



## Wetlands Regional Monitoring Program Technical Advisory Committee Meeting Friday September 6, 2024 9:00 - 11:00

**Attending:** Alex Braud, Alex Thomsen, Alison Weber-Stover, Annie Sneed, Aviva Rossi, Christina Toms, Cristina Grosso, Donna Ball, Erica Johnson, Hannah Kempf, Jemma Williams, Jeremy Lowe, Josh Collins, Julian Wood, Karen Thorne, Karen Verpeet, Levi Lewis, Lisa Beers, Lydia Vaughn, Matt Ferner, Michael Vasey, Pete Kauhanen, Sasha Harris-Lovett, Stuart Siegel, Susan De La Cruz, Todd Hallenbeck, Valary Bloom, Zoey Diggory

NOTES:

### [Meeting Slides](#)

#### 1) Welcome & Once-Around (Christina Toms, RWQCB and Donna Ball, SFEI)

- All TAC members - introduction to TAC member pets; request for more cat photos.
- Introduction to new WRMP Lead Scientists: Aviva Rossi and Lisa Beers.
- WRMP oral session at the upcoming Bay Delta Science Conference as well as posters

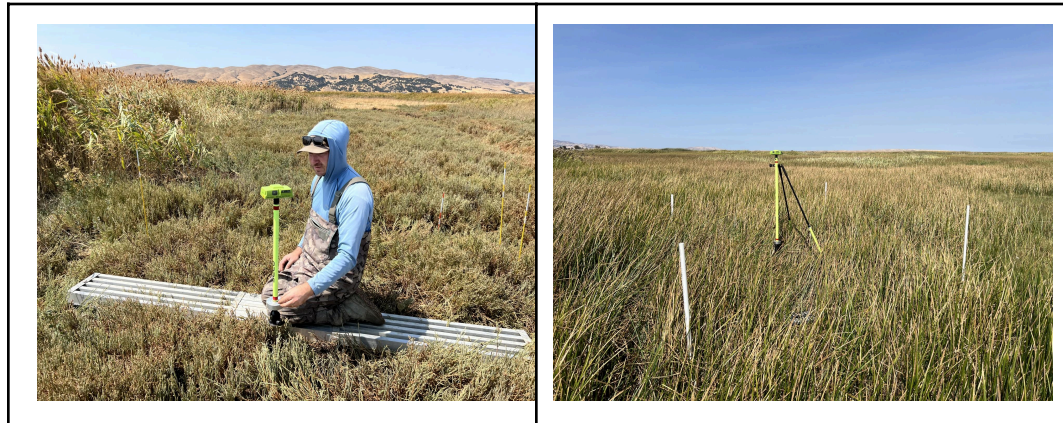
Todd H. - Regional Shoreline Adaptation Plan, releasing a draft copy for comment next week. Contact Todd for more info. Leveraging a lot of the BHM work to build in connections and overlap.

#### 2) WRMP Implementation Updates - Christina Toms (RWQCB)

- Potential Government of Australia-USGS partnership; the science team (Jeremy, Pete, CToms, others) in touch with Australian org about intertidal modeling; good for mudflats, which are tricky to model. USGS and Geoscience Australia have an official agreement in place for collaborations, including on this project. A meeting, with focus on WRMP and Bay RMP, will likely happen on Sept 17 regarding how we can collaborate on more effective and regular monitoring of intertidal habitats.
- SETs and Vertical Control (C. Toms)
  - Getting to the good stuff, where do we do the science!
  - New SETs we are planning to deploy
  - Discussion about vertical control
  - Implementation work plan - funding for 2 new SETs
  - Also multiparameter gauge deployments
    - Mt. Eden Creek Marsh (Project)
      - South Bay Salt Ponds
      - Fills a Key Geographic hole in terms of Baylands and wetlands monitoring
    - Other
      - Note, newer installations - Karen and her team in upper Napa River; NERR installed 4-5 at China Camp last fall (per Stuart),

surveyed this month. No new ones at Rush Ranch, Karen T has a few in that area and also others from WFCC/NICCR project (per Lisa circa 2007/8)

- Stuart likes Pond 2A as a site
  - Napa Ponds, Pond 2A (historic data), San Pablo Creek Marsh (Benchmark),
  - Stuart - 3 SETs at Blacklock in Suisun, installed in 2006 (DWR) but extent of monitoring not clear; will send coordinates
- Using SET as vertical benchmark
    - They are driven to the point of refusal
    - Can help collect vegetation and elevation profiles
    - Karen - Testing additional survey equipment for location to make SETs better for this. Sensor attaches to top of SET and records XYZ for 24 hrs to acquire benchmark level; testing in Humboldt Bay to determine how hard/easy/field feasible it is to do; what kind of data does it give us; JAVAD GNSS - <https://www.javad.com/> technology



