GOMA Federal Working Group Call Notes
6.25.15

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Agenda:

GOMA Update – Laura Bowie

- Thank you all who attended All-Hands. Nearly 400 attendees!
- We are actively writing AP3. Governors will sign at the end of the year. If you have a mission/objective in Gulf that GOMA can help with, now's the time to get it into the Action Plan. Would love your engagement with AP3.

Sentinel Site Cooperative – Renee Collini

- What is the Cooperative about? Looking to increase efficiencies around SLR. Leveraging on-going work, making connections, etc.
- A Cooperative is….built around sentinel stations like SETs and/or water quality and sites like NERRs and marine sanctuaries. The Cooperative encompasses stations and sites and brings in the communities around them. It strives to make sure managers and decision-makers

understand what SLR science and info is available and connect the end users with scientists to fill gaps

- There are 5 Cooperatives across the country. All are place-based.
- Geography of Gulf Cooperative extends from Pearl River to Suwannee River. It includes 3 NERRs. We have a host of state, federal, and NGO and university partners and a focused management team. Renee is the Coordinator.
- Partnerships are the backbone of the cooperatives. Not doing a lot of new stuff but helping to coordinate.
- Mission is about integrating research and products and taking the next step into application of science and tools
- 3 goals: expand partnerships, improve science, and foster decisions to support SLR and inundation in planning and adaptation efforts.
- The Cooperative has an implementation plan that includes objectives and milestones. Working to update it now. Partnership meeting was conducted in April to help with this. Attendees prioritized top 3 needs from which the Cooperative is building a workplan. Top needs include:
    - Need to have better understanding of observation infrastructure. The SET inventory is an example, but there are more like COR stations, and gap analyses of these inventories.
    - Need consistent SLR scenarios. Leverage other efforts here (lit and data reviews, work in S. Florida); will host webinar series to tackle this need and come to consensus; once we have scenarios will develop tools for explaining scenarios and how to utilize
    - Leverage efforts to inventory SLR and climate tools; ID stakeholders who are developing tools to o a cross-comparison of tools; and develop a fact sheet that gives managers and planners the ability to link models to questions that are being asked.
- Other partner projects in the Cooperatives include:
    - Coastal Wetland Migration Corridors (LCCs and USGS) – looking at barriers to natural movement; ID corridors to prioritize for conservation
    - At Grand Bay NERR, looking at inward migration of marshes and how fire improves this.
    - EESLR – Has developed a MIRA tool to look at dynamics of SLR and shows impacts combined with storm surge (Katrina) over time. Here's a link: http://champs.cecs.ucf.edu/CDSLR
    - Connecting Citizens to Scientists – led by Weeks Bay Foundation and bringing decision-makers and scientists together to
- Opportunities to Collaborate
    - NOAA RESTORE ACT Science Program – looking at use of SLR models and tools for restoration
    - USGS produced a SLR Modeling Handbook for managers- Coopertative will leverage this
    - Communication – folks on the call are working with scientists and stakeholders and could help with this

SET Inventory – Mike Osland and Nicole Cormier

- Effort was initiated and supported by Cooperative
- Importance of SET measurements – focus on dynamic nature of coastal wetlands and ability to keep pace with SLR
- There are positive feedbacks b/w plant growth and sedimentation that helps wetlands keep pace with SLR
- When we cross thresholds however, we see land loss occurring. This is happening in Louisiana.
- SETs enable scientists to measure loss/gain of land with SLR.

    - It's a portable device that allows us to make precise determinations of elevation changes relative to SLR (influenced by surface and subsurface processes)
    - Newer (deep rod SETs) designed by USGS scientists.
    - Rods are fixed and SETs are leveled and allow for highly accurate measurements
    - Often use marker horizons to measure vertical accretion (surface processes)
    - SETs and markers used together can give info on subsurface changes, too
    - Marker horizons are feldspar (white clay). It's sprinkled on the soil surface and serves as time zero. Over time, sediment builds up over this. Amount of material built up over the clay layer is measured to determine vertical accretion.
    - SETs can be surveyed using RTK to compare elevation changes across sites
- If you need more info on the SET approach, see Mike's slide (Cahoon, Webb, Callaway citations…)
- Now let's explore the SET inventory
    - There's lots of interest in determining where SETs are located across the Gulf. The CRIMs network in LA is the largest SET network in the world
    - This inventory is simple location, POC, date of installation, elevation (if available). Just metadata included…not actual data.
    - Lots of scientists contributed and provided metadata
    - There are likely a few universities out there that may have SETs that are not in the inventory, but most are included.
    - Data is available in EXCEL, shapefile, and KMZ format
    - You can see the inventory on the LCC website
    - Mike looked at a few questions
        - Distribution by state – LA has the most; this reflects the CRIMs network
        - Distribtion spatially – In TX, they are clustered by MA NERR and TX/LA border; central Gulf shows CRIMs network in LA; MS and AL are associated with NERRs; in Florida you will see pockets of SETs
        - What about distribution of SETs by relative SLR rate (mm.year); most are in areas with high rate of SLR (e.g., LA)
        - Distribution by wetland type – saltmarsh, subtidal, mangrove and fresh water forest have most SETs
        - Distribuion by mean annual precip – illustrates that majority are located in wet climate zones. Indicates our understanding of wetland response may be limited in the dryer zones.
        - According to temp – few in transition zone b/w marsh and mangroves

Questions?

- To what degree to we have info on SETs in Mexico? How can we use GOMA to broaden the network?
    - Suggest contacting Don Cahoon with USGS. He's the one who started the SET and marker horizon approach, and he's engaged with scientists around the world on this. Suspect there aren't too many along Gulf Coast of Mexico but could find out from Don.
- The Gulf Cooperative is the only one so far to be able to get this info and put it on line. Acknowledge Mike on this.
- Regarding collaboration opportunities b/w SSC and GOMA – data and inventory work coming out of Cooperatives can support PITs. Should look at new objectives coming out of AP3 to look at how Cooperative can further support.
- Based on presentation at GOMA, what reactions did you receive?

    - General feedback that we are helping and it's integrating research in a helpful way.
    - Did propose to include SLR scenarios as a possible goal/objective of AP3 but there were concerns about politics of this. We are working to develop webinar series to further this conversation. If anyone on the phone would like to be involved, please contact Renee. If there are other colleagues in your agencies who are interested, please share.
- How do other agencies become involved?
    - Contact renee (ngom.sentinel.site.cooperative@gmail.com); also can sign up for newsletter.
- A number of science centers and efforts are emerging in the Gulf. Wonder how much of the research community is aware of the Cooperative. What is the best way to reach out to share the Cooperative and the SET inventory?
- What are the next steps for the SET inventory regarding upkeep? Are there plans to include the data for the sites?
    - The work was voluntary. Mike did this on the side. There isn't a concrete plan for updating it or maintaining it. It would require more investment of resources and communication with the scientists. Scientists probably would not just hand over data unless there were clear guidelines. I see potential here but it requires thought about the best way to do this.
    - Maybe could be a subset action for Data and Monitoring team around SET inventory
- Also with restoration community, degree to which data from SETs can add value to project design…how do we make the restoration community aware of the data and how to use it?
    - Have been trying to reach a broader group of researchers

Next call will be July 30th at 11 eastern/10 central. Please send ideas to Todd.