



Wetlands Regional Monitoring Program

Steering Committee Meeting Notes

June 12, 2025, 10:00 am - noon

Meeting Attachments

- [Draft WRMP Data Sharing Policy](#)
- [March 20, 2025 Steering Committee meeting notes](#)
- [June 3rd TAC meeting notes](#)

Attendees:

SC members: Jessie Olson, Brenda Goeden, Matt Ferner, Dylan Chapple, Luisa Valiela, Marco Berger, Erika Castillo, Sarah Firestone, Karen Thorne, Stacy Sherman, Jemma Williams, Erin C (FWS, alternate for Jana Affonso), Sara Moncada, Dave Halsing, Renee Spenst, Ali Weber-Stover

WRMP staff: Sasha Harris-Lovett, Alex Thomsen, Aviva Rossi, Lisa Beers, Cristina Grosso, Alex Braud, Karen Verpeet, Donna Ball, Erica Johnson, Melissa Foley

Others: Dan Hossfeld (EPA), Jaime Lopez (BCDC), Christina Toms (Water Board),

Notes

1) Approval of 3/20/25 Steering Committee Meeting Minutes - Jessie Olson

- Make change about “BHM mapping effort” not just “BHM map” on pg. 3
- Notes were approved

2) Program Updates - Sasha Harris-Lovett, SF Estuary Partnership and Melissa Foley, SFEI

- Website update and timeline (Sasha)
 - We expect content to be done this summer and launch this fall
- Wetland education and workforce development (Sasha)

- Working with Multicultural Center of Marin – they are developing wetland education and workforce development programming, which kicked off this May
- WRMP key messages (Sasha)
 - We hope SC members can be spokespeople for the WRMP to your colleagues and others
- Implications of federal landscape changes on WRMP monitoring (Melissa)
 - The amendment to SFEI from EPA (for additional WRMP funding) has moved from EPA to DOGE, but no further news
 - Consider suspending Charter restriction on membership to specific organizations/agencies/entities, rather than individuals, so we maintain Committee knowledge amidst other changes
- Steering Committee comments:
 - Could former federal employees who want to continue on the SC receive honorariums?
 - WRMP grants can cover broad types of expertise
 - Depends on how they leave their agency and what the paperwork says about continuing previous work that they did in their agency role
 - Could SC members shift over to the “community” representative seats?
 - Only one is currently open, and may be filled soon
 - Particular former federal employees may have restrictions on what they can participate in, conflicts of interest
 - In chat: I recommend adhering to the charter and the organizational membership approach
 - Not necessary to change the charter, but this is a worthwhile discussion
 - TAC is more flexible with seats
 - USFWS wants to continue to participate in whatever capacity they can
 - Gratitude for considering this idea proactively

3) Notes from the Field - WRMP Science in Action - Lisa Beers and Aviva Rossi, SFEI; Karen Thorne, USGS

- Permit update for CRAM, Water Quality, SETs
 - Summer / fall monitoring: photo point monitoring, vegetation monitoring, piezometers
 - Getting permits, making the permitting process more streamlined by combining all the monitoring requests by different WRMP staff and consultants into one request
 - Formalizing field monitoring process and codifying best practices in field monitoring guide
- Completed and near-done physical science products:
 - 2024 CRAM survey report is finalized and will go up on the website soon

- field monitoring guide is almost done
- Several memos around the BHM and PTTWRM dataset coming up soon
- Fish monitoring update
 - Levi is out in the field collecting data. Has covered 7 OLUs so far. Collecting data on fish, invertebrate communities, and water quality metrics
 - Check out Levi's blog about the WRMP monitoring: <https://www.ogfishlab.com/2025/04/08/fish-in-the-bay-april-2025-wrmp-eden-landing-trawls/>
 - Findings: Eden Landing is a nursery for rays, perch; Cullinan Ranch is a rearing place for longfin smelt
- Vegetation monitoring
 - Establishing transects, will begin the vegetation monitoring this month at some sites
 - Installing piezometers at Benchmark and Reference sites and recording data
- Collaboration across vegetation and fish monitoring
 - Different subcontractors working together
 - Coordinating board usage
 - Combining efforts with NERR for site access
 - Have work order in place for entire Estuary-wide low tide LiDAR collection!
- SET findings and visualizations
 - SET-MHs are a standardized approach used to monitor wetland accretion and elevation change.
 - Answers monitoring questions about changes in accretion over time, whether wetlands are keeping pace with sea level rise. Can be an early warning for needed adaptive management actions.
 - Takes an initial investment to install SET-MHs, then they passively collect data and you read them when you have funding. Plan is to collect data in spring and fall.
 - Accretion: top surface elevation change
 - Elevation change: total change in soil development of the marsh
 - Shallow subsidence: what's happening in the soil surface (if you see accretion but total elevation loss)
 - Current network of SET-MH in 12 marshes in SF Bay, has been funded by USGS, EBRPD, and WRMP.
 - WRMP site setup – 2 near the edge of the water, and 2 more interior in the marsh.

