



Shellfish and Seaweed Aquaculture Program SSAP Second Discussion Draft Comments

Comments received during the public review period:

May 1, 2026 - June 15, 2026

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Shellfish and Seaweed Aquaculture Program SSAP Second Discussion Draft Comments

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May 1, 2026 - June 15, 2026

Comments from Agencies



DEPARTMENT OF THE NAVY
COMMANDING OFFICER
NAVAL BASE CORONADO
BOX 357033
SAN DIEGO CA 92135-7033

5000
Ser N00/156
June 11, 2026

Mr. Scott Chadwick
Chief Executive Officer, Port
3165 Pacific Highway
San Diego, CA 92101

Dear Mr. Chadwick,

SUBJECT: SHELLFISH AND SEAWEED AQUACULTURE PROGRAM SECOND
DISCUSSION DRAFT

Thank you for the opportunity to comment on the *Port of San Diego's Draft Shellfish and Aquaculture Program (SSAP)*, published 1 May 2026. Naval Base Coronado appreciates our partnership with the Port of San Diego as we continue to work together to implement the goals of the San Diego Bay Integrated Natural Resources Management Plan, for which the Navy and the Port share responsibility. Our comments reflect input from subject matter experts at Naval Base Coronado and Navy Region Southwest to ensure the plan is compatible with the Navy's mission and activities in the SSAP planning areas.

Of primary concern to the Navy is the planning area affiliated with Zuniga Shoals. Over the last decade, Naval Base Coronado and Navy Region Southwest have worked with the Port, the City of San Diego, the City of Coronado, the State of California, and multiple other stakeholders to address the mission impacts, safety concerns, and environmental hazards associated with this site. The Navy, with the support of the mentioned stakeholders, worked with the California State Legislature to secure \$1.4 million for the Port of San Diego to increase enforcement and identify a long-term solution to the derelict vessels. The Port indicated to the Navy that the SSAP would be the recipient of these funds and would provide a starting mechanism to address the abandoned and derelict vessels at Zuniga, per the intent of the legislation. The Port has disclosed that the funds were used to remove submerged debris and to conduct sonar surveys in the Zuniga Shoal. From the information provided to this point, it is the Navy's position that the SSAP identifies a long-term solution for Zuniga and respectfully request the Port to identify next steps.

5090
Ser N00/131
June 9, 2026

Thank you again for the opportunity to coordinate. Our comments are attached. My point of contact for this matter is Mr. Charles Bradshaw, Community Plans and Liaison Officer. He may be reached at (619) 545-4314 or at NBC_CPLO@us.navy.mil.

Sincerely,

A handwritten signature in black ink, appearing to read 'L. M. JACOBI', with a long, sweeping horizontal stroke extending to the right.

L. M. JACOBI
Captain, U.S. Navy
Commanding Officer

Enclosures: 1. SSAP Further clarification

SSAP FURTHER CLARIFICATION

Page	Section	Comment
7	Executive Summary	Please confirm the location of Zuniga Shoals and revise the language describing the in-water location. Please apply these changes to maps throughout the document.
8	1.3 Objectives of SSAP	Conduct a pre- and post-installation study, in partnership with Navy biologists, to assess the impact of aquaculture infrastructure on local fish populations (potential new food source) and foraging patterns of protected shorebirds.
8	1.3 Objectives of SSAP	Establish a formal agreement where a portion of the lease revenue from the Zuñiga Shoals site is dedicated to a "Derelict Vessel Removal Fund." An IGSA would be a contract vehicle that would facilitate the transfer of funds to execute the remediation of the area.
57	6.2.2	The inset language should note that currently all the study areas are prohibited from consumptive uses as outlined in Figure B1.
60	6.2.2	Please expand the discussion of Zuniga Shoals to describe the multi-agency/jurisdictional effort to identify an alternative use of this area and expand/further clarify how the surveys using State funding, which was secured through a multi-agency jurisdictional effort, could facilitate an alternative use of the site to address abandoned and derelict vessels. Identify potential next steps for comprehensive planning efforts to repurpose the area.
104	10.5 - Military Readiness	All surface infrastructure must be highly visible, lighted, and accurately charted. The Operations Plan must include specific protocols for deconflicting with low-altitude military aviation. Future planning must factor in the impacts of aquaculture on increasing presence of birds that can increase overall Bird Airstrike Hazards (BASH) for the nearby airfield.
104	10.5 Operations Plan - Military Readiness	The installation of aquaculture infrastructure can create hazards for military readiness activities on and beneath the surface within established training areas.
104	10.5 Operations Plan - Military Readiness	All proposed plans must maintain flyover capability for military aircraft, prioritizing areas in proximity to the ends of the NAS North Island runways.
104	10.5 Operations Plan - Military Readiness	The use of drones should be prohibited in areas that could conflict with military air traffic, unless absolutely necessary, then it should be coordinated with Naval Base Coronado.
104	1.5 Operations Plan	Please clarify what the best management practices for predator management are.
104	10.5 Operations Plan – Biosecurity Concerns	Please clarify how the proposed project will protect biosecurity, which would minimize the impact to local wildlife including life, including T&E species, by introducing non-native species.

SSAP FURTHER CLARIFICATION

106	10.5 Operations Plan – Marine Debris	Please clarify how dislodged marine debris will be retrieved from the sea. Nesting season precludes increasing the number of people and vehicles on the beaches for retrieval.
106	10.5 Operations Plan – Marine Debris	Please address how to mitigate the risk of derelict and adrift vessels entangling proposed aquaculture areas.
107	10.6 Additional Permits and Approvals	Please identify how the cumulative impacts of the project will be determined. This includes the following questions: Could the presence of aquaculture structures, even if they avoid eelgrass, alter local currents and sediment patterns, thereby changing the distribution of the small fish that these endangered birds feed on? Will the required monitoring plans include prey-species surveys to ensure there is no degradation of the foraging value of the nearshore environment adjacent to nesting sites?
111	11.1 Zuñiga Shoals	Due to the transboundary sewage contamination, there is an increase in training in the areas and ranges off NAS North Island. Proposed aquaculture would have to be compatible with fluctuations in the tempo of readiness activities.
111	11.1 Zuñiga Shoals	Schedule quarterly joint planning meetings between Port officials, the selected aquaculture operator(s) for Zuñiga Shoals, and NBC leadership to ensure adaptive management of the site.
111	11.1 Zuñiga Shoals	Before lease issuance, mandate the creation of "Joint Use Safety Corridors" through the lease site. These corridors must be co-designed with NBC range control to guarantee unrestricted access for critical training exercises.
111	11.1 Zuñiga Shoals	Require any operator in the Zuñiga Shoals area to fund a comprehensive magnetometer and side-scan sonar survey for UXO, with results to be reviewed and approved by Navy EOD before any bottom-disturbing activities commence.
111	11.1 Zuñiga Shoals	Formalize a requirement for aquaculture operators to maintain 24/7 surveillance of their lease area and establish a direct communication channel with Navy Base Security and Harbor Police to report unauthorized or derelict vessels.

CALIFORNIA COASTAL COMMISSION

SAN DIEGO DISTRICT OFFICE
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June 15, 2026

SENT VIA EMAIL ONLY

Lily Tsukayama
San Diego Unified Port District
3165 Pacific Highway
San Diego, CA 92101

Re: California Coastal Commission Comments – Shellfish and Seaweed Aquaculture
Program Second Discussion Draft

Dear Lily Tsukayama:

Coastal Commission (Commission) staff appreciates the opportunity to review and provide preliminary comments on the Shellfish and Seaweed Aquaculture Program (SSAP) Second Discussion Draft dated May 1st 2026. The SSAP has been reviewed by Commission staff using both the Coastal Act and the [California Coastal Commission CDP Application Guidance for Aquaculture and Marine Restoration](#) dated December 2020. The goals of the SSAP are to: “Create new opportunities to complement maritime uses and diversify the District’s portfolio of sustainable, ocean-based business lines; Balance existing and emerging military, maritime, recreational, and blue economy industries to promote prosperous working seascapes; Explore sustainable use of ocean space while enhancing surrounding marine ecology.” The document identifies three in-water locations totaling approximately 830 acres of bay and ocean area, as well as three initial landside locations for aquaculture infrastructure. Two of the in-water locations are subject to the Commission’s permitting authority, and one is within the San Diego Unified Port District’s (District) permitting authority. For an aquaculture project to move forward at the two locations subject to Coastal Commission permit authority, additional information will be needed to determine the project’s consistency with the Coastal Act including site location and size, amount of fill, species to be cultivated, potential coastal resource impacts and mitigation measures.

Aquaculture in Coastal Act

Three sections of the Coastal Act specifically address aquaculture. Coastal Act Section 30222.5 states that “oceanfront land that is suitable for coastal dependent aquaculture shall be protected for that use.” Section 30411 provides that “[t]he Legislature finds and declares that salt water or brackish water aquaculture is a coastal-dependent use which should be encouraged to augment food supplies and to further the policies set forth in Chapter 4 (commencing with Section 825) of Division 1 [of the California Public Resources Code].” Additionally, aquaculture is included as one of the limited allowable uses for placement of fill in coastal waters and estuaries under Section 30233.

Environmental Considerations

Regarding the placement of fill under Section 30233, aquaculture projects shall be permitted in coastal waters, consistent with all other relevant sections of the Coastal

Act, so long as there are no less environmentally damaging feasible alternatives and feasible mitigation measures have been provided to minimize any substantial environmental impacts. To ensure compliance with Section 30233, additional language must be added to the SSAP to (1) require the study of alternatives and (2) require feasible mitigation measures be implemented. To protect coastal resources, we recommend that feasible mitigation measures require, at minimum, that eelgrass be avoided, cultivated species be limited to those approved by the California Department of Fish and Wildlife (CDFW) for use in San Diego Bay, and that monitoring requirements include third party, independent monitoring to assess impacts to habitat and native species that may occur as a result of increased aquaculture, as monitoring and self-reporting carried out by applicants or project proponents can raise questions about bias, transparency, and the defensibility of the results.

Regulatory Framework

- 4.7.1 California Coastal Commission: “Activities that meet the California Coastal Act’s (Coastal Act) definition of “development” within California’s Coastal Zone must be authorized through the issuance of a Coastal Act approval, such as a coastal development permit (CDP) issued by the California Coastal Commission (CCC) or a local government with a certified local coastal program (LCP) or PMP, unless the activity is specifically exempted from the permit requirements.” Commission staff suggest deleting “unless the activity is specifically exempted from the permit requirements” due to the fact that aquaculture development generally occurs in or adjacent to coastal waters and thus is not likely to qualify for an exemption.
- Please insert a link to the [Coastal Development Permit Application Guidance for Marine Aquaculture and Restoration](#) in this section.
- Please revise the following sentence: “In addition, Section 30233 lists limited development types permitted within open coastal waters, wetlands, estuaries, and lakes, and in (a)(7) includes “Nature study, aquaculture, or similar resources dependent activities” as development that would be permitted in those areas”” to instead read: “In addition, aquaculture is one of the limited allowable uses for placement of fill in coastal waters and estuaries under Section 30233.”
- Please consider adding the following paragraph to this section: “Under its federal consistency authority provided by the Coastal Zone Management Act (CZMA), the California Coastal Commission (CCC) also evaluates aquaculture projects proposed in federal waters—from three to 200 nautical miles offshore—when those activities may reasonably be expected to affect coastal resources or uses within California’s coastal zone. Additional information about the CCC’s CZMA responsibilities and review procedures is available on the [Commission’s website](#).”

