

Durham Resilient Connecticut 2.0 Meeting

4/20/2022

10 am, Held remotely

Present: David Murphy (CIRCA), Mary Buchanan (CIRCA), Margot Burns (RiverCOG), Laura Francis (Durham First Selectman), Robin Newton (Durham Town Planner)

Overview: CIRCA met with the Town of Durham and RiverCOG to describe the expansion of Resilient Connecticut into the RiverCOG planning region and provide a forum to the local hazard mitigation plan team to comment on the status of actions in the Durham annex of the Hazard Mitigation Plan adopted in 2021. These meeting notes will be provided to the Town and RiverCOG for appropriate filing related to the Hazard Mitigation Plan.

David commenced the meeting by providing an overview of the Resilient CT project and Resilient CT 2.0 future plans. During the discussion, the local planning team reviewed the Town’s hazard mitigation actions, and attendees had an open discussion about the Town’s needs related to climate change and natural hazards.

The Town staff outlined some initial concerns:

- Laura explained that culvert and bridge replacements to improve capacity have been underway along Pickett Lane near the schools. During the floods in summer 2021, streams remained in the new structures and did not overtop.
- Laura asked where drought fits into the Resilient CT planning, particularly the results of drought rather than preventing drought. The largest concern related to this in Durham is dead trees.
- Durham has experienced a dead and drying tree problem due to three factors: drought, ash borer beetle, and gypsy moths. This issue has cost hundreds of thousands of dollars so far.
 - o CIRCA is open to finding ways to link this to Resilient CT, perhaps from an infrastructure approach.
- Durham previously completed some work along the Coginchaug River such as culvert improvements and other river corridor projects; so far these have held up well. When people call to report a flood, the town advises them to call back if it hasn’t resolved by the next day, because the area of concern is likely an active floodplain and part of its job is to collect water.
 - o However, there is a third culvert that is undersized and still presents a problem (see item 7 on the HMP actions list). Improving/replacing infrastructure falls under the scope of Resilient CT.

Review of Hazard Mitigation Plan Actions:

Activity #	Obj	Activity Description	Status Reported by Local Planning Team
1	1-1	HMP Plan Integration	No progress has been made, although updates likely have not been necessary; the Town

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		Incorporate additional natural hazard mitigation concerns into Zoning Regulations, Subdivision Regulations and Stormwater Management Regulations	participates in the MS4 stormwater permit and utilizes a contract engineer (Jacobson) for compliance assistance.
2	1-1	HMP Plan Integration Incorporate additional natural hazard mitigation concerns into the Inland Wetland Regulations, including prevention of runoff near waterways	Laura and Robin are unfamiliar with this need, and it was possibly carried over from a previous edition of the HMP.
3	1-1	Capital Improvement Planning Incorporate projects identified in this table to the capital improvement plan annually	Ongoing – see individual project rows for more details
4	1-1	Maintaining Shelters: Update emergency shelters with technology, space, and supplies. Actions include adding repeaters to ensure complete internet coverage in shelters and ensuring full cell coverage. Ensure shelters have installed generators, emergency light towers, and maintain supplies. Build 6-8 bay buildings for Emergency shelter storage.	Capital budget this year includes the purchase of more light towers. Generator at the shelter is believed adequate. Town purchased a former elementary school (Korn School) that will be renovated for a community center; this is right next to the high school that acts as the shelter.
5	1-1	Create and implement a Debris Management Plan	The plan still needs to be formalized but all the procedures are in place as standard practice. The town has a contract that has been used in the past for collection with a private property owner. The transfer station now owns a portable grinder machine which they also rent to other towns.
6	1-1	Reduce and Manage Debris Create and maintaining an inventory of dying and dead trees. Ensure budget allocates appropriate money necessary to maintain and remove dead, dying, dangerous, and diseased trees in rights-of-way and other town land.	A portion of the chip seal budget (\$200,000) was diverted to pilot a bulk removal of dead and dying trees on some major roadways. Hundreds of trees were taken down, and during the next storm season the roads in this pilot area fared better. This process is now being expanded; Board of Finance committed \$100,000 to this purpose (although full cost will likely be \$300,000).
7	2-1	Drainage Study for Guire Rd Conduct a drainage study for Guire Road. Replace culverts as needed to reduce flooding	This is the culvert identified in the earlier discussion. The town retained an engineer to conduct an inspection, and as a result this will qualify for the Local Bridge Program. Future design and construction is pending.
8	2-1	Drainage Study for Stagecoach Rd Coordinate with CT DOT to conduct a drainage study for Stagecoach Rd near Route 17. Replace culverts with larger culverts to reduce flooding.	No progress.
9	2-1	Drainage Study for Pickett Lane Design has been completed for a new culvert on	Construction will be done this summer.

