Wetlands Regional Monitoring Program
Steering Committee Meeting Notes
March 28, 2024, 10:00 am - noon

Meeting Attachments
- 12/12/23 Steering Committee Meeting Minutes
- 3/8/24 TAC Meeting Notes
  https://docs.google.com/document/d/1Q_jdPKM60pG5qItcM8yOK5CaoAJO6GSCS
  EatqYfXSfw/edit#heading=h.x8w22phxtfgz
- WRMP Science Team Monitoring Package Ideas:
  https://docs.google.com/spreadsheets/d/1COvbVnslErZGSnUxqeJJ_3EPLlDEkZQvx
  V4BV4XbDyU/edit#gid=36311528
- TAC-SC Ranking of Monitoring Components:
  https://docs.google.com/spreadsheets/d/1lQ9NyzoZGWkYsdHR28pSmCGJcMyB1
  yPezfZz6HV8StU/edit?usp=sharing

Participants: Erika Castillo (Alameda County Mosquito Abatement), Mike Chotkowski and Karen Thorne (USGS), Caitlin Crain and Donna Ball and Karen Verpeet and Melissa Foley and Cristina Grosso (SFEI), Dylan Chapple (DSC), Erin Chappell (CDFW), Jaime Lopez (BCDC), Luisa Valiela (USEPA) Sasha Harris-Lovett and Alex Thomsen and Hannah Kempf (SFEP), Kelli McCune (SF Bay Joint Venture), Charisma Acey and Jasmin Munoz (Outreach by Design), Evan Borgnis Sloane and Erica Johnson (SCC), Jana Affonso (USFWS), Dave Halsing (South Bay Salt Ponds), Christina Toms and Xavier Fernandez (Water Board), Stacy Sherman (CDFW), Rose An (Sea Grant Fellow at BCDC), Sarah Firestone (USACE), Matt Graul (EBRPD), Rose An (BCDC), Brian Meux (NMFS)

1) Approval of 12/12/23 Steering Committee Meeting Minutes
Erika Castillo
- Approved

2) WRMP Funding Update
Luisa Valiela, EPA Region 9 and Sasha Harris-Lovett, SFEP

Current funding update from Sasha Harris-Lovett (SFEP):
- SFBRA funding: focus on starting monitoring, and mission alignment
- NEP funding
- DSC funding: focus on SOTER alignment

- EPA WPDG: focus on program development, advancing equity and engagement strategy and connect results with data users, and incorporate regulatory interests
- Matching funds from Water Boards and others for in-kind match
- WRMP will continue to apply for grants as needed, including another SFBRA grant

Update from Luisa Valiela (EPA):
- FY24 is pivotal year, received $54M (expected annually) for SF Bay Office
- WRMP is priority for EPA program office: $5 million for SFEP and SFEI each anticipated this year. Match requirements: 75 to 25% rate.
- Some EPA funds will be competed, but not those allocated for WRMP.
- EPA funding requiring WRMP on the ground monitoring and advancing equity/engagement

3) WRMP Program Updates
Alex Thomsen, SFEP and Sasha Harris-Lovett, SFEP

P&W Update from Alex Thomsen:
- People and Wetlands indicators approved, coordinated with SFBRA and SOTER
- Taylor Pantiga + Ally Malilay and SFEI have all been contributing to this indicator developmnet
- "Flood protection" changed to "flood risk reduction"
- SCC concern about flood risk reduction measurement including only one element
- Workgroup wants to avoid restricting language to modeling

Cost Assessment Update from Sasha Harris-Lovett:
- What is status quo for wetland monitoring costs/associated with permitting restoration?
  - WRMP contracted with WRA to do the wetland monitoring cost assessment, but they are unavailable for this SC meeting
  - Goal of WRA analysis was to better address the cost-effectiveness component of WRMP's mission
  - Restoration practitioners could potentially choose to pay into WRMP in the future
    - This project helped WRMP staff understand what a reasonable asking cost would be, and ensure this cost would be lower than current costs for projects
- WRA role was to characterize the range of costs in monitoring, and identify drivers of variation in those cost
  - WRA identified which monitoring efforts could result in cost savings
  - Developed interactive Excel-based tools to understand costs and determine efficiencies
- Recommendations for regional cost efficiencies list: (n=9) many of which WRMP is already planning to monitor.

