May 13, 2026
Ocean Protection Council
Via email to
copcpublic@resources.ca.gov

Re: San Diego Coastkeeper Comments on Draft Statewide Marine Aquaculture Action Plan

To the California Ocean Protection Council:

Thank you for the opportunity to provide comments on the Draft Statewide Marine Aquaculture Action Plan ("Action Plan"). Founded in 1995, San Diego Coastkeeper ("Coastkeeper") is a nonprofit organization dedicated to protecting and restoring fishable, swimmable, and drinkable waters throughout San Diego County, including our bays, coastal watersheds, and ocean ecosystems.

Coastkeeper appreciates the Ocean Protection Council's efforts to develop a coordinated, statewide framework to guide marine aquaculture in California. Given the ecological importance of California's coastal waters and the chronic water quality impairments affecting many of the State's waterways, it is imperative that any expansion of aquaculture be approached with caution, grounded in sound science, and governed by robust, enforceable environmental protections. Our coastal marine waters and ecosystems are also under tremendous stress from climate change induced warming and long-term alterations of the ocean's chemistry. The Southern California Bight suffers from lengthening periods of high temperatures and very low dissolved oxygen, leaving large areas of the Bight unable or barely able to support marine life.[1] Developing a regulatory and scientific framework to advance aquaculture in our region must take these stressors into account.

Need for a Precautionary and Science-Based Framework

The Action Plan correctly recognizes the need for improved coordination, science, and transparency in marine aquaculture management. However, to meet its stated goals of environmental sustainability and ecosystem protection, the Plan must more clearly adopt a

[1] *See* Los Angeles Times, *Water Pollution is Fueling Ocean Acidification. Environmentalists urge California to Act,* Ian James, April 11, 2026, available here.

precautionary approach, particularly with respect to marine finfish aquaculture. Coastkeeper hereby requests that **finfish be *explicitly* excluded from the marine-based aquaculture plan.**

Currently, the Action Plan states, "[m]arine aquaculture is the form of agriculture devoted to the propagation, cultivation, maintenance, and harvesting of marine algae and shellfish in marine waters, estuaries, bays, and submerged tidelands extending out to three nautical miles, and marine algae, shellfish, and finfish in land-based systems along the coast." We would like to propose an amendment that explicitly excludes finfish from marine waters to read:

> "Marine aquaculture is the form of agriculture devoted to the propagation, cultivation, maintenance, and harvesting of marine algae and shellfish***, but does not include finfish,*** in marine waters, estuaries, bays, and submerged tidelands extending out to three nautical miles, and marine algae, shellfish, and finfish in land-based systems along the coast."

Scientific literature and existing aquaculture operations demonstrate that finfish aquaculture can result in significant adverse environmental impacts, including nutrient pollution, degradation of water and sediment quality, disease transmission, escapement, and interactions with protected species. These impacts are particularly concerning in regions such as Southern California, where coastal waters already experience elevated nutrient loads, bacterial contamination, and legacy pollutant inputs from urban runoff.

Without clear, enforceable safeguards, leaving the door open to expanded marine finfish aquaculture could worsen these existing impairments.

Water Quality Impacts and Monitoring Requirements

To ensure protection of California's waters, the Action Plan must require comprehensive, science-based water quality protections applicable to all aquaculture operations. At a minimum, this includes:

- Rigorous baseline environmental assessments conducted over multiple seasons prior to project approval;
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- Continuous, long-term monitoring of water column and benthic conditions, including nutrients, dissolved oxygen, harmful algal bloom indicators, pathogens, and chemical contaminants;
- Publicly accessible monitoring data to ensure transparency and accountability; and
- Enforceable thresholds and adaptive management triggers to prevent and respond to degradation of water quality.

Waste discharges from aquaculture operations, including excess feed, fecal matter, antibiotics, antifoulants, and other contaminants, have been shown to persist in surrounding waters and sediments, with both near-field and far-field impacts. The Action Plan should explicitly address these pathways and require monitoring and mitigation commensurate with the scale of potential impacts.

