SF ESTUARY
Wetlands
Regional
Monitoring
Program

Wetlands Regional Monitoring Program
Technical Advisory Committee Meeting
Friday December 05, 2025 9:00 - 10:30 AM

Attending: Alex Braud, Alex Thomsen, Anna Deck, Aviva Rossi, Chris Janousek, Christina Toms, Cristina Grosso, Donna Ball, Iryna Dronova, Erica Johnson (first 15 minutes) , Jaime Lopez, Jemma Williams, John Callaway, Julie Beagle, Julian Wood, Karen Thorne, Karen Verpeet, Laura Feinstein, Lisa Beers, Madeline Huffman (new BCDC, sediment team), Matt Ferner, Mike Vasey, Pete Kauhanen, Sasha Harris-Lovett, Sarah Firestone, Stuart Siegel

Meeting Slides, **Agenda**

NOTES:

1. **Welcome & Once-Around** Christina Toms, Donna Ball, All TAC members
   - Brief (1-2 min) updates on relevant items (related efforts, proposals, etc.)
     - Madeline Huffman (former ACOE, now BCDC, attending as a guest to TAC of Jaime Lopez)
     - EPA NOFO in Dec from Luisa last night
     - Erica Johnson - Invasive Spartina Project (ISP) update. Just released 2023-4 Monitoring and Treatment report. Shared in materials packet. If you go to TOC and if you just want to look at your region, it's hyperlinked by region. Gives summary of inventory. There is a map. And chart so you can see clean areas and areas with IS and treatment and acreage. Special Topics at the end, larger projects and climate implications. Thanking WRMP with great coordination, exchanging data, info on planting pallets.
     - CToms - ISP is one of the few team in the whole estuary with eyes on the ground throughout the whole estuary
     - Karen Thorne - Back at work! Are out reading SET right now, but losing 2 months due to shut down. Will probably only get 1-2 readings in before February before listed species shut down access. So there will be an asterisk in the data due to the shut down. Data release, everything online. But Govt Data Repository has been on and offline. WE SHOULD DOWNLOAD DATA AS A BACKUP. Still have most restrictions as far as purchasing and hiring. She will reach out if there needs to be modifications to surveys about what and where.
       - From chat: Matt Ferner - NERR is going to read the six SETs at China Camp next week
     - Chris Janousek - with a comment for Karen - he will be visiting virtually all of the WRMP sites in the next couple of months, and he's willing and able to help collect SET data. Karen - yes, helpful - But things are complicated. And it's highlighted that more people than just Karen should know how to do this. CToms - Rogue data collection!!

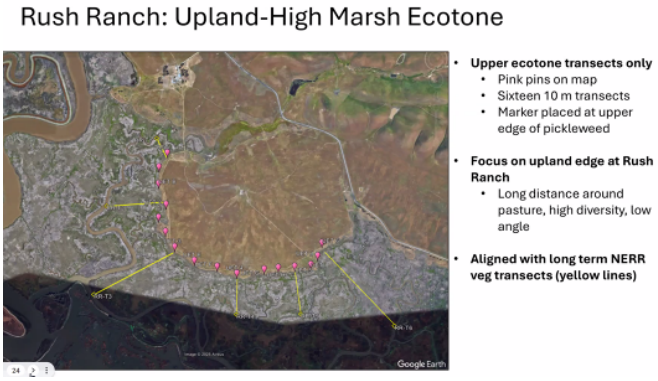
    - Donna - March 31st retirement data. She's wrapping SBSP mid-Jan, and SFEI end of march.

2. **TAC Vice-Chair Updates** Christina Toms, Donna Ball
   - Vote to approve John Callaway as future TAC Vice-chair
   - All thumbs were up (notetakers could not catch individual names, too many thumbs up that went by too quickly, but no thumbs down).