- Installed SET in San Pablo Bay NWR in 2012 – one of the oldest sites. Accretion and elevation changes significantly over time. Can see where the marsh moved in an earthquake.
 - Generally accretion rate is close to SLR for this location
- WRMP funded new SET-MH sites at Raccoon Island
 - The slope is positive, which means the marsh is growing
 - Ravenswood – this is the first restoration project being sampled. SET-MH helps us see how restoration is proceeding.
 - Has been accreting really fast since it was breached, except for some erosion at one site (which is expected after a breach).
 - Lots of data for all the different sites. Many of the marshes appear to be keeping pace with sea level rise.
 - When elevation and accretion are not the same, have to think about what other things are going on – is there deposition.
 - Raw data is available at USGS data release: <https://doi.org/10.5066/P9MN2I1W>. It has also been provided to SFEI.
 - Have goals to add more sites.
 - In chat: I am so glad we have that SET data at R4. It's been really important already! Thanks, Karen and team!
- Questions
 - Advice on how to message what we get in the short term, and how we sell it in the long term?
 - This is relatively low-impact and low cost. Reading of SETs can be done by anyone, so it's accessible for land managers and citizen scientists to do it. The technical expertise needed to pull this off is open to people.
 - In the long term, it's clear data that says if we're keeping pace with sea level rise or not, and it's an early indicator. In the San Francisco Bay, we have time and opportunity before we start losing sites to sea level rise. This data will start to raise a red flag before you start to see loss of species or habitat to a large extent.
 - The cool and complicated thing about SF Bay is our flashy weather, which is happening more and more. By monitoring in Spring and Fall, we can see that we'll lose elevation in severe drought years, but then the marshes rebound in a wet year. One data point from SET-MH can address multiple climate drivers.
 - It's a global approach that is well-documented in the literature.

4) WRMP Data Sharing - Cristina Grosso, SFEI

- Why is the WRMP committed to open data sharing?
 - Makes data accessible so it can be used to inform decision-making for restoration and adaptive management
 - Different groups don't have to regenerate data, is more cost-effective
- Need an open data sharing policy to uphold the WRMP standards of openness and transparency
 - Policy describes responsibilities for different roles of program staff, data users, general public
 - Has legal protections
 - Has contracting requirements for subcontractors
- Main components of policy
 - Key principles for data sharing
 - Collaboration among organizations
 - Legitimacy through transparency
 - Long-term ownership and sustainability
 - Adaptive management
 - Programmatic responsibilities
 - Sharing data in a timely manner
 - Making data publicly available
 - Documenting data collection and analyses
 - Leveraging common websites and vehicles for disseminating the information
 - WRMP website
 - Geospatial data portal
 - EcoAtlas for summarizing information and letting users explore the data
 - Partner responsibilities
 - Have a data management plan
 - Provide metadata
 - Agree to public release of information unless it's otherwise specified
 - Public (data users) responsibilities
 - Sharing attribution for dataset and how its collected
 - Honoring licensing terms and legal restrictions
 - It's written in approachable language that's easy to read, and then there's a legal section with all the legal disclaimers.
- Discussion / questions:
 - From CDFW perspective, note about potentially withholding data if it points to a sensitive species

- If you have that information, add it into the California Natural Diversity Database – CNDDDB (<https://wildlife.ca.gov/Data/CNDDDB>)
- Can it be summarized with a creative commons license? That’s what is done with the Environmental Data Initiative
 - creative commons licenses: [About CC Licenses - Creative Commons](#)
- Should refer to the Open Water Data Act – includes wetland data. It’s a requirement for any public funding that it has to be made public.
 - Open and transparent water data act: [Strategic Plan for Assembly Bill 1755](#)
- Should mention FAIR and CARE principles
 - [Open Context: About - FAIR and CARE Data Principles](#)
- Here is an example of a relevant EDI package with license info and metadata links: [Data Portal - Data Package Summary | Environmental Data Initiative \(EDI\)](#)
- Brenda Goeden left comments in the document
- For the timeframe and posting of data: USGS has a very long peer-review process, and sometimes it takes a couple of years to get data available for them. Should that be dealt with in this document?
- Some of the legal disclaimers feel similar to the other text – the point of both kinds is the same.
- Change “you” to “users should”
- Surprised to see clause about exploiting minors through the use of the data. Couldn’t imagine a circumstance where that would be relevant. Suggest removing if it doesn’t need to be in there.
- Can put in the contract that the data has to be released within a certain time period (i.e. one year)
 - Usually the funder sets the requirements for how quickly data should be turned over
- Timeline depends on type of data and the cleaning / QA/QC it needs before it’s reliable.

