



CSO Coastal Hazards Planning & Adaptation Work Group
June 14, 2022 Call Notes

Guests

Melanie Perello (FEMA)
Lauren Long (NOAA)

Attendees

Kathleen Angel (WI)	Mark Hogan (LA)	Rob Porro (CSO)
Matthew Baumgardner (NJ)	Jennifer Kline (GA)	Meg Reed (OR)
Todd Burowes (ME)	Julia Knisel (MA)	John Ryan-Henry (CSO)
Nicole Carlozo (MD)	Sarah Krupa (LA)	Matt Smith (CSO)
Nathalie DiGeronimo (NH)	Margot Mansfield (MA)	Mackenzie Todd (NC)
Cody Eskew (IL)	Julie McEntire (TX)	Matt Walderon (PA)
Joe Exl (IN)	Barbara Neale (SC)	
Weston Hillier (MI)	Ashley Norton (DE)	

Notes

1. Welcome and Staff Updates

[See attached Staff Updates Handout]

2. Presentation: Using Nature-Based Solutions to Mitigate Coastal Hazards (FEMA)

- a. Speaker: Melanie Perello, FEMA Hazard Mitigation Grant Program
- b. BIO: Melanie Perello is a Program Analyst in FEMA's Hazard Mitigation Grant Program. Where she supports equity and nature-based solutions initiatives for HMGP. Before coming to FEMA, Melanie completed a NOAA Coastal Management Fellowship with Minnesota's Lake Superior Coastal Program.
- c. NOTES:
- d. Presentation covered an overview of nature-based solutions (NBS) for hazard mitigation, examples of funded NBS projects, and FEMA efforts to support NBS implementation.
- e. NBS as Hazard Mitigation
 - i. HM projects submitted to FEMA must reduce risk to hazards
 - ii. NBS projects differ from traditional HM projects, because they integrate natural features into the built environment and provide additional benefits
 - iii. NBS projects can be stand alone projects or integrated into traditional grey infrastructure HM projects.
 - iv. Often used for flooding and storm surge, but FEMA can support NBS for variety of hazards – drought, wildfire, landslides, etc.
 - v. Any project must be able to reduce risk of hazard event

- f. FEMA History & NBS
 - i. Late 1980s, NBS introduced as a local initiative
 - ii. FEMA started adopting NBS, or ‘bioengineering’ in late 1990’s.
 - iii. In last decade, substantial efforts/successes to make NBS alternatives more cost-effective and integrated into HMA programs
 - iv. Example: Benefit-Cost Analysis has integrated Ecosystem services since 2013, recently removed a threshold that previously had to be met to consider ecosystem benefits. This is one way FEMA is working to improve implementation of NBS.
- g. Hazard Mitigation Assistance (HMA) Grant Programs
 - i. Annual programs - BRIC, Flood Mitigation Assistance
 - 1. Annual Notice of Funding Opportunity (NOFO)
 - 2. Communities/states work with SHMO to develop application
 - 3. Large pool of applicants
 - ii. Post-Disaster Programs – Hazard Mitigation Grant Program (HMGP), HMGP Post-Fire Program
 - 1. State-administered, state gets funding based on disaster event
 - 2. Smaller pool of applicants
 - iii. HMA Programs encourage NBS alternatives
 - 1. BRIC allots points for NBS
 - 2. HMGP and FMA encourage NBS and can provide additional assistance
- h. Considerations for Funding Nature-Based Solutions
 - i. Must mitigate a hazard – HMA Guidance outlines eligible hazard mitigation activities
 - ii. Projects must be cost-effective – can take advantage of ecosystem services benefits.
 - iii. All HMA grants have non-federal cost share – HMA Cost-Share Guidance provides requirements
 - iv. NBS may trigger Environmental and Historical Preservation (EHP) review – may need additional time in project timeline to account for review.
- i. Examples
 - i. BRIC Selections
 - 1. FY2020 - 22 competitive projects funded (18 included NBS)
 - 2. Focused on critical infrastructure and [community lifelines](#)
 - 3. Also considered habitat protection, restoration, or creation – quantified the habitat
 - 4. Identified vulnerable populations and communities
 - ii. Examples (awarded, not yet constructed):
 - 1. Town of Princeville Relocation Project
 - a. Community located within a floodplain
 - b. Land swap between properties to higher elevation
 - c. Includes 5 acres of green open space in perpetuity - for vegetation and permeable soils for stormwater runoff
 - d. Cost: \$10.97 mil

