

Kelp Recovery Working Group Meeting 3: Finalize Recommendations
Thursday September 13th, 2018
9:00am - 4:30pm
3rd Floor Conference room at GFNMS office

Meeting Notes

In attendance: Rebecca Flores-Miller, Barbara Emley, Cynthia Catton, Meredith McPherson, Jan Freiwald, Sarah Allen, Frank Hurd, Abby Mohan, John Largier, Mike Esgrow, Bibit Traut, Francesca Koe, Josh Russo

On the phone: Mark Carr, Steve Lonhart, Sara Azat

Meeting Objectives:

- Craft a purpose statement for the group
- Review draft recommendations, finalize general components of all recommendations and identify intersections across topics
- Assess the “big picture” and identify recovery actions through time and across scenarios
- Identify agency/individual leads for each recommended action
- Identify most critical next steps and discuss funding opportunities

Welcome and Agenda Overview

Francesca Koe, Working Group Co-Chair, opened the meeting and asked for brief updates from working group members:

Steve Lonhart: Keith Rootsart with Monterey Bay NMS Advisory Council received permission to do limited urchin manipulations.

Mark Carr - Monitoring data continue to be gathered over the summer by Reef Check, PISCO (Jan, Mark, Steve). There has been some recovery down in Monterey/central coast, so there may not be action needed in that area. Is CDFW monitoring the condition of red urchins along the coast? Cynthia - yes, not every year, but we do have data pre/post kelp loss. This year we've been focused on purple urchin reproductive condition. Want to continue doing this to learn about seasonality and conditions that make big changes with the urchins. Want to determine places or time of year to avoid smashing. Mark - would be good to document the red urchin impacts, esp for commercial fishery. Good to understand social and economic consequences with respect to that fishery. Cynthia - have a Sea Grant proposal in with undergrads at Humboldt State to do a socioeconomic analysis. Divers have had to dive deeper and deeper to find urchins (90+ ft) which is very dangerous. Need to have urchin data documented. Josh - red fishery is closed due to gonad index. Frank - should have specific objective facts on socioeconomics.

Cynthia Catton - added Albion as a site because it is a critical commercial and recreational urchin site. CDFW will be finishing up surveys next week, then diving Sonoma and finishing up work for the season. They will be working to get all the data summarized. Based on personal observations, things have not improved.

Sara Hutto - Will be presenting as part of a panel at Aquarium of the Bay on MPAs and climate change, and briefly discuss the kelp loss issue and what the Sanctuary and partners are doing to address the issue. Also Point Blue on the panel, hosted by David McGuire of Shark Stewards.

Purpose Statement

Cynthia introduced this item as a necessary step to identify the purpose of the Kelp Recovery Program and supporting working group. She encouraged the group to think more big picture, and to draw from the series of strong discussions on the group's priorities. Francesca presented a draft purpose statement that the group reviewed and finalized:

To protect, preserve and promote healthy and abundant bull kelp and healthy ecosystems along the northern California coast, fostering collaboration among communities, resource managers and scientific/educational institutions to bring the best information and data to bear on our adaptive management of a vitally important habitat.

Cynthia added that it is good that we are talking about ecosystems and not just bull kelp. This is a building block of what makes this place special. Abundant kelp = healthy ecosystem. Because there has been such a decline, we want to restore it to abundance.

Topic Team Presentations and Recommendation Review

Sara Hutto began this discussion by indicating that the goal is to present and bring everyone up to speed on each topic team's recommendations. Live editing occurred within each topic team document; Sara presented the [Data Gaps & Monitoring](#) recommendations; Francesca presented the [Community Engagement](#) recommendations, and Cynthia presented the [Site Selection](#) recommendations.

A few questions/comments came up during discussion:

- Can CDFW leave markers for restoration sites?
- Recovery action will depend on the characteristics of the site - there will not be a "one size fits all" approach
- We have the processes outlined, now we should talk about how they should be applied.
- Bob Bertelli mentioned that urchins right now don't have any reproductive material and fish eat what is left when they are crushed. Cynthia added that CDFW is evaluating urchin gonadal mass for different seasons to determine best time of year to cull urchins.

The Big Picture

Cynthia facilitated the group through a discussion of overlapping priorities across topic teams:

1. Digital platforms/Communications
 - a. Need approved, consistent messaging
 - b. OPC's open data platform
2. Citizen Science opportunities
 - a. Comes up in multiple areas of recommendations (data collection, outreach/interpretation, removals) but not fully developed

- b. Through the Kelp Recovery Program, provide list of opportunities and direct interested people (e.g. Reef Check for scuba monitoring, Noyo Science Center for removals, Tom Bell for drone monitoring TBD) - via the "Get Involved: Volunteer" action
- c. More fully develop a network for information dissemination and collaboration - dedicated person to liaison with all citizen science programs to coordinate activities and priority sites

Francesca added that in terms of digital platforms, recommendations should include that when we are conducting monitoring/citizen science, there should be universal approval on the messaging between partners (central website/database).

