Technical and Constituent Advisory Group (CAG) Adaptation Option Workshop Agenda
Tuesday, August 28, *10:00 AM - 12:00 PM*
AND
NJ FRAMES Steering Committee Adaptation Option Workshop Agenda
Tuesday, August 28, *2:00PM - 4:00 PM*

Hackensack Meridian Health Riverview Medical Center
5th Floor, Two River Conference Room
1 Riverview Plaza, Red Bank, NJ 07701

Agenda

10:00 a.m. - 10:15 a.m.	**Welcome and Project Update / Introductions**
2:00 p.m. - 2:15 p.m.	*Kelly Pflicke (DEP)*

The objectives of the meeting:
- Provide an overview of the Risk Assessment that is being utilized to understand assets at risk; and to
- Get input on the relevant adaptation tools that you might like to see (or not) as part of your future adaptation strategies to protect the important assets that you and members of the Two Rivers Community identified for us during the MapWhatMatters campaign.

Meeting overview:
- First, we'll provide an overview of what's at stake.
- Then we'll talk about some of the options available to help mitigate risk.
- Afterward, we'll ask you to work with our technical experts to discuss some of the options for adaptation.
- We will "take your temperature" on your feelings about the use of these options in the Two Rivers Region.
- Following those discussions, we'll work together as a group to review common themes and provide some direction for the project team to move forward in developing different alternative strategies for adaptation in the Two Rivers region

10:15 a.m. - 10:35 a.m.	**Risk Assessment Overview**
2:15 p.m. - 2:40 p.m.	*Bryan Kiel (Louis Berger Group) and Eric Fang (Perkins Eastman)*

Key points:
- What gets wet?
    - By when?
    - Under what conditions?
    - How much could that cost?
- What are they KEY assumptions and caveats for the analysis?
- Where / how did we use the information that we will collect from you?
- Where / when can you get more details?
- Opportunities for revision / changes in assumptions?
- Risk assessment next steps

10:35 a.m. - 11:30 a.m.	**Activity Introduction /Understanding the Adaptation Options**
2:40 p.m. - 3:45 p.m.	*Matt Campo (Rutgers University) – Introduction*
	Lisa Auermuller (JC NERR) – Activity Facilitator

There are 3 different stations with posters of adaptation measures:
1. Structural Measures, Nature Based Measures
2. Local Plans, Local Policy & Regulations
3. Education & Awareness, Incentive Programs

Each of these 3 stations corresponded to one of 3 areas around the room. Each area had 2 team members (a technical expert and a listener) stationed at it. A table in the middle also had maps of our 3 water levels and the assets that might be exposed to those 3 water levels. Finally, each area had a set of adaptation option posters that we used for discussion and feedback. In addition, there was a blank sheet of paper on the wall to add additional adaptation options.

For this activity, we wanted to accomplish two objectives:
1. We were interested in understanding if we had identified all the different types of alternative adaptation options in the area, and which items already exist throughout the study area. For example, Monmouth County currently has a Hazard Mitigation Plan that includes a build out analysis.
2. We were also interested in "taking your temperature" on the potential adaptation options included or addressed as part of the regional resilience plan.

For this activity, participants spent about 30 minutes total, making certain to visit each of the 3 stations and take the time to learn about the different adaptation options. For things that needed to be added or clarified, our technical experts and facilitators were there to help answer questions and take notes.

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Taking Your Temperature of the Adaptation Options

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Purpose: To have participants indicate their preference towards using the different adaptation alternatives.

Technique: Participants rotated through the three thematic poster areas. Each participant had dots of each color to represent their "temperature" for each of the adaptation options:
3. Green dots next to ones they really liked
4. Yellow dots next to ones they have questions on/concerns about
5. Red dots next to options they would NEVER want to see

There was a summary discussion of the Green/Yellow/Red exercise by each area's facilitation team to discuss some common themes in dot colors and discussions had by participants.

Group Summary (See notes below)
Station Leads

11:50 a.m. - 12:00 p.m.	**Wrap-up and Next Steps**
3:45 p.m. - 4:00 p.m.	*Matt Campo and Bethany Bearmore (Louis Berger)*

Group Summary: Adaption Options Discussion

*Note: Sticky dots are summed below by color for each option. If a tie was present, the overall color was designated as "yellow."

