



Staff Recommendation

March 3, 2025

Item 9

Action Item:

Consideration and Approval of Disbursement of Funds to Advance Climate-Ready Fisheries Management

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Recommended Action: Authorization to disburse up to \$2,400,000 to the Resources Legacy Fund (RLF) to administer and support two projects that will modernize data collection to advance climate-ready fisheries management:

- 9.a Up to \$2,095,000 to conduct an electronic reporting and electronic monitoring pilot project for four fisheries
- 9.b Up to \$305,000 to implement electronic data collection for the California Recreational Fisheries Survey

Location: Statewide

Strategic Plan Goals and Objectives: Goal 3: Enhance Coastal and Marine Biodiversity, Objective 3.3: Support Sustainable Marine Fisheries and Thriving Fish and Wildlife Populations; Goal 4: Support Ocean Health Through a Sustainable Blue Economy, Objective 4.1: Advance Sustainable Seafood and Thriving Fishing Communities

Equity and Environmental Justice Benefits:

By engaging with members of the fishing community and modernizing data used to manage the state’s fisheries, these projects advance the following goals of [OPC’s Equity Plan](#): Goal 1 (Establish and implement more equitable and sustainable community engagement and funding); Goal 3 (Lead equitable ocean and coastal policymaking in California).

Findings and Resolution:

Staff recommends that the Ocean Protection Council (OPC) adopt the following findings:

“Based on the accompanying staff report and attached exhibit(s), OPC hereby finds that:

1. The proposed projects are consistent with the purposes of Division 26.5 of the Public Resources Code, the California Ocean Protection Act;
2. The proposed projects are consistent with the Budget Act of 2024, which included a \$27 million Greenhouse Gas Reduction Fund appropriation for ocean protection and resilience to climate change; and
3. The proposed projects are not ‘legal projects’ that trigger the California Environmental Quality Act (CEQA) pursuant to Public Resources Code section, section 15378.”

Staff further recommends that OPC adopt the following resolution pursuant to Sections 35500 *et seq.* of the Public Resources Code:

“OPC hereby approves the disbursement of up to \$2,400,000 to the Resources Legacy Fund (RLF) to administer and support two projects that will modernize data collection to advance climate-ready fisheries management.

This authorization is subject to the condition that prior to disbursement of funds, Resources Legacy Fund shall submit for the review and approval of the Executive Director of the OPC detailed work plans, schedules, staff requirements, budgets, and the names of any contractors intended to be used to complete the projects, as well as discrete deliverables that can be produced in intervals to ensure the projects are on target for successful completion. All projects will be developed under a shared understanding of process, management, and delivery.”

Executive Summary:

California’s inherently dynamic ocean and coastal ecosystems are becoming increasingly variable as the effects of anthropogenic climate change progress. This rapidly changing marine environment requires a dynamic management approach to fisheries management supported by rapid and efficient data collection. Modernizing catch reporting and data collection systems is essential to prepare California’s fisheries management for the challenges of climate change.

Staff recommends that the Ocean Protection Council authorize the disbursement of up to \$2,400,000 to the Resources Legacy Fund (RLF) to support two projects that will modernize data collection to advance climate-ready fisheries management: 1) conduct an electronic reporting and electronic monitoring pilot project for four fisheries, and 2) implement electronic data collection for the California Recreational Fisheries Survey (CRFS). These projects were identified in coordination with California Department of Fish and Wildlife (CDFW) staff as key next steps in a phased approach towards modernizing fisheries data collection to inform climate-resilient fisheries management.

Project Summary:

Background:

Due to increased environmental variability and impacts from rapidly changing oceans, there is a critical need for proactive and data-driven decisions on shorter timelines. To adaptively manage fisheries resources in the face of climate change, fisheries and ecosystem data must be collected and analyzed as quickly and efficiently as possible. Modernizing and optimizing catch reporting and data collection systems was highlighted in the [2018 MLMA Master Plan for Fisheries](#) as essential to future-proofing fisheries management in California against the challenges of climate change.

Historically, the California Department of Fish and Wildlife (CDFW) has collected fishing activity records through paper landing receipts (or fish tickets) and paper logbooks. In 2018, CDFW implemented an electronic fish ticket program for landing receipts in partnership with the Pacific States Marine Fisheries Commission. The next step in implementing electronic reporting in California is the development of electronic logbooks. There are thirteen approved logbook forms in California; currently, fishermen fill out logbooks by hand each time they fish and then submit them by mail monthly to CDFW. Over the decades of logbook use, forms have become more complex, which has increased the burden on fishermen as well as the time required for data entry and review. Currently, only the Commercial Passenger Fishing Vessel fleet uses voluntary digital logbook forms to submit daily catch information, but this logbook needs improvements to meet the needs of fishermen and managers.