- Xavier Fernandez and Kelli McCune would like to see the cost analysis tool. Sasha will send to them.

Communications Update from Sasha Harris-Lovett:
- WRMP newsletter sent out yesterday (3/27)
- Fish and Fish Habitat guidelines just sent out yesterday as well.
- Today (3/28) : focus group session on information delivery, 3-4 pm.

4) WRMP Equity and Engagement Strategy
Charisma Acey, Outreach by Design

- Created draft recommendations for advancing WRMP equity and engagement strategies
- 30 people from 26 groups (CBOs, Tribes) participated in this effort
- Developed a sampling strategy (researched, identified potential partners), performed outreach and engagement (i.e., interviews by Sasha Harris-Lovett), and reviewed Bay area public agency engagement methods and reports

- Outreach By Design presented possible Table of Contents for report

- Findings before interviews:
- Found recommendations for agencies for equitable engagement
    - Interviewees supported these recommendations
    - WRMP Equity and Engagement strategy builds from other equity strategies by state agencies, the Estuary Blueprint, and public agencies broadly across Bay area.

Draft Recommendations
1) Establish equitable and collaborative program structure and governance
    -Form partnerships with CBOs
    -Include community and Tribal representatives in decisions making, including on the Steering Committee
    -Develop projects that meet the guidelines of community-based participatory action research (CBPAR)

2) Provide resources to amplify priorities of communities and Tribes to build trust
    -Technical assistance for CBOs +Tribes – allocate resources to meet groups' individual   needs
    -Compensation Models – co-create scopes of work/budgets, consider creating a standard compensation model.
    -Establish funding for access and stewardship projects

3) Engage in equitable outreach and education

-Create regular open line communication channels, and be open to using different types of communication tools (email, phone, social media, in-person, etc.)
-Education and marketing efforts – including compensation for youth participants

4) Ensure community and Tribal data needs are reflected in WRMP monitoring protocols
-Monitoring priorities should reflect communities/Tribes' needs
-Tribal data protocols – ensuring respectful use of TEK and support data sovereignty
-Continue People and Wetlands Workgroup

5) Involve youth and communities in data collection
-Youth engagement programs – highlighting potential careers / supporting pipeline
-Community engaged monitoring with compensation
-Community data collection – providing training/compensation

6) Increase funding for CBO and Tribal engagement
-Seek sustainable funding sources
-Work with and/or employ Tribal liaisons and folks with cultural competency
-Building connections and relationships

-Report's cross-cutting themes all reflect equity, empowerment of EJ communities, collaboration, education and workforce, accessibility, communication

-Additional recommendations:
1) develop transparent reporting and
2) support internal capacity and include building cultural competency skills

Questions from SC (paraphrased):

Evyan Borgnis Sloane: will there be concrete steps outlined in the report for reaching out and forming partnerships with CBOs, especially ones that haven't been involved previously? Charisma Acey: potential actions to reach CBOs will be in report; working to get specific/actionable.

Christina Toms: a lot of priorities overlap with other programs, not just WRMP. WRMP work is looking to leverage existing programs (Bay RMP, BRITT, SFBRA). Can report articulate how WRMP can work with partners to collectively address equity and engagement? (+1 from Melissa Foley and Karen Verpeet) Charisma Acey: will work on this for final report and provide links to other programs with information on what else is happening locally. Report can provide a path to understanding broader efforts.

Dylan Chapple: "Agreed --building on existing efforts could also help with capacity issued mentioned in the presentation and by others." Also brought up internal capacity limitations.

Erika Castillo: agrees that priorities can align and build on each other. Likes the connections.

Evyan B. Sloane: "I agree - would be good to outline each agency's tasks roles so the WRMP doesn't have to do everything. For example, WRMP clearly should be the one incorporating TEK into protocols where possible, but they wouldn't necessarily be the ones to build CBO/tribal administrative capacities."

Charisma Acey: This is a living document that can be used to the groups' liking.