Structural and Nature-based Measures
Station Leads: Bethany Bearmore and Marjorie Kaplan (Rutgers University)

STRUCTURAL MEASURES	🟢	🟡	🔴	OVERALL
Beach Nourishment	6	4	0	🟢
Building Retrofits	2	2	0	🟡
Coastal Construction Guidelines	3	3	0	🟡
Dune Management	7	0	0	🟢
Floodable Development	5	2	0	🟢
Floodproofing Infrastructure	0	4	0	🟡
Movable Buildings	4	4	5	🔴
Shoreline Protection Techniques	2	2	3	🔴
NATURE-BASED MEASURES	🟢	🟡	🔴	OVERALL
Wetland Restoration	8	0	0	🟢
Living Shorelines	7	1	0	🟢
Coastal Restoration (TNC Restoration Explorer)	4	0	0	🟢
Living Breakwater	6	0	0	🟢
Urban Forest & Urban Trees	6	0	0	🟢
Coastal Habitat Conservation	7	0	0	🟢

Participants in both meetings had varying degrees of reactions to Structural Measures, with notable reaction to Movable Buildings and shoreline Protection Techniques. These topics sparked conversations, as did other structural measures like Floodproofing Infrastructure. Most participants shared that they responded with yellow dots because they needed more information or knew that this Tool was not applicable to every area of the Project Region. Nature-Based Measures received almost entirely Green dots, with just one respondent preferring more information about Living Shorelines, and whether there is proof that it really does provide a buffer.

Comments:
- Regular text: Written remarks by participants

- *Italicized* text: Verbal remarks by participants
- *Italicized text blue*: Verbal remarks by Steering Committee

1. NAVFAC Climate Change Guidance (appendices: utilize process) *joint land use study, weapon station Earle*
2. Microgrids / *Distributed generation*
3. Backfilling / Raising Communities. *Suggestion to backfill areas that are subject to flooding – raise areas between bays and dunes. Not in wetlands - illegal.*
   Towns should get together to do this. They could all raise roads, infrastructure and access to beaches. SME indicated CBA showed it was too expensive. City of Seattle as an example. The 2nd floors are now at ground level and first floors are under ground.
4. *People were iffy about beach nourishment and floodable development – building retrofits, mixed response. A lot of yellow dots.*
5. *Movable buildings, food trucks vs. restaurants – this concept needed more discussion. Also, lots of yellow dots.*
6. *If it is Nature based – we should work to manage expectations. Do things like documenting proof that living shorelines can serve as a buffer? Flood proof infrastructure – it sounds good, but what does it mean?*
7. *What about in respect to flood insurance? What types of materials in respect to flood proofing?*
8. *Monmouth beach can do beach nourishment.*
9. *Shrewsbury can do wetland restoration.*
10. *Be transparent about biases towards types of risk reduction. ACOE and DEP are biased towards structural.*

Local Policy & Regulations and Local Plans
Station Leads: Niek Veraart (Louis Berger) and Stacy Krause (Rutgers University)

LOCAL PLANS	🟢	🟡	🔴	OVERALL
Capital Improvement Plan (CIP)	4	1	0	🟢
Climate Adaptation Plan	1	0	0	🟢
Dune Vegetation Management Plan	4	0	0	🟢
Environmental Resource Inventory (ERI)	1	2	0	🟡
Green Infrastructure Plan	5	1	0	🟢
Hazard Mitigation Plan	2	0	0	🟢
Build-Out Analysis Within a Hazard Mitigation Plan	0	1	0	🟡
Incorporating Climate Adaptation into a Master Plan	4	0	0	🟢
Long-Term Recovery or Post Disaster Redevelopment Plan	2	2	1	🟡
Open Space and Recreation Plan	0	2	0	🟡
Resilience Plan	2	0	0	🟢
Shoreline Protection or Management Plan	3	0	0	🟢
Sustainability Plan	0	0	0	🟡
LOCAL POLICY & REGULATIONS	🟢	🟡	🔴	OVERALL
Coastal Hazard Disclosure Policy	5	0	0	🟢
Conservation Overlay Ordinance	1	2	1	🟡
Dune and Beach Protection Ordinance	4	0	0	🟢
Development Fees in Vulnerable Areas	2	3	3	🟡
Flood Damage Prevention Ordinance	2	0	0	🟢
Floor Area Ratio (FAR) Ordinance	0	4	0	🟡