In Water Locations

Imperial Beach

- At approximately 10 nautical miles from the nearest marina or launch point, the site is relatively far from major public boating routes. However, the Coastal Act requires ensuring that offshore aquaculture structures do not create navigation hazards or displace boating/fishing uses. Early coordination with the Coast Guard and local fishing and recreational user groups will be important.

- Confirmation would be needed that the proposed footprint avoids kelp beds, surfgrass, or upwelling related foraging areas.
- Because project components include longlines, ropes, and suspended structures, siting should demonstrate that no feasible less environmentally damaging alternative exists, consistent with Section 30233, for any anchors or fill structures and lines should be kept taught and monitored to reduce the risk of entanglement of marine mammals, sea turtles, and other wildlife.
- The designation as non-consumptive aquaculture acknowledges water quality constraints. From a Coastal Act standpoint, it will be important to show that gear does not exacerbate existing pollution or alter water circulation.

Zuniga Shoals

- The presence of eelgrass in the northwest portion is a constraint. Under Coastal Act policies (30230, 30231), and CCC practice, eelgrass must be avoided with adequate buffers, and the project must demonstrate that gear placement will not cause shading, scour, or sediment disturbance that degrades the eelgrass bed. Given the site's large area, the SSAP may consider subdividing or shifting the operational footprint to ensure eelgrass avoidance.

Eelgrass and Sensitive Habitat

- Aquaculture projects should be avoided in areas where they would have the potential to directly or indirectly (e.g., shading) impact sensitive species, such as eelgrass.
- We appreciate the inclusion of eelgrass to help identify areas unsuitable for aquaculture equipment. Please clarify what data sources are included in the "eelgrass" layer? Is the mapped extent based on the full set of Merkel & Associates bay-wide survey years? Additionally, does this layer incorporate the California Eelgrass Mitigation Policy (CEMP, 2014) 5-meter eelgrass habitat buffer? If not, please incorporate this.

Shellfish Species

Although Pacific oysters are included on CDFW's list of species approved for aquaculture, recent research and observations have demonstrated that this species can escape from cultivation and is capable of successfully recruiting when reproductively viable populations are present and appropriate environmental conditions appear. In light of these observations and because the California Department of Public Health (CDPH) has not yet certified the proposed growing areas in the SSAP for shellfish intended for human consumption, staff recommends that shellfish used at this stage be limited to native Olympia oyster (*Ostrea lurida*) species. Until CDPH certifies the proposed aquaculture sites for commercial harvest, limiting oyster cultivation to native species avoids the potential ecological risks associated with the introduction of non-native shellfish. If Pacific oysters are considered in the future, Commission staff recommends limiting cultivation to the triploid variety, which are largely sterile and help to minimize the potential spread and naturalization of Pacific oysters in southern California.

Commission staff also recommend re-evaluating CDFW's aquaculture species list using updated science and expertise on invasive-species management, including review of

Pacific oysters, Manila clams, and Mediterranean mussels. Statewide surveys are also recommended to map existing wild Pacific oyster populations to inform future management, identify vulnerable areas, and to help guide restoration efforts for native Olympia oysters.

Best Management Practices

We appreciate the inclusion of Best Management Practices (BMPs) addressing marine wildlife protection, ecological impacts, and biosecurity. To ensure consistency with Coastal Act requirements for the protection of marine resources and water quality, we recommend that the District further strengthen these BMPs by providing greater specificity, performance standards and expectations. For marine wildlife, BMPs should clearly outline requirements for preventing entanglement and wildlife interactions, including a marine wildlife protection and entanglement response plan, operator training, gear loss reporting protocols, and procedures for rapidly addressing gear displacement after storm or high wind events. For ecological concerns, BMPs would benefit from specifying mandatory avoidance measures for sensitive habitats—particularly eelgrass and other submerged vegetation—with defined spatial buffers, monitoring requirements, and adaptive management triggers if habitat disturbance is detected. Predator control practices should explicitly prohibit harmful or lethal methods and rely on nonlethal deterrence only. For biosecurity, the BMPs should more clearly define required seedstock certification procedures, pathogen prevention protocols, and routine compliance monitoring. Clear biosecurity guidance will help prevent the introduction of invasive species and reduce the risk of disease transmission between farms and wild populations. More explicit, measurable BMP requirements will help ensure consistent implementation across lease sites, reduce the potential for adverse environmental impacts, and support Coastal Act findings for the protection of marine resources, water quality, and sensitive habitats.

Marine Debris

While we appreciate the SSAP's emphasis on preventing and retrieving aquaculture related marine debris, we recommend that the District establish a required, recurring cleanup schedule rather than relying solely on voluntary measures. To ensure consistency with Coastal Act policies protecting marine resources and water quality (Sections 30230 and 30231), operators should be required to conduct quarterly marine debris cleanups events (or a similarly regular cadence appropriate for site conditions), that include areas where debris is likely to accumulate. Cleanups should include collection of both farm related debris and other marine litter within and adjacent to lease areas, which helps account for gear losses that result in accidental releases of marine debris. A recurring cleanup requirement would help ensure that gear loss is promptly addressed, reduce risks to wildlife and navigation, and provide a clear, enforceable mechanism for minimizing cumulative debris impacts over the life of each aquaculture operation. In addition to scheduled cleanup efforts, we recommend that the District require post storm marine debris inspections and retrievals, given that storm events are a primary cause of gear displacement and loss. Establishing mandatory cleanup actions following significant weather events would help ensure timely recovery of dislodged materials.

Shared Usage

The SSAP states that “It is also important to note that although these locations will be designated for aquaculture, other activities such as recreational boating and fishing may not be fully restricted and could still allow for shared usage.” Under the Coastal Act, protection of public access, recreation, and coastal dependent uses is a core requirement (Sections 30210–30212, 30220, 30221, 30234). Designating areas for aquaculture does not eliminate the requirement to ensure that other uses, such as recreational boating, fishing, and navigation, are protected. The SSAP should assess whether the proposed development would have any impact on recreational water use by the general public. Commission staff strongly suggest that shared usage be prioritized in order to allow for the public to utilize these areas.

Environmental Justice

The Commission strongly encourages all local governments or issuing agencies to consider environmental justice in their project planning processes. In 2016, the Coastal Act was amended to include section 30604(h) which states: When acting on a coastal development permit, the issuing agency, or the Commission on appeal, may consider environmental justice, or the equitable distribution of environmental benefits throughout the state. By referring to “the issuing agency,” the Legislature’s intention was that both the Commission and local governments would use this new authority and consider environmental justice. Since unanimously adopting its first Environmental Justice Policy (“EJ Policy”) in 2019, the Commission has been evaluating project proposals for CDPs and LCP/PMP amendments for potential impacts that may disproportionately harm underserved communities or exacerbate the longstanding inequities previously overlooked in traditional land use planning analyses. The EJ Policy provides a framework for considering environmental justice concerns in the coastal zone consistent with the Commission’s standard of review in Chapter 3 of the Coastal Act. We recommend that the SSAP include consideration and discussion of environmental justice in its analysis of the project’s potential impacts consistent with the Coastal Act and Commission’s EJ Policy.

Thank you again for your consideration of the comments included above. Please note that these comments are preliminary and are not binding; Commission staff will provide additional comments as further drafts are shared, for a more comprehensive review. Also, please note that these comments have been submitted on the part of staff and the Commission itself would be the ultimate decision-making body on any CDP or PMPA for future aquaculture projects. We look forward to continuing our coordination with Port staff in a manner that is consistent with the Coastal Act. If you have any questions, please do not hesitate to contact me at the above office or via email at flora.coden@coastal.ca.gov.

Sincerely,



Flora Coden
Coastal Program Analyst



Erica Pan, MD, MPH, FAAP, FIDSA
Director and State Public Health Officer

Gavin Newsom
Governor

June 15, 2026

San Diego Unified Port District
3165 Pacific Highway
San Diego, CA 92101

Subject: Comments on Shellfish and Seaweed Aquaculture Program Second Discussion Draft

Thank you for the opportunity to comment on the Shellfish and Seaweed Aquaculture Program (SSAP) Second Discussion Draft. The California Department of Public Health (CDPH) Preharvest Shellfish Unit respectfully submits the following comments.

The CDPH Preharvest Shellfish Unit distributed a final Limited Sanitary Survey Report for Shellfish Growing Area Classification of Imperial Beach, San Diego Bight and San Diego Bay, California (Report), on October 29, 2025. CDPH also distributed an Addendum I Summary of Comments and Responses to Comments on December 31, 2025. This Limited Sanitary Survey Report establishes that the California state waters from the US-Mexico border north to Point Loma, including all of San Diego Bay, are classified as *Prohibited*. *Prohibited* is a classification used to identify a growing area where the commercial harvest of shellstock for any purpose, except depletion, gathering of seed or nursery culture for aquaculture, is not permitted. As such, CDPH is unable to issue a Shellfish Growing Area Certificate for any location within the *Prohibited* area. This evaluation is in conformance with requirements of the 2023 National Shellfish Sanitation Program (NSSP) Guide for the Control of Molluscan Shellfish, Model Ordinance and pursuant to the California Health and Safety Code (§112150 and §112170). Note that the NSSP does not apply to scallops when the final product form is the adductor muscle only, attached or unattached to the shell.

The SSAP suggests that water quality testing alone will allow areas to be classified for shellfish harvest for human consumption. Section 6.1 references water quality testing conducted by the San Diego Unified Port District at Zuñiga Shoals as a potential basis for reclassification, stating: "Future engagement with CDPH will hopefully take advantage of the data collected to date, while also collaboratively identifying water quality data collection that may permit the consideration of revisions to specific growing area classifications." The SSAP Section 6.2.2 also references water quality testing inside San Diego Bay, stating: "Because of the proximity of Former A-8 Anchorage to marinas within the bay, any future sites proposing aquaculture for consumptive uses



near existing marinas would likely require additional water quality testing and certification to confirm whether such areas could be classified as “conditionally approved” or “restricted” under the NSSP.”

Water quality testing alone, however, is not sufficient to classify a shellfish growing area for human consumption. A sanitary survey, to classify a shellfish growing area to allow for human consumption, requires evaluation of all actual and potential pollution sources. This evaluation includes determining if a pollution source is predictable and manageable enough to establish performance standards or closure criteria that reliably ensure safe harvest conditions. When significant pollution sources are identified, the evaluation includes establishing *Prohibited* areas.

