canopy in residential – 11%
    - water loss – 3% (e.g. tree canopy retreats from water edge)
  - many possible causes of loss, development, storms, trees dying, Urban Forest Master Plan will include analysis of why we lost these trees
  - median age of trees is 20 years (Earthwatch study of street trees only)
- Next assessment scheduled Fall 2018 with Spring 2018 data
- Data will be represented in TPL's Climate Smart Cities Viewer showing regional data
- Urban Forest Masterplan will be first of its kind in City, goal is to look at forest as a system not just street trees or individual trees and developing plan to maintain and grow urban forest, set neighborhood-level goals for expansion, such as soil, growing, methane leaks, and other conditions
- Evaluate how to manage trees to mitigate climate risk (Alewife Preparedness Plan includes green infrastructure opportunity beyond trees to mitigate climate risk)
- how to incent private owner's maintenance of trees
- what policy implications for planned losses from development or aging trees? what is the right replacement policy? these will be addressed in Urban Forest Master Plan
- Stockholm plan, planting with biochar, City consider this? Green Cambridge attempted to do pilot with City, City did not plant trees last year because of drought, still on table, Green Cambridge evaluating how to use removed trees or parts to produce biochar and sequester it here or regionally
- No biochar standards to date, and production process emits carbon if not controlled
- Goal is not to sequester significant amount of carbon, but to develop innovative approaches

## Member Reports

Quinton Zondervan

- Resigning from board chair position of Green Cambridge will remain on board, Stephen Nutter new president of Green Cambridge gave update and introduced new board chair bio

Lauren Miller

- Will be traveling to Antarctica and will update CPAC at next meeting with inspirational retelling

*Notes by Tom Chase*