5) Baylands Habitat Map Analyses - Alex Braud, SFEI

- BHM 1.2 is up on website, it added Winters and Browns Island and is more user-friendly.
 - Uses existing marsh, evolving marsh, and restored marsh (similar to the PTTWRM data set).
- SFEI has funding to do vegetation correction to 2025 LIDAR, will improve the base data for the BHM
- Analysis units ~ Census Blocks: tidal marsh units, diked marsh units

- Workshops to determine what is a unit to have a nested hierarchy (subembayment > operations landscape unit > wetland management unit > analysis unit)
- Marsh typology focus – millennial tidal, centennial tidal, new tidal wetlands
- Different visualization benefits using filters for attributes (typology, patches, WRMP benchmark sites, restorations, etc.)
- WRMP Indicators
 - Metrics include tidal marsh extent, elevation capital, unvegetated to vegetated ration, patch size and shape, channel length, density
- BHM analyses
 - Elevation capital: Can see elevation capital compared to years since breach at different sites
 - Unvegetated to vegetated ratio – used more on East Coast and Gulf Coast, it’s similar to percent cover. Can be an indicator for restoration progress and indicator of marsh drowning over time.
 - Patch characteristics – calculating the percent and density of habitat within a circle
 - Channel length & density – indicator for health and resilience; can calculate drainage density
 - Next version of BHM will provide better data to be able to do this
 - Analytical hierarchy – flexible, functional, and enabling further analyses and inferences
 - BHM metrics will be downloadable and accessible in EcoAtlas

Questions / comments:

- Chat from Brenda Goeden: Basis for the 60 meters?
 - Alex says it is standard that has been used in the past by other SFEI staff
- In chat: It's super-awesome and useful!
- In chat: Great data and visuals Alex! I'm excited to dig into it more.

6) WRMP Data Dashboards - Cristina Grosso

- SFBRA Dashboards and WRMP Profile tools are designed to make the data accessible and cost effective
- SFBRA is tracking Measure AA goals with graphics and high-level overview
 - Adding tidal marsh extent and marsh patch size
 - Tidal marsh connectivity
 - Future plans could include marsh condition and people & wetlands tabs
- WRMP Profile tool
 - Custom profile within the EcoAtlas tool set

- Predefined filters with OLU, WMU
- Can get summaries based on BHM for your area of interest
- Will include graphics and text
- Provides tidal wetland extent, vegetated to unvegetated ratio, elevation capital, restoration status
- You can generate printed reports in addition to the online version
- Profile tool is designed to expand with the program – new metrics and filter selections can be added

7) WRMP key messages - Jessie Olson, SC Chair, Save The Bay

- Question: are the key messages defined earlier in the meeting resonating with SC members?
 - The WRMP helps accelerate the pace and scale of successful wetland restoration and management by...
 - Making wetland monitoring more cost-effective
 - Producing regional analyses to support decision-making
 - Meeting the information needs of regulatory agencies and restoration project implementers
- Comments
 - Dave Halsing likes them
 - Karen: The order of them matters – maybe cost effectiveness shouldn't be #1. Also, is it only regional? We're also producing information about site scale that can inform decision-making, so maybe we want to take out the specifics about regional.
 - Aviva Rossi: "Regionally consistent"? Yes (Sarah Firestone)
 - Matt Ferner: The primary focus on informing wetland restoration could come through more clearly. Ah- That leading italicized part catches that. Thanks!
 - Erin: It would be cool to add something about "working together" in the statement that opens to the goals.
 - Luisa Valiela: these are elevator pitches, so worried about adding too much. But might be helpful to add a fourth bullet about building on existing data about site specific data.
 - Erin C: It would be cool to add something about "working together" in the statement that opens to the goals
 - Matt Ferner: Could replace "regional" with "environmental" in the second bullet; a different connotation but also valid and not exclusive of any spatial scale.
 - Renee Spent: what are the big aspirations for this program?
 - Brenda Goeden: I want to understand who the audience is – if for the public, then “producing regional analyses to support decision-making” doesn't feel accessible; how to balance being correct from a scientific perspective and accessible to our audience

- Sasha Harris-Lovett: we will all be talking to slightly different audiences and we would love to work with anyone talking with specific groups (e.g., media) to help hone the messages
- Matt Ferner: The second bullet is kind of implied in the third bullet, so could just drop the second... Renee feels the opposite, maybe better to drop the 3rd bullet point and focus on decision-makers more broadly rather than naming them (Matt agrees)
- Dave Halsing: I think these are almost like menu item-ish talking points. You don't say them all in every conversation. Rather, you choose them and adapt/apply as appropriate to that audience. Trying to wordsmith these is somewhat misplaced energy because they are meant to be concepts, not Mission Statements.
- Jessie Olson is asking people interested in further honing these messages to either place their names in the chat or reach out to Sasha Harris-Lovett
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8) Announcements

- Remaining steering committee meeting dates for 2025
 - September 18
 - December 18
- Question: Can we meet in person for one of our remaining meetings this year?
- Comment: check out the South Bay Salt Pond Restoration Project Lunch-And-Learn about the WRMP: <https://www.southbayrestoration.org/media/lunch-and-learn-science-wetlands-regional-monitoring-program-and-restoration-project>