

**Bull Kelp Working Group**  
**December 30, 2020, 1 to 3 pm via Microsoft Teams**  
**Meeting Summary**

**Welcome, self-introductions, logistics of using Microsoft Team for meetings**

**Participants**

---

<b>Name</b>	<b>Affiliation</b>
Kirsten Ramey	CA Dept. of Fish and Wildlife (CDFW)
Rebecca Flores Miller	CDFW
Gina Contolini	CDFW
Art Seavey	Monterey Abalone Company (kelp harvester representative)
James Jungwirth	Naturespirit Herbs, LLC (edible seaweed harvester representative)
Cyndi Dawson	The Pew Charitable Trusts (Castalia Environmental)
Tom Ford	The Bay Foundation
Rietta Hohman	Greater Farallones Association
Janet E. Kübler, Ph.D.	CA State University, Northridge

---

**Review “Draft Bull Kelp Working Group Road Map”**

- Discussion on Tribal input, CDFW is participating in ongoing Government-to-Government consultation with the member tribes of the InterTribal Sinkyone Wilderness Council.
- Request to consider options for non-working group harvesters to listen in on Working Group meetings and for CDFW to record meetings and make available upon request.

**Background**

- Bull kelp is an annual species that has experienced dramatic reductions in recent years due to unexpected events such as unprecedented warm water conditions driven in part by the North Pacific Marine Heatwave, sea star wasting disease, and purple urchin increases. Sunflower stars, a major urchin predator, population is not rebounding and is considered critically endangered by the International Union for the Conservation of Nature.
- CDFW discussed The Santa Barbara Coast Long Term Ecological Research Program kelp satellite imagery dataset. The dataset includes the entire coastline and does not differentiate between giant and bull kelp.
  - CDFW provided graphs of the average annual kelp canopy for northern (Oregon to Point Montara, Administrative Kelp Beds 226 to 312) and central California (Point Montara to Point Conception, Administrative Kelp Beds 202 to 225).

- CDFW will compile the data into smaller stretches of coastline to consider during the next meeting.
- The Nature Conservancy completed aerial surveys in some areas from Monterey to the Oregon border and drone surveys in some locations of Mendocino and Sonoma counties. Rietta Hohman anticipates the drone data will be available in February 2021.
- During their December 9, 2020 meeting, the Fish and Game Commission approved extending the recreational abalone fishery closure for another five years to April, 1, 2026.
- CDFW presented an overview of current and proposed bull kelp regulations and discussed harvest logs.
- CDFW summarized the existing harvest data.
- Currently, a biomass conversion does not exist for bull kelp. However, Rietta Hohman is working with Tom Bell et al on developing a conversion and anticipates having more information in January 2021.

**Discussion regarding managing Bull Kelp harvest through a regional approach for populations north and south of Point Montara**

- Stakeholders suggested considering a regional approach during the stakeholder webinars held in May and June 2020.
- One agreed-upon outcome from the Commercial Kelp Harvest South of Point Montara Science Forum, held in August 2020, included management should consider high variability of kelp spatially, seasonally, annually.
- Harvest areas in Del Norte have not observed a long-term decline but are characteristic of the high seasonal and dynamic reef to reef fluctuations in bull kelp.
- Consideration and questions whether Point Montara is an appropriate break for regional management of bull kelp or if three regions is a more appropriate management scale:
  - Central California
  - Sonoma/Mendocino
  - Humboldt/Del Norte
- Consideration of what are sustainable levels of commercial harvest based on available science.
- Consideration of bull kelp genetic diversity in different locations along the coast and how genetics support or define a regional management approach. Janet Kubler will inquire if Dr. Alberto's study on bull kelp genetic diversity is available.
- Administrative Kelp Beds allow for management on a more discrete spatial scale and could include harvest plans for all commercial harvest.
- Current edible seaweed regulations allow limited bull kelp harvest in closed and lease-only beds. Managing edible harvest per Administrative Kelp Beds and applying the current Administrative Kelp Bed status to edible seaweed harvest would prohibit take in these areas currently allowed for edible seaweed harvest.

- Consideration of oceanographic breaks, biogeographical aspects, major littoral cells, and genetic breaks in determining a regional management approach. Are we lacking these data?

### **Wrap up and Next Steps**

- A regional approach is supported but need more information to determine the appropriate regional management scale (two versus three regions or Administrative Kelp Beds).
  - Data needs include genetic, oceanographic, and biogeographical.
- CDFW will evaluate kelp harvest and imagery data on a smaller regional scale in preparation for continuing the regional management discussion.
- Future agenda topics include discussion of temporal management measures, harvest methods, and data needs (harvest and abundance) to inform current and future management.