

2016-11-17

Alewife Working Group #5

Committee Members

Doug Brown, James Butler, John DiGiovanni, Margaret Drury, Margaret Gadon, Mark DiOrio, Sam Stern, Tom Ragno

City Staff / Consultant Present

Staff: Stuart Dash, Susanne Rasmussen, John Bolduc, Kathy Watkins, Stephanie Groll,
Melissa Peters, Gary Chan

Utile: Nupoor Monani, Kennan Lagreze

Buro Happold: Chris Rhie

Kleinfelder: Indrani Ghosh

Committee Members Absent

Catherine Connolly, William Ahern, Karen Dumaine, Eric Grunebaum, Jennifer Gilbert, Geoff Wood

12 people attended from the public

Meeting Overview

- Presentation from Buro Happold and Kathy Watkins, City Engineer, regarding environmental conditions, issues, and opportunities for energy, stormwater, air quality, waste and materials, trees and natural ecology, Alewife and climate preparedness considerations

Discussion Comments

- Length of time for phytoremediation is dependent on site and type of contaminant.
- Co-generation produces electricity and heat simultaneously, making it more efficient, reducing emissions, lowering lifecycle costs. Relevant to think about it in Alewife because of high density and suitability of mixed-use locations. District energy and microgrids are not always the same thing, but can work well together.
- There is currently no model in Cambridge for combining use groups within district energy (business models). The City is currently studying potential for this further across the city. MIT, Harvard, Biogen, Kendall already have cogeneration systems. There could be incentives to have groups work together towards net zero energy.
- Global climate change projections are reflected in the models conservatively. The City used high side of emissions assumption (conservative) to model future climate parameters and determine where vulnerabilities currently lie. The vulnerability assessment is based on the premise that no action is taken.
- The State is working with local communities to project into the future and model sea level rise. Cambridge and Boston were both early adopters in using these techniques.
- The length of time the roads remain flooded will make a big difference for sheltering in place. Emergency vehicle access is a concern during this period of time. The City predicts floods to be short duration -- less than 24 hours.
- Working group members expressed concern about which major city resources will be negatively affected during a flood. Staying in place is a question in relation to energy protection. The City predicts that Fresh Pond water supply would be affected in the extreme scenario. A range of recommendations in terms of policy and regulations will occur with the preparedness plan, which is currently under way.

- Working group members asked whether we should have more or less people relocating to this area. It is important to consider this now and how emergency access will be affected and at what level it will still remain viable.
- 'Living with Water' as a methodology originated in the Netherlands. Copenhagen is another precedent for storing water on site to protect other examples. We are currently capturing best practices worldwide.
- It is important to consider the distinction between precipitation events, flood frequency, and what flood event will have a detrimental effect on Alewife.
- The City has begun sewer separation with physical construction already completed.
- Working group members expressed concern with how the floodplain will affect the architecture in Alewife. Will the 2070 requirement result in buildings like 70 Fawcett Street? According to the city, this is dependent on the ground height of each site. The City is working on urban design implications.
- Backwater valves are already a building requirement, but the City wants to do more education about retrofitting existing homes.
- The treatment of new vs. existing structure will need to be studied further and resources should be provided by the City for retrofitting existing structures. The City is currently developing these standards under the resiliency plan. The City is working in a regional coalition to deal with these issues, specifically from the Mystic River to determine the likely impacts and strategies for buildings, districts, and the regional scale. The Public Works Department is also piloting a resilience audit process to help identify buildings that need to be improved and the measures that would be useful.
- The safety of maintaining basement apartments in the City is a concern. It is important for the City to study how the already-constrained rental market will be affected if basement apartments are no longer viable.
- If people attempted to raise their house levels they will hit existing zoning height limits. A working group member suggested to put the height level of zoning at the base level of occupied space.
- The City should consider how greenhouse gases and federal policy changes may affect sea level rise projections and the storm surge models and whether the assumptions remain the same.
- The City is testing how impervious surfaces and infrastructure affect flooding. There may be benefits to increasing permeability for stormwater quality and quantity, but permeability is not relevant for the storm surge flooding.
- Working group members would like to see more detail in terms of the storm types and their percentage frequency. More nuanced data in projections should show how often specific areas of Alewife will flood. As a building owner or investor it's important to know how often a particular site will flood.
- The storm surge model uses the physics of the storms coming up the Atlantic, based on Nor'easter storms. In this model, precipitation has a minimal role in relation to storm surge.
- In 2010 there was no significant power loss in the area, however, the power substation in Alewife may be threatened by 2030.
- Social connections are one of the main things that protect vulnerable populations. There's an important place for public space, not only for pleasantries, but for protection and safety.
- In January, scenarios will be presented that start to balance all of the different concerns affecting Alewife to get feedback from the group. The City is looking for volunteers on housing, mobility, climate and the environment, and the economy working groups.

Public Questions / Comments

- How do we change public perception of our 'comfort' level as risk increases? How can public education come into this study/proposal?

- There are tradeoffs with how to approach the value of the roads as a flood mitigation tool. Roads can channel water so there is an opportunity to use the roads to hold capacity vs. raising roads for access.
- There are concerns that the slideshow doesn't give a good sense of what Alewife is about. Alewife is still one of the largest untouched urban wilds and the slide show does not show this. We need a long term control plan to make sure the city is cleaning up the Alewife Brook. It's a safety concern in terms of the water contamination during a flood.
- There is not a report of current floods, but the area has already seen the rotaries flood. There's currently a group home in the floodplain. How can new development take into account who lives there, what are their resources (social capital), and what they will do during a flood. There is a concern that vulnerable populations will be stranded. The City is currently trying to identify and inventory affected populations and facilities within the current plan.
- City should conduct emergency drills to educate and prepare residents for emergency flooding events (like school fire drills).
- There are three points of the climate congress- adaptation, restoration, conservation.
- Very little time was spent on heat vs. flooding. We already have heat events and need to provide community protection resources. There are events already occurring within the community and existing organization that are already dealing with these issues. The City should consolidate a list of these resources for the public.