Specific detail about sewage pollution in the San Diego Bight and Bay and how it relates to NSSP sampling requirements, are described in the CDPH Report Addendum I Summary of Comments and Responses to Comments. As stated in the Addendum: “It is impossible to determine with any precision when sewage discharged from the Tijuana River into the Pacific Ocean starts or ends, or the volume discharged. Furthermore, there is no applicable sampling method that would allow classification for harvest for an area affected by frequent and unpredictable sewage discharge events.” The Addendum then describes the reasoning behind this: “Under the NSSP, the only sample data used to reopen a growing area after a sewage spill is shellfish meat tested for male-specific coliphage (MSC), a viral indicator (NSSP Chapter IV @.03 A.(5)(d)(iv)). This sampling can only begin seven days after the discharge has ended. Additionally, MSC testing for classification for harvest is only permitted for areas adjacent to controlled wastewater system discharges—conditions that do not apply to the Tijuana River.”

In relation to water quality at Zuñiga Shoals, the SSAP Section 6.1 states that: “For the last four years, a proactive water quality testing effort has been completed across a transect of Zuñiga Shoals. ... The water quality testing effort has indicated excellent water quality across Zuñiga Shoals.” In the CDPH Report Addendum I Summary of Comments and Responses to Comments, CDPH discusses fecal indicator data collected by San Diego County that contradict this assertion. The CDPH Addendum states: “CDPH notes that water quality data taken over the past several years indicate that sewage is reaching or affecting the San Diego Bight. For example, San Diego County collects samples and analyzes for *Enterococcus*, a fecal indicator, using the ddPCR method. These data indicate that there is frequently fecal pollution exceeding recreational water quality standards in samples extending from the California-Mexico border to Coronado. For station EH-060 located at Coronado north beach, the ddPCR *Enterococcus* data collected from May 2022 to November 2025 had a geometric mean of 2,347 copies/100 milliliters (mL) with 60% of samples exceeding the 1,413 copies/100 mL single sample recreational contact threshold.” Station EH-060 is located in the surf approximately 205 meters away from corner point “B” of the proposed Zuñiga Shoals location in Figure 7 of the SSAP. The Appendix also states: “The ddPCR *Enterococcus* data from stations inside San Diego Bay also had a portion of samples

exceeding the single sample recreational threshold: EH-211 23%, EH-070 33%, EH-080 23%, EH-090 12%, and EH-120 20%.”

In Section 6.2.2 for the Former A-8 Anchorage location, the SSAP states: “Because of the proximity of Former A-8 Anchorage to marinas within the bay, any future sites proposing aquaculture for consumptive uses near existing marinas would likely require additional water quality testing and certification...”. CDPH notes that inside San Diego Bay, marinas aren’t the only pollution source to be considered. The CDPH Report states: “In addition to the risk of sewage pollution from the Tijuana River, San Diego Bay itself should be designated as a *Prohibited* area. The watershed is heavily urbanized and there are many industrial, military, commercial, and residential uses along the shoreline of the entire bay. There are also many marinas and both private and commercial vessel traffic. San Diego is the largest city in the area and the bay is a multi-use port of commerce. These uses create pollution risks for shellfish harvest that are not manageable.”

In Section 6.2.2 under subsections for Imperial Beach and Former A-8 Anchorage, the SSAP states: “..this site could only be utilized for non-consumptive uses, such as shellfish seed, fertilizers, or bioplastics until water quality is improved..” The SSAP does not use the same language in the Zuñiga Shoals subsection. The same restrictions apply to this location and should also be included.

The SSAP Section 6.3 describes the possibility of seawater intake for multiple uses at land-based facilities. CDPH wants to note that intake water for land-based bivalve shellfish wet storage or depuration source water must meet the requirements of the NSSP. According to the 2023 NSSP: “A prohibited growing area may not be used for source water” and “Water classified as Prohibited or Conditionally Restricted when in the Closed Status shall not be used as source water”. Therefore, areas within the San Diego Bight and Bay Prohibited area cannot be used as source water for wet storage or depuration.

Please let me know if you have any questions at 510-412-4635 or vanessa.zubkousky@cdph.ca.gov.

Sincerely,



Vanessa Zubkousky-White
Senior Environmental Scientist
Preharvest Shellfish Unit

Commissioners

Eric Sklar, President
Saint Helena

Darius W. Anderson, Vice President
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*Wildlife Heritage and Conservation
Since 1870*

Melissa A. Miller-Henson
Executive Director

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June 15, 2026

San Diego Unified Port District

Sent via email to SSAP@portofsandiego.org

Re: Port of San Diego's Proposed Shellfish and Seaweed Aquaculture Program: Second Discussion Draft

Dear Port District staff,

Thank you for the opportunity to provide feedback on the second version of the discussion draft for the Port of San Diego's proposed Shellfish and Seaweed Aquaculture Program (SSAP). The California Fish and Game Commission (Commission) promotes the conservation, maintenance, and use of ocean and state waters for the benefit of Californians and supports the development of fisheries, including commercial aquaculture (California Fish and Game Code Section 1700). The Port of San Diego's proposed SSAP is a forward-looking document that aligns well with the Commission's authorities.

Commission staff supports the Port's continued collaboration with the California Department of Public Health (CDPH) to resolve issues raised in CDPH's Limited Sanitary Survey Report Concerning Shellfish Growing Area Classification for Imperial Beach, San Diego Bight, and San Diego Bay (Technical Report No. 25-16). Should a reclassification be achieved that allows commercial aquaculture for human consumption in the Zuniga Shoals area, or should the Port decide to pursue commercial aquaculture for non-consumptive purposes there, the Commission stands ready to coordinate with the Port on any application for a commercial aquaculture lease under the Commission's jurisdiction.

Commission staff offers one suggestion, that is Section 4.7.2 be refined to more clearly state that the Commission's leasing authority applies only to aquaculture for commercial purposes, whether consumptive or non-consumptive.

The Commission also looks forward to the Port's progress on its programmatic environmental review, and to understand how that work may inform the Commission's own California Environmental Quality Act review of any future project proposed under Commission authority. Commission staff welcomes the opportunity to meet and collaborate as the Port advances its efforts to support the development of commercial aquaculture in California.

Unified Port District of San Diego

June 15, 2026

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If you have any questions or would like assistance with the description of the Commission's authorities, please feel free to contact me or our aquaculture lead, Environmental Scientist Caroline Newall at fgc@fgc.ca.gov or (916) 210-1416

Sincerely,



Melissa Miller-Henson

Executive Director

cc: Randy Lovell, Aquaculture Coordinator, California Department of Fish and Wildlife



Shellfish and Seaweed Aquaculture Program SSAP Second Discussion Draft Comments

Comments received during the public review period:

May 1, 2026 - June 15, 2026

Comments from Organizations

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April McGinley
VIGOR MARINE CONTINENTAL MARITIME OF SAN DIEGO
Ruben Mora
SSA MARINE
Mike Murphy
RESIDENCE INN & SPRINGHILL SUITES SAN DIEGO
DOWNTOWN BAYFRONT
Kate Pearson
SAFE HARBOR SHELTER ISLAND, SUNROAD, CABRILLO MARINA
Frank Plant
HARBORSIDE
Adam Ponce
KONA KAI SAN DIEGO RESORT
H.P. "Sandy" Purdon
SHELTER COVE MARINA
Lauren Ray
SAN DIEGO MARRIOTT MARQUIS & MARINA
Dena Roady
MANCHESTER GRAND HYATT SAN DIEGO
Todd Roberts
MARINE GROUP BOAT WORKS
Carlos Rodriguez-Duran
CORONADO ISLAND MARRIOTT
Jason Rooney
BAE SYSTEMS SAN DIEGO SHIP REPAIR
Scott Scheper
STRATEGE LAW
Scott Siebert
GAYLORD PACIFIC RESORT & CONVENTION CENTER
Jimmy Silveria
CHULA SEAFOOD
Frank Ursitti
H&M LANDING

DIRECTORS EMERITUS

Ray Ashley
Ray Carpenter
Art Engel
Ken Franke
Edward Plant

STAFF & CONSULTANT

Lindsey Peterson
DIRECTOR, OPERATIONS & EVENTS
Irene McCormack
DIRECTOR, PUBLIC POLICY
Marshall Anderson, Consultant
Craig Benedetto, Consultant
CALIFORNIA STRATEGIES



June 4, 2026

TO: Ms. Paula Sylvia and Mr. Jason Giffen, Port of San Diego
Mr. Daniel Reeves, Juniper Strategic Advisory

RE: Port of San Diego's Shellfish and Seaweed Aquaculture Program: Second Discussion Draft

On behalf of San Diego Working Waterfront (SDWW), I am writing to reiterate our concerns regarding the potential impact of structures in navigable waters long used by recreational and commercial fishers and boaters. In our previous communication, we noted that our members have a strong interest both philosophically and operationally in healthy and thriving Port waters. Safe, navigable access is also critically important, as is the ability to utilize some of the areas identified in the draft documents free from obstruction that a shellfish and aquaculture program would introduce.

The SDWW represents a unique and diverse group of members, all of whom would be impacted by this proposal. In communicating with our members, we do not believe adequate outreach has been done to a vast majority of impacted users who would see a diminution in access, or potential conflicts with their operations. From boating, to sailing, to fishing, to bait harvesting, to numerous other activities, including those of the US Navy, these users deserve an opportunity to learn more and make their concerns known.

SDWW understands the Port's desire to move to the next step, but does not believe enough information has been collected or enough analysis has been done to justify the time and expenditure of a full environmental review.

Further, SDWW remains concerned that our previously submitted comments were not considered in the second draft, which essentially dismisses these important concerns. As was stated in our letter of comment from earlier this year, if the Port decides this is a productive effort, given the cost and concerns, alternative sites should be explored that do not interfere with existing user activities. In fact, state law requires the Port to balance programs for the benefit of recreational use, and any future shellfish and seaweed cultivation projects should not compromise access to open waters used by boaters and other users.

In summary our concerns about the proposed program are as follows:

- Conflicts with the “public trust” doctrine of balancing user needs
- Reduces navigable areas for recreational, commercial and government related boating activities
- Restricts live bait access and fishing activities for both commercial and recreational fisherman
- Does not include sufficient user engagement
- Lacks adequate economic impact analysis to current users who would be impacted
- Prioritizes a new, untested economic activity at the expense of numerous, other longstanding uses and activities
- Creates a potential conflict with marine mammal migration, and potentially other impacts to existing sea life

What we are asking before any action to move the project forward is undertaken:

- An analysis of economic displacement for all users is undertaken
- Completion of a navigation study for all users to determine impacts
- Conduct a more thorough analysis of the impact of gear, tethers and other attendant equipment for these shellfish and aquaculture programs to impacted users and sea life, including marine mammals
- A full stakeholder outreach and engagement effort is completed
- Completion of a thorough alternatives analysis that contemplates locations that do not conflict with or displace existing recreational and commercial uses

In conclusion, without the requested steps and information outlined above, the SDWW is, unfortunately, opposed to the proposed Shellfish and Seaweed Aquaculture Program moving forward. The program, as described in this second discussion draft, is counter to a key goal of the Port of San Diego, which is to preserve a vibrant, working waterfront that ensures public access to navigable waters. In short, SDWW believes the Port should take the time necessary to better understand both the benefits and detriments of this proposal before moving forward.

Thank you for your consideration.