Break

5) Priorities and trade-offs for monitoring implementation
Caitlin Crain and Donna Ball, SFEI; Christina Toms, Water Board

Caitlin Crain: discussion of WRMP progress -- 2020 Program Plan > Network Memo > 2023 Monitoring Plan + SOPS > now = Implementation Plan
- Implementation plan will be an even more prioritized/doable subset of monitoring efforts
- WRMP has been growing over time, especially with EPA funds, so now we can think about a ~5-year plan for implementation
- SC priorities = implementation proposal is useful for mission, especially stakeholder buy in, the program should be able to show its success/demonstrate competence.
- TAC priorities = science-focused, identifying early indicators of change, address regulator/project needed, address funding needs, amongst many other things

Christina Toms: presented graphic on WRMP links between guiding questions, management questions, monitoring questions, monitoring activities and products.

- Monitoring activities that can answer multiple management questions are a high priority for WRMP implementation
- Will work with SFEI graphics team to make this graphic more user friendly
- Hoping for this graphic will be useful for understanding how monitoring activities answer key needs of different stakeholders

Donna Ball : Prioritizing Monitoring Elements

- Acknowledged funding and how exciting that is!
- Ranking spreadsheet was circulated to Steering Committee and TAC
- Hoping to develop workplan in the next month, will elicit input from SC
- Reference monitoring packages work by internal team, coalesced into one for today

- With EPA Program Office funding, program will have money, but we need to all recognize that we can't meet all priorities all at once
- Needs of agencies, projects, cost-effectiveness all have to be considered
- Ranking of monitoring activities considering the various criteria (things that have started*):
  - Regional = habitat map*, elevation map/new LiDAR, vegetation map, shoreline change...
  - Subregional = multiparameter gauges/data sondes (WSE, WQ, SSC), control point (H/V control) at network sites...
  - Site-scale monitoring = CRAM*, SET-MHs*, and begin accretion/sediment monitoring, control points at specific sites, elevation, vegetation, fish and fish habitat, photo point monitoring...
- WRMP can/will add more monitoring over the time and SC will help identify starting points
- Thinking about opportunities for collaboration with RMP sediment workgroup, and others

Caitlin Crain: WRMP Monitoring Implementation Proposal

- Implementation plan is based on both TAC and SC input
- Amalgamation of a lot of information and input! Need to prioritize subset from the monitoring plan and develop an approach for implementation

Monitoring Foci (big ticket items):
- Regional habitat and elevation maps (obtaining new aerial imagery, flown at low tide across the region and new LiDAR)
- Site-based transect monitoring of vegetation and key physical drivers – will establish permanent transects that we can return to
- FFH monitoring at network sites – early investment by partners in the region and emphasis from funder
- Continue CRAM assessments
- Continue monitoring the SET network
- Continue doing analyses of the Baylands Habitat Map
- Leverage partner efforts (i.e. RMP Sediment workgroup)
  - -WRMP Complimentary Monitoring Components:
- People and Wetlands monitoring
- Community engaged monitoring (TBD), possibly a pilot program(s)

Implementation Approach (summarized):
- Regional Scale:
  - New imagery for habitat map
  - New LiDAR
  - Shoreline change

- Sub-regional
  - Establish Horizontal/Vertical control at Benchmark and reference sites
  - Coordinate with RMP, and special studies
  - Site-Scale
  - CRAM
  - photo point monitoring
- Site specific = SET network + add a network site per year
  - Marker Horizon, elevation, and vegetation transect monitoring
  - Transition zone vegetation monitoring at benchmark sites
  - Fill gaps in regional FFH monitoring, pilot SOP at project site
  - Bird and Mammal monitoring work group development/small funds towards these
  - Special Studies for needs that become apparent once data is collected

- Shared broad budget for these different monitoring tasks in Excel sheet.
- Next steps for program: identity subconsultants and in-house staff, fine tune cost estimates, etc.