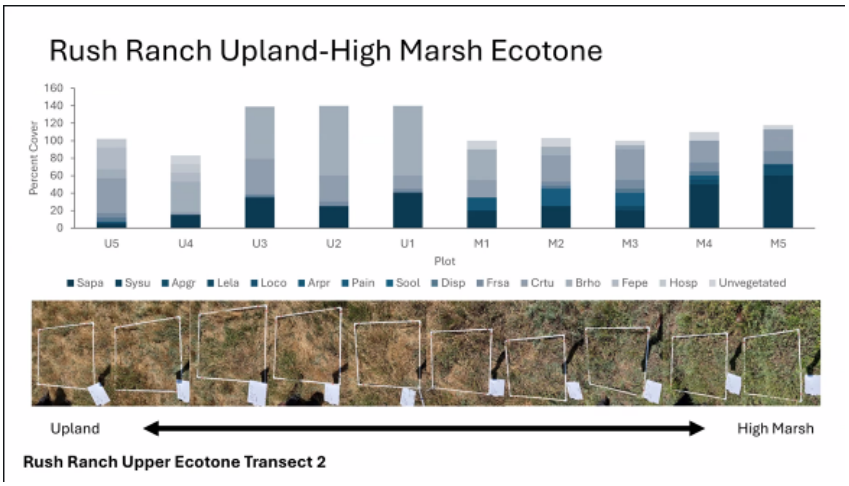
3. **WRMP Implementation Updates** Donna Ball
   - Funding updates -
     - No new updates. Spoke with Luisa about NOFO, thinking about opportunities for what we can submit
   - Awards/recognitions
     - BHM Outstanding Environmental Project Award!
   - Fieldwork updates
     - Fish and Fish Habitat (FFH)
     - With the Storymap work that the P&W team is doing - TAC received the first StoryMap re: Distribution of PCBs in nearshore sediments. Just completed one about wetlands' role in flood risk reduction. Link to the StoryMap about wetlands and flood risk reduction: https://storymaps.arcgis.com/stories/4ebfe02824c04de089f63cf7b9c44da4
   - Science products
     - One of the deliverables is an updated Historical and Modern Baylands graphic. Updates the 2009 map, but there have been soo many improvements and restorations. Available on WRMP webpage in English and Spanish. Going to be making a second side to this, 1998 and 2009 coverage also. Will also make slides as well as the handout PDF so people can access this material.
   - Press/Presentations
     - Interview from KQED - went into the field to collect sounds and information from scientists; both an online story and radio snippet
     - Highlight the tools that we featured at the SOE conference
     - Upcoming WRMP webinars
       - EcoAtlas WRMP Profile Tool
       - 2025 Lidar
       - Perhaps a data catalogue and upload tool
   - Presentations to partners
     - State of the Estuary Conference!
     - Went very well. Interactive. Good lightning talks. Good attendance and interaction. WRMP SOE Webpage with links to tools covered.
   - Workgroups
     - Reviving many WRMP workgroups
     - Bird WG is back in action after a long pause
       - TAC feedback on monitoring questions was incorporated and were approved by the Bird WG Subcommittee

        - Next step is working on the Indicators and Metrics
        - And then start on the bird SOP

4. **Transition Zone Monitoring** Michael Vasey & Anna Deck, SF Bay NERR
   - Mike Vasey giving the talk. Shout out to Anna Deck for a lot of the work. Matt Ferner as well.
   - 3 main types of ecotone monitoring: low to high marsh, channel margins, and high marsh to upland
   - 2 NERR sites for this - both represent different regions. Areas with ongoing vegetation monitoring.
   - Ecotone is dramatic
   - Elevation is key, inundation is key. Matt is doing elevation transects
   - Rush Ranch - only looked at the upland transition area. Really great number, 16 ecotone transects. A lot of statistical strength.



   - China Camp is more restricted as far as opportunities to establish transects.
   - Pickleweed dominated system, but clear transition in community



   - China Camp - Did all 3 types of transition zone

China Camp: Upland-High Marsh Ecotone

- **Upper ecotone transects**
  - Pink pins on map
  - **Eight transects**
  - Marker placed at upper edge of pickleweed
- **Limited by steep upland slopes and road through marsh along some of upland edge**
- **Aligned with long term NERR veg transects when possible (yellow lines)**

