



## **Natural Resource Committee Meeting Minutes – October 17, 2013**

### **Members Present:**

Tom Young- Litchfield  
Nelson Disco- former NRPC commissioner  
Justin Kates- City of Nashua  
Kath Nelson- Nashua River Watershed/Lower  
Merrimack River Local Advisory Committee  
Venu Rao-Town of Hollis  
Linda Kipnes-Town of Hudson  
Celeste Barr- Beaver Brook Association  
Chris Constantino-Town of Milford  
Victoria Hawkes-PSNH  
Spencer Brooks-Town of Wilton

### **Staff Present: Kim Goddu, Kerrie Diers**

### **Introductions and Committee Goals**

Before the meeting began, committee members introduced themselves and the organizations or towns they represented. A review of the committee charge and draft goals and objectives was conducted. V. Rao commented the goals of the committee seem ambitious and it may be wise to create goals that are more practical and usable. N. Disco also commented on the potential conflict between our recommendations and planning in comparison to local regulations. K. Diers explained the review process began with master plan reviews of all the towns in our region. Our recommendations will be examples of what is happening around the region and ideas for possible projects or changes if the towns chose.

### **What We Heard-Water Infrastructure and Climate and Energy**

After introductions and a review of the goals, our committee began discuss of the What We Heard flyers from the Water Infrastructure and the Climate and Energy Workshop. K. Nelson voiced concern about the expanded water and sewer as a regional need. Nelson suggested looking at the scale water and sewer would be expanded to as well as a discussion on the importance of sourcing water locally. The question of what would the impacts be from expanded wastewater treatment plants arose from the group? Also, how would regional water infrastructure planning change usage? Additionally, the committee raised concerns about the effects to the aquifers with continued land use development.

J. Kates shifted the focus to the recommendation of hiring a regional resiliency manager. A resiliency manager could look at the disasters when they come and not just in the long term. If a resiliency manager was regionally focused and not just working in the City of Nashua, more planning could be conducted since storms do not affect communities in isolation. To continue with the regional theme, NRPC was brought up as

a source to play a strong role for regional opportunities such as waste water issues and drinking water infrastructure specifically in relation to the location of the pipes. Also, what types of water resources do towns need more wells or surface water sources? To answer these questions, a regional approach should be used so underlying resources are not depleted.

### **Draft Chapter Outline**

Next, the committee reviewed the draft environment chapter outline. Immediate questions included whether conducting a regional build out analysis would be possible to analyze the impact on water quality including how much storm water will be generated and what future water infrastructure will look like. Additional questions included, will the is the current supply adequate for a growing population and what are the repercussions of maintaining the status quo for land use development? K. Diers informed the committee NRPC will be conducting scenario planning with Community VIZ software to address some of the questions.

The committee then moved into a discussion of the Lower Merrimack Continuity report from NRPC. They felt it was a good start on assessing culverts and pondered how watershed organizations could use the information. They felt the State of NH could send some culvert data, blowouts and road failures and the cost of fixing each to display the return on investment. K. Nelson expressed the need for synergy between the local advisory committees and outreach efforts to make towns aware of priorities for increased storm events. The water infrastructure section of the outline was discussed and the committee felt it should focus on depleting groundwater, surface water resources and existing infrastructure.

Moving on in the outline, V. Rao asked if the outline is a good reflection of the goals our chapter is looking to address. The committee discussed other documents that should be reflected in the outline such as the NH Climate Action Plan and local Energy Action Plans throughout our region. The discussion of local plans led into the recommendation of including invasive species into the outline. The committee felt strongly it should be included in the natural resources section since invasives are a threat to native species as climate change progresses. The committee suggested including locations of species, local volunteer programs occurring our region such as the one in Nashua, Hudson and one in Merrimack on Horseshoe Pond. The committee added there had been some harvesting done on water chestnut by local volunteer programs.

The committee recommended other examples for invasive programs such as one on the Nashua Canal where there have been herbicide applications and monitoring reports for land base invasives along the river. C.P.Barr mentioned Beaver Brook does educational sessions on plants including plants of concern and areas for wildlife habitat. V. Rao expressed Milfoil was identified in Hollis where it affects water quality and swimming locations.

