Resilient Nashua Initiative

Mitigation & Adaptation Recommendations Meeting

Thursday, October 11th, 2018 (1 PM - 3 PM)

Nashua City Hall
Auditorium (3rd Floor)
229 Main Street, Nashua, NH, 03060

Facilitator

Justin Kates, Nashua Office of Emergency Management

Attendees:

Mark	Hastings	SNHHS
Jay	Minkarah	Nashua Regional Planning Commission
Whitney	Welch	NH HSEM
Roland	Vance	St Joseph Hospital
Liz	Fitzgerald	United Way of Greater Nashua
Chelsea	St George	DPHCS/GNPH
Jan	Schmidt	BOA/NH State Representative
Jason	Climer	U.S. Dept. of Homeland Security NPPD/IP/PSCD
Nzenalu	Obinelo	Gateways Community Services
Sarah	Marchant	City of Nashua, NH Community Development
Linda	McGhee	City of Nashua, NH Planning Department
Carlos	Camacho	Nashua Police
Pamela	Coutermarsh	Nashua Adult Learning Center
Kyle	Metcalf	Nashua Code Enforcement
Juana	Fields	Nashua Soup Kitchen & Shelter
Valerie	Connelly	Worthen Industries
Stephanie	Wolf-Rosenblum	Nashua Board of Health
Michael	Harris	City Of Nashua DPW
Fran	Patno	DHS OIP
Scott	Mellor	DHS OIP
Camille	Pattison	Nashua Transit
Nick	Miseirvitch	City of Nashua IT
Donald	Ware	Pennichuck Water Works
Charles	Hall	The American Red Cross
Wiliam	McKinney	Nashua Dept. of Building Safety

Sherry	Godlewski	NHDES
Peter	Schaefer	Citizen
Ray	Rowell	Worthen Industries
Mandeep	Gill	City of Nashua (DPW; Engineering)
Russell	Norris	Rivier University
Kim	Lundgren	Kim Lundgren Associates
Tom	Lopez	NH Partnership for Successful Living/BOA
Justin	Kates	Nashua OEM
Matt	Chigas	Nashua OEM

Minutes

1:00 PM Welcome & Introductions

- Justin provided overview of what our office has been doing in the background over the summer and updated everyone on the projects we are integrating into this initiative

- Described what was learned from Resilience Dialogues that was sent out in the e-mail
- Described finishing up the HAZUS review
- Justin reviewed over 50 community plans
- Justin described breaking HAZUS down into census block group to analyze specific areas which may help with the next Master Plan update
- Developing all of this into an online tool where people will actually be able to go in and see different hazards like soft soil
- People will be able to to use coUrbanize to plan for the whole community and be able to take their building and voice their concerns
- Justin described the Resilient Nashua Toolkit and how we are planning to have ti pushed out by December 18 and we will do a press release but whoever is interested can email us before before and get access to test it out
- Went over flyer for Resilient Nashua Summit and how Sara O'Neil did a fantastic job
    - Event will have Rhett Lamb from City of Keene and Dr Cameron Wake from UNH as well an opportunity to close out remaining pieces of the project and get more input from the community
- Justin did introductions, well rounded and well represented group of all sectors
- Discussion today will be broad and general for the whole city as we move forward we will work with individuals to get more specific feedback

1:15 PM Mitigation/Adaptation Strategy Development:
(FEMA Requirement Element C4)

- What opportunities exist to reduce risk and adapt to future conditions for the hazards & perils identified in Risk Assessment

Justin discussed the Recommendations Format slide and some of the different types of programs that can be implemented like utilizing natural resources to increase hazard mitigation and recommending people get flood insurance.