Feedback on monitoring proposal? Other programmatic considerations? Will this information be useful for you? *(Answers paraphrased)*

Xavier Fernandez: Will habitat maps have imagery that will be used to measure vegetation cover at sites? A lot of the monitoring that's done to measure vegetation cover is really aerial interpretation, not on-the-ground monitoring. If we allow folks to pay into the WRMP, would they be able to download information from the aerial imagery to measure vegetation cover instead of doing it themselves?
> -Yes, projects could download the aerial imagery and interpret the vegetation cover
> -The habitat map is created by combining the aerial imagery with an elevation model. The calculation of vegetation percent cover is an intermediate step in the creation of the habitat map, so that could be visualized through the same geospatial platform that we're using to publish the Baylands Habitat Maps.
> -Cristina G: We're happy to discuss more the best way to provide the imagery/percent veg cover calculations to project proponents.
> -The on-the-ground vegetation monitoring will help us ground-truth the aerial imagery, and see how the Benchmark sites are doing in relation to Project sites.

Dylan Chapple: Encourage figuring out a systematic way to do crosswalking with existing monitoring in the Delta – who is doing it, where the data is available, identifying those opportunities. It's important for us to have a whole Estuary view on this. The development of DWR's Land Stewardship Program has made available funds for a wider suite of monitoring at restoration sites. He's happy to participate in thinking this through in more detail, it's important to increase this coordination.

Christina Toms: Going to meet with the IEP Climate Change work team, to talk about how they are integrating climate change into the WRMP workplan. SFEI and Denise Colombano are also going to talk about aligning indicators with the Delta Science Tracker. Hoping to meet with DWR staff that are responsible for tide gauges in Suisun, and how they might track information that's relevant to the WRMP. Our engagement is limited by capacity, but it will be a focus of our efforts moving forward.

Dylan in chat: All sounds good! Glad to hear about the Delta coordination conversations on the horizon

Evyan B Sloane: Overall really likes the monitoring implementation ideas. Would the LiDAR just be doing elevation, or would it get anything about vegetation? Would it show Spartina vs. Pickleweed dominated marsh? WRMP should coordinate with Invasive Spartina Project, they could be a nice resource and QA/QC.

Christina Toms: Site-scale vegetation monitoring will get into a lot more of the details around vegetation. Trying to not reinvent the wheel/better coordinate with other well-executed monitoring efforts on estuary-scale vegetation mapping. Maybe WRMP can limit data collection to site network, so not mapping all marshes, maybe just benchmark/reference/project sites.

Caitlin Crain: Habitat map can distinguish between low vs. high marsh – which essentially answers that question without species-specific details

Christina Grosso: happy to discuss more the best way to provide the imagery/percent veg cover calculations to project proponents.

Kelli McCune: It's impressive how much is captured up front, continues to call for partnership to get this all done. A top science priority of the SFBJV is condition and function of wetlands, as well as species response to restoration actions. We want to bring birds in to the WRMP down the road. At some point in the next 5 years – thinking about the human component of tracking projects – we use EcoAtlas to do that. What does the Baylands Habitat Map correlate with what people are entering into EcoAtlas?

Christina Toms: SFEI team has been developing marsh landscape units that are a vector dataset for the Baylands Habitat Map. The marsh units are polygons that will allow us to establish the physical boundaries of each site. This will allow us to calculate landscape change. We'll talk about this more at the joint TAC / SC meeting.

Cristina Grosso: Baylands Habitat Map will provide us with existing habitat, but we're also using it to go back and update Project Tracker in EcoAtlas so the polygons are more accurate. SFEI is coming up with an infographic to show us how we're tracking these changes over time.

Stacey Sherman: Where are we on landowner outreach?

Sasha Harris-Lovett: developing a survey and will send to Stacy (+ other SC members) for review. Lead scientists at SFEI will be responsible staff person listed in survey so that landowners can reach out to them for more information regarding monitoring.

Christina Toms: I also want to note that many landowners/managers are represented on this Steering Committee (e.g. South Bay Salt Pond Restoration Project, SF Bay National Wildlife Refuge)

Matt Graul would like to review the landowner survey.

6) Announcements

- April 30, 2024 – joint SC/TAC meeting (hybrid; in-person location at 375 Beale St, downtown SF, with informal happy hour after)
    - o Alex Thomsen: There will be a hybrid option for the April 30 meeting but we'd love to see as many people in person as possible!
- Next Steering Committee meeting on June 27, 2024

7) Adjourn