2. Living shoreline and NC 12 Resiliency Project
 - a. Duck, NC
 - b. Elevating NC Highway 12
 - c. Incorporating living shoreline to protect elevated highway
 - d. Cost \$1.85 mil
 3. Lumberton Loop NBS Project
 - a. Connecting parcels to reinforce streambank restoration and reforestation across floodplains
 - b. Includes wetland construction and enhancing equitable recreation access, providing co-benefits to community
 - c. Cost: \$1.93 mil
- iii. FMA
1. Community flood mitigation projects – community wide project
 2. Individual structure/property level projects – most acquisitions, can be used to restore floodplain
 3. Example: Lake Lery Marsh Creation and Rim Restoration – Saint Bernard Parish, LA
 - a. Restoring and reconnecting marsh damaged by Hurricane Katrina
 - i. Restoring lake rim/shoreline
 - ii. Expanding the existing marsh
 - iii. Shoreline revetment
 - b. Status: Environmental and Historic Preservation Review
 - c. Project Cost: \$19.8 million
- iv. HMGP
1. NBS Projects can utilize:
 - a. 5% initiative for projects – way to fund projects that don't have data to quantify benefits. Allows 5% of state's award for these types of projects (can get around BCA)
 - b. Advance assistance to help with project scoping
 - c. Phased projects to help with needed design and data collection – first phase can be used for design/data, deliverables can be used for Phase II (implementation)
 2. Examples:
 3. Cuyahoga Falls Rain Garden Reserve
 - a. Cuyahoga Falls, Ohio
 - b. Acquired and demolished 4 repetitive loss properties
 - c. 24,000 sq ft rain garden in new open space
 - d. Cost: \$157,000
 4. Mirabeau Garden Stormwater Management and Flood Mitigation
 - a. New Orleans, LA
 - b. Neighborhood below sea level
 - c. Stormwater park to reduce flooding and runoff
 - d. Cost: \$23.47 mil

5. Expanding science based coral and mangrove restoration in the Virgin Islands, St Thomas
 - a. Expanding nurseries at Univ of VI
 - b. Funded by 5% initiative
 - c. Cost: \$619,805
- v. Upcoming FEMA Efforts to Support NBS
 1. August 2022: BRIC and FMA NOFOs
 2. HMA Webinar series - summer/fall 2022
 3. NBS Work Stream with External Stakeholder Working Group
 4. Updates to BCA Tool
 5. New Guidance and Outreach:
 - a. NBS Guide for Local Communities, Volume 2
 - b. Mitigation action portfolio Volume 2 (end of 2022)
 6. Interagency nature-based solutions work group
 7. CEQ and OSTP
 - a. Developing a new report to support NBS implementation
 - b. What federal programs currently support NBS and action ties to expand across federal programs
- j. Question (Lauren Long): With HMGP, projects need to go through the BCA if not using the 5% HMGP funds, right?
 - i. Yes, that's correct.
- k. Question (Lauren Long): The examples you shared, are those all qualifying projects for the 5% (design, planning, etc.)?
 - i. Shared 3 examples for HMGP, 1 funded through 5%, 2 had a BCA. We offer support to conduct those BCA's and quantify benefits.

3. Presentation: Advancing Nature-Based Solutions for Coastal Resilience (NOAA)

- a. Speaker: Lauren Long, NOAA Office for Coastal Management
- b. BIO: Lauren Long is an Environment Scientist and Pacific Learning Services Coordinator for NOAA's Office for Coastal Management (OCM). She sits in Honolulu, Hawaii supporting OCM's national nature-based solutions portfolio of learning products and services. Lauren also works with Pacific partners on their learning interests, connecting them with OCM resources, and bringing needs back to the national office to inform product development and delivery.
- c. NOTES:
 - i. Office works with coastal partners to assess needs on CM topics , one NBS
 - ii. Work to support those needs to develop tools and training, on DC website
 - iii. In Learning Services, focus on training section on DC website
 - iv. Work to build capacity to use NBS, by developing/delivering training products.
 - v. Will find a lot of those in training section of DC – Digital Coast Academy.
 - vi. DC Academy offers many learning services – Instructore led training, self guided resources, online modules, case studies, videos, etc.