Transitioning to electronic logbooks streamline reporting for fishermen, better align data collection with management priorities, and reduce the time needed to record, transmit, and review data. Furthermore, electronic monitoring tools such as sensors, location trackers, and onboard cameras provide additional spatial information on fishing activity as well improved tracking of catches and discards. Pairing electronic logbooks with electronic monitoring will improve data that is available to support management decisions; reliable and timely data is essential for more responsive and adaptive fishery management, particularly in the face of rapidly changing environmental conditions.

Target Fisheries:

This project will target four commercial fisheries in California to test electronic monitoring and electronic reporting: Commercial Passenger Fishing Vessel (CPFV), Market Squid, Set Gill Net, and Dungeness Crab. This project will also improve data collection for California's Recreational Fisheries through the California Recreational Fisheries Survey (CRFS).

- **Commercial Passenger Fishing Vessels (CPFV):** CPFVs (i.e. charter fishing or sport fishing boats) take recreational anglers out on fishing trips for a variety of species. Currently, captains are required to submit monthly logbooks. A web-based logbook was implemented in 2015, however, improvements are necessary. CDFW surveys of fishermen in 2023 provided recommended electronic logbook improvements. An improved electronic logbook will increase fisher participation and provide finer-scale catch and effort data for management.
- **Market Squid Fishery:** The market squid fishery is the largest commercial fishery in California. Squid are particularly vulnerable to climate impacts because their reproduction and distribution are influenced by environmental factors. Past [OPC funding](#) supported the Squid Fishery Advisory Committee (SFAC), a group of stakeholders convened to provide recommendations to CDFW on potential changes to market squid fishery management. Implementing electronic logbooks was a key SFAC [recommendation](#).
- **Set Gillnet Fishery:** The fishery targets California Halibut and White Seabass, however, has high potential for bycatch. CDFW's 2023 [bycatch evaluation of the California halibut set gill net fishery](#) recommended implementing an electronic logbook and electronic monitoring to provide critical information on fishery catch and bycatch and enable more effective management
- **Dungeness Crab Fishery:** Dungeness Crab gear can pose entanglement risk to whales and sea turtles. CDFW assesses entanglement risk based on best available science through the [Risk Assessment Mitigation Program \(RAMP\)](#). Pairing an electronic logbook with existing electronic monitoring devices will enable better management and entanglement risk mitigation.
- **Recreational Fisheries:** The [CRFS](#) collects fishery-dependent data on California's recreational fisheries. Electronic data collection will improve the accuracy and efficiency of monthly catch estimates and enable more responsive management.

Project Summary:

9.a. Electronic Reporting and Electronic Monitoring Pilot

In partnership with OPC and CDFW, RLF will conduct workshops and outreach to target fleets to demonstrate different electronic reporting platforms and electronic monitoring systems prior to initiating the pilot. This initial work will ensure that the project integrates the perspectives of the

fishing community. Following this initial outreach, RLF will work closely with OPC and CDFW staff, as well as members of the fishing community, to accomplish the following objectives:

A subset of vessels in the CPFV, Market Squid, Dungeness Crab, and Set Gill Net fisheries will be outfitted with electronic reporting platforms and electronic monitoring systems, which vary in terms of user interface, capabilities, and potential for integration into the existing data management framework, and complete field testing to optimize features for the fishing fleets and CDFW.

- Up to 30 CPFV vessels will be included in testing three separate electronic logbook platforms. These platforms will represent a significant improvement on the current digital logbook and will allow fishers to report vessel position with each fishing event, thereby enabling fine-scale resolution of catch data.
- Up to 30 Market Squid vessels will be included in testing three separate electronic logbook platforms.
- Up to 20 Dungeness Crab vessels will be included in testing two separate electronic logbook platforms alongside vessel positioning and sensors to identify specific fishing activity.
 - An additional 5 vessels using experimental ropeless fishing gear will test an electronic logbook platform coupled with vessel positioning and sensors.
- Up to 10 Set Gillnet Vessels will be included in testing two electronic logbook platforms and electronic monitoring systems including vessel positioning, sensors to identify specific fishing activity, and cameras to record vessel catch and bycatch.

After field testing concludes, data and fisher feedback will be synthesized to develop a report on proof of concept and next steps to scale electronic reporting and electronic monitoring fleetwide and across other California fisheries.

9.b. CRFS Electronic Data Collection

This project will transition CRFS data entry from paper forms to electronic data collection with tablets. This will enable real-time entry of CRFS data, and result in significant data quality improvements. Alongside improvements to the CPFV electronic logbook, this project will decrease the processing time required for CDFW staff to develop monthly catch and effort estimates.

By testing electronic reporting and electronic monitoring options as well as implementing electronic data collection, these two projects will streamline reporting for fishermen, improve data quality, better align data collection with management objectives, and reduce the time needed to record, transmit, and review data. Reliable and timely data is essential for more responsive and adaptive fishery management, particularly in the face of rapidly changing environmental conditions.