Sincerely,

A handwritten signature in black ink, reading "Sharon Cloward". The signature is fluid and cursive, with the first name "Sharon" and last name "Cloward" clearly distinguishable.

Sharon Cloward
President & CEO
San Diego Working Waterfront

June 8, 2026

Aquaculture Program Staff
San Diego Unified Port District
3165 Pacific Highway
San Diego, CA 92101
Via email: SSAP@portofsandiego.org



Re: Comments on the Shellfish and Seaweed Aquaculture Program (SSAP) – Second Discussion Draft, May 1, 2026

Dear SSAP Program Staff,

The Pacific Coast Shellfish Growers Association (PCSGA) appreciates the opportunity to review and comment on the Second Discussion Draft of the Shellfish and Seaweed Aquaculture Program (SSAP), released May 1, 2026. PCSGA represents over 100 family and Tribal shellfish farms and hatcheries operating from Southern California to Alaska, and we remain enthusiastic supporters of the Port's vision to bring responsible shellfish aquaculture to San Diego's waters.

We commend the Port for its responsiveness to the substantial stakeholder input received during the first comment period. The Second Discussion Draft reflects meaningful progress in several key areas, including a more robust description of market opportunities, expanded discussion of landside facility options, enhanced clarity on the regulatory framework, and the welcome addition of research and workforce development as explicit activities supported by the SSAP. These improvements strengthen the document and demonstrate the Port's commitment to a thorough and inclusive planning process.

The following comments are offered in the spirit of continued collaboration. They are organized by theme, drawing on our 2024 comments and focusing on areas where additional clarity or refinement would meaningfully support potential operators in evaluating the program.

1. Grower Investment and Business Viability

PCSGA is pleased to see expanded content in Sections 5 and 8 on market opportunities and program benefits. As this effort continues, it will be necessary to provide a potential operator with information necessary to assess the financial feasibility of conducting aquaculture with the Port. This includes:

- **Non-consumptive product pathways:** Because current water quality conditions in portions of the proposed growing areas will preclude commercial-ready shellfish for human consumption, it is important that the SSAP explicitly describe

the viable market pathways for non-consumptive products, including the business model for serving only one segment of the supply chain. The document notes depuration and non-consumptive markets but does not connect these concepts into a coherent operational framework for a potential applicant.

- **Operating costs specific to San Diego:** The SSAP should provide, or direct operators to, information about anticipated lease rates, California-specific labor and business costs, mooring and berthing fees, and any Port-assessed charges. Potential operators from the Pacific Northwest or other regions will be unfamiliar with California's business environment and will need this information to make an informed decision about participation.
- **Product shipping restrictions:** The SSAP should address any restrictions on shipping shellfish product grown in and around San Diego Bay, including requirements related to depuration prior to transport and any interstate commerce considerations.

2. Permitting Pathways and Application Process

We appreciate the expanded detail in Section 10 on the implementation process and the addition of Figure 12 to illustrate the Tenant Project Review process. As the program continues to develop, additional information will be critical to a potential applicant/lease including:

- **Step-by-step information requirements:** The SSAP will need to clearly specify what information must be submitted at each stage of the review process; the criteria the Port will use to evaluate proposals at each stage; and the expected timeline for Port review at each step. Without this, applicants cannot adequately plan or budget for the application process.
- **Request for Proposals structure:** It remains unclear whether the RFP will be open continuously or during defined windows, whether all in-water and landside areas will be available simultaneously, and how the pending Trust Lands Use Plan certification affects timing for areas outside the Port's current jurisdiction.
- **Operator qualification standards:** The SSAP should clarify whether preliminary approval as an SSAP operator requires only submission of complete materials, or whether applicants must also demonstrate financial capacity, operational experience, or other qualifications. This distinction significantly affects how operators prepare their proposals.
- **Multiple proposals for the same location:** The SSAP should explain how competing proposals for the same in-water or landside location will be handled – whether by first-come/first-served, competitive bid, or another mechanism.
- **Domestic preference:** We encourage the Port to consider whether a preference for U.S.-based companies aligns with the program's goals of supporting domestic seafood production and local economic development.

3. Section 6 – Locations In and Around San Diego Bay

The revised location maps and acreage updates are helpful. However, several clarifications remain necessary for potential operators evaluating these sites:

- **Water quality transparency:** Prospective operators need access to baseline water quality data before developing a proposal. The SSAP should confirm whether this data will be publicly available and at what stage in the process and clarify whether the Port or the operator bears responsibility for obtaining water quality certifications required for different uses at each site.
- **Zuñiga Shoals consumptive market potential:** The Second Discussion Draft indicates oysters and mussels are proposed for Zuñiga Shoals without specifying water quality constraints. We request that the Port clarify whether market-ready product suitable for human consumption is possible at this location, as this is a critical factor in evaluating the site's commercial viability.
- **Scallop siting:** The draft does not identify which in-water area(s) are appropriate for scallops, or whether scallops grown in the SSAP would be intended for consumptive markets.
- **Access logistics:** Please provide estimated distances from each in-water site to likely moorage areas available to operators. This practical information is essential to evaluating operational feasibility.
- **Engineering responsibilities (Section 6.2.3):** This section remains underdeveloped. Please clarify who is responsible for engineering assessments, at what stage they must be completed, and what role, if any, the Port will play in this process. At a minimum, the SSAP should indicate that District requirements and standards will be provided to prospective applicants/leases. This information is critical in understanding the feasibility of operating in San Diego.

4. Section 8 – Benefits of Participating in the SSAP

PCSGA recommends expanding this section to more explicitly enumerate the tangible benefits the Port can offer operators, including access to moorage and berthing, scientific data from baseline studies, communications support, and potential marketing assistance. The reference to “hurdles over the last 30 years” in the draft should also be given additional context – specifically acknowledging that California has not issued a new commercial shellfish aquaculture lease since 1993, and briefly explaining why, to help new entrants understand what the SSAP is designed to overcome. Part of this discussion might also relate to the State of California's interest in supporting shellfish and seaweed aquaculture delineated in the soon to be released “Aquaculture Development Plan”.

5. Section 10 – Implementation

We appreciate the additional detail in this section. Several items warrant further clarification:

- **Figure 12:** This figure continues to include internal Port terminology (e.g., ENA, Initial Service Request) that is neither explained nor commonly used in the

aquaculture industry. We recommend either defining these terms clearly within the figure or replacing them with plain-language descriptions. The figure would also benefit from being repositioned to immediately follow the text that introduces the Tenant Project Review process.

- **Consistency across permitting pathways:** The Second Discussion Draft still presents different review pathways for different locations in a way that may confuse applicants. We encourage the Port to consider a unified permitting pathway section, or a clear cross-reference table, to help prospective operators navigate the process.
- **Short-term vs. long-term leases:** The SSAP should provide examples of when a short-term lease might be appropriate for aquaculture activities and confirm that activities suited to short-term agreements are allowable under the SSAP.
- **End-of-term expectations:** The language addressing what happens when operations end should be elevated to its own clearly labeled section, and this information should be shared with operators prior to lease finalization.
- **Moorage and berth access:** We are pleased to see moorage access mentioned in Section 10 and encourage the Port to reinforce its importance throughout the document, as reliable vessel access is foundational to successful in-water operations.

6. Section 11 – Location Considerations for In-Water Areas

We continue to recommend that this section be renamed to clearly signal that it applies specifically to locations outside the Port's full permitting jurisdiction. An alternative structure – consolidating all permitting pathway information into Section 11 and all implementation guidance into Section 10 – would improve document clarity and reduce the risk of applicant confusion about which requirements apply to which sites.

7. New and Notable Additions – Acknowledgments and Requests

We wish to acknowledge and affirm several important additions in the Second Discussion Draft:

- **Research as an allowable activity:** PCSGA strongly supports the explicit inclusion of research and development as activities supported through the SSAP (Section 5). We encourage the Port to further clarify whether research activities will require the same operational plan and permitting pathway as commercial operations, or whether there will be a simplified pathway for research-focused proposals.
- **Workforce development:** The addition of workforce development language is commendable. We encourage the Port to identify specific regional educational or workforce partners early in the process.
- **Executive Order 14276:** PCSGA welcomes the reference to Executive Order 14276, Restoring American Seafood Competitiveness (April 2025). This federal directive underscores the national importance of domestic aquaculture expansion

and strengthens the case for the SSAP as a model program. The Port may wish to further leverage this policy context in its communications about the program.

8. U.S. Domestic Seafood Production (Section 2.1)

The Second Discussion Draft cites Gephart et al. (2019) for the figure that up to 38% of seafood consumed in the U.S. is produced domestically. This 2019 publication is now over six years old, and more recent federal data presents a significantly different picture. According to NOAA Fisheries statistics, the United States imported more than 79% of the seafood consumed domestically in 2020, suggesting domestic production has fallen to approximately 21% – substantially lower than the 38% figure cited.

Importantly, this updated figure actually strengthens the Port's case for the SSAP, not weakens it. A higher import reliance makes the argument for domestic aquaculture expansion more urgent and compelling. We recommend the Port update this citation using the most recent NOAA Fisheries data or the USDA Economic Research Service's May 2024 analysis, U.S. Seafood Imports Expand as Domestic Aquaculture Industry Repositions Itself.

9.0 U.S. Shellfish Aquaculture Value (Section 2.1)

The Second Discussion Draft cites NMFS (2024) for the figure that shellfish aquaculture in the U.S. generates approximately \$300 million annually. PCSGA recommends updating this figure using the 2023 Census of Aquaculture, released by USDA's National Agricultural Statistics Service (NASS) in December 2024, which is the authoritative federal source for farm-gate aquaculture production data and reflects figures nearly double those cited:

- Total U.S. mollusk (clam and oyster) sales in 2023: \$575.5 million – an increase of 30% from 2018
- Oyster sales alone: \$327.0 million, representing 57% of all mollusk sales
- Total U.S. aquaculture sales across all products: \$1.9 billion in 2023, up 26% from 2018
- Mollusks represented the largest number of farms nationally – 1,140 farms – second only to food fish in total sales value

The NMFS figure cited in the SSAP likely reflects ex-vessel or dockside value using a different methodology than the USDA Census farm-gate approach. Regardless of methodology, the 2023 USDA Census is the most recent, comprehensive, and federally authoritative data available and would significantly strengthen the economic case presented in the SSAP. We recommend citing: USDA National Agricultural Statistics Service, 2023 Census of Aquaculture (December 2024).

Closing

PCSGA remains a committed partner in the development of the SSAP and looks forward to seeing this program advance to approval and implementation. The Pacific Coast shellfish industry has the expertise, the passion, and the track record to make

aquaculture in San Diego a success – and we are eager to help connect the Port with the right operators and resources as this effort continues.

We welcome the opportunity to discuss these comments further and are available at the Port's convenience. Please do not hesitate to contact us at 360-790-8264 or by email at margaretpilaro@pcsga.org.

Respectfully,

A handwritten signature in dark ink, appearing to read "M. A. Pilaro". The signature is fluid and cursive, with the first name "M." and last name "Pilaro" being more distinct than the middle initial "A.".

Margaret A. Pilaro
Executive Director



San Diego Association of Yacht Clubs.

