ENVISION CAMBRIDGE

2017-06-19
Climate and Environment Working Group #2

Committee Attendees
Maggie Booz, Maxwell Cohen, Zeyneb Magavi, Sophia Emperador, Cynthia Hibbard, Emily Myron, Mike Nakagawa, Christopher Nielson, Abigail Regitsky, Julianne Sammut, Claire Santoro, Julianne Sammut, Joanne Scheuble, Juliet Stone, Henry Vandermark, Jules Williams,

Staff / Consultant Present
City Staff: Wendell Joseph, Gary Chan, Susanne Rasmussen, Seth Federspiel, Michael Orr
Utile: John McCartin
Buro Happold: Chris Rhie, Joshua Margul, Sera Tolgay
Kleinfelder: Nathalie Beauvais

Committee Members Absent
Henrietta Davis, Julie Newman, Steven Nutter, Matt Wallace

Meeting overview
Chris Rhie led a series of group activities so the committee could weigh in on revised goals, understand existing City policies and programs, identify strategy and action gaps in City policy, and discuss potential indicators and targets. The presentation is available here.

Committee Discussion

Goals Discussion
There was general assent from the group on the form of the revised goals, with many qualifications. Committee members discussed the following changes. There was disagreement among the committee on whether all were goals, or strategies/actions in service of some larger goal.

- Carbon sequestration should be taken as seriously as a reduction strategy for GHG emissions. Goals C and D were suggested as possible places where the sequestration strategy could be found.
- Explicit reference to soil and air toxicity—particularly off gassing in playgrounds—in terms of their levels and exposure risk. City staff suggested toxins were covered under Goal C. Committee members noted Goal C seemed more geared to GHG, whereas Goal A could be more relevant to air pollutants. Consultant staff noted there could be more explicit mention of health.
- Committee members sought more explicit reference to extreme heat and flooding, though City staff noted these were covered under risks associated with climate change (Goal A). Some committee members thought risk reduction strategy should be more cross-cutting, less focused on climate. One suggested solution was “climate impacts of heat and flooding.”
- Some committee members thought goals should be very broad and unspecific. Such as “Achieve carbon neutrality,” with no reference to the means of getting there, mirroring Goal F.
- Committee members suggested the word “vegetation” be used instead of “plants.”
- Committee members noted there was little reference to embodied carbon.
- Committee members suggested “minimize waste” be paired with “maximize reuse.”

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Existing Strategies Discussion

Goal A

- Upon request, City staff discussed its priorities regarding infrastructure upgrades related to climate change adaptation. They noted sewer separation, stormwater infrastructure, water retention, and green infrastructure where possible.
- Committee members asked about utility upgrades to prepare for and respond to climate change. Consultant staff noted we needed to frame the question as "What could be the city's role in utility upgrades?
- Committee members and City staff discussed accomplishments from these strategies. City staff noted completion of CCVA and review of City buildings.

Goal B

- Following on accomplishment discussion above, City staff noted the establishment and initial planning by the Climate Protection Action Committee in the early 2000s. They also noted the Cambridge Compact for a Sustainable Future (a partnership of the City, large institutions, business, nonprofits, and property owners), which generated a work plan and is one year into execution. The Cambridge Energy Alliance was noted for its varied work in connecting homeowners to sustainable energy resources. Staff lastly noted the City's Bicycle, Pedestrian, Transit, and Public Planting advisory committees.
- There were no questions.

Goal C

- Following on accomplishment discussion above, City staff noted City's work expanding the tree canopy where it is least robust, planting a given number of trees per year, and expanding access to large open spaces.
- Regarding transportation, City staff noted their work installing EV charging infrastructure, reducing air, light, and noise pollution (specifically from vehicles), and promoting clean transportation.
- Staff lastly noted the Outdoor Lighting Ordinance in the Council now, and some of the issues in enforcing the Noise Control Ordinance (specifically the city's high levels of ambient and mobile noise, and the system's complaint driven nature).
- Committee asked if the 2009-2016 Open Space & Recreation Plan is updated regularly. Staff noted it's currently undergoing an update in conjunction with EC.

