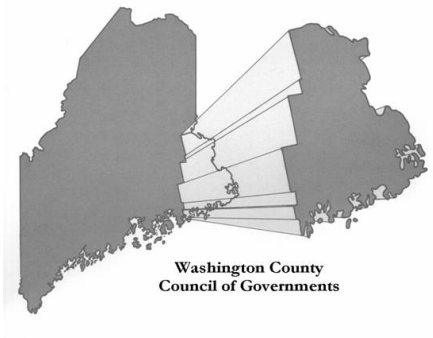
Washington County Council of Governments
Climate Vulnerability Assessment Presentations

Fall, 2013



Input received from presentations….notes and evaluation from each meeting are added as the meetings take place

Meeting Schedule:

Sept 24 - Jonesport, Beals, Addison
Oct 9 – Milbridge, Steuben, Harrington, Cherryfield
Oct 29 – Calais, Robbinston
Nov 12 – Lubec, Eastport, Perry, Pembroke, Whiting, Denysville, Trescott/Edmunds
Nov 19 – Machias, Machisport, East Machias, Roque Bluffs, Cutler

Final slide in presentation asks:
What have we missed?
What are your priorities?
What is the most useful time frame – to prepare/present the scenarios?
What kinds of information would be most useful?
What is the best form for the information (maps, websites, written, illustrations, combinations)?

First meeting Sept. 24th, 2013 – Jonesport Historical Society for Jonesport, Beals and Addison

- What is the real risk? How to prioritize actions given the cost of adding/upgrading multiple culverts for eg. or other adaptation responses.
- Can provide photographs and physical location of water level heights in Feb2/76 storm in Addison village to ground truth flood levels.
- Would like to have access to the maps and the information on the web.
- Want to see short term, medium term and long-term scenarios and responses.
- What funds are available to inventory vulnerable infrastructure?
- Want to see the electrical/utility infrastructure added as a layer.
- Will use the information to move/position equipment relative to likely flooded areas (pre-storm)
- Do not need to map water sources for pumper trucks – Jonesport uses saltwater (unlike some towns).
- Please send the slides from the presentation.
- Let town officials know who to contact at Bangor Hydro so they can put pressure on them to provide the GIS coverage of the utility network.

Second meeting – October 9th – Milbridge Public Library for Milbridge, Harrington, Cherryfield and Steuben

- I would like to have access to this information and the programs on-line so I can “play with it” (it will be available on-line in early 2014
- Milbridge and Cherryfield have a good culvert inventory which can be added to the data layers
- Best time to get culverts replaced is when there is a disaster declaration (90% of costs are covered)

- Need to plan for replacement when vulnerable infrastructure fails in a storm
- There are funds for improving habitat for salmon and/or clams
- Lewis Pinkham and Ralph Smith – both on Shellfish Councils – can help with obtaining real time GIS data (rather than PDFs) on shellfish closures from DMR
- Can we determine how much to increase culvert size with this information? Yes – one student in Community Applications in GIS class is working on the relationship between the size of the watershed and recommended culvert size
- Culverts installed for salmon enhancement (open bottom, arched culverts) are better for flood abatement compared to smooth wall channels that speed up the water; open bottom, arched culverts are harder for beavers to dam and do not channel/increase flood water energy
- Culvert inventory from each town (needed; sometimes available) could be augmented with location, condition, age, beaver threat; Community Applications class could create "an app for that"
- After seeing the presentation, I will do more culvert mapping, especially flood areas. (2)
- I'd like our community to use the information about how ice affects rivers, flows, etc.
- I would like to see our community utilize the information of how the loss of sand bar affects clams in Wards Cove in Harrington.
- After seeing the presentation, I think we should consider placing resources around town in case of areas being cut off.
- I didn't know most of the assessment information.
- I will certainly pay more attention to vulnerable areas in town.
- I think we should outline areas that could be cut completely off as far as first responders' job.
- I liked all aspects of the presentation.
- I liked the presentation.
- After seeing the presentation, I will stress the importance of move to solar economy.
- Wasn't aware that you were working on this until I saw it in the Coastal Press. Great to see how our town can be affected.
- I will make sure planning board pays more attention to wetlands.
- I would like to see a town wide newsletter; there's a big need to educate people.
- I liked that you had the screen-very important/useful information-great job!
- I liked the time of day of the presentation.