    - In fully tidal and muted marsh areas
    - Boundary in upland really defined by steepness
    - Setting us up for Early warning for Sea Level Rise
    - 6 in the lower ecotone transects, mesh with existing long vegetation transects. Situated Ecotone transects in a place where it's convenient for Team doing veg monitoring to do both.
    - Things are really changing in channels based on dynamic of tidal flows, eroding and depositing.
    - These all provide habitat for species of plants that you don't typically find on the marsh plain, like grindellia that provides habitat for bird species. Composition is specific to ecotone habitats.
    - Value in baseline now before future change. Changes are subtle spatially, but give good info about change.
    - Once you start getting more water in the marsh over time, we'll see what effect it really does have because we have the data from before.
    - Getting a holistic view of how climate/SLR is going to affect these coastal systems.
- Chris Janousek question: "My ambition often exceeds my energy level!" - at upland transition zones, would be cool to have piezometers as well. GW dynamics are likely going to change there. Need fences around things at Rush Ranch due to
    - Some sites - Point Pinole - would be good for Transition Zone work. It has space for migration. Also Hill Slough is another site good for this. There is a huge population of birds beak also that would be good to track the transition effects on.
    - Yes from Lisa Beers and Matt Ferner re: Pt Pinole
    - Stuart Siegel - We have Pt Pinole marsh veg, substrate, soil salinity, and I think surface and shallow groundwater data from ~20 years ago, at pannes north shore marsh edge.
- From chat
    - Sarah Firestone: How far into the uplands did Salicornia extend? It's hard to distinguish it from the other dark blue species.
        - Mike - as you move up, it tends to fade. Depends on elevation. Towards 5m boundary.

        - Anna - pickleweed boundary is pretty distinct in most cases, just some spotty patches beyond it.
        - Mike - Cressa, don't see it in the marsh proper, really restricted to the upload transition zone. Specialist in that zone. Inundate and then evaporate, so very salty. Dry/salty conditions - compared to wetter areas with more frequent tides.
        - Christina Toms chat: yeah - if the charts could use a different color ramp, that would be GREAT - it's very hard to distinguish between the color
    - Chris: I have occasionally seen pickleweed in clear upland areas, but I think it is often overwhelmed by all the invasive grasses
    - Sarah F: This data could be really useful to determine whether the different plant species are appropriately classified on the National Wetland Plant List. https://nwpl.sec.usace.army.mil/
- Karen Thorne - 2 overarching thoughts. Karen/USGS released a big data release of veg transect data that had elevation with it. Has different collection years. In the marshes. Now a lot of that would be considered historic data. Emerging opportunity here between data that has been collected. The transition zone is a hotspot for research and monitoring, coming out of multiple climate disciplines. Also wanted to acknowledge brain drain of wetland ecologists from academia. What we really need. We have a lot of emerging students. But if she was a professor, she'd be aiming for the transition zone. Long term monitoring besides WRMP will be built on grad students who have time and energy to do the intensive monitoring that's needed.
    - Christina Toms, Water Board (she/her) 10:03 AM - Aviva and I just gave a lecture on the WRMP for a new wetland ecology prof at Cal Poly Humboldt [Rob Blenk].
    - Janousek, Christopher N 10:03 AM - We have a terrible brain drain across the natural sciences right now!
    - Matt Ferner (NERR) 10:03 AM - SF State (Kathy Boyer, Tom Parker, Mike Vasey, etc.) is not replacing faculty after they retire and will be downsizing even more in the years to come
    - Mike Vasey - EOS was going to be let go by SF State, but many have been doing excellent work.
    - Janousek, Christopher N 10:07 AM - **Programs like the WRMP are so important to carry momentum and institutional knowledge forward even as there is turnover at individual institutions/universities and individual labs.**
    - Aviva - consistency and continuity in monitoring - historically was tenure track. But now, there are fewer tenure track positions - e.g. ~60% of faculty at USF are taught by adjuncts. Academia is no longer a place for consistent research and access to databases - this has been shifting to non-profits; pretty consistent overall; how we're looking at doing things as a research community needs to shift to take advantage of opportunities where research is still there; will be fighting an uphill battle doing this solely in academia moving forward.
    - Stuart
        - graduate students need to be funded; there's no rule but it's practice to bring in students and fund them; keep this in mind