- Stuart - if it can be done, that's great. Caveat - sometimes SETs are difficult to get to; depends on the purpose of vertical control. SETs might not be handy to serve the vertical control function. Interested in seeing Karen's result, might not work in every situation.
- Update SET #s data in Dotson Family Marsh with Karen
  - Lisa - good to see where there are existing benchmarks, so we could see where there are 'dead zones', to focus SETs where they are needed or to understand where benchmarks exist across the region
  - C Toms - urban shorelines may have more reliable vertical control than big baylands
  - Jeremy Lowe - lack of SETs on East Bay shore and Central Bay
  - Susan De La Cruz - Napa Ponds 3, 4, 5 are accreting really quickly and there are no SETs in that region.
  - Sasha HL - Emeryville crescent is moving forward with nature based adaptation, also a site talked about potential piloting beneficial reuse of sediment - so info from there would be useful for decision makers.

- C Toms - Theoretically which sites would be best compared to which people are interested in having a gauge, now that there is funding
  - Ex. East Bay Parks, really excited for work on their properties.
  - Karen - permanent, having willing and eager landowners, and people interested in the information, means a LOT. Long term access. Also means locals who will use this information.
- Stuart
  - Pair suspended sediment measures and SETs.
  - Pairing one of the drivers and the response
  - Linking the data to places people are thinking of nature based solutions
- Napa-Sonoma Marshes - a lot of activity, but just a SINGLE SET
  - A lot of comments on including more SETs here (Susan DLC, Stuart)
  - A lot of change over past 10 years - important to monitor
- Sasha - I'll add that the Hayward area shoreline is also moving forward with planning for nature-based solutions for shoreline resilience, so the SET data there would also be very useful.
- Bayfront northern San Pablo Bay: Strip Marsh East, Strip Marsh West (aka Sonoma Creek East), Sonoma Creek West - all "centennial" marshes - Caltrans should be asked for funding on this!
- Alison Weber-Stover
  - Big Projects that are coming online
  - Highway 37
    - Willing partner interested in information
  - Napa Sonoma Marshes
  - First mile levee project
- A lot of interest in East Bay
  - Valary - I like the idea of adding SETs to Eden Landing, Phase 1 and Montezuma... And Restore Hayward Marsh, as Ali noted!
  - Julian - Caution using Arrowhead - such a unique site, that the lessons learned there might not be applicable to other sites
- Donna
  - We have funds set aside for Karen's team, also finding and relocate existing SETs that aren't part of current networks, and bring in those older existing sites
- Karen hoping Stuart, John Callaway, others can help relocate these historical SETs
- Highway 37
  - Sasha: I'll add that they are providing substantial matching funds for the WRMP to be able to access the funds from the EPA Program Office, so I think it would be wonderful to be able to get data from up there if possible.
  - Jeremy - approaching Caltrans, Novato to Vallejo, make a package of what monitoring we think is necessary along the highway 37 area, and make it part of the long term management of that area.
  - Big groups that can help support some of this work

- **Next Step: Talk to landowners in Napa Sonoma, EBRPD, Strip marsh, Oakland-Alameda, HASPA about partners to cost share**
  - Power of Partnerships!

### **3) People and Wetlands Update - Alex Thomsen (SFEP)**

- General updates, then in depth about survey
- Authors - Ally Malilay, Hannah Kempf, and Sasha Harris-Lovett also helped in survey development
- Goals - Monitor Human connections to wetlands
- Continuing Work
  - Indicators already recommended
    - Representation in wetland decision making
    - Project benefits map
    - P&W StoryMap about flood risk reduction
  - New work going forward
    - Equity and Engagement Strategy
      - Distributive equity, aligned with Management question 5C
      - Procedural Equity (fairness in process that allocate resources)
    - Survey (still being finalized by WG)
      - Demographics
      - Organizational Perspective
      - Inclusivity and Feedback
      - Distribution
        - Committees, boards, WGs and agency staff who have influence on publicly funded wetland restoration
        - In-meeting and email distribution
    - Every 3-5 years, to catch terms of 2-4 year changes
- Questions
  - C Toms: please talk about the StoryMap, wave attenuation, and what data being used for that
    - Alex - 3 primary data layers
      - BCDC vulnerable community map
      - BCDC shoreline vulnerability index
      - Baylands Resilience layers on wave attenuation
  - C Toms: Is there coordination with Jeremey and Ellen?
    - Alex T - yes!
      - Meant to serve non-technical audience
      - Focus on Emeryville crescent because of higher wave energy, and limited ability of marsh to migration, and inform management action like strategic sediment placement
  - How do you plan to use the information from the survey and what do we do in response to the information?
    - Alex T. - Ideally we would want to understand how better representation leads to better outcomes for communities