Dear Port of San Diego Shellfish and Seaweed Aquaculture Program.

My name is Mark Mallaby, I am the current Commodore of the San Diego Association of Yacht Clubs (SDAYC). The primary purpose of SDAYC is to foster constructive communication between the member clubs and collectively speak as one group on issues important to the organizations.

I am writing to you today to express concerns on the proposed Shellfish and Seaweed Aquaculture Program. SDAYC is primarily concerned with avoiding problems that might be encountered by the placement of structures in navigable waters that have been enjoyed by recreational boaters and fishermen for generations. Every example of shellfish cultivation that we have observed utilizes infrastructure that would close off open water to marine navigation. In principle SDAYC member clubs support programs with a positive environmental profile providing that earnest consideration be given to alternate areas where recreational boating is not impacted.

Our review of the proposal has raised questions that should be addressed prior to the program implementation. These include;

- No reference to how the program would conform to Bill No. 2285 Equitable Outdoor Access. The intent of this initiative is to preserve natural areas for purposes that include recreational boating.
- The District's mission: "Protect the Tidelands Trust resources by providing economic vitality and community benefit through a balanced approach to the maritime industry, tourism, water and land recreation, environmental stewardship, and public safety." Significant weight must be given to Districts mission to protect water recreation (fishing and boating), as well as public safety. Introducing infrastructure into navigable waters will enhance to risks to boaters. The Code of Federal Regulations Part 64 describes the process and requirements for marking submerged navigational hazards. Part-64. Aquaculture equipment will most certainly present significant risk to public safety.
- The Port Act, Public Trust Doctrine, and the PMP govern the District's management authority to balance commerce, navigation, fisheries, recreation, and environmental stewardship in and around San Diego Bay. "A port district ... for the development, operation, maintenance, control, regulation, and management of the harbor of San Diego upon the tidelands and lands lying under the inland navigable

waters of San Diego Bay, and for the promotion of commerce, navigation, fisheries, and recreation thereon..." Navigation, fisheries and recreation are clearly part of the mandate of the port. These activities are all widely enjoyed by boaters in San Diego and have been for generations. They are all dependent upon safe access to open navigable waters

- The former A-8 Anchorage: This site consists of approximately 80 acres of submerged lands located 1,200 feet west of the National City Marine Terminal within San Diego Bay. The area is currently within submerged lands. The open bay south of the Coronado Bridge and down to the shallow water at the Sweetwater River represent a unique and valuable sailing venue. There is steady wind and flat water that exists nowhere else in the bay. This area is utilized by organizers of regular sailing events including for sailing by disabled sailors and juniors learning to sail. Furthermore, it is at the juncture of the entrance to the Chula Vista Marinas as well as the 32nd Street Marina and is transited every day by dozens of recreational vessels. There is considerable open water south and east of this area that is too shallow for navigation. Possibly, aquaculture would be more suitable in those waters where recreational boating would not be impacted.
- Zuñiga Shoals: This nearshore, open-ocean, site is south of the western end of the City of Coronado. There are approximately 945 acres for cultivation which would likely utilize horizontal longlines, hanging ropes and baskets. The outstanding feature of the Zuniga shoals location is its presentation of a 'lee'. That is, waters protected from ocean winds and waves. There is no alternative on the San Diego County coastline. This area is utilized by organizers of regular sailing events. These events include World and National Championship sailing regattas. It is also an area regularly transited by vessels from San Diego and up and down the California coast. An alternative would be to select a submerged land tract along the "beach shoals" just offshore of Coronado Roads. Half of the current design could be used without interference with a prime sailing area. Perhaps a ½ mile by 2-mile section beginning in the northwest corner of current plot and extending along the beach to the east and south. Another area that should be considered that would not have a negative effect on navigation is the area inside the bay along the shoreline of North Island.

Recreational boating in San Diego and sailboat racing in particular is a part of our city heritage. San Diego is one of the best sailing venues in the US that draw competitors globally. We, SDAYC would ask that the proposal address the concerns detailed above to be conforming to the letter and spirit of preserving areas that enhance the San Diego experience for residents and visitors alike.

Thank you for your consideration.

Mark Mallaby, SDAYC Commodore.

Letter regarding the May 2026 Second Discussion Draft of the Shellfish and Seaweed Aquaculture Program:

Dear Port Commissioners,

The analysis of suitable areas in and around San Diego Bay for the SSAP does not adequately address recreational boating activities, in particular sailboat racing and organized sailing regattas that use the area identified as Zuniga Shoals on a regular and weekly basis throughout the year. The analysis method used for this study only considers AIS data in establishing areas of recreational boat traffic. This method does not account for the large number of recreational vessels and racing sailboats that do not broadcast an AIS location.

The Zuniga Shoals area has been used as a primary and important location for sailboat racing going back more than 100 years and continues to do so today. This area provides ideal conditions for sailboat racing in the lee of Point Loma and in close proximity to Shelter Island and Harbor Island marinas and yacht clubs. Many San Diego area championship level sailors got their training there, and that area continues to host championship level events for high schools, colleges, amateurs, and professional sailors alike.

The California Coastal Commission has consistently ruled in favor of maintaining access to coastal recreational resources over private interests, particularly when there is a long-established pattern of use by the general public, as is the case with sailboat racing in this area. The aquaculture envisioned for the Zuniga Shoals area would necessarily prohibit sailboat racing in that area in spite of the long record of use for that purpose.

I urge the Port of San Diego to reconsider the proposed footprint of the Zuniga Shoals area for the SSAP. Any use of this area for aquaculture must account for and allow sailboat racing and sailing regattas to continue as they have for many, many, decades.

Sincerely,

Dale Greaney

Dale Greaney

Commodore

Cortez Racing Association

Member of San Diego Association of Yacht Clubs

To: San Diego Unified Port District (AQ&BT Department)

From: WILDCOAST US Oceans and Wetlands Teams

Date: June 12, 2026

Subject: Formal Comments on the Shellfish and Seaweed Aquaculture Program (SSAP) –
Second Discussion Draft

Dear Board of Port Commissioners and District Staff,

WILDCOAST appreciates the opportunity to review and submit formal comments on the Second Discussion Draft of the proposed **Shellfish and Seaweed Aquaculture Program (SSAP)**, released May 1, 2026. As an international organization dedicated to conserving coastal and marine ecosystems and addressing climate change through natural, nature-based solutions, WILDCOAST has a deep interest in how the Port of San Diego (the District) manages its public tidelands and adjacent open-ocean environments.

We commend the District's overarching vision to utilize sustainable aquaculture to achieve dual milestones: expanding the regional blue economy and actively restoring marine ecology through ecosystem services like nutrient filtration and climate-resiliency.

Based on our review of the document, we submit the following targeted comments, concerns, and recommendations to ensure the final Program Environmental Impact Report (Program EIR) and implementation framework align with highest-tier coastal protection and restoration science.

1. Overall Support

WILDCOAST expresses full support for the conceptual framework of the draft SSAP, particularly its provision for evaluating the beneficial impacts of aquaculture on San Diego Bay's natural resources and the regional economy. Our organization's mission centers on addressing climate change through nature-based solutions; the draft SSAP aligns with this objective by promoting water quality improvements, carbon sequestration, and the support of local food webs. We commend the District's commitment to developing an industry that bolsters the blue economy and supports local communities through the production of nature-based commodities. Upon implementation, the SSAP has significant potential to create synergies with several of WILDCOAST's core programs, including MPA management, the Blue Carbon Collaborative, wetland restoration, and regional cross-border initiatives, such as those addressing the crisis at the Tijuana Estuary.

2. Maximize the Enforcement of Best Management Practices to Minimize Aquaculture-related Marine Debris

While the draft SSAP notes that aquaculture operations may benefit marine ecosystems by managing existing marine debris in areas such as Zuniga Shoals, it is critical to recognize that debris generated by aquaculture itself is often significantly more challenging to monitor and retrieve. Components such as baskets, buoys, longlines, and floats have a high potential to enter the ecosystem if not rigorously managed; once released, recovery is exceptionally difficult, particularly in high-energy environments. Such debris poses a catastrophic risk to sensitive resident and migratory species, including the Pacific green sea turtle, California least tern, and gray whale. Accordingly, the Program EIR and individual permits must prioritize the prevention of operational debris, including marking/tagging of equipment and reporting lost equipment as required by new aquaculture leases under the Coastal Act. We urge the District to assume an active enforcement role, ensuring containment standards exceed the baseline state and federal regulations cited in the draft.

3. Project-specific Monitoring Should be Conducted by Outside Parties and Overseen by the District to Minimize the Impacts to Marine Organisms and Habitats

The potential impacts of expanded aquaculture on sensitive species within the Bay and tidelands remain insufficiently defined. To mitigate ecological risks, the District should mandate comprehensive monitoring programs developed by independent third parties rather than operators. We note a contradiction in the SSAP text, which assigns monitoring responsibility to both the District and, on a case-by-case basis, to the operators themselves. As the legally mandated stewards of the Bay's natural resources, the District should maintain primary oversight of project-specific monitoring. This should expand upon the current bay-wide monitoring which at current intervals (3-5 years depending on the focal species) would be insufficient to track discrete impacts to the environment by aquaculture operations. This approach ensures that biological preservation is not compromised by operational interests, maintaining both ecological integrity and public trust.

4. Restrict the Use of Invasive Species in Aquaculture Farms

Section 7 of the SSAP identifies several non-native shellfish species for cultivation, most notably the bay mussel (*Mytilus galloprovincialis*), which is recognized by the IUCN as one of the world's most invasive species. While it appears on the California Department of Fish and Wildlife's (CDFW) approved list, CDFW also acknowledges its capacity to disrupt ecological balances, shipping, and existing aquaculture. Furthermore, the inclusion of the Pacific Oyster (*Magallana gigas*) remains a concern, as it is known to outcompete the native Olympia oyster (*Ostrea lurida*). To align with conservation best practices, the Program must prohibit the cultivation of known invasive species,

specifically *M. galloprovincialis*, to prevent further ecological degradation. The District should continue its tradition of going beyond compliance, to ensure that the ecology of the Bay is protected from any further invasions by nonnative species.

5. Utilize Aquaculture as a Tool for Habitat Restoration

Section 5.1.2 of the draft SSAP identifies several non-consumptive applications for shellfish and seaweed aquaculture. WILDCOAST supports these uses, as they contribute to plastic reduction, climate change mitigation, and pollutant remediation. We strongly recommend that the SSAP explicitly incorporate habitat restoration as a key non-consumptive use. Integrating agricultural-style propagation techniques into marine restoration can significantly increase marine restoration capacity and improve project outcomes. The SSAP framework presents an opportunity to streamline restoration by providing a robust supply of high-quality juvenile shellfish and macroalgae for nearshore and shoreline outplanting. By prioritizing the cultivation of native species, such as the Olympia oyster (*Ostrea lurida*) and giant kelp (*Macrocystis pyrifera*), the District could function as a critical regional source for habitat-forming species, addressing the decline of native populations across Southern California. Such operations would likely face fewer regulatory constraints than consumptive aquaculture, while substantially increasing the ecological benefits within the Bay. Furthermore, this strategy would provide direct support for existing District initiatives, including the San Diego Bay Native Oyster Living Shoreline Project. By activating aquaculture operations for habitat restoration, the SSAP could create long-term solutions to historical habitat loss rather than temporary the habitat enhancement that typical aquaculture projects provide.

