



CSO Coastal Hazards Planning & Adaptation Work Group
April 12, 2022 Call Notes

Guests

Doug Marcy (NOAA)
Billy Brooks (NOAA)
Jamie Carter (NOAA)

Attendees

Nicholas Angarone (NJ)	David Green (TX)	Rob Porro (CSO)
Kathleen Angel (WI)	Becky Hill (NJ)	John Ryan-Henry (CSO)
Joseph Bauer (FL)	Kelly Hill (GA)	Casey Sebetto (IL)
Matthew Baumgardner (NJ)	Weston Hillier (MI)	Peter Slovinsky (ME)
Nicole Carlozo (MD)	Mark Hogan (LA)	Matt Smith (CSO)
Nathalie DiGeronimo (NH)	Steve Holland (OH)	Matt Walderon (PA)
Cody Eskew (IL)	Jennifer Kline (GA)	Erin Wilson (DE)
Joe Exl (IN)	Barbara Neale (SC)	

Notes

1. Welcome and Staff Updates

- a. **National Fish and Wildlife Foundation:** NFWF released the RFP for the 2022 National Coastal Resilience Fund. There is a recorded pre-proposal webinar available at the website. Pre-proposals are due April 21 at midnight ET. Invitations for full proposals expected by the end of May. More information available here: <https://www.nfwf.org/programs/national-coastal-resilience-fund/national-coastal-resilience-fund-2022-request-proposals>
- b. **NOAA Employment in Inundation Zones Database:** NOAA has recently released a new database with employment information within inundation zones, specifically the database has businesses and employees within FEMA SFHA, SLOSH Storm Surge Zones Cat 1-4, and NOAA Tsunami Inundation Zones. More information available here: <https://coast.noaa.gov/digitalcoast/data/coastal-inundation-zones.html>
- c. **FEMA Swift Current Initiative:** FEMA's FMA Program has launched a new funding opportunity called the Swift Current Initiative, which is intended to provide flood mitigation assistance for structures covered under NFIP as part of the disaster recovery process. The initial round of Swift Current is being funded by IIJA funding, and is targeting states affected by Hurricane Ida – specifically, Louisiana, Mississippi, New Jersey, and Pennsylvania. Application information can be found here: <https://www.fema.gov/grants/mitigation/floods/swift-current>
- d. **FEMA Local Elected and Appointed Officials Guide:** FEMA recently released a draft of the Local Elected and Appointed Officials Guide, which is meant to

provide officials with baseline knowledge on emergency management concepts and principles. FEMA is seeking feedback on the guide until April 22, through a submission form found at: <https://www.fema.gov/event/fema-seeks-feedback-draft-emergency-management-guide-senior-officials>

- e. **FEMA Pre-Calculated Benefits for Acquisition Projects:** In February, FEMA released a new Pre-Calculated Benefits Memo, establishing a pre-calculated benefit that communities can use in calculating cost effectiveness for acquisition projects for repetitive and severe repetitive loss properties. https://www.fema.gov/sites/default/files/documents/fema_bca-efficienncies-rl-srl-precalculated-benefits_memo.pdf
- f. **FEMA Cost-Share Adjustments for 2020-2021:** The authorized federal cost share has been increased for emergencies and disasters declared in 2020 or 2021. The authorized cost share has been increased from 75% to a minimum of 90% for PA, HMGP, and some IA programs. https://content.govdelivery.com/attachments/CALOES/2022/03/22/file_attachments/2109536/FEMA_Advsory_90_Percent_Cost_Share_Adjustments_20220318.pdf
- g. **FEMA Hurricane and Flood Mitigation Handbook for Public Facilities:** FEMA's Building Science Branch and Community Infrastructure Resilience Branch just released a new handbook, the Hurricane and Flood Mitigation Handbook for Public Facilities, which has over 30 fact sheets with tech guidance and recommendations for best practices to mitigate hurricane wind and flood risk. The guide can be found here: [Building Science Resource Library | FEMA.gov](#). FEMA's Community Infrastructure Resilience Branch is open to feedback from CHPA on what other types of resources like this would be helpful.
- h. **Upton Jones Amendment:** On the June 2021 call, this work group discussed a research proposal by Braxton from North Carolina to investigate the Upton Jones Amendment program to move or buy out erosion-exposed properties using the National Flood Insurance Program. Sen. Burr's office has submitted the questions as an inquiry to the Congressional Research Service. We hope to hear in the coming weeks and months from Sen. Burr's staff about what they hear back from CRS.

