

## **Minutes of the Mayor's Special Advisory Committee on Neighborhood-Based Resiliency**

June 28, 2016—795 Mass Ave, City Hall, Ackerman Room: 6:30 P.M.

Members present: Emily Harrison; Suni Dillard; Mark Aidinoff; Ethridge King; Steve Wineman; Sonia Andujar; Gary Dmytryk; Craig Kelley, *chair*; Sam Seidel

Committee staff: Wilford Durbin, *Executive Assistant to the Committee*

City Staff/Public: Sam Lipson; John Boldec; Sheri Kennedy; Stewart Dash; Suzanne Rasmussen; Kathy Watkins

Mr. Boldec started the discussion by talking about the City's Climate Change Vulnerability Assessment (CCVA) released last year. The second part has yet to be released. Going into the assessment process, he stated the City acknowledged climate change was happening and was going to get worse. Having a useful model is important because City planning is based on past conditions, not the present, nor future. But it is the future that's not stable. Having to deal with the dynamism is going to be a planning challenge.

He continued to say that his office decided Cambridge needed a better understanding of what climate change would look like locally. It really matters that you look at climate's impact on the local scale. He stressed that even under the best circumstances you are dealing with a lot of uncertainty—it's not as if science provides a concrete roadmap. Accordingly, the City commissioned a CCVA based on several scenarios, and identified both social and infrastructure vulnerabilities in the City. They looked at physical and social aspects, extreme heat, sea level rise (SLR), precipitation and so forth.

Due to the high level of uncertainty, he stated the City didn't want to predict what the future would be, but instead decided to look at climate change in the form of "stress tests" to Cambridge. What happens socially if we throw more water and heat into the city? The idea is not so much to predict, but identify vulnerabilities. Things get much worse by 2070. A hundred year flood is now 8.9" of rain in 24 hours, in 2030 it will be 10.2 inches and by 2070 it will be 11.7 inches. We will also go from 11 90 degree days a year to about 30 in 2030 and 40-40 in 2070 with dangerously hot days across the City.

Mr. Boldec continued that despite all uncertainties, we still needed data. We worked with Catherine Hajos at a Texas university, who is prominent climate change modeler who provided ranges within which the City worked. For precipitation, we took future rainfalls and tried to map out where it would collect and flood. The City also worked with the MBTA to extend their sea level rise models for the Red Line, the main artery for Cambridge.

His office took projections, and cataloged 500 physical assets, and then looked at social environment and where these projections would make the biggest impact to help identify vulnerabilities. For social vulnerabilities, his office looked at poverty, children under 5 years old, low education level, language isolation, elderly populations, and elderly living alone.

The first part of the assessment was released in November 2011, second report coming out soon (after 3 delays it is now scheduled to be released in September) on storm surge and sea level rise.

Many of the gravest flooding issues are based on models from 2040 sea level rise.

For the larger storms, it's unlikely we will be able to store or divert our way out of the flooding problem. "Living with water" is going to become life. There are lots of regional aspects to this whole discussion.

He said people have trouble comprehending that the climate that they should adapt for is not the climate that they grew up with, especially when it comes to heat even though we know it is deadly. The city is not going to be able protect everyone, the community must get together to build resiliency and protect each other.

Cambridge is nonetheless looking to harden physical and social aspects of the city. They are looking at resilience at different scales: individual, building, neighborhood, citywide, and regional. And we must pursue flexible strategies to cope with dynamic change, share responsibilities for preparedness and resilience, and monitor changes in physical and social environments.

Preparing Cambridge for the future will require organizing ad hoc focus groups to help the city get reactions to ideas and projects, and vet approaches. Once we have a more solid set of ideas, we will go out into the public and present the ideas and ask for critiques.

We decided not to form an official advisory board to guide the climate change preparedness, but to allow Envision Cambridge to handle the project and process. The climate change preparedness plan will be finalized after that process.

The Preparedness Plan is projected at 18 months. The Alewife Plan should be concluded by Dec. 2016. Second eastern part of the City neighborhood assessment by June 2017. And Complete full plan by December 2017, when the Envision Plan will be completed.

The goal is to empower neighborhood groups to be the first responders to events. To help the community and identify and organize networks, shelters, contingency plans, and Pre-ID people at risk.

Mr. Kelley asked how CDD looks at neighborhoods and neighborhood specific resources and response.

Ms. Andujar added that with multi-family houses and green infrastructure, what are the City's plans for existing structures and how they will be retrofitted.

Mr. Boldec responded that new developments are the easier part of the process, we can make new guidelines and recommendations for the building process, putting important infrastructure up that addresses resiliency issues. Existing infrastructure is the main challenge. By 2050, most of the current housing stock will still be here. CDD is considering a Resiliency Audit to evaluate houses with vulnerabilities to heat, or flooding, etc. He noted that the City was assessing its particular vulnerabilities with the goal of figuring out how to finance addressing them.

Ms. Rasmussen shared that the City is exploring emerging strategies and building a brochure to help people retro-fit their house to make it more resilient.

Ms. Harrison asked CDD staff to elaborate on what they think about when discussing individual responsibility vs. collective responsibilities, especially for people who are not property owners, who are tenants or in high turn over rates.