Landscaping and Vegetation Ordinance	3	0	0	●
Lot Size Averaging Ordinance	2	3	0	●
Noncontiguous Parcel Clustering	0	1	3	●
Open Space Preservation	5	0	0	●
Residential Cluster Development Ordinance	1	0	0	●
Rolling Easement	3	4	1	●
Stormwater Management Ordinance	6	0	0	●
Transfer of Development Rights	1	3	0	●

About half of the Local Policy, Plans and Regulation Tools created discussion among the morning meeting participants, as many people had clarifying questions or concerns. The Development Fees in Vulnerable Areas, as well as the Noncontiguous Parcel Clustering Tools had the highest negative responses, or red dots equal to yellow dots. The explanation given when asked was that these tools could likely encourage development in areas where new building should be avoided.

Comments:
- Regular text: Written remarks by participants
- *Italicized text*: Verbal remarks by participants
- *Italicized text blue:* Verbal remarks by Steering Committee

1. CAP, HMP, SP, RP – larger policies
2. Towns need "disaster risk reduction in all policies" (i.e. resiliency element(s) in open space plan
3. Flood zone buyouts - *affordable housing needs to be linked within programs like Blue Acres.*
4. Response solutions (NJ VOAD & COAD (Volunteers of Active Disasters; Community of Active Disasters)
5. Require generators for new development, particularly food stores and gas stations
6. Every plan online to be viewed by public
7. *Local plans, guided by MLUL. Need resilience efforts put in all plans (capital improvement plans, hazard mitigation plan, etc.) Or just consider disaster and resilience in all plans…like the Health In All policies.*
8. *Re: Flood zone buy outs*
9. *What is going to happen to the tax base if you move buildings?*
10. *Where do they go? Moving doesn't work in Monmouth beach*
11. *Impact fees discussion re: red dot: why didn't they like it? Should not be incentivizing any development. People argued over estimating vs. under estimating what the fees are.*
12. *Why is there a red dot for noncontiguous parcel clustering? – not optimal vs. clustered development – results in fragmentation…better than nothing, but not best option.*
13. *Conservation overlay – don't make buildings that are at-risk eligible.*
14. *No reaction/conversation about the Local Plans and Policies poster*

Education & Awareness and Incentives Programs –
Station Leads: Bryan Kiel and Rebecca Hill (DEP)

EDUCATION & AWARENESS	●	●	●	OVERALL
Digitize Community Knowledge of Past Storm Events	3	0	0	●
Erosion Data Maintenance	2	0	0	●
FEMA and Coastal Management Trainings	1	2	3	●

Program for Public Information (PPI)	2	0	0	●
StormReady Community Status	0	2	1	●
INCENTIVE PROGRAMS	●	●	●	OVERALL
FEMA Community Rating System (CRS)	5	0	0	●

The Education & Awareness, and Incentive Program Tools had mostly positive reactions, with a few people disliking or wanting to know more about FEMA and Coastal Management Trainings, as well as a few people needing more information about StormReady Community Status. During conversation, there were also many new ideas for ways to engage with community members. The participants were excited to share their insights as to what they had heard had worked to educate their neighbors or constituents, like using the arts.

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1. Building code requirements and local incentives
2. Enforcement (requirement of generators) – need to tie that to regional resilience measures. Education on systems-based resiliency plan
3. Expedited permitting processes (to be incentivized)
4. Participation of counties in smaller flood prone communities
5. Interactive knowledge sharing for municipalities
6. Stop creating pamphlets, engage locals to market idea; engage, community lead (example: arts)
7. Engage (example: instead of a high H20 sign, have a mural)
8. Participation of planners/engineers in building resiliency, cross-train with building officials.
9. Interactive resilience (or other) plans instead of static map.
10. Tool to get over CRS barrier: county shared service agreement (NEW)
11. SBP (St. Bernard project). does outreach – pre-disaster prep (insurance documents etc.); webinar / live stream.
12. *These are great but needs some kind of enforcement.*
13. *CRS – can't take advantage of credits – if you do beach replenishment?? Or beach replenishment doesn't count? *whether or not this is true should be clarified**
14. *Erosion data isn't available or is held by Rutgers or Stockton?*
15. *Suggestion to be more regional – have leadership.*
16. *Be creative with how you get messages out to people*
17. *Programs should be about – what should I do on my property? Generations for storm events?*
18. *Building code that enforces the program.*
19. *Overall, there is a lot of information to review and consume in a short period of time today.*