Next, the committee continued to discuss water and invasives and suggested the outline needed to include the instream flow report from the Sougheh into the chapter as well as the volunteer reports from Hudson on invasive species locations on recently monitored conservation easements. L. Kipnes mentioned Hudson has the reports.

The next topic of discussion was water conservation. K. Nelson reminded us that regionally we need to use less water so less needs to be treated. One focus of the waste water section should be a discussion of waste water treatment facilities and their energy consumption. Anheuser Busch was brought up as a good

commercial example since they collect the gas from a digester to be used for energy at the same location. V. Hawkes mentioned Pennichuck may have an example of a Best Management Practice (BMP)/Low Impact Development (LID) installation to use as an example in the chapter. It is important for our chapter to include as many local examples as possible to show other towns what is happening in our area. The group kept brainstorming examples of LID installations and wanted rain gardens to be included in the chapter outline as a design technique. Other examples suggested include, seeking out commercial developments with rain gardens installed, looking at Portsmouth, NH, Hanover, NH, the infiltration gallery at Pennichuck Square in Nashua and possibly new subdivisions with interesting stormwater reduction designs.

After brainstorming all of the examples, the group wanted to know if other regions were conducting the same kind of analysis. K. Diers briefly explained the Granite State Future project, the statewide snapshot to be produced at the end and provided everyone with the web address to join the online discussion.

Next, the group discussed resource management and the need to include recycling in the outline. C.P. Barr noted there are new goals for recycling for municipalities from NHDES. Other group members discussed, what is reality of recycling in our region? Some towns use single stream and some do not. There have been false claims made about recycling practices from some transfer stations. The group felt it would be interesting to see which town is doing the best resource recovery in our area.

K. Goddu then asked the group to look at the climate change section to discuss what examples are available in our region. Mass DOT was brought up as promoting multiple disciplines to address climate change. They address hazard mitigation while planning for climate change simultaneously. C.P. Barr mentioned the State of MA funds studies to analyze effected species and habitat throughout the state. The studies look at what habitat will be available in 50 years, since there is no point in funding a project to save a habitat that will just be disappearing from the effects of climate change. It also looks at the species loss associated with the habitat loss to determine where funding would be utilized most effectively. Barr will send PowerPoint of study conducted.

Next, K. Goddu asked the group what their knowledge is on payment for ecosystems services and if it should be included in the chapter. The initial reaction was no, however, K. Nelson explained there are a few examples in our state to be drawn upon. The increasing tick infestation is killing the moose population. Since our state is experiencing shorter, warmer winters, more ticks are surviving through the winter. The reduced moose populations have led to a loss of revenue from out of state tourists hoping to see moose and moose hunting opportunities. Nelson also mentioned that NH has a native shrimp population which has crashed in NH state waters. In turn, NH has reduced revenue from food sales and decreased employment for NH fishermen. Another committee member noted there was a recent TED talk on changing ecosystems and specifically how inserting a wolf population into a national park significantly changed the ecosystem. Loss of the maple sugar industry was highlighted as one of the largest economic drivers in the state and climate change will eliminate the maple sugar industry from NH. The group felt it was most appropriate that the climate change section focus on the economic drivers and the potential threats to NH species and industries.

S. Brookes brought up the development patterns in our region and how increased development in our area is effecting the local wildlife populations and causing poor human-wildlife interactions. Some bears in the area are being hand fed by local residents and adapting to the new development causing further conflicts.

The discussion of bears then sparked a conversation on the ski industry since many mountains are home to bear habitat. K. Goddu noted the ski industry in NH provides revenue in terms of tourist dollars and the effects of climate change will significantly impact snow fall quantities; however our region lacks a ski mountain.

Lastly, C. Constantino and J. Kates highlighted the importance of creating walkable cities with paths and connections to make our communities more resilient. J. Kates mentioned there is an example of reviewing impacts from historical floods in the City of Nashua and estimating property damage from future flood events through Hazus. C.P. Barr discussed an article on seeing people's perceptions of climate change. The study looks at the cost of maintaining the status quo, the order of magnitude and scale of events. The study makes the point that it is cheaper to plan and prepare than deal with the destruction and the aftermath of such large storm events. The committee agreed the tone of the chapter should focus on building resilient communities.