Equity and Environmental Justice Benefits:

The proposed projects will test electronic reporting solutions developed with feedback from commercial fishermen and enhance data collection for recreational fishermen. By integrating input from the fishing community, the project will ensure that data collected is timely and accurate, which is crucial for sustainable fisheries management and ocean conservation. The use of electronic reporting technology enhances transparency, improves data accuracy, and enables more effective management of marine resources, fostering collaboration between diverse groups and advancing the shared goal of protecting California’s marine environment.

The projects will provide critical benefits by addressing the needs of underserved communities in both the commercial and recreational fishing sectors. By developing electronic reporting solutions that are accessible and easy to use, the project reduces barriers to participation in fisheries management and enhances these communities' ability to engage in the conservation process. This project will support [OPC’s Equity Plan](#), which emphasizes addressing historical and ongoing inequities, as well as providing opportunities for communities that have been historically excluded to participate in decision-making. The project also aligns with strategies to increase access to ocean-related benefits for marginalized communities and fosters environmental justice by ensuring that all groups, especially those facing environmental or economic hardship, are included in efforts to sustain marine resources. By engaging with members of the fishing community and modernizing data used to manage the state’s fisheries, these projects will address the following goals of [OPC’s Equity Plan](#): Goal 1 (Establish and implement more equitable and sustainable community engagement and funding) ; Goal 3 (Lead equitable ocean and coastal policymaking in California).

About the Grantee:

Resources Legacy Fund (RLF) is a 501(c)(3) nonprofit organization that works at the intersection of conservation, climate change, and communities. RLF partners with donors and diverse stakeholders to support environment-oriented strategic initiatives and fiscally sponsored projects that create durable, transformative outcomes for people and nature. RLF has partnered closely with OPC for years and brings deep experience, expertise, and connections to the goal of promoting sustainable and resilient fisheries and fishing communities. To advance these shared goals, RLF has provided expertise and philanthropic resources related the revision of the Master Plan for Fisheries by conducting climate vulnerability analyses, improving understanding of socioeconomic impacts to fishing communities, enhancing CDFW technical capacity, and supporting fishery-specific stakeholder processes. This work is guided by an MOU between OPC, CDFW, and RLF that identifies opportunities for collaboration and coordinated partnership to

simultaneously advance OPC’s strategic goals and those of the Marine Life Management Act (MLMA).

Project Timeline:

These projects will run for 3 years, from June 2025 to June 2028. Each fishery will undergo 12-18 months of on-water testing. The timing of outfitting and on-water testing will vary depending on fishing season for each fishery but will occur in Fall and Winter of 2025, throughout 2026, and in Fall of 2027. Electronic forms for CRFS will be developed throughout 2025 and 2027, and implemented in the field in 2027. Data will be synthesized on a rolling basis for each fishery throughout 2027 with a final report will be completed Summer of 2028.

Project Financing:

Staff recommends that the Ocean Protection Council (OPC) authorize encumbrance of up to \$2,400,000 to the Resources Legacy Fund to administer and support two projects that will modernize data collection to advance climate-ready fisheries management.

Ocean Protection Council	\$2,400,000
9.a. Electronic Reporting and Electronic Monitoring Pilot Project	\$2,095,000
9.b. CRFS Electronic Data Collection	\$305,000
TOTAL	\$2,400,000

The anticipated source of funds will be from the Budget Act of 2024, Greenhouse Gas Reduction Fund appropriation to OPC (Fiscal Year 2024/2025) for projects that advance ocean protection and resilience to climate change. The proposed project supports the purpose of this appropriation to increase the resilience of marine wildlife and ocean and coastal ecosystems by improving data collection to inform climate-ready fisheries management and support sustainable fisheries.

Consistency with California Ocean Protection Act:

The proposed project is consistent with the Ocean Protection Act, Division 26.5 of the Public Resources Code, because it is consistent with trust-fund allowable projects, defined in Public Resources Code Section 35650(b)(2) as projects which:

- Eliminate or reduce threats to coastal and ocean ecosystems, habitats, and species.
- Improve the management of fisheries and/or foster sustainable fisheries.
- Improve management, conservation, and protection of coastal waters and ocean ecosystems.
- Provide monitoring and scientific data to improve state efforts to protect and conserve ocean resources.
- Protect, conserve, and restore coastal waters and ocean ecosystems.
- Provide funding for adaptive management, planning coordination, monitoring, research, and other necessary activities to minimize the adverse impacts of climate change on California's ocean ecosystem.

Compliance with the California Environmental Quality Act (CEQA):

The proposed projects are categorically exempt from review under the California Environmental Quality Act (“CEQA”) pursuant to 14 Cal. Code of Regulations Section 15306 because the projects involve information collection, consisting of data collection, research, and resource evaluation activities that will not result in a serious or major disturbance to an environmental resource.