Goal D

- City staff explained the Net Zero Action Plan (NZAP).
- The committee asked about community solar projects, which City staff explained are currently being researched.
- The committee asked if the switch away from Eversource's basic electricity service through community aggregation was part of the NZAP, and City staff confirmed that it was related.
- City staff noted the municipal aggregation program is intended to catalyze the private solar market and mentioned that the City is on track to meet its 2020 targets for municipal solar capacity for example utilizing school roofs.
- The committee asked about embodied carbon, and City staff noted that it was purposely not included in the NZAP, since it is very difficult to quantify and could lead to a less actionable plan.

- City staff asked if district energy is considered part of the NZAP, and City staff replied that it is one strategy. City staff underscored that the City is investigating through the Low Carbon Energy Supply Strategy how to phase out fossil fuel use by the City by 2050.
- Consultant staff introduced the 2018 Climate Action Plan, which recently started to provide an umbrella framework for reducing greenhouse gas emissions, including the reductions expected to be achieved under NZAP, CCPR, the Zero Waste Master Plan, and transportation initiatives. Committee members asked how these plans interacted with EC. Consultant staff noted that EC is (more than other plans) concerned with how the form of the city will impact these matters and connects to the Cambridge's core values (diversity and equity, livability, etc).
- City staff noted City's climate plans all look out to 2050 for their time scale. They also flagged embodied carbon as a great example of a matter than needs to be considered despite the difficulty in measuring it.

Goal E

- City staff noted that a huge effort has been made, with a particularly large impact on reducing the amount of Combined Sewer Overflows.
- City staff noted the drought and its impact on Cambridge's drinking water supply came as a surprise to many in the city. This has spawned a new water conservation plan. The availability of the MWRA means this is less urgent in terms of the population's safety, but more concerning as a matter of cost management and environmental stewardship. They also noted the tracking of water use under BEUDO and the institution of green building standards.
- Committee members asked if green building standards such as LEED included landscaping or graywater reuse. Staff noted landscaping was included and that graywater reuse isn't mandatory, but can be undertaken to help achieve performance goals.
- Committee members noted the differences in where water goes (whether in the ground or down the drain). A move to use less water in landscaping by planting drought-resistant plans could have knock-on effects of sequestering less carbon. Committee members noted the number of sewer backups could also be an indicator here. A strategy to increase permeable surfaces and to "increase on-site infiltration" was suggested, with actions like planting longer-root plants, building bioswales, etc. Committee members also brought up the planting of trees at roadway grade level to increase infiltration.

Goal F

- City staff noted the Council has passed two ordinances: the polystyrene ban (Styrofoam) ordinance and the plastic bag ban ordinance. The bag ordinance worked, resulting in a 50% reduction in bag use (the polystyrene ordinance is still being implemented). The City is currently undertaking a Zero Waste Master Plan.
- The City is working with a consultant now to determine strategies around curbside composting expansion, hazardous waste collection, etc. Current hazardous waste collection very meticulously tracked, and the City's Public Health Department currently monitors hazardous waste sites and remediation efforts.
- Committee members asked if waste's endpoints were considered in GHG emissions inventory [Note: In accordance with the Global Protocol for Community-Scale Emission Inventories, methane emissions from landfill are included in the inventory, but most of the city's solid waste is sent to waste-to-energy plants, which are not included in the inventory]. City staff noted that logistics in transporting that waste was considered, and that the principal landfill that receives residential waste does have methane capture systems in place. City staff also noted the goal of disaggregating municipal waste vs. community waste in measuring the impacts of the waste stream.

- City staff also noted the lack of substantive knowledge about waste from commercial facilities, who are served by private haulers, and that this will be important to address in order to substantively reduce waste stream. Committee members suggested it should be regulated.
- There was a discussion on Styrofoam, where it is banned (food service) and where packing peanuts can be recycled. City staff noted Styrofoam illustrated how the City must set priorities, as it takes a great deal of resources to recycle, but only accounts for a small portion of the non-biodegradable waste stream.

Gap Discussion

The following measures were suggested by the committee to address gaps they noted in existing policy.