        - hopefully will be an interesting future at the EOS center - opportunity to engage - still will have a lot of faculty but who knows what it will look like; it equals a good opportunity to craft a new future and how this will all pan out; what role can the EOS center in being a center of academic excellence
        - Mike Vasey - Crisis = Dangerous Opportunity . Going through a tough time right now, but it makes us innovative, new ways of getting stuff done.
        - CToms - turning data into information is an opportunity to show the importance of interdisciplinary collaborative science
        - From chat:
            - Christina: gonna start using that in our comms. "The WRMP: A Dangerous, Collaborative Science Opportunity"
    - Chris Janousek/Lisa Beers It would be interesting to take porewater salinity samples in each plot to see if there are subtle variations or if it's more of an inundation influence. Sediment grain size, redox. Just additional env measures across transects, if there is capacity. CToms - good topic for hydrogeomorphology/veg workgroup
    - Donna Ball - Big appreciation to Mike. He brought this idea forward from those really early days, and was persistent.
    - John Callaway 10:16 AM plus there's probably a different signal in terms of climate change shifts depending on the slope of the transition
- End of Year Retrospective Celebration
    - 518 vegetation plots
    - 127 feldspar accretion plots
    - 22 piezometers
    - 24 belt transects
    - 34 CRAM assessment areas
    - 1,782 marsh units
    - 1 new water level - water quality station
    - 60 SET-MHs
    - 115 fish sampling locations
    - 2 boats
    - 6 access permits
    - New website and data portal!
    - Updated indicator alignment!
    - Project Tracker improvements and the tidal wetland extent report!
    - SFBRA dashboard!
    - EcoAtlas landscape profile tool!
    - Launched the bird workgroup!
    - So many BHM metrics!
    - Defined and classified wetland management and marsh units!
    - Fieldwork guide!
    - Estuary-wide low tide LiDAR!
    - CRAM and SET-MH reports!

    - Storymaps re: wetland project benefits and flood risk reduction!
    - SO MUCH FIELDWORK!!!
    - Donna decided to retire next year!
    - Jeremy won the Bay Adapt Award!
    - Lisa adopted Peso!
    - Aviva sent her older son to college!
    - Julie G bought a house and had a baby!
    - Stuart got married!
    - Levi got DimSum! [pet]
    - Iryna got Miho! (sp?)
    - Denise got a new hip!
    - Sarah P, Aviva, and April got on KQED!
    - Josh finally moved into his new house! (TAC retreat when???)
    - Jim made 82 million posts about the WRMP on Instagram!
    - John retired and now he's our new TAC co-chair!
    - Sarah Firestone got the Golden Gate award from USACE for keeping the USACE Regulatory team up to speed on the new definitions of waters of the U.S.
- CToms - we have a strict No Jerks rule in the WRMP, and it works!
- Callaway - Last month lost Jim Cloern. Need to honor his incredible contribution to the estuary. Set the bar over many decades for rigor and incredible science, and science comm, and actionable science. Thinking from delta to bay. Karen - USGS has not yet announced or put out a tribute to the region, would love to see non-federal partners lead the tribute because the feds can't handle that right now.
    - From chat:
        - Matt: Jim held the bar so high for rigorous science; just can't replace that...Maybe BDSC honoring session?
        - Julie B: Jim was amazing to work with, such a loss.
    - Laura - We'd be happy to post a tribute in the SFEI newsletter, Karen and John
    - Janousek, Christopher - Maybe a tribute could be done in the SF Estuary Watersheds Science journal..
    - CToms - something on WRMP webpage. So much of the WRMP interdisciplinary and applied is built on Jim's work.
    - Matt Ferner (NERR) A special issue in Estuaries and Coasts in out years too...
- From Chat:
    - Sarah F: That's an impressive amount of work.
    - Chris: Also ~120 photopoints!
    - Aviva: Over 500 trawls
    - Jemma: And a partridge in a pear treeeee 🎵
    - Sarah Firestone: Regulatory is also thrilled about the LiDAR
    - Janousek, Christopher - We also have ~15 new blue carbon cores (in storage) if we can find $ for analysis
    - Sarah F: I just got the Golden Gate award from USACE for keeping the USACE Regulatory team up to speed on the new definitions of waters of the U.S.

5. **Next Steps and Wrap Up** Donna Ball, Christina Toms
- Data Synthesis subcommittee

- 2026 TAC meeting schedule (9-11 AM)
    - January 27
    - March 3
    - April 28
    - June 2
    - July 14
    - September 1
    - October 13
    - December 8
- 2025 SC meeting (10 AM -12 PM)
    - December 18
- 2026 SC meeting schedule (10 AM -12 PM)
    - TBD

Matt Ferner (NERR) - Everyone in/around SF Bay today - go right now to the shoreline to eat your lunch while watching the extreme high tide!