Siting, Carrying Capacity, and Cumulative Impacts

The Action Plan should establish clear, enforceable siting criteria to ensure that aquaculture operations are not located in or adjacent to environmentally sensitive or already impaired areas. This includes avoiding:

- Water bodies listed as impaired under the Clean Water Act;
- Sensitive habitats and essential fish habitat;
- Marine Protected Areas and areas critical to ecological connectivity; and
- Areas with existing or foreseeable cumulative pollution burdens.

Equally important, the Plan must require evaluation of cumulative impacts at the regional scale. Individually minor discharges or ecological disruptions may collectively result in significant degradation over time, particularly as aquaculture expands statewide. A project-by-project review is insufficient to capture these broader impacts.

Impacts to Public Trust Resources and Marine Ecosystems

California's marine waters are public trust resources that support fisheries, recreation, cultural practices, and biodiversity. Aquaculture development must not impair these uses or degrade ecosystem function.

Aquaculture operations are known to attract large aggregations of fish and other marine life, potentially altering feeding behavior, migratory patterns, and predator-prey dynamics. There is

also increased risk of disease transmission and genetic impacts associated with escaped farmed fish. These impacts must be fully considered and addressed through enforceable standards and operational controls.

The Action Plan should also require robust analysis of impacts to protected and endangered species, including marine mammals, sea turtles, and seabirds, as well as consideration of increased vessel traffic and associated risks such as ship strikes and noise pollution.

Climate and Environmental Justice Considerations

The Action Plan should more explicitly address the climate and air quality impacts associated with aquaculture operations, including vessel emissions, land-based transportation, and infrastructure development. Increased emissions of greenhouse gases, particulate matter, and nitrogen oxides can have significant public health implications, particularly for frontline communities located near ports and coastal industrial areas.

In addition, meaningful consideration must be given to environmental justice impacts, including disproportionate burdens on communities already affected by pollution. Community engagement must be robust, ongoing, and accessible, with decision-making processes that reflect local knowledge and concerns.

Preference for Low-Impact and Restorative Aquaculture

Coastkeeper supports the development of low-impact and restorative aquaculture practices, such as shellfish and seaweed cultivation, that have the potential to improve water quality, enhance habitat, and provide ecosystem services when properly sited and managed.

The Action Plan should prioritize these forms of aquaculture over higher-impact finfish operations and provide clear incentives, funding, and regulatory pathways to support their development.

Adaptive Management, Enforcement, and Accountability

Finally, the Action Plan must include strong adaptive management and enforcement mechanisms. Monitoring without accountability is insufficient. The Plan should include:

- Clear performance standards and thresholds;
- Mandatory corrective actions when impacts exceed allowable limits;

- Mechanisms for permit modification, suspension, or revocation; and
- Coordination with existing regulatory frameworks, including water quality permitting programs.

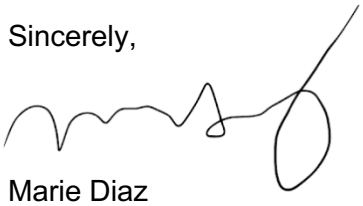
Conclusion

While the Draft Statewide Marine Aquaculture Action Plan represents an important step toward a more coordinated approach to aquaculture in California, significant gaps remain. Without stronger environmental safeguards, enforceable standards, and a precautionary approach, including specifically excluding finfish aquaculture from the Action Plan, the expansion of aquaculture could result in substantial and potentially irreversible impacts to water quality, marine ecosystems, and public trust resources.

Coastkeeper urges the Ocean Protection Council to strengthen the Action Plan to ensure that aquaculture development in California is truly sustainable, science-based, and protective of our coastal waters and communities.

Thank you for the opportunity to provide these comments. We look forward to continued engagement as the Action Plan is finalized and implemented.

Sincerely,



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