

**Members in attendance:** Mikaela Schmitt-Harsh, Benjamin Meredith, Bradley Striebig, Daniel Downey, Doug Hendren, Raymond Sellers, Deirdre Smeltzer, Tom Benevento, Richard Baugh (Council Representative), Deb Fitzgerald (School Board Representative)

Staff/Others in attendance: Tom Hartman, Thanh Dang, Rebecca Stimson

### Introductions

Thanh opened the Environmental Performance Standards Advisory Committee (EPSAC) meeting. Introductions of each staff member and EPSAC member were made to new member Bradley, who is replacing Scott on the committee.

### Presentation by Rebecca Stimson on the Resilient VA Conference

Rebecca presented an overview of the Resilient Virginia Conference she attended in early August. The definition of community resilience is "the ability of a community to: prepare for anticipated hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions" (National Institute of Standards and Technology). Rebecca provided an overview of different community resiliency plans from Norfolk, Louisiana, and Larimer County, CO, all of which were driven by hazards such as coastal erosion, flooding, extreme weather, and wildfires. Energy resiliency was another topic at the conference and Arlington County, VA is taking part in the Zero Energy Schools Initiative, in which newly constructed schools use 65-80% less energy than conventional schools and the rest is supplied by renewable energy, making them more environmentally friendly and resilient. Attached is a copy of the presentation slides and handout of resources.

Doug was also at the conference and stated it was interesting hearing from the energy sector about resiliency.

An EPSAC member asked if staff was promoting an additional resiliency plan. Thanh answered that the purpose of this presentation is to share what was learned from the Resilient Virginia Conference. Staff is not promoting an additional resiliency plan. The City has many planning efforts that sufficiently contribute to Harrisonburg's resiliency by addressing specific issues, examples include, but are not limited to: the Comprehensive Plan, Bicycle and Pedestrian Plan, and Stormwater Improvement Plan. Rebecca added that resiliency is a good lens to consider when developing City plans and when thinking of environmental standards.

#### Working Group Updates – Integrated Plan Working Group

Tom started the update for the Integrated Plan Working Group by reviewing the framework document, which includes 8 steps the committee is considering. In the draft framework the first step is creating emissions reduction and renewable energy targets for Harrisonburg based on national and international standards. The second step would be a greenhouse gas inventory in partnership with JMU. Thanh stated that a memorandum of understanding would be needed between the City and JMU to outline expectations, scope of work, and costs of any partnership to complete an inventory. Doug asked where partnership funding would come from, Thanh said that is to be determined, and why an MOU would be necessary. The working group would also need to consider what inventory tool would be used; Thanh stated that Dr. CJ Brodrick-Hartman has offered to come to a future EPSAC meeting to share information on what tools are available and the pros/cons of each. Tom continued to outline the framework – the third step would clarify keep initiatives of the plan, the fourth would develop goals, objectives and strategies, the fifth step would prioritize strategies. The last steps would include finalizing the action plan, adopting the action plan, and monitoring progress. Tom H. suggested that the sectors/initiatives could be clarified, as some are already being worked on, some could be policies, and some would have to be incentives and voluntary measures because of the Dillon Rule. Thanh suggested the working group create a framework of what they would like to do to present to City Council for approval before continuing too far in the planning process.

Mikaela mentioned that the EPSAC discussed public outreach about environmental initiatives in the form of a web presence that would neatly outline current action items and achievements.

Tom H. asked if greenhouse gas emissions would be the only benchmark for improvements. Tom B. stated that benchmarks are yet to be decided. Tom H. asked the working group and the EPSAC to think about staff needs and funding sources and how to justify them. Thanh suggested staffing/funding would be a good thing to ask Blacksburg/Roanoke about.

The working group invited other EPSAC members, and city staff members, to a teleconference with Blacksburg on 9/28 at 9am and a presentation by Roanoke on 10/17 at 11am in Council Chambers.

