



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Marine Region
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GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



December 5, 2024

Wade Crowfoot, Secretary for Natural Resources
Chair, Ocean Protection Council
California Natural Resources Agency
1416 9th Street, Suite 1311
Sacramento, CA 95814

RE: Consideration and Approval of Disbursement of Funds to Support Adaptive Management and Resilience of Kelp Forests (Action Item 7)

Dear Chair Crowfoot and Members of the Ocean Protection Council:

The Department of Fish and Wildlife (Department) supports the disbursement of funds by the Ocean Protection Council (OPC) on Action Item 7 for adaptive management and resilience of kelp forests as part of OPC's Strategic Plan Objective 3.2: Restore and Protect Kelp Ecosystems. By approving the disbursement of these funds, OPC will support two projects, Project 7a and Project 7b, that will directly inform development of the Kelp Restoration and Management Plan (KRMP). The Department, in partnership with OPC, is developing a statewide, ecosystem-based, adaptive KRMP for giant kelp, *Macrocystis pyrifera*, and bull kelp, *Nereocystis luetkeana*. The KRMP will include a cohesive kelp management strategy which consists of three core components, including a harvest management framework, an ecosystem-based management framework, and a restoration toolkit.

Project 7a: Commercial and recreational harvest impact on giant and bull kelp in California will provide valuable quantitative metrics for biomass and production as well as kelp harvest impacts and forecasting that will directly support the Department's ability to assess California's kelp resources. Mapping of canopy forming kelp in California has been vastly improved in recent years by remote sensing technology which is currently used by the Department as a management tool to monitor and assess surface canopy area trends. However, linking these data to estimates of kelp biomass, while factoring in seasonal changes and potential effects of harvest, remains a challenge. Deliverables from this project are expected to provide quantifiable metrics that can be incorporated into a harvest management framework for assessing kelp resources along the California coast.

Project 7b: Strategic mapping of giant and bull kelp genomic diversity in California will build off projects already invested in by the State to provide insight on resilient

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populations or patterns of loss of bull and giant kelp, their genetic diversity, guidance on genetic monitoring, and potential impacts that may be associated with restoration efforts. This will provide the Department with the ability to have a more informed and risk adverse approach to managing kelp resources in a changing climate.

Support for projects 7a and 7b will directly inform the development of the KRMP and facilitate a robust, adaptive, climate-ready approach to managing California's kelp forest ecosystems in the face of changing ocean conditions. If you have any questions or need additional information, please contact me at (805) 568-1246 or by email at r7regionalmgr@wildlife.ca.gov.

Sincerely,



Craig Shuman, D. Env.
Marine Regional Manager

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