- vii. Focusing on NBS, also funding and financing NBS and products related to that.
- viii. NFWF National Coastal Resilience Fund – partnership b/w NOAA and NFWF. One of primary funding sources for implementing NBS.
 - 1. Investing \$140 million
 - 2. Projects that protect or expand ecosystems and communities against hazards
 - 3. IJIA will invest additional \$492M over next 5 years into NCRF
 - 4. Full proposals due June 30. Successful applicants notified in November
 - 5. 4 more years of increased funding with IJIA, match not required
- ix. Link in chat with the NFWF POCs in each region to talk about projects: www.nfwf.org/sites/default/files/2022-03/2022_NCRF_RFP.pdf , (Page 17).
- x. NFWF NCRF website: <https://www.nfwf.org/programs/national-coastal-resilience-fund>
 - 1. Regional Coastal Resilience Assessments – help identify geographic areas where NBS projects may be beneficial
 - 2. Coastal Resilience Success Stories – successful projects that have been funded by NCRF
- xi. Example NCRF Project: Dune Restoration in Puerto Rico
 - 1. NFWF case study: www.nfwf.org/case-study-vida-marina-university-puerto-rico-aguadilla
 - 2. NOAA OCM Peer-to-Peer Case Study: coast.noaa.gov/digitalcoast/training/puerto-rico.html
 - 3. Using simple methods to mimic dune building processes
 - 4. NFWF Award: \$457k, match \$648k
- xii. Digital Coast Academy On-Demand Products
 - 1. Started to build a webinar series on Funding and Financing
 - a. Starting with Funding and Financing Coastal resilience: the basics
 - b. Webinar has been made into an on-demand learning product: <https://coast.noaa.gov/digitalcoast/training/funding-webinars.html>
 - 2. Also developed a reference document
 - a. Funding and Financing: Options and Considerations for Funding Coastal Resilience Projects
 - b. <https://coast.noaa.gov/digitalcoast/training/financing-resilience.html>
 - 3. Had two additional webinars on Environmental Impact Bonds and Community Development Financial Institutions
 - a. Developed similar learning products
 - b. <https://coast.noaa.gov/digitalcoast/training/funding-webinars.html>
 - c. Community Development Financial Institutions help get funding to underserved communities
 - 4. Case Studies – Peer to Peer

- a. Examples:
 - i. Development of Environmental Impact Bonds - coast.noaa.gov/digitalcoast/training/hampton.html
 - ii. Divers Funding and Financing Portfolio - coast.noaa.gov/digitalcoast/training/exploration-green.html
- b. Always include contacts for peers
- c. Can reach out to them to learn more
- 5. Next webinar – Funding and Financing Coastal Resilience: Building Capacity to Access Funding in Communities
 - a. Dr. Angela Chalk, Healthy Community Services (New Orleans)
 - b. Rachel Jacobson, American Society of Adaptation Professionals, Ready to Fund Toolkit
 - c. Will have similar learning product on Digital Coast Academy
- 6. Can get more information on nature-based solutions on Topics page on Digital Coast
 - a. <https://coast.noaa.gov/digitalcoast/topics/green-infrastructure.html>
- d. Question (Rob Porro): Does OCM still conduct the in-person Nature-Based Solutions for Coastal Hazards training?
 - i. Yes still have the in-person training. Also have self-guided training ,Nature Based Solutions for Coastal hazards: The Basics, that serves as precursor to NBS live training.
 - ii. From there can take in-person (8-hr) or virtual training (2-hr). Driven by host-request, include local experts and projects

4. Group Discussion:

- a. Rob Porro: Can you talk about how your agencies work with each other or other agencies (USACE) in the NBS space?
 - i. Lauren: OCM works on a federal green infrastructure collaborative, includes FEMA, USACE, FHWA, EPA, to share what each are doing in NBS and share resources, to avoid duplication. Have been meeting regularly. NOAA also works with USACE Silver Jackets, help with presentations and workshops. Also work with FHWA, doing a lot of work with NBS and transportation infrastructure. They have a new guidance out. Working with them and State DOTs. Working with FEMA, one of Melanie’s colleagues (Brad Dean) used to work at OCM and on developing
 - ii. Melanie: One other thing, FEMA works closely with other agencies when reviewing projects in EHP, would consult with USACE and FWS. Always room to improve and new ways to engage and work together.
- b. Julia Knisel: For Lauren, said enjoyed talking with Dr. Chalk. In our experience in MA, we are working with Watershed groups or regional planning agencies or land trusts. Dr. Chalk share that they’re working more with Church or neighborhood groups? Curious if there is another niche to work with on these types of projects.