2. Presentation: 2022 Sea Level Rise Technical Report

- a. Speakers:
 - i. Doug Marcy, Coastal Hazards Specialist, NOAA Office for Coastal Management
 - ii. Jamie Carter, Senior Remote Sensing Analyst, Northeast Region Geospatial Coordinator, NOAA Office for Coastal Management
 - iii. Billy Brooks, Senior Geospatial Analyst, NOAA Office for Coastal Management
- b. 2022 SLR Technical Report Overview (Doug Marcy)
 - i. Report main page: <https://oceanservice.noaa.gov/hazards/sealevelrise/sealevelrise-tech-report.html>
 - ii. Report released on February 15 by the Federal Interagency Sea Level Rise and Coastal Flood Hazard Scenarios and Tools Task Force

- iii. Report integrates the latest climate science and models from the Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report, released in 2021
- iv. Report will serve as input into the 5th National Climate Assessment (NCA5)
- v. Report is intended to inform sea level rise adaptation plans
- vi. Report Content:
 - 1. Sea level rise scenarios at the global, regional, and local scales
 - 2. Observation trends and extrapolations
 - 3. Extreme water level probabilities
 - 4. Description of methods
- vii. Report Takeaways:
 - 1. There has been an average of 1 foot of SLR since 1920 (last 100 years).
 - 2. An average of 1 foot of SLR is expected by 2050 (next 30 years).
 - 3. More extreme tides and storm surges are expected
 - 4. Significant shift in tidal flooding is expected: moderate flooding (typically damaging) is expected to occur 10+ times as frequent by 2050
 - 5. Current emission result in at least 2 feet of SLR by 2100, but increases in emissions could result in up to 7 feet by 2100.
 - 6. There is greater certainty of expected SLR for the next 30 years, but uncertainty increases after 2050 and is dependent on emissions
- viii. Difference between 2017 and 2022 Reports
 - 1. Same terminology for scenarios (e.g. Intermediate-Low, etc.), but ‘Extreme’ scenario was dropped.
 - 2. Global scenarios for 2100 remain the same, but there is variation on the timing and water levels between now and 2100 depending on the region. (e.g., for some regions the expected SLR for a given scenario and year has either increased or decreased as compared to the 2017 report).
 - 3. There is more certainty in the near term, with a narrower range of scenarios to 2050.
 - 4. Data includes tide gauge observations and extrapolations of that data to 2050.
 - 5. Gridded data (1-degree grids) is available for locations between tide gauges.
- ix. Implications for Adaptation Planning
 - 1. An application guide is being developed to help planners incorporate report findings into adaptation planning processes, such as a scenario planning approach, a risk-tolerance approach, and an adaptation pathways approach.
 - 2. Narrower range of scenarios for 2050 provides more certainty for planning
 - 3. The expected tidal flooding shift demands planning urgency
 - 4. Planning for higher scenarios for risk averse