#### Working Group Updates - Building Energy Standards Working Group

Next, Benjamin outlined the Building Energy Standard's work so far, including a meeting with the city and city school's facility managers, Adam Wright and Craig Mackail, respectively, about energy data collection needs. Also in attendance at that meeting were Andrew Kohen and Deb Fitzgerald, school board members. Benjamin outlined the energy efficiency standards proposal created by the working group, which includes suggestions for energy use intensity audits on city buildings, energy efficiency standards, cost analysis tools, specific energy reduction goals, onsite energy generation, and suggests the creation of a city internal energy team. Tom H. asked about life cycle and costs analysis to ensure standards for the vetting projects are reviewed consistently. Bradley pointed out that the working group may want to stay away from promoting a requirement for "life cycle analysis" as this generally suggests using a software tool to undergo very in-depth and costly analysis. Bradley suggested the requirement be worded as "including an audit that considers life cycle cost" for city projects. Doug asked about the international building code and if the city could exceed the Virginia standards – Thanh said that may be a Dillon Rule issue but the city attorney would need to answer that question. Staff will inquire with the city attorney. Thanh also suggested that this working group involve city building officials in planning discussions.

Deb filled EPSAC members in on an ongoing discussion about solar with the school board. Deb stated Johann gave a presentation about how public institutions use solar and the school board will be investigating which firms in Virginia could install and maintain solar at city schools, similar to how solar is being used at EMU.

Benjamin asked what the outcome EPSAC should expect of their work and if City Council will support EPSAC's recommendations. Richard stated that even starting the discussion about environmental standards is a success. Tom H. reminded members to ask Blacksburg and Roanoke about elected officials support during the next conference call and meeting.

### Working Group Updates – Water Working Group

Daniel gave EPSAC members a handout about water conservation in the city. He stated there is still more work to do but he would like to expand upon the Dry River recreation plan.

### **Other Matters**

Tom H. suggested that at the next meeting staff and EPSAC members work to prepare a simplified proposal. The proposal would outline potential projects and rank them by implementation difficulty so the committee has short, medium, and long-term goals and/or low hanging fruit versus big projects.

### **Determine Next Meeting Date**

Thanh suggested a few meeting dates in December – a poll was sent out to EPSAC members and the next meeting date will be December 5, 2017 from 5-7pm in City Hall Room 011.

### **Planning Framework**

- The Community Resilience Planning Guide for Buildings and Infrastructure Systems was created by the National Institute of Standards and Technology (NIST), to provide a planning framework for communities who are interested in resiliency planning.
  - <u>https://www.nist.gov/topics/community-resilience/community-resilience-planning-guide</u>

### Go Green Virginia: 2017 Green Government Challenge

- Includes a section for resiliency planning, as well as a Resiliency Checklist with tasks and resources to help communities be more resilient.
  - <u>http://gogreenva.org/?/challenge/participate/id/1/p/score</u>

### **Flood Resources**

- My RainReady
  - My RainReady is a tool for homeowners looking for more information about flood risk and prevention on their properties.
  - o <u>http://myrainready.cnt.org/</u>
- FEMA's Risk Map Program
  - Floodplain data and maps
  - o <u>https://msc.fema.gov/portal</u>
- FEMA National Flood Insurance Program, Community Rating System
  - The CRS program requires aggressive floodplain protection regulations above and beyond the minimum standards. In exchange, flood insurance rates are reduced.
  - o https://www.fema.gov/national-flood-insurance-program-community-rating-system

### **Energy Resilience**

- Arlington County Public Schools
  - Energy Resilience and Net Zero Schools: The Discovery Elementary School in Arlington is one of the largest net zero school buildings in the country. It was built as a part of the Zero Energy Schools Accelerator which is a part of the Better Buildings Initiative.
  - o https://betterbuildingsinitiative.energy.gov/accelerators/zero-energy-schools