- Create a universal consistent way of describing the work being done
- We've discussed the resources that we have available, but it's important to recognize when we have opportunities to address some additional layer that we don't have yet (teachers, dive shops, etc).
- To the degree that we have surveys/citizen science, we need to develop the protocols on how to do it

Citizen science opportunities:

- With citizen science we need to develop a specific plan so as not to encourage the public to engage in the same work that may be against regulations or may be unsafe
- Are they under the umbrella of - who? The sanctuary? KELPRR? Need to identify a central place where citizens can go to find out about opportunities.
- Suggest to the SAC that we reopen the conversation about drones? Develop maps of where drones can or can't go?
- Drones can include software that already have no-fly zones (merges w/site selection)
 - These are special closures and sensitive areas
- Recommend an umbrella program through the Kelp Recovery Program? (so that it is not scattered to the wind?). Or are all of these citizen science programs so different they should be managed differently? Or could they be grouped/managed together?
- May not have infrastructure to create a kelp-specific program?
- Have both - have a central place, then break out into areas of specialization
- Link them all through a specific entity, then get them funded
- There can be cross-promotion between sites "Kelp Forest Recovery Group Approved Citizen Science Programs"

Much of what we are recommending will require much collaboration across the groups/partnerships

- Will require a centralized structure that is funded
- Need a "kelp recovery network", could be an existing person or a new role, but there needs to be dedicated coordination.
- Faster analysis of areas that are overlapping

- Connecting more of satellite data with site selection criteria - Different resolution in satellite versus aerial (30 m versus 2 m)
- Coordinator will need to know each group and their capacity, but also their limitations; less dictating, but more suggesting

Based on this discussion, the group developed a set of primary, overarching recommendations to accompany the topic area recommendations. These are available here: [Final Draft KRWG Recommendations](#).

Active Recovery Options

Cynthia then facilitated discussion on identifying recommendations for the immediate time-frame, which first required the group to brainstorm as many active recovery options for bull kelp as possible. They organized these options by type of action (no action, enhance bull kelp, reduce urchins) and identified which of those options that should be immediately pursued, those options that should be considered in the future, and those options that should not be considered. This information is available in [Appendix B](#). The group reached consensus on each of the recovery options, with the exception of urchin culling. Because the tribal representative was not available for this meeting to help with the discussion, it was decided to table the decision on this particular recovery option until tribal input could be attained.

Funding kelp recovery

Sara then led the group through a discussion of funding opportunities to support these recommendations. She added that it is possible to recommend to the sanctuary that they keep momentum and re-deploy some staff to address immediate needs until a full-time coordinator is hired. Sara and Rietta are currently pursuing funding through the Greater Farallones Association and will build funding proposals around these recommendations. The group identified the following funding possibilities that should be investigated and pursued if relevant:

- The National Marine Sanctuary Foundation may be interested in this issue in particular
- X-prize to generate ideas and crowdsource info for some of our tougher problems (market for urchins, urchin-eating robot, etc)
- Approach OPC to discuss funding sources
- NOAA Fisheries; matching (in-kind) funding is key, consider 2020 S-K grant
- Resources Legacy Fund
- Disaster relief funding
- Packard
- The Nature Conservancy - citizen science to generate management-ready datasets
- Rapid response grants through Sea Grant
- NFWF Coastal Resilience Grant
- KEEN Critical Coastlines Grant
- Josh and GFA work together on private donations
- Moore Foundation
- Consider tribal-specific funds - Bureau of Indian Affairs
- A "foodie" fundraiser
- Benioff

Next Steps

Finally, the following next steps were identified and the meeting was concluded.

- Jan will send information along to the group regarding their activity in the Monterey area
- Working group evaluations - please complete now or over google forms
- Urchin removal event Sept 29/30 at Ocean Cove
- Sara will compile and clean up all recs - circulate with WG on the 27th - WG has first week of October to review
- Jenn send out mtg notes from today
- Jenn will organize a phone call with George, John, Francesca and others on WG to discuss drone issue and how to head it off with the SAC
- Let Cynthia know if you'd like to join the monthly KELPRR calls - Kelp Ecosystem and Landscape Partnership