Went over definitions of hazard mitigation, climate change mitigation, and adaptation
Though this is a Hazard Mitigation Plan, climate change and adaptation measures can be implemented like using larger culverts when we replace culverts to expect more flood water, etc

    - Based on anticipated performance of Buildings & Infrastructure as determined in the NIST and HAZUS process
    - Based on vulnerable areas as determined in the Texas A&M Scorecard process
- Local Plans and Regulations
- Structure and Infrastructure Projects
- Natural Systems Protection
- Education and Awareness Programs
- Initiatives beyond the scope of FEMA's Hazard Mitigation Plan Requirements but may have resilience co-benefits

Flooding:
-Make sure catch basins are clean and clear of leaves and debris to make sure they flow properly (engaging people to do this within their neighborhoods)
-Drains may have been constructed to divert smaller water bodies which flow more when heavy rains, includes upstream outside of Nashua as well
->Salmon Brook is a great example of this, could be daylighted instead of having a culvert, back sup around Dunkin Donuts and Rotary Common

Peter Schaffer, Citizen: how do the wastewater pipes that flow upstream south of the wastewater treatment plant work and how is that not a problem during heavy rain

By DW Highway by old Navy floods as well as this woman's driveway due to the way it was paved, wants more input into these plans by citizens so their driveways are not impacted, etc by these plans (during paving programs, other stormwater diversion, etc) what standards does DPW use currently and where can it be improved

Sherry: what about green infrastructure where we use natural infiltration to route stormwater
Sarah: all new private development uses this standard where they cannot drain any additional stormwater into the system, must flow naturally, any new development that goes through planning process

Sherry: Brief examples-> rain gardens at private property, businesses, city property, recharges groundwater in the area which is helpful during drought and prevents flooding, green swale near parking lots so the lots don't flood and same process takes place

Mandeep: When new paving projects are planned residents are consulted about natural drainage, etc 5 years as been funded and 5 more years will hopefully be funded as well

City uses an app called YourGov and it reports issues to DPW, etc

-Parking lots flood into river and create hazmat issue for NFR

Winter Weather:

-Increased demand on shelters with no contingency plans

-People rely on DME need power and it creates a problem when they lose power

-Electrical grid is vulnerable during ice storms

Sherry:
-Winterize Program puts more insulation into people's houses so they use less energy.
-Solar+ ties into this as well
-Updating the state levels building codes from the 2009 codes to the 2018 codes has many positive benefits as the codes are updated based on events that occur. They feature increased wind and roof load standards
-there is a m move to lower the bond ratings of cities and towns that do not make efforts towards resilience

-Tom Lopez: Shouldn't there be inspections of high density residences each fall to make sure they are ready for the winter?
-City only has the funding and staffing to react to complaints
-There are no existing requirements to inspect that building owners/landlords do what they are supposed to do on a yearly basis

-Vegetation management for roads, power lines, etc
-> buses can't get through when trees are down
-> NTS publishes Level 1 and Level 2 service advisories based on the weather

Stephanie Wolf-Rosenblum: Everyone is relying on VOIP, how are we able to to communicate with residents especially those who have not made their own plans
-"it takes a village"
-There is a culture of high expectation of the government and low personal accountability
-Government is forced to do too much with too little
-can we include information for people to know what to do / what role they play like clearing off the storm drains and shoveling out hydrants
-Make people mindful of snow loads during heavy snow and rain/snow events
-People need to take action and be able to stay sheltered in place, etc

NTS buses need to be able to run and the generators may run out of fuel or not show up at all
-Can be mitigated by installing a generator at the facility and diversity of the fleet

How can we incentivize homeowners to help each other and help the elderly?
->ShovelReady program expanded beyond shoveling
- Get streets/ neighborhoods to pool resources-> creates economic development, keeps money local, builds community groups which is social capital and that equals resilience

Lopez: can community groups survey who need to be shoveled out, etc? Boy/Girl scouts, etc
What about charging stations for phones? That will help with communication and can also be worked out with local businesses

Jason Climer: Use community projects like Eagle Scouts, high school senior projects, etc to work on some of these basic projects
-> enterprising organizations can usually leverage resources and connections to be more capable for larger projects
Kurt suggested that Riv students can be used as well because they have a graduation service requirement

Could also mimic the “Little Free Library Stewards” program and adapt it to storm drains, hydrant shoveling, etc

Drought/Water Resilience:
Even with Pennichuck or the merrimack offline the other redundant source can offer 14 millions gallons per day, 9.5 will cover the city each day with 28-29 during peak summer days