### **Regional Needs/Opportunities**

During the chapter discussion, the committee highlighted regional needs or some areas for collaboration between organizations. S. Brookes noted NH DES reported the local water table is dropping and new wells in our region need to be up to 300' deep. V. Rao mentioned there is new development in Hollis which has destroyed half an apple orchard and creating unnecessary amounts of impervious surface area. It was noted impervious areas are not good for water quality and the possibility exists for new developments to use LID techniques and cluster developments as well as new road designs to reduce impervious surface area. But the group was unsure if the 2 ac zoning prevented the developer from using new design techniques and suggested a town and a regional road design plan.

Pennichuck Square in Nashua was brought up as an example of using pervious pavement. T. Young mentioned there are issues with using such material including the use of salt and the effect on water quality and the fact it must be vacuumed to remove sand deposition. K. Nelson noted there should be designs for trapping sediment and towns need to require stormwater management plans and BMP's for road maintenance.

Next, K. Nelson discussed wanting to know which towns have water bans or can impose or restrict water usage in the summer. Regionally, climate change will be affecting summertime stream flow levels and to preserve species and stream flow levels, towns need to encourage water conservation. The group discussed the issue of insects and needing to use down spouts on water barrels to prevent insect infestation.

The group highlighted the importance of preserving our good water resources currently available because not all consumers are aware how much protection it requires. J. Kates suggested that NRPC can assist towns with fewer resources by providing staff to share resources for all topic areas (natural resources, water infrastructure, and climate change and energy efficiency) to create resilient communities.

Discussion of resilient communities turned to a question of green energy, specifically wind towers. It was noted, some towns such as Merrimack have looked into wind towers and some towns have zoned it out completely. Committee members were unsure of other towns in the region who have addressed this issue,

perhaps Amherst and Bedford? Either way, the committee felt the discussion of alternative energy should reflect the return on investments since it seems to be the most effective way to instill change. V. Rao discussed business models for alternative energy need to include what type of alternative energy is being built in the area and that it must feed back to the grid. It was also noted, there are currently regulations preventing the use of virtual net metering and lower energy projects are not well funded, those between 100kw-1MW. The committee the discussed the energy efficiency section should highlight what our total regional needs are and what are the best places to implement these projects because the maps indicate our area is not great for wind.

One suggestion from the committee is to look at what is happening with culverts assessment since it is important for regional transportation. The committee thought it would be a good example to highlight, where to attain funding, implementation strategies and how to encourage citizen participation to have projects implemented in the future. Also, NRPC has town hazard mitigation plans so all towns can get funding from FEMA to upgrade or assess culverts.

### **Southern NH Climate Assessment**

Our next topic was the Southern NH Climate Assessment from Dr. Cameron Wake from UNH. K. Goddu explained how the committee can assist with providing ways to make the report relatable and usable for towns. The committee felt it is important to not try and convince people climate change exists, rather highlight why people need to pay attention with a focus on how they will be affected especially with a return on investments.

J. Kates noted the report does not specifically highlight the impacts climate change will bring and those are the most useful for municipalities to know how to prepare. Decision makers can make more informed decisions if they know what they are facing. V. Rao noted the data is clear from the PowerPoint and the group agreed some examples in the report need to highlight larger storm events like the recent ice storms. Local power companies are preparing for another ice storm by clearing power areas; it could be a good regional example.

### **Next Steps**

Wrapping up our meeting, the committee noted the important discussion of co-occurrences and relationship between topics. K. Diers mentioned T<sup>2</sup> has reports that combine culvert assessments and other criteria. The committee agreed the most important resource for communities is outreach. J. Kates announced an idea to create an NRPC Climate Adaptation Subcommittee to work toward change. Other suggestions included creating an outreach structure moving forward, working with local advisory committees, following through on implementation and keeping a regional approach to efforts.

Lastly, K. Diers mentioned possibly having OEP speak to the NRPC Energy Committee to help bring communities together about energy issues. The committee also asked when the chapter was due; K. Diers explained a first draft will be available June 2014. K. Goddu then concluded the meeting by mentioning the NH DES Climate Adaption Toolkit will be a discussion topic at the next meeting after Thanksgiving.