In conclusion, WILDCOAST maintains that the Second Discussion Draft of the SSAP provides a robust, scientifically-informed framework for the introduction of restorative, non-fed aquaculture within the San Diego region. We urge District staff to incorporate these recommendations, as they are designed to fortify the final program and ensure a strategic equilibrium between the ecological integrity and economic viability of aquaculture operations.

We look forward to reviewing the upcoming Draft Program Environmental Impact Report. Please feel free to reach out to our team at our Del Mar office for continued collaborative dialogue.

Sincerely,

David Boehmer
Conservation Ecology Manager
david@wildcoast.org

Katie O'Reilly
Senior US Oceans Conservation Manager
katie@wildcoast.org



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Kelly J. McKeown

Jr. Staff Commodore
Steve J. Malowney

June 12, 2026

TO: Ms. Paula Sylvia and Mr. Jason Giffen, Port of San Diego
Mr. Daniel Reeves, Juniper Strategic Advisory
SSAP@PortofSanDiego.org

RE: Port of San Diego's Shellfish and Seaweed Aquaculture Program:
Second Discussion Draft

On behalf of San Diego Yacht Club (SDYC), we are writing to provide comments on the Port of San Diego's Second Discussion Draft of the Shellfish and Seaweed Aquaculture Program (SSAP). SDYC has served as a cornerstone of San Diego's maritime community for over 140 years, and our members are among the most active recreational users of the waters affected by this proposal. We appreciate the Port's engagement on this topic and share its commitment to a thriving, working waterfront. However, we have significant concerns about the program as currently described and respectfully urge the Port to pause its advancement until a more thorough analysis has been completed.

The Public Trust Doctrine and the Port Act both underscore the Port's obligation to preserve navigable waters for the benefit of all users, including recreational boaters, commercial operators, military users, and the general public alike. The proposed program, particularly the 598-acre Coronado Roads site but also in South Bay, would introduce permanent infrastructure into waters that have long served as open, accessible public waterways. We are concerned that this represents a meaningful reduction in public access to navigable waters and conflicts with the foundational principles that guide the Port's mission.

SDYC's specific concerns regarding impacts to our operations and the broader user community include the following:

- Conflict with established racing courses. We have two regular race areas that could be impacted:
 - The proposed Coronado Roads site directly overlaps with SDYC's active sailboat racing areas, particularly the northernmost polygon. These courses have been in continuous use for decades and are integral to our racing program. The AIS data used in the Port's modeling did not capture the full extent of recreational sailing traffic in this area, and we believe the program has been developed without an adequate understanding of the existing intensity of use.
 - The proposed South Bay area, particularly the area closest to the channel, directly overlaps with SDYC's active sailboat racing areas. This South Bay course is also frequently used by our neighboring

2clubs including Coronado Yacht Club and the Cortez Racing Association. This course has been in continuous use for decades and are integral to our racing program.

- Navigation and safety hazards. The western portion of Coronado Roads has long served as a sheltered anchorage for transient vessels outside San Diego Bay. The aquaculture site shown in the second discussion draft would significantly encroach on this established anchorage making ingress and egress difficult.
- During winter southerly storms with significant southerly sea states, vessels anchored in Coronado Roads occasionally break free and are driven southeast onto the beach and through the area identified for Aquaculture. According to our Waterfront Director, this occurs several times each year and can be corroborated by Naval Base Coronado reports and local sailing volunteers. Aquaculture infrastructure would create collision and entanglement hazards for drifting vessels and recreational boaters.
- Inadequate data on existing use. The modeling conducted by the Port's consultants relied on AIS data that does not reflect the full picture of recreational activity in the proposed zones. Sailboat racing, dinghy and youth sailing, cruising, fishing, and other non-AIS-tracked activities are prevalent in these waters and were not meaningfully accounted for in the site selection process.
- Lack of scientific analysis. Prior aquaculture ventures in the region have introduced bacterial contamination that proved difficult to contain. We respectfully recommend that, should the Port move forward, it engage the Scripps Institution of Oceanography to provide an independent assessment of potential biological risks, drawing on institutional knowledge of prior incidents in local waters.
- Insufficient stakeholder engagement. Despite two rounds of comments and direct meetings with Port staff, SDYC's concerns, along with those of other affected users including commercial fishermen, sportfishing operators, and fellow yacht clubs, do not appear to have been meaningfully incorporated into the Second Discussion Draft. We do not believe the outreach conducted to date has reached a majority of those who would be directly impacted.
- Lack of economic impact analysis. The program does not adequately evaluate the economic displacement that would result for existing users. The recreational boating, racing, and marine services industries already generate substantial economic activity in San Diego. Those impacts should be fully quantified and weighed against the projected benefits of aquaculture before the program advances.

SDYC is not categorically opposed to aquaculture in San Diego waters. We have engaged constructively throughout this process and have proposed alternative locations

that we believe could accommodate program goals while meaningfully reducing conflicts with existing users. We encourage the Port to revisit these alternatives, as well as any other sites that do not impinge on established recreational and commercial uses.

Before the program moves forward, we respectfully request that the Port undertake the following:

- A comprehensive navigation study assessing impacts to all users, including recreational sailors, commercial fishing vessels, bait haulers, military traffic, and emergency response.
- A full economic impact analysis that quantifies potential displacement of existing maritime industries alongside projected aquaculture benefits.
- A thorough alternatives analysis that genuinely contemplates sites that do not conflict with established recreational, commercial, and government uses.
- Meaningful stakeholder engagement with the full range of affected users, including yacht clubs, sportfishing operators, commercial fishermen, bait harvesters, and the U.S. Coast Guard.
- An analysis of gear, mooring systems, and attendant equipment to assess entanglement and collision risks to vessels, marine mammals, and other sea life.

San Diego Yacht Club has been a proud steward of San Diego Bay for generations. We share the Port's desire to see these waters remain vibrant, economically productive, and accessible to all. The SSAP, as currently described, does not yet reflect the full picture of how these waters are used or the full scope of impacts that would result. We urge the Port to take the time necessary to get this right before moving forward.

Thank you for your consideration of these comments.

Respectfully,



Allison C. Bell, PhD
Commodore
San Diego Yacht Club

cc: Brian P. Carlson, CCM, CCE
General Manager
San Diego Yacht Club



June 15, 2026

Port of San Diego Attn: Paula Sylvia, Jason Giffen, and Shellfish and Seaweed
Aquaculture Program Staff

Re: Comments on the Second Discussion Draft of the Shellfish and Seaweed
Aquaculture Program (SSAP)

Dear Port Staff and Commissioners:

On behalf of the Coronado Cays Yacht Club (CCYC), I respectfully submit the following comments regarding the Port of San Diego's proposed Shellfish and Seaweed Aquaculture Program (SSAP).

CCYC supports environmental stewardship and recognizes the potential benefits that responsible aquaculture may provide. However, we strongly oppose the placement of aquaculture facilities within areas that would interfere with established sailing venues, race courses, navigation corridors, and public recreational access to San Diego Bay and adjacent waters.

The Port's mission, the Port Act, and the Public Trust Doctrine require a balanced approach that protects navigation, recreation, fisheries, commerce, environmental stewardship, and public access. We are concerned that the proposed aquaculture locations, particularly those affecting South San Diego Bay and Coronado Roads, fail to adequately account for the substantial recreational sailing activity that already exists in these areas.

Coronado Cays Yacht Club conducts more than 44 officially scheduled sailboat races annually, in addition to numerous informal races, sailing clinics, training events, and community sailing activities. These events typically involve approximately 15 boats and between 60 and 80 sailors per event. Over the course of a year, hundreds of sailors utilize these waters through CCYC-sponsored activities alone.

Based on our annual race schedule, CCYC-sponsored sailing activities generate approximately 2,600 to 3,500 sailor-participation days each year on San Diego Bay. These figures do not include spectators, race committee volunteers, support vessels, guests, instructional programs, cruising events, or the many other boating activities that depend upon the same waters.

Importantly, participation in these events extends well beyond CCYC membership. Our race programs actively encourage public participation, routinely involving non-members, guests, new sailors, and individuals seeking opportunities to learn and experience sailing on San Diego Bay. These activities represent exactly the type of public recreational use that the Port is charged with protecting and promoting.

CCYC is not alone in relying on these waters. Coronado Yacht Club, Navy Yacht Club San Diego, San Diego Yacht Club, Southwestern Yacht Club, and other regional sailing organizations regularly conduct races, regattas, training programs, championship events, youth sailing activities, and community outreach programs within the same geographic areas identified for potential aquaculture development. Collectively, these organizations represent thousands of sailors and decades of established recreational use of these waters.

The proposed aquaculture facilities would introduce fixed or semi-fixed structures into waters that currently serve as active sailing venues. Regardless of how such facilities are marked, they would reduce the amount of navigable water available for racing, training, and general recreational boating. Sailboat racing requires flexibility to establish courses based on wind direction, weather conditions, fleet size, and safety considerations. Areas that may appear open or underutilized on a map are often essential components of race management, navigation, and safe vessel operation. Once occupied by aquaculture infrastructure, those areas effectively become unavailable for their existing recreational purpose.

We are also concerned that the current proposal lacks sufficient analysis regarding:

- The cumulative impact on recreational sailing organizations, race programs, and regattas.
- The economic contribution of sailing events, visiting competitors, support vessels, waterfront businesses, and related recreational activity.
- Navigation and safety impacts associated with introducing aquaculture infrastructure into established sailing venues and transit corridors.
- The availability of alternative locations that would not displace existing recreational and maritime uses.

The Port has repeatedly stated that the purpose of the program is to complement existing maritime uses. In the case of the currently proposed locations, however, the practical effect would be to displace longstanding recreational uses rather than complement them.

CCYC is particularly concerned that the Port has not demonstrated why a new commercial use should be placed in waters that have long supported active public recreational use. The Public Trust Doctrine and the Port Act require the Port to balance competing interests for the benefit of all users. Before public access and navigation are

restricted, the Port should clearly demonstrate that the impacts to existing users have been fully evaluated, quantified, and minimized.

Accordingly, CCYC respectfully requests that the Port:

1. Conduct a comprehensive navigation and safety study evaluating impacts to sailing, racing, recreational boating, fishing, and other existing maritime activities.
2. Conduct an economic impact analysis that accounts for recreational sailing organizations, regattas, training programs, tourism, and related waterfront activity.
3. Complete a thorough alternatives analysis that prioritizes locations which avoid conflicts with established sailing venues, race courses, and navigation corridors.
4. Engage directly with affected yacht clubs, sailing organizations, race committees, commercial operators, and recreational boating stakeholders before advancing the program.
5. Remove from consideration any proposed aquaculture locations that would materially interfere with established sailing race courses, regatta venues, or areas of concentrated recreational boating activity.