The sources can be blended or separate and storage usually holds billions of gallons that can run the city for 45 days without being replenished

30 million gallons a day can be drawn from the Merrimack if needed

Water quality is not impacted, the Merrimack offers good quality water and there are a series of fabric weirs force the water low to high to prevent thermocline during Fall turnover and there are aerators throughout the reservoirs as well

A development in the NW quadrant of the city is on a well. Pennichuck owns and operates around 68 community water systems like wells. During drought conditions water can be trucked to these places and and stored in on site atmospheric storage (not the wells because that water will spread into the dry aquifers
Older homes have higher use utilities and require around 200 gal/day whereas newer homes with low use utilities require about 130-> this is where people can afford these fixtures, not everyone has the resources for this

Extreme Heat:
Sherry: co-op purchasing of A/Cs and low flow fixtures can be accomplished by putting money up front and partnering with a local Lowes or Home Depot

People also avoid purchases because the maintenance costs can be prohibitive, Code Plus standards can be used to make buildings more efficient and reduce the need for appliances like A/Cs

Cooling can be accomplished outdoors by utilizing trees for shade and analyzing the city’s wind patterns to create cool, shady spots
This is done in the South so there may be guidance and best practices on how to this for parks/green space design.
Green roofs can accomplish this as well as help with drainage

Comment: How can we make cooling more community based and avoid the need to for A/Cs because they require filter changes, moving in and out of windows, etc. They are problematic for

older folks. There are apps that can be used so people can express their needs and people can share the resources they have available.

Justin: Resilience Hubs are a new concept that has been introduced. These are places people can go to charge phones, cool down, and build social capital

Chelsea: Fans also work but only up to a point, especially when it does not get below 80 at night

Sherry: Maintaining messaging about hydration

Wind:

It is a peril that comes from several different types of hazards (storms)

Roland: Are there programs to survey the risk of private trees?
-> Yes, happens through Eversource or DPW depending, if it is to the point that it is dangerous to the road, etc the City will do it (usually it is left to be the responsibility of the owner but not everyone has the resources)

Mark Hastings:
Round stone roofing (loose gravel roof) creates projectiles in high winds, hospitals are moving away from that, it created rumors of machine gun fire after Hurricane Katrina

Can we leverage these perils for good?
-Ways to capture wind storms for power?
-Higher water = more power at the dams
-Solar+ how can this be incentivized? Can it be assessed into new and renovated buildings ?
Justin: Guidance exists for low income groups and nonprofits to leverage funding and strategies to benefit (like people who need fuel assistance)

Scott Mellor: What about programs to make people aware of what their insurance covers and what it doesn't? Can we get adjusters to come out and help[with this awareness?
-Works for floods
-Works for all hazards

Lightning Round/Closeout:
Justin: Additional hazards we need to explore?

Group:
-Cyber
-Gas Leaks
-Traffic/Congestion (Considering evacuations in large cities to the south may drive people north into the city making these problems worse)
-West Nile EEE/other disease? Mitigation: reduce standing water (another benefit from open ground green space drainage)

-What about working with Tier II reporters to better understand their transit routes?
-> suggestion: what about an app like AskRail but for truck/ road cargo?

-Policy changes can also be made working through LEPC to change arrival and departure times of hazmat like not moving it during school hours to places with schools nearby
(ex. AB not moving in anhydrous ammonia with a school nearby)
We did do a Hazardous Materials Commodity Flow study a few years ago.

2:45 PM **Next Steps & Closing:**

- Resilient Nashua Workshop (late November/early December in partnership with National League of Cities)
    - **Next Resilient Nashua Initiative Meeting in November (Previously scheduled date of November 6th actually has a conflict, new date will be provided soon)**
    - **Resilient Nashua Summit will be held at Rivier Dion Center on December 18th**
    - 2019 Dates will come out soon and will focus on closing out the plan and planning the Resilience/Long Term Recovery Exercise

- Announcements & reminders
- Website: learn more & contact info
    - http://www.livablenashua.org/resilient-nashua-initiative/