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		Pickett Lane between Main St and Maiden Lane. Replace culverts to reduce flooding	
10	2-1	Drainage Study for Haddam Quarter Road Conduct a drainage study for Haddam Quarter Road. Replace culverts as needed to reduce flooding	Pipes are being replaced this month (the work is underway).
11	2-1	Drainage Study for Seward Road Conduct a drainage study for Seward Road. Replace culverts as needed to reduce flooding	This is an unimproved town road that serves three houses. Replacement of the culverts is planned, "like-for-like."
12	3-1	Install redundant internet for the Town Hall to ensure continuity of government should cable go down. Continue using Comcast as primary and acquire the necessary permissions and equipment in order to use the state fiber network as backup during emergency operations. (which would be replacing the old satellite internet backup that was discontinued in 2017/18)	Monthly fees for CEN are too high to justify at the moment. Emergency Management department is still looking for ways to create redundancy here.
13	2-1	Report new tranche of culvert work to finance committee to establish a comprehensive analysis and replacement schedule for all culverts	Guire Road is likely the last major project. Parmelee Hill Road might be next, but flooding is not as frequent and damage is limited due to the lack of development.
14	2-1	Upgrades to fire house is needed. Complete an analysis to determine if a build out of the property to accommodate a public safety complex to house Fire, EMS, RST and the Fire Marshal is feasible.	Still needed. A schematic plan for the build out has been created. Septic system is across the street by the fairgrounds, with no documentation of how this happened. The plan has not yet been funded.
15	1-1	Microwave Communication Enhancements. Currently Writing a grant, along with (Durham, Chester, Haddam, O.S., Lyme and Colchester) for microwave equipment in the region to enhance communication capabilities	Town is now part of the State of Connecticut public safety network / trunk system. The microwave equipment is still needed, but it is less urgent now.
16	1-1	Diseased and Dead Tree Removal Develop a program to migrate from a tree- to- tree removal operation to a full-on logging operation for efficiency. Pursue a RPIP grant with neighboring communities for regional logging equipment.	Bulk tree removal has occurred (see item 6). The town is now paying for removal due to the amount of wood, whereas previously companies would take it for free. The town had a company come out and demo the larger logging equipment for Durham and neighboring communities, but couldn't get funding from Board of Finance.
17	1-1	Drought and Water Use Ordinance Identify Restrictive Use Model Ordinances, conduct a literature review and draft and adopt an ordinance. (State Water Plan Provides a Model Ordinance)	No progress. The Town is aware of the model ordinance and has a copy.

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18	2-1	<p>Address Snow Loading on Roofs</p> <p>Inspect sections of flat roof on critical and essential facilities including the high school, middle school, fire department, and library to identify risk from snow load. Investigate mitigation possibilities and implement as needed.</p>	<p>This will become more pressing because of the acquisition of the Korn School, which has a flat roof.</p>
19	1-1	<p>Plan Integration – POCD. Integrate with Plan of Conservation and Development by incorporating NHMP as an annex.</p>	<p>Making an amendment to the POCD could push out the timeline for updating the POCD (either by switching to a chapter-by-chapter update or via amendments instead of a full overhaul). So, this hasn't happened yet but still is a possibility.</p>

Open Discussion:

- Laura attended the CLEAR training on stormwater utilities and authorities, but thinks this would be overkill for Durham. David noted that stormwater utilities work well in larger communities where processes are already in place for invoicing property owners for other utilities; and where in-house GIS capabilities are significant.
- Robin does not anticipate P&Z adopting soft drainage requirements such as low impact development (LID) techniques for subdivision areas; these often don't work with Durham soils.
- David asked for a description of the Town's approach to addressing extreme heat. The shelter has a generator that provides more than minimal service, and could be used as cooling. The new community center also has potential for this.
- Durham now has natural gas via a high pressure line with pressure reducing equipment. The line was installed to provide a loop from Wallingford to Middletown. As a result, the Korn School / community center will have natural gas and will be a more reliable cooling center. Additionally, other critical facilities will have more reliable functions with natural gas connections to their building systems and generators.
- The new expanded public water supply in Durham will also help critical facilities be more resilient.
- A concern was raised regarding connections with coastal towns: "If Durham is part of somebody else's evacuation plan, we need to be at the table."
- There is some interest in the possibility of developing a microgrid for the town center. There will be a solar farm on private property on Johnson Lane; construction will likely start in the fall.
 - o Margot raised the idea of improving private business resiliency as well as government resiliency.
 - o Microgrid could focus on school campus, encompassing Durham Manufacturing and a gas station as well as nearby supermarkets.

While an obvious way to bring Durham into the Resilient CT 2.0 program and populate the project pipeline is not immediately apparent, CIRCA and RiverCOG will keep thinking about this and watch for opportunities.

- Durham is already relatively resilient, and the natural gas and public water connections strengthen this further.

Follow-up:

- Please take a look at the map viewer for the Zones of Shared Risk and offer any corrections/additions. Link here:
<https://experience.arcgis.com/experience/9a4f68dd99f44dc58b93fd85bcfe1255/>
- (Note: the Editor tool within the viewer does not always save reliably, so please email mary.buchanan@uconn.edu with any changes you'd like to see reflected in the Durham ZSR layer.)