- Talked to Justin Dobin at UCB about ideas for that
- Some of the other P&W indicators can be used to understand that link, like
  - Incorporation of best practices for partnering and outreach to communities and tribes
  - Track over time, and look at in relation to changes in representation
  - Does better representation in different ways lead to better outcomes for communities and tribes - this would be the ideal use of the data - but takes lots of data and time to get there, so this is a starting point, what is the current representation like.
- Jeremy - useful to talk to P&W WG to keep an ear on end users

#### 4) Baylands Habitat Map Analyses - Alex Braud/Cristina Grosso (SFEI)

- Existing Metrics & Indicator Structure (Alex B.)
  - WRMP - (alignment and consistency between)
    - Baylands Resilience Framework
    - SFBRA
    - Beneficial Baylands
    - Other entities
  - Need to set up the data for efficient and accessible analysis
    - Basic questions that get asked a lot
      - How has my project site changed over time etc.
    - Different scales for different analysis for different folks
    - How do we structure for change detection
    - How do we make all of this accessible
  - Inspired by US Census - nested hierarchy
    - Allows for the kind of analysis that are summarized at different scales
      - SF Bay > Subembayment > OLUs > Wetland Management Unit > Analysis Unit
    - Potential Visualizations
      - At different scales
      - Could be filtered by attributes (e.g. threshold of connectivity, benchmark or restoration)
- WRMP Profile (Cristina)
  - Now that we have the layer within EcoAtlas, can leverage the data to help communicate WRMP
  - Aligns with WRMPs tiered approach for info dissemination
    - High level summaries all the way to the ability to explore the data
  - Envision that the new WRMP profile, added to the list of customized profiles
  - WRMP profile both a map component as well as summarize
  - Phase 1 - tidal marsh extents at different scales
    - Proof on concept that can be expanded and changed
    - Integrated into other websites and tools

- Provide access for people to get more information
  - Unvegetated to Vegetated ratio
    - A lot of future discussion on the best way to display this information
  - Feedback/recommendations welcome
- Future Visualizations (Alex B.)
  - Many different possibilities
  - Jamboard exercise
  - These have been written with script, so rerunning with new data is quick and easy
  - How do you produce fields that give a trend or direction of change
  - Wetland Management and Analysis Units, really need to crosswalk this with Site Needs
    - Example - Greco Island
      - Has both holocene marsh and recent marsh
      - Crosswalk site names with analysis units
    - Understanding how we summarize at these different scales, what the best way
    - Stuart - we have polygons of places with names and histories. "Hamilton, Greco Island" - need to be queried by place names should be core part of development
    - Todd - on that front, making sure that project tracker habitat/subhabitat types are aligned with BMH types seems essential (if not already)
  - Using census for guidance of change over time
    - Relational tables to be able to do historical analysis as units change
    - Numbering system to allow for that
  - April Robinson Leading as part of the Tidal Marsh Extent Memo
    - Resolving known issues with Eco Atlas
- Questions
  - Zooney - would it be possible to advertise habitat mapping standards/guidelines so that project-specific mapping can sync as best as possible with the BHM?
    - Cristina - Project Tracker uses CARI habitat types, and BHM habitat types are crosswalked to CARI.
    - so CARI can be sample from for CRAM
    - We have SOP for 1 and 3, but Alex and Cristina G. are refining SOP to share so other can do the same (project page and data page)
      - <https://www.sfei.org/data/baylands-habitat-map-2020-gis-data>
      - <https://www.sfei.org/documents/mapping-methods-and-standards-bayland-habitats-san-francisco-bay-v10>
      - <https://www.sfei.org/documents/wrmp-baylands-habitat-map-2020-classification-key> (classification key)

## 5) Next Steps and Wrap Up - Christina T. (RWQCB)

- GA-USGS-WRMP-RMP meeting regarding mapping tidal flats: likely Tuesday, Sept 17
- TAC meetings: 9-11am, Tuesday Oct 15 (more on SETs, Tide gauges), Friday Dec 6

- SC meeting: Thursday Sept 26, Thursday Dec 12
- Bay-Delta Science Conference: 9/30-10/2