- c. Tools Demonstration – NASA SLR Scenario Tool (Jamie Carter)
 - i. Report [URL](#) provides links to data and tools
 - ii. Data is downloadable in various formats (e.g. CSV)
 - iii. NASA Interagency Sea Level Rise Scenario Tool
 - 1. This tool is a data viewer, whereas other tools are mapping/visualization tools.
 - 2. This tool provides direct access to scenario data in SLR technical report
 - 3. Can view global and regional projections
 - 4. Can also navigate to precise locations using the interactive map
 - 5. Can view historical observations (from tide gauges) and their extrapolations to 2050
 - 6. The data is downloadable from the tool itself.
- d. Tools Demonstration – SLR Viewer, Coastal County Snapshots, Adapting Stormwater Management for Coastal Floods (Billy Brooks)
 - i. These tools are available on Digital Coast: <https://coast.noaa.gov/digitalcoast/>.
 - ii. [NOAA SLR Viewer](#)
 - 1. Includes new scenarios in 2022 SLR tech report in the tool, under Local scenarios tab
 - 2. Can use slider function to view different scenarios
 - 3. Can also look at 2017 projections
 - 4. 2022 report is baselined to 2005, but is re-baselined to 2000 in the tool so that it can be compared with 2017 data (which is baselined to 2000)
 - iii. [Adapting Stormwater Management for Coastal Floods](#)
 - 1. Intended for the stormwater management community, to consider future water levels
 - 2. Incorporates 2022 SLR Report data in the “Assess” section
 - 3. The tool is tied to tide gauge locations
 - 4. Allows user to set a threshold, for water level and number of high tide flooding days
 - 5. Tool generates a report which includes:
 - a. Current probability of occurrence of selected water level threshold
 - b. When (year) the threshold intersects with SLR scenarios
 - c. Comparison of threshold with 100-year event , and what amount of SLR will equate the threshold with 100-year event
 - d. When the high tide flooding threshold will occur for each SLR scenario (uses 2017 data, 2022 data will be added).
 - iv. [Coastal County Snapshots](#)
 - 1. A new SLR Snapshot was added to the tool
 - 2. Snapshot provides info on the population at risk, critical facilities, businesses, land cover, and the timing of expected water levels for SLR scenarios

3. Snapshot now includes a map feature to visualize risk for each category

3. Discussion:

- a. Jennifer Kline (GA): Do states have mandates to use SLR projections in planning/decision-making, if so where does data come from?
 - i. Doug Marcy (NOAA): Yes, many places have adopted the 2017 scenarios for policy or for guidance. NOAA currently working on guidance for federal agencies, aligning with the Federal Flood Risk Management Standard.
 - ii. Jennifer Kline (GA): Georgia does not have mandated SLR numbers (water levels), but the coastal program provides guidance. Local governments don't use numbers, but use the terminology for scenarios (intermediate, intermediate-high, etc.).
 - iii. Peter Slovinsky (ME) (in chat): "Maine adopted the intermediate-high scenario as a commit to manage scenario (this is 1.5 feet by 2050 and roughly 4 feet by 2100). This was based on 2017 scenarios. We likely will not be updating our new regulatory numbers though they are slightly different (1.3 feet by 2050 and 3.5 feet by 2100)."
 - iv. Nathalie DiGeronimo (NH) (in chat): "NH's Coastal Flood Risk Summary and Guidance are based on Kopp et al (2014) probabilistic relative sea-level rise projections for coastal NH and were modeled using NH tide gauge data."
 - v. Nicole Carlozo (MD) (in chat): "MD has projections that are updated every 5 years - also based on the Kopp probabilistic projections: <https://mde.maryland.gov/programs/Air/ClimateChange/MCCC/Documents/Sea-LevelRiseProjectionsMaryland2018.pdf>"
- b. Question: Will tutorials be developed/provided for the tools that were demonstrated?
 - i. Billy Brooks: Yes, NOAA is working on a series of tutorials for each tool, with scripted/recorded demos for each.
- c. Jennifer Kline (GA): Any other data needs related to SLR information?
 - i. Nathalie DiGeronimo (NH): one of NH's challenges is that there are no NOAA tide gauges in NH. This is a reason NH uses the Kopp et al. probabilistic projections.
 - ii. Pete Slovinsky (ME): Large percentage of high water level is driven by waves. Would like to see that information [how it influences/relates to SLR].
 - iii. Doug Marcy (NOAA): The science will continue to change/improve. It may not be appropriate to change the policy numbers [SLR] every 5 years. May be better to plan for a water level, regardless of changes in scenarios.
 - iv. Peter Slovinsky (ME): It's important that when decision-makers create policy, they allow for flexibility to be able to adjust as science changes.