CCYC supports innovation, environmental stewardship, and the responsible development of new maritime industries. However, these objectives should not be achieved by sacrificing public recreational access to waters that have been actively used by sailors, boaters, fishermen, and the broader community for generations.

We urge the Port to uphold its responsibility to balance competing uses of public trust waters and to pursue alternative locations that do not diminish the public's ability to safely navigate, recreate, and enjoy San Diego Bay.

Thank you for your consideration of these comments.

Respectfully,

Steve Lock

Commodore

Coronado Cays Yacht Club

(619) 302-0668



California Lobster & Trap Fishermen's Association | 315 Meigs Rd STE A279, Santa Barbara, CA, 93109 | cltfa2023@gmail.com | (805) 403-4811 | <https://www.californialobstertrapfishermensassociation.org/>

June 15th, 2026

To: Ann Moore, Chair of the San Diego Port District Commission, ssap@portofsandiego.org

Re: Shellfish and Seaweed Aquaculture Program Public Comment

Dear Chair Moore,

Thank you for the opportunity to comment on the Port of San Diego's Shellfish and Seaweed Aquaculture Program (SSAP).

The California Lobster & Trap Fishermen's Association (CLTFA) represents California's commercial lobster fishermen from Point Conception to San Diego. Since 1994, CLTFA has worked to promote sustainable California spiny lobster fisheries and protect equitable access to marine resources for California's commercial fishing fleet.

CLTFA supports certain responsible aquaculture development (of bivalves, *not* finfish) when it is appropriately sited and does not interfere with existing commercial fishing operations, navigation, military activities, or other longstanding maritime uses.

We have significant concerns regarding the proposed aquaculture area below Zuniga. This area serves multiple important uses and stakeholders, including commercial fishermen, vessel operators, and the U.S. Navy, which regularly conducts training exercises in the area.

The proposed project could adversely affect California's commercial lobster fishery. From October through March, hundreds of lobster traps are traditionally deployed in this area. Relocating this gear would create operational challenges, reduce fishing opportunities, and increase user conflicts elsewhere.

Equally important, the area below Zuniga provides a large protected refuge where fishermen can safely maintain and shelter traps during storms and adverse weather. Loss of access to this area would increase the risk of gear damage, economic loss, and safety concerns for the fleet.

We are also concerned about potential impacts to navigation and the marine environment. The area currently functions as a productive habitat and provides safe anchorage and transit opportunities for commercial and recreational vessels. Introducing aquaculture infrastructure could create navigation hazards and alter existing ecosystem functions.

Given the area's importance to commercial fishing, maritime safety, navigation, and military operations, CLTFA respectfully requests that the Port conduct a comprehensive evaluation before advancing aquaculture development in the proposed Zuniga location. Such an evaluation should consider:

- Impacts to commercial lobster fishing operations and gear deployment
- Effects on vessel safety, navigation, and anchorage opportunities
- Potential conflicts with Navy training activities
- Ecosystem and habitat impacts
- Cumulative impacts on existing maritime users

Without comprehensive analyses and more in-depth stakeholder engagement, we are in opposition to any shellfish/seaweed aquaculture projects funded by the Port District.

In closing, we thank you very much for your time spent reading our letter. CLTFA appreciates the opportunity to participate in this process and looks forward to continued engagement as the SSAP moves forward.

A handwritten signature in black ink, appearing to be 'AS' with a long horizontal stroke extending to the right.

Ava Schulenberg
Executive Director, CLTFA

A handwritten signature in black ink, appearing to be 'CC' with a long horizontal stroke extending to the right.

Cameron Cribben
President, CLTFA



June 15, 2026

Port of San Diego
3165 Pacific Highway
San Diego, CA 92101
Attention: SSAP@portofsandiego.org

Subject: Comments on the Shellfish and Seaweed Aquaculture Program (SSAP) Second Discussion Draft (May 1, 2026)

Port of San Diego

The signatory organizations appreciate that the Port of San Diego has revised its first draft of the Shellfish and Seaweed Aquaculture Program (SSAP) and is requesting additional public review and comment. This version provides a reasonable programmatic approach regarding potential aquaculture opportunities and identifies policies, objectives, and general procedures that future efforts would have to comply with when seeking to implement projects. It addresses many of the concerns that Southwest Wetlands Interpretive Association (SWIA has changed its name to the Tijuana Estuary Foundation) and San Diego Bird Alliance (SDBA) submitted in our comment letters on the first draft that identified possible environmental conflicts with naturally occurring species that occur in and rely on San Diego Bay.

We have reviewed the SSAP Second Discussion Draft (May 1, 2026) and generally support the policies, procedures and best practices which the District would apply when considering specific aquaculture projects through subsequent project-level documents. Our comments on the document are intended to see that those policies, procedures and best practices would only allow aquaculture opportunities that do not conflict with and, to the extent practicable, may enhance the status of sensitive native species of San Diego Bay and adjacent coastal marine waters.

As described and illustrated in the summary (Pages 6-8), the SSAP significantly restricts in-bay aquaculture to an 80 acre portion in the bay (the former A-8 anchorage), does not include any finfish, and could allow aquaculture within two nearshore coastal and three landside bay sites. Because the SSAP is the mechanism by which future expansions in types and locations of aquaculture operations may be added, it is crucial that the SSAP adequately addresses foreseeable bay/coastal use and resource conflicts.

We support the Purpose and Objectives of the SSAP (Pages 13-14), with certain caveats. The SSAP relies on the document, "Aquaculture Opportunities in San Diego Bay", prepared by NOAA and Port

of San Diego, to provide the foundation for exploring aquaculture opportunities within the study area – San Diego Bay and the immediate coastal area from Pt. Loma to the international border. That document uses an evaluation process which focuses on six major data layers upon which to determine potential opportunities and constraints. One of those layers, “Biological”, cites several species of particular concern (e.g., green sea turtles and eelgrass) but fails to identify a key potential constraint, sensitive avian species, of which several utilize San Diego Bay and the immediate coastal waters. Its Exclusion Process lists three significant constraints: Military areas (facilities and activities), Navigation/MPAs/Socioeconomic areas, and areas that are too shallow for aquaculture operations. Excluding “too-shallow” areas does not necessarily address our concerns about conflicts with sensitive birds and their use (e.g., foraging, loafing, nesting) areas, particularly if subsequent plans are developed to expand into shallower portions of the South Bay.

San Diego Bird Alliance has identified sensitive bird and uses: Wintering waterbirds using San Diego Bay including Surf Scoter *Melanitta perspicillata*, Lesser Scaup *Aythya affinis*, Greater Scaup *Aythya marila*, and Redhead *Aythya americana*, specifically consume bivalves and congregate in the A-8 area and Surf Scoter, Lesser Scaup, Greater Scaup use the other areas proposed outside of the bay in the proposed project areas of Zuniga Shoals and Imperial Beach. To reflect the seasonal use of the area, we request year-round biological monitoring of wildlife from a third party in these areas to ensure that wildlife is not being harmed or impacted. We also ask that a wildlife management plan be developed with practices that are not harmful and are non-lethal to waterbirds and other wildlife. Additionally, local mitigation be put in place to support populations of the affected species if aquaculture impacts wildlife. To provide project oversight and accountability to these local developments in aquaculture, the reports that describe the mitigation and results should be made available to the general public.

The map of Final Usable Area for Aquaculture Development (Page 37) identifies 1887 acres within San Diego Bay and 8504 acres outside the bay for potential aquacultural operations and would substantially restrict aquaculture facilities and operations in South Bay. However, future interests could seek to allow for expansion into currently restricted areas such as shallow waters in South Bay. That could, depending on the types, size, and management of the operations, conflict with sensitive avian species. Several bird species (*Sterna spp*) identified as 2024 USFWS Birds of Conservation Concern, including the endangered California Least Tern *Sternula antillarum browni*, the IUCN Red list Near-threatened Elegant Tern *Thalasseus elegans*, California Species of Special Concern Black Skimmer *Rynchops niger*, and California Bird Species of Special Concern and Special Animal list for the State of California, Gull-billed Tern *Gelochelidon nilotica vanrossemi* that breeds in only two places in the US, the Salton Sea and San Diego National Wildlife Refuge, forage in the bay and nearshore waters.

As noted in the NOAA-Port document (Page 54): “These series of analyses are the first step towards gauging the potential for shellfish and macroalgae aquaculture in and around San Diego Bay.” The draft SSAP, which is just the next step toward implementation, provides some, but not sufficient, evaluation of potential impacts to native biological resources – and possible negative impacts on sensitive avian species – especially because the SSAP is intended to remove barriers to entry and – presumably, to allow consideration to expand operations in areas that are currently “off-limits.” We strongly recommend that the final draft include information on sensitive avian species that are found using the bay/nearshore marine waters, whether seasonally or year-round, and provide a constraints assessment comparable to the other elements within the major data layers.

We concur with the SSAP's statement that the Port's trust waters/lands present opportunities for aquaculture (Page 27). However, while species evaluated for inclusion in this version of the SSAP are local, commercially available, and grow well in the region, it isn't clear if in the future non-native species would be proposed. We do not believe the SSAP provides sufficient foundational information to evaluate potential impacts from aquacultural operations that involve non-native species. For that reason, we recommend the SSAP include a specific commitment to require a new, revised SSAP be produced to provide the same level of analyses and policy, procedure and best practices evaluations and recommendations if non-native species are to be considered for aquaculture. That commitment must be applicable to and/or incorporated into the Port's PMPU and TLUP. And, as applicable to any proposed implementation effort, full project-level evaluations and regulatory permitting must be required before any implementation of non-native species aquacultural operations would be authorized by the Port.

Proposed in-water aquaculture sites (Pages 49-61): Extensive operations in the nearshore locations could be a problem for foraging birds. The types and locations of facilities and gear could snare surface and shallow diving species. As noted previously, several diving bird species forage in the 80 acres site (former A-8 anchorage) adjacent to National City and sensitive/endangered terns forage within and outside the bay. The document must include a more expansive assessment of potential impacts and identify possible constraints and adaptive changes in facilities and management if impacts are discovered through the monitoring process as there are multiple contaminated areas around the bay that could contribute to future water pollution.

In 2013, there were over 30 SD Bay project sites identified with toxic contaminants of concern. While significant cleanups have occurred, multiple contaminants remain with many occurring in fish, spiny lobster, crabs and oysters. Many exceed consumption threshold and some lacking thresholds. Studies by Talley et al., (Marine Pollution Bulletin 174 (2022) 113132 and *Environments* **2023**, 10(6), 91; <https://doi.org/10.3390/environments10060091>.) found 22 contaminants in lobster and many of the same contaminants in the crabs. (benzylbutyl phthalate, chlordanes, Galaxolide, metals, PCBs, PDBEs, pyrethroids, tributyltin).

Absorption and biomagnification of chemical pollutants from the water in aquaculture products is a major concern given the presence of contaminated areas around the San Diego Bay. UCSD Scripps Master's Student, Gail Bova, recently presented an aquaculture project identifying problematic contaminants in algae grown in San Diego Bay "Assessing the Impacts of Inorganic Pollutants on Cultivation of *Ulva* spp. in San Diego Bay" and identified concerns that lead and cadmium levels in Algae will need to be closely monitored in the current state of the bay water. The expected increase in frequency of atmospheric rivers with climate change could potentially circulate pollutants in the water from runoff; how will the program address contamination from areas surrounding the bay to prevent chemical pollutants from bioaccumulating in aquaculture products?