Third meeting – October 9th – Washington County Community College for Calais ad Robbinston

- Add fuel sources to the layers that we can turn on and off
- Characterize the likelihood of the risks; how likely is the Category 2 storm at High Tide – please provide a range of probabilities under various conditions
- Would like to see this in fine scale for local and also regionally
- Will closure of the dam at Milltown help with the dual impact of surge and runoff? Perhaps but have to manage all the dams in the system; could create storage capacity up the river ahead of the storm; surge will overtop the dam in the worst case scenario; need to collaborate with engineers who operate the dam; note that storm surge pressure would come at the dam from a side that was not constructed to withstand that kind of pressure.
- Would definitely like to have access to the software on-line in real time; Tora noted we can add live satellite weather layers
- What effect will release of this information have on the cost of insurance to property owners and businesses?
- Add Emergency Services to all web maps (it is on there now)
- Add the regional Red Cross shelters to the maps as well as the network of community shelters

- The International Joint Commission has an impervious surfaces layer for the entire St Croix Basin (Abby – St Croix Waterway Commission – can obtain it)
- Would like to understand the economic impacts of border closures
- Include cooling opportunities for residents without air conditioning
- Would like to see more mapping on inland flooding (NOTE – this is not currently available but we are working on it)
- I will be more vigilant in storm preparation
- I will prepare for specific evacuation scenarios
- I would like to have these maps be accessible in town offices
- I will scope out both primary and secondary evacuation routes and be aware of potential floods areas. I will also be aware of county emergency planning efforts and make community leaders more aware of available mapping resources
- 2 ideas: emergency evacuation planning – more comprehensive and frequently and actually involving community so they are aware and prepared. Disaster prep training for residents; also information given to public – homeowners and developers so they can better plan new development; need to get resource-based industries involved – individuals are companies that rely on these resources need to know how to plan for the future; how to diversity their business, gain new skills, explore new plant species, deal with new human diseases combat new pests, etc.. People think of this as a storm issue, but clearly there is much more affected.
- I liked learning about weather patterns (storm patterns) and how the physical land forms work with the weather to create storms. Learning how comprehensive and connected these issues area.
- It would be better if there was more time with the maps and more discussion about what can be done but I understand that follow-up presentations will do this

Fourth meeting – November 12th – Pembroke Fire House for Eastport, Lubec, Perry, Pembroke, Downeast EMS, Pleasant Point

- To prioritize road improvements ask – what is the condition of the road bed underneath the area that will get flooded? If it is covered with water is it likely to fail or wash out?
- The existing evacuation routes are not likely to change as they are recommended before the storm. But the scenarios inform us when/which/where roads will be flooded – how then do you evacuate?
- We need more stream gauges (currently only 3 in all of Washington County) to assist in accurately models of in-land river flooding
- Can you set up an individual “dashboard” for each town? Yes – in addition to the on-line storm surge scenarios we will have parcels maps for the public to view; and a more detailed parcel layer that also includes shoreland zoning, zoning (if it exists), wetlands, facilities, infrastructure etc for Planning Boards/Code Officers.
- Will we also be able to see the regional maps, i.e. what is happening in neighboring towns, the region and the watershed? Yes, the on-line maps will be posted as whole bays and entire watersheds (when the inland flooding models are completed) and then you can zoom into your own towns form the regional view.
- Can we have a link to the data from the town’s web site – yes, it will all he hosted at the University of Maine servers with links to the user friendly interface on the GROWashington Aroostook web site www.gro-wa.org)
- The scenarios provide the ability to sit down in advance and decide how to deal with a variety of situations; these are potential scenarios; in a real storm Tora will work with County EMA Director Mike Hinerman in real time run the models and then create/host /post the maps; all will be tied into the existing emergency alert system