### **Community Plans**

- Norfolk, Virginia
  - Norfolk has completed their first resilience plan, which includes resilience to environmental as well as economic and social stressors.
  - o <u>https://www.norfolk.gov/resilience</u>
- Metropolitan Washington Council of Governments
  - Includes a completed report as well as the background and presentation materials used during meetings.
  - o <a href="http://www1.mwcog.org/environment/climate/resilience.asp">http://www1.mwcog.org/environment/climate/resilience.asp</a>
- Northern Virginia Regional Commission
  - No report has been completed yet, they are still in the planning phase.
- http://www.novaregion.org/index.aspx?NID=1354
- Louisiana State Plan
  - Louisiana's Strategic Adaptations for Future Environments (LASAFE) combines the state Coastal Master Plan with specific actions based on future sea level rise projections throughout the state.
  - o <a href="http://www.doa.la.gov/OCDDRU/NDRC/LASAFE\_Report\_Final.pdf">http://www.doa.la.gov/OCDDRU/NDRC/LASAFE\_Report\_Final.pdf</a>
- Larimer County, Colorado
  - Larimer County's plan was driven by disasters such as mudslides, flooding, and wildfires, with a focus on citizen and neighborhood preparedness.
  - o <u>https://larimercompplan.com/document/larimer-resiliency-framework-0</u>



# 2017 Resilient Virginia Conference

### **Community Resilience**

- Community resilience is the ability of a community to:
  - Prepare for anticipated hazards
  - Adapt to changing conditions
  - Withstand and recover rapidly from disruptions
    Definition from the National Institute of Standards and Technology

# **Planning Framework**

- Planning for resilience can and should build on other community plans already in place.
- Communities should ensure that resilience is a common goal for all their planning.



Figure ES-3: Six-step planning process for community resilience

### **Community Plans**

- Coastal resilience plans driven by projected economic damages of sea level rise and increased flooding and the cost of "doing nothing."
- Non-coastal cities such as Larimer County driven by extreme weather, flooding, and wildfires.
- Other themes included: technological, social, energy, and economic resilience.

### Example Plan: Norfolk, VA

### Resilience

Urban resilience is the capacity of individuals, communities, institutions, businesses, and systems within a city to survive, adapt, and grow no matter what kinds of chronic stresses and acute shocks they experience.

Three goals:

- 1. Design the coastal community of the future,
- 2. Create economic opportunity by advancing efforts to grow existing and new sectors, and
- 3. Advance initiatives that connect communities, deconcentrate poverty, and strengthen neighborhoods.

### **Example Plan: Louisiana**



An addition to the Coastal Master Plan, articulates development strategies based projected flood inundation 50 years from now:

- Reshape <3' future 100 year flood risk</p>
- Retrofit 3' to 14' future 100 year flood risk
- Resettle >14' future 100 year flood risk

### Example Plan: Larimer County, CO

LARIMER COMMUNITY RESILIENCY FRAMEWORK

- Resiliency plan driven by extreme weather causing flooding and mudslides, and fire risk.
- Different resiliency strategies for different sectors:
  - Community
  - Economic
  - Health and Social
  - Infrastructure
  - Natural Resources

# Arlington County, VA

- Zero Energy Schools Initiative
- Use 65-80% less energy than conventional schools, the rest is supplied by renewable energy
- Public buildings can serve as emergency shelters, food/medicine distribution centers, emergency operations centers

### Main Ideas

- Resiliency planning starts with understanding the social environment, the built environment, and the unique hazards in the community.
- Hazard mitigation/resiliency is cost effective
  - Resiliency planning is "planning ahead" on how to protect people and assets, and invest in new assets that will last long-term with less maintenance.
  - Mitigation saves society an average of \$4 for every \$1 spent (FEMA).
- Resiliency planning can look like: a stand-alone resiliency plan, an addition to an existing plan, a lens with which to view future plans or projects.