Goal A

- Partner with more municipal and private actors across the region to affect regional issues.
- Investigate ways to leverage new technologies to reach out to people by geography in the event of an emergency (e.g. text message)
- Encourage renovation of existing buildings to become more resilient to climate change risks (City staff notes this was done in CCVA, and there is an adaptation plan with the CCPR).
- Preparing for new disease vectors brought to the region as a result of climate change.
- More discussion of actions that benefit lower income and public housing populations, as well as those who rely on shelter system.
- Important to consider siting of new low- and moderate-income housing, since much of it could be in environmentally vulnerable areas.
- More consideration of incentives for landlords to undertake adaptive measures.

Goal B

- At end of process, look at how outcomes of this process are communicated to public, since only limited number of people can actually join this group
- Engage with artists, the MIT media lab, or others who can make this material fun.
- Think low tech and don't over rely on the City's websites. Think of sandwich boards and light pole banners, etc.
- Include people who work for the City as part of the engagement audience. E.g. teachers who can't afford to live here.
- EPIC-N style program
- Making videos for internet
- Inject these issues into education system early
- Feedback through app or website, where user inputs their address and get energy use/waste stream data.
- Don't just provide resources, but require actors to engage with this material. Not just a nice thing to know, but a concrete target.
- Create an independent environmental justice committee.
- Certification or award program for businesses. (City staff noted they had such a program but could not get businesses to self-nominate.)

Goal C

- Planting/encouraging more mature trees – including on private property.
- Ordinance banning pesticide and chemical fertilizer use.
- Not having trees planted so that they hinder solar access.
- City should purchase developable land for open space.

- Reduction of on-street parking, to allow for more street trees.
- Raising the cost for resident permit parking.
- Increase native tree plantings.
- Policy for City to use x% of natives in City projects.
- City should publish native plant list (while acknowledging zone shift).
- Stack and vent review for research facilities.
- Toxicity in soil and air (such as off-gassing).

Goal D

- Performance subsidy for carbon reduction in transportation
- Study implementation of microgrids
- Reduce or eliminate parking minimums
- Consider parking benefit district(s)
- Requiring EV *ready* construction in new buildings
- Integration of energy storage with solar production
- Financing for energy efficiency in buildings
- Tools that renters can use as well, or things that incentivize the landlords to take on costs they don't otherwise recoup
- Green roof/green wall policy for buildings in addition to solar

Goal E

- Create green infrastructure committee to consider rain gardens, bioswales (or add to planting committee).
- Find strategy to use graywater, studying the legal and technical implications, and the best scale at which to collect graywater.
- Consistently pave with permeable and semi-permeable surfaces.
- Review *existing* large developments in the pipeline for compliance with new policies.
- Look into watering plants with captured stormwater, etc., rather than infiltrate into groundwater.

Goal F

- Track commercial waste disposal.
- Review waste contracts for GHG implications. Include as criteria in purchasing agreements.
- Incentives to recycle.
- Enforcing recycling mandates.
- Room to expand certain ban on waste chemicals beyond polystyrene.
- Require front-of-house composting in restaurants.
- Green meeting policy for City.
- DPW facility might be in for renovation/expansion. Might be good to build in sustainability center. Take/leave center, community recycling, etc. (City staff noted some of this already exists.)
- Better advertising for existing resources (e.g. book drop).
- Encourage lifecycle assessment in city and private purchasing.
- Expanding recycling containers around city (even just where there are trash cans).
- Better Styrofoam collection.
- Food waste diversion phase-in, residential food waste compost requirements. Look to VT and maybe NYC.
- Charging household per bag of waste. "Pay as you throw."
- 40% of waste is from food. Doing anything at schools? Education on food waste, expiry dates, etc. Not just composting, but food shares, etc.

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Public Comment

- A member of the public expressed frustration with the amount of development and permitted development near Fresh Pond and in Alewife. She said it was unclear how new development with reduce carbon emissions, especially with additional motorists living there. She particularly did not know how the goals discussed at this meeting could be achieved with this scale of development.
- The member of the public also expressed concern with building in the floodplain, and how emergency responders will be able to access sites during storm emergency.
- The member of the public agreed with many suggestions, noting that “pay as you throw” might work. These suggestions, she thought, were best because they worked at an everyday level, and not in abstractions. Other suggestions were low-flow shower heads.
- She also discussed the need for more outreach and engagement on these issues, for children and adults alike. City staff noted some outreach to children near Fresh Pond was underway through the BSA partnership.