Mr. Boldec responded that they haven't figured that out yet but they will have to work with property owners. It is not clear how to back improvements into existing buildings.

Mr. Seidel stated that there is a high proportion of single family households. When we think about preparedness, we prepare people for unexpected events. We constantly underestimate people's latent ability to remain resilient. The way we think about families getting over loss of comforts and services, they often have contingency plans. We need to figure out what individuals can do best, the city, neighborhoods, and what faith based groups can best accomplish.

Cathy: One thing we really focused on was elderly living alone.

Mr. Dmytryk asked if the City planned to empower neighbors to be first responders.

Mr. Boldec responded that he has seen where neighbors often plan ahead for their own people and infrastructure, and mobilize people to care for each other. They might stockpile food, water, or medicine. Neighbors develop their own communication systems. The City is not looking to deliver those services, but help citizens to develop those networks, through faith-based communities or other groups to encourage individual actions and behavioral changes. The better individual preparation, the better overall preparedness. Broad ideas on how to empower neighborhood groups.

Ms. Rasmussen noted that Cambridge is a transient City and that requires extra communication efforts, especially with colleges and elderly people.

Mr. Dash gave some information on demographics in the city, noting that some parts of Cambridge have gotten much more populated recently.

Mr. Dmytryk asked if the City maps the population that each neighborhood holds.

Mr. Dash responded in the affirmative.

Mr. Seidel related that often people are oriented to the social world around them. Whether they know their neighbor's name or not, he thinks about places of gathering: the market, barber shop, etc. where people go for information. He thought the city should try to figure out how we can make those places one stop places for networks. Bridging the first 72 hours of a crisis is crucial. And pre-identifying disconnected, isolated people is difficult.

Ms. Rasmussen noted that having local charging stations was a main thing that came out of Hurricane Sandy. Pre-identifying people who are not connected. There are a lot of people who do not want to be on a list and they will be the hardest to identify in real time. It is important to have plans for buildings and families.

Ms. Watkins said a major priority is ensuring business continuity through stressful events. If employees can't get to the store to open and stock, for example, then people can't get their food. And some people do not even own cars to compensate for lack of working public transit. "Can you get around" data is reflected in journey to work information.

Mr. Dash said that on a smaller, more personal scale, people still need to plan ahead. If there is going to be two hot days or more, you need to start being aware of your own vulnerability and those of your neighbors.

Ms. Rasmussen said that cooling centers are being considered by the City, but you can't stay in a cooling center for two months.

Mr. Seidel shared that in an age when many people get medicine through mail, some impacted cities had to set up pharmacists in public places to get people their medication, such as happened in Hurricane Sandy.

Mr. Bolduc said that the ability to recover from an impact is important and that impacts can vary.

Ms. Rasmussen talked about the importance of business continuity for money and also supplies. Small business can do if they have two weeks of no business.

Mr. Dash stated that heat could really string together as a crisis anytime and we need to move away from business as usual and become more alert.

Mr. Kelley turned the conversation to how the Committee wanted to define neighborhoods for its purposes, and stated that he preferred that the group use the city's definition of neighborhoods. He asked that the Committee adopt those definition by consent of the majority.

The Committee approved the motion.

Ms. Harrison added that the Committee still needed to think about how neighborhoods blur, and cross over.

Mr. Kelley then turned the conversation to the matter of adopting a working definition of "resiliency" for the Committee's purposes. He stated that he was recently at a talk with Boston's Resiliency Officer Dr. Martin, and listened to her definitions which looked closely at how certain events impacted communities differently. Particularly, her definition was attuned to how minority groups struggled to overcome stressful events with the same ease of other groups due to lack of resources and isolation.

Mr. Durbin gave some context to the various definitions of "resiliency" that he had pulled from various sources, including San Francisco, 100 Resilient Cities, Louis D. Brandeis, and Google's App development guide.

Mr. Wineman asserted that the reference to "grow" contained in the 100 Resilient Cities' definition was problematic and didn't resonate with him, but what stuck out more is to adapt no matter what happens. He said we also need to recognize our limits. If the shoreline moves 10 miles west, Cambridge can't adapt. It's delusional to say "adapt no matter what." He said that he heard on news today that the world faces a helium shortage, but a deposit was recently discovered, and the attitude immediate changed to: Now we are saved! The interviewer did not ask how long the find would last, nor did the scientist interviewed. In our conception of resilience, it is important to incorporate realistic limits, both in terms of the factors that can cause need for resilience, and how much it can accomplish.

Mr. King expressed that he considered a slight difference in that approach. If the city is flooded and people have to move, okay, but adapt does not mean exist where the city is currently positioned.

Mr. Kelley shared that he didn't even mention climate change in the email to CDD, and yet that took up a large portion of their presentation, as if to underscore the importance that this particular challenge poses to Cambridge.

The Committee adopted the following definition of resiliency:

**Resilience describes the capacity of individuals, neighborhoods, institutions, businesses, and systems within a city to equitably survive and adapt to persistent changes, chronic stresses, and acute shocks.**

Mr. Kelley recognized the importance of bringing the Public Health Department to a future Committee meeting, and said that the Department of Public Works would be at the next meeting.

The meeting was adjourned.