11:00-1:30 Field Sessions, Workshop, Training

Training: Tools to be equipped for change: from raising awareness to adaptation practices
Presenters: Nathan Robbins (Maine DEP), Gayle Bowness (Gulf of Maine Research Institute), Abbie Sherwin (Maine DACF)

Attendees: Sadie Mae (Bates College student), Jeremy (Midcoast Conservancy, Colby College), John (retired UNE), Lisa Graichen (UNH Cooperative Extension and NH Sea Grant; notetaker)

Welcome and Introductions

- Tools:
  - Community Resilience Informed by Science Experience (C-RISE) – Gayle
  - Maine Flood Resilience Checklist – Abbie
  - Maine Adaptation Toolkit – Nathan

- Goals:
  - Raise awareness of climate change issues
  - Inform and make available resources to use
  - Co-develop and train on the use of resources

- Objectives:
  - Raise awareness of SLR risks to ME communities
  - Ability to use tools to apply to different scenarios
  - Raise awareness of GMRI’s CRISE programming, ME Flood Resilience Checklist, ME Adaptation Toolkit

C-RISE (Gayl)

- Developed with an advisory committee
- Very focused on the Portland area but does translate throughout southern Maine; also some folks from Machias thinking about how it could work in Downeast region
- Learning outcomes – Participants understand:
  - how SLR, storm surge, and increased precipitation will impact them personally or indirectly;
  - the need to make decisions in the face of uncertainty;
  - the importance of using data and modeling to inform decisions
- Goal: Engage 1,000 citizens in C-RISE by September 2018 (launching 8/3/2017)
- Introduction to SLR → explore SLR scenario maps → explore compounding impacts of SLR, storm surge, and heavy rain → explore SLR impacts on community resources of personal value → examine case studies of SLR resiliency globally, nationally, and regionally
- On the first end of awareness of the issue and possible next steps
- “Preparing for SLR” workshop series in Portland, starting 8/3; also looking to partner with organizations and stakeholders to deliver some specific programming (e.g., South Portland working on their new sustainability plan; Brunswick Library; Wells NERR; garden clubs)
  - Let Gayle know if you have an interested group
- Testing with teachers → adapting for student audience – incorporating shortened component into GMRI program for 5th and 6th grade audience; testing with high school students too
- Using ESRI StoryMaps
- Adapt → NH SLR data layers
- Developing a facilitators guide (will ID where you need to plug in site-specific information/data) – need more funding for that component
• Maine: already an 8” rise; increased rate of rise – anthropogenic (ocean warming and land-ice melt)
• Visualizing data is really difficult – conference at Bates in August; important to coordinate our messaging; can be confusing for the public to see diverging lines from different sources of data
• “What impacts of SLR have you already seen” – discussion, images (e.g., King Tide photos)
  - Flooding along the coast and flooding through stormwater systems further inland
  - High tides plus heavy rain events plus storm surge
• Scenarios (2100)
  - Historical rate → lowest (8”)
  - Historical rate + ocean warming → mid-low (1.6 ft)
  - Historical rate + ocean warming + limited land-ice melt → mid-high (3.9’)
  - Historical rate + ocean warming + maximum land-ice melt → highest (6.6’)
• 2017 NOAA Technical Paper 083 – six projections
• These are global averages, but SLR doesn’t happen like a bathtub – rises at different rates in different areas (ocean currents, subsidence, river input, density of land beneath the ocean)
• Climate Central → localized data for Portland – 11.2’ (extreme)
• Currently recommended to plan to mid-high SLR scenario for 2100 (4’), but also plan for a storm event on top of that (possibility of 6’)
  - Relative SLR adjustment vs. global averages
• Community resilience: 4 things we can think about –
  - Keep the water out
  - Live with water (e.g., build with floodable space)
  - Planned relocation (involves banks/mortgage lenders, insurance, community zoning)
  - Public education and support
• High-water mark projects (past events and visualizing future SLR projections)
  - Projects in Portland and York – signs to visualize SLR
• Get involved – beach monitoring (state program, global citizen science projects)
• DEP – grants for WWTPs to work on a climate adaptation plan
• Building a common language/understanding → support for projects, investments in infrastructure

Maine Adaptation Toolkit (Nathan)
• Who: Those gaining an understanding of the issues, those applying knowledge of the issue and translating it into action
• What: An online library of Maine-focused resources for climate adaptation and resilience actions
• Why: Learn about Maine’s changing climate; access information to help integrate best practices into communities, homes, or places of work
• Goals = access and understand community resilience needs; leverage local, state, federal climate-related resources (projects, tools, data, etc.); bring resources to ME communities to aid their efforts
• Uses: short-term project and long-term planning
• Revised version is coming later this month or next month
• Maine Interagency Climate Adaptation workgroup (MICA)
• Provide feedback at: Surveymonkey.com/r/AdaptationToolkit

Maine Flood Resilience Checklist (Abbie)
• Who: Communities wanting to understand vulnerabilities to flood hazards and SLR; communities interested in building flood resilience
• What: Integrated framework for examining local flood risk, assessing vulnerability, and identifying strategies for increasing resilience
• Why: Prepare for increasing flood hazards; build resilience and reduce vulnerability to protect people, places, and nature; move beyond the theory of resilience toward operationalization of the practice of resilience
• Regional planners = best people to work with communities on the checklist – training workshop
• Checklist categories:
  o Risk and vulnerability
  o Critical infrastructure and facilities
  o Community planning
  o Social and economic vulnerability
  o Natural environment
• Link to the Community Rating System program (discounted flood insurance in exchange for communities implementing actions that go above and beyond the minimum requirements of NFIP)
  o Appendix – CRS credit description, points
  o Can be used by communities who already participate – ID what they can do to earn more credit; and by communities interested in participating
• Associated materials: process diagram, agenda templates, process agenda templates

Discussion
• Lisa – send Nathan resources re: land conservation and climate (TNC, OSI, LTA)
• Add a link to suggest a new tool/resource (survey or email pop-up)
  o Nathan: Adding a new link for feedback
• Helpful to have case studies of communities that have taken some of these actions (e.g., RAINE)
  o Nathan: Adding an ‘adaptation actions’ section; Maine solutions map
• Checklist → online platform (Maine Coastal Program moving to Maine DMR)
  o Data collection opportunity (not required –
• Ipad issues, needing to download an app?
• NOAA maps vs. FEMA maps? Different maps that don’t align – that’s a problem
  o NOAA visualization tools are not regulatory; hard to communicate about that with people
  o CIMPS
• Resist change to your websites unless it’s really important – takes forever to go back through it and find what I used to be able to find
• Is this approach helpful/effective?
  o Yes – helpful to see the C-RISE project and Checklist first before getting to the Adaptation Toolkit; Toolkit needs context for people who might not be as familiar with resilience
  o More on how these things link together
  o Really explaining what you mean by resilience – so many definitions