Proposed land-based sites (Pages 62-65): Our primary concern is the contaminant loads in the discharge effluent, given that the Port states that it is the individual operator's responsibility that they comply with federal and state laws and District requirements, standards, and lease terms. It is critical that the Port will ensure that it is satisfied with the regulatory agencies' requirements for full and timely monitoring and reporting of all discharge information by the operators before it approves the projects.

Species under consideration. The initial list of species under consideration is limited to those native to SoCal or already here (Pacific oyster), which we concur is the most sensible approach.

Our contact for this issue is:

Pamela Heatherington

contactecsd@gmail.com

Bill Tippetts

billtippetts@gmail.com

Sincerely,

ORGANIZATION NAMES/REPRESENTATIVES

Pamela Heatherington

Board of Directors

Environmental Center of San Diego

M. Dan McKirnan

Board of Directors

Environmental Health Coalition

Charles Rilli

Deputy Chapter Director

Sierra Club San Diego Chapter

Lesley Handa

Lead Ornithologist

San Diego Bird Alliance

June 15, 2026

Port of San Diego

Attn: Paula Sylvia, Jason Giffen, and Shellfish and Seaweed Aquaculture Program Staff

Re: Comments on the Second Discussion Draft of the Shellfish and Seaweed Aquaculture Program (SSAP)

Dear Port Staff and Commissioners:

On behalf of the Navy Yacht Club San Diego (NYCSD), I respectfully submit the following comments regarding the Port of San Diego's proposed Shellfish and Seaweed Aquaculture Program (SSAP).

NYCSD fully supports the protection of natural resources and the long-term environmental health of San Diego Bay. As a yacht club operating on a military installation in partnership with Morale, Welfare, and Recreation (MWR), we share a deep commitment to environmental stewardship, including protection of water quality, marine habitats, fisheries, eelgrass, and the overall ecological balance of the Bay. Our members are active participants in preserving the very resource that enables our mission.

However, environmental initiatives must be carefully balanced with existing public trust uses. In this case, the proposed placement of aquaculture facilities in South San Diego Bay creates a direct and disproportionate conflict with established sailing, training, and recreational activities—particularly those conducted by NYCSD.

Unlike other yacht clubs, NYCSD operates in immediate proximity to the proposed aquaculture zones. Our primary race areas, sailing courses, and training waters are not adjacent to—but directly within and overlapping—the areas identified for potential aquaculture development. This is not a peripheral impact; it is a direct encroachment into our core operating environment.

NYCSD conducts a robust sailing program that includes:

- Weekly Beer Can races and seasonal race series
- Sail training and certification programs
- Race committee training and on-the-water instruction
- Community sailing events and outreach
- Informal recreational sailing that occurs year-round

These activities rely on **flexible, open water** in South San Diego Bay—particularly in the vicinity of Fiddler's Cove and surrounding waters. Race courses are set dynamically based on wind direction, safety requirements, and fleet size. The proposed introduction of fixed or semi-fixed aquaculture structures into these waters would significantly restrict our ability to safely conduct these operations.

From an operational standpoint, the impacts include:

- **Loss of critical racecourse water** needed to safely set marks and maintain fair competition
- **Reduced maneuvering room**, particularly during starts, mark roundings, and emergency avoidance situations
- **Increased safety risk** for inexperienced sailors, students, and youth participants
- **Constraints on race committee operations**, including mark placement and course adjustments
- **Compression of vessel traffic** into smaller areas, increasing congestion and collision risk

These impacts are magnified by the fact that NYCSD serves a unique population. As a club affiliated with a military installation, we provide sailing opportunities to:

- Active duty service members
- Retired military personnel
- Veterans
- Department of Defense civilians
- Families participating in MWR-sponsored recreation

Our mission is directly aligned with MWR objectives—supporting readiness, resilience, and quality of life through safe and accessible recreational opportunities. The waters proposed for aquaculture development are the same waters relied upon to fulfill that mission.

Any reduction in usable sailing area directly diminishes MWR-supported recreational access for the military community. This is a significant consideration that extends beyond typical recreational impacts and into federal quality-of-life and morale programs.

Additionally, the introduction of aquaculture infrastructure in close proximity to a military installation raises broader concerns, including:

- Navigational safety in waters with mixed recreational and official vessel traffic
- Potential conflicts with base operations and waterfront activities
- Emergency response and access limitations within constrained waterways

NYCSD also regularly coordinates and shares sailing waters with regional organizations, including Coronado Cays Yacht Club, Coronado Yacht Club, San Diego Yacht Club, and Southwestern Yacht Club. However, due to our geographic location, NYCSD and other South Bay users would bear the most immediate and severe impacts of the currently proposed sites.

While NYCSD supports responsible aquaculture in principle, **the current siting proposal fails to meet the Port's stated objective of complementing existing maritime uses.** Instead, it would displace and degrade long-established recreational and training activities concentrated in South San Diego Bay.

We are concerned that the current draft does not adequately address:

- The **site-specific operational impacts** to organizations located immediately adjacent to proposed aquaculture zones
- The **unique role of MWR-supported programs** and their reliance on accessible, safe, and unconstrained waters
- The **cumulative safety risks** created by introducing fixed structures into active sailing venues
- The **lack of meaningful alternatives analysis** that avoids high-use recreational areas

Accordingly, NYCSD respectfully requests that the Port:

1. Remove from consideration any aquaculture sites located within or immediately adjacent to established South Bay sailing areas, particularly those impacting NYCSD's primary operating waters.
2. Conduct a **site-specific navigation and safety analysis** that directly evaluates impacts to NYCSD operations and MWR-supported activities.
3. Engage in direct consultation with NYCSD, MWR leadership, and other South Bay stakeholders prior to advancing any siting decisions.
4. Prioritize alternative locations that do not conflict with high-use recreational, training, and military-affiliated waters.
5. Ensure that any future aquaculture development fully complies with the Public Trust Doctrine by preserving navigation, recreation, and public access as primary uses.

San Diego Bay is a shared resource, but it is not uniformly used. The waters of South San Diego Bay—particularly those adjacent to Naval Amphibious Base Coronado—are among the most actively used sailing and training areas in the region. For NYCSD, these waters are not optional—they are essential.

We respectfully urge the Port to reconsider the proposed siting approach and ensure that environmental goals are achieved **without displacing critical recreational and military-supported uses**.

Thank you for your consideration.

Respectfully submitted,
Joseph A. Torres
 Commodore
 Navy Yacht Club San Diego

San Diego Fishermen's Working Group 8021 Lemon Avenue, La Mesa, CA 91941



Ann Moore

June 15, 2026

Chair

San Diego Port District Commission

Sent electronically to: SSAP@portofsandiego.org

Dear Chair Moore,

Thank you for providing the opportunity to comment on the Port District's ("Port") "Shellfish and Seaweed Aquaculture Program" (SSAP).

The San Diego Fishermen's Working Group (SDFWG) supports well-designed shellfish and seaweed aquaculture as long as it does not displace commercial fishing (CF) opportunities, nor should it displace CF shore-side infrastructure.

The SDFWG, as long-time observers of San Diego Bay and the coastal environment, also offers the following for the Port's consideration:

Conflict with Fishing Operations

The proposed Zuniga and Imperial Beach locations would both cause unnecessary and untold harm to commercial fishing opportunities in San Diego, and result in an adverse economic impact to our fishing community. These areas are regularly used for lobster and bait fishes. In fact, fishermen believe that the near-shore area of the Zuniga location is a nursery area for lobster and other species.

Bay Temperature and Pollution

It is the SDFWG's observation that San Diego Bay sees frequent spikes in water temperature, especially in the bay's shallow areas where aquaculture is likely to be found. This is evidenced by massive die-offs of oysters along the shore. It is unclear if these are native or non-native oysters. We are skeptical that farming for oysters can be successful in the Bay. Our skepticism will be tested when opportunities for private investment occurs. Will private money see the same risk as do fishermen?

We also note that the failure of the FLUPSY in Tuna Harbor to grow anything to scale evidences the water temperature challenges. We wonder why there is no discussion of the FLUPSY's performance in the SSAP report.

The same question holds for chronic and episodic pollution and viruses inside the Bay, at least for shellfish. Regarding seaweeds, hot Bay temperatures may be an issue. For pollution, there is the question of whether seaweeds will help clean the Bay OR will the pollution hinder its growth. We note that the kelp-growing experiment at Grape Street have had only marginal success.

Imperial Beach Coastal Pollution

Concerns about coastal pollution are extreme in the area offshore Imperial Beach, due to its proximity to the Tijuana River mouth.

Shore-side Infrastructure

The SSAP's recommendations for shore-side infrastructure appear to be placed to avoid conflict with CF operations. Thank you.

Comprehensive Evaluation

Before the SSAP is finalized, a comprehensive, independent evaluation should be done on past and any current aquaculture projects in the bay with the report delivered to the BPC and public.

Private Funding

As stated above, the SDFWG will have deep concerns and oppose any shellfish/seaweed projects funded by the Port District.

The SDFWG appreciates Port staff working with us on identifying areas that will not impact fishing operations.

Seeing the effort the Port is putting into its Aquaculture and Blue Technology Department and program, we wonder, can there be such a program dedicated to preserving and growing commercial fishing as an important industry to the Port and to the public?

Thank you for considering comments from the San Diego Fishermen's Working Group.


Pete Halmay

President

peterhalmay@gmail.com

(619) 957-7121

CC SDFWG Board of Directors

Date: June 15, 2026

To: Port of San Diego

From: Michel A. Boudrias, Ph.D; Environmental & Ocean Sciences, University of San Diego

Re: Comments on the Port of San Diego's Shellfish and Seaweed Aquaculture Program (SSAP) Discussion Draft

As an Associate Professor in Environmental & Ocean Sciences at the University of San Diego with an active and comprehensive collaborative research program in Mission Bay and some locations in San Diego Bay, I have great interest in the SSAP. Our team at USD has been sampling Mission Bay for almost 25 years with a detailed, comprehensive, and interdisciplinary (ecology, geology, marine chemistry) course-based research program and we have the personnel, equipment and local knowledge to support the SSAP and even to complement it with monitoring of the proposed sites. Moreover, for the past 20 years or so, I have been a leader in inter- and multidisciplinary research programs on marine pollution in coastal habitats both in San Diego and in Baja California Sur. Finally, for the past 5 years I been working with a local company (Earthwise Sorbents) using sustainable pollution remediation absorbent booms to remove hydrocarbons, heavy metals, and even create a habitat that could help us remove invasive species. As an active university professor and a board member of several Blue Economy organizations, I am very interested in the SSAP program and very supportive. I have included two comment sections to provide you with support, ideas, and suggestions for cooperative projects.

General Comments:

1. Overall, the report is very well written, very professionally presented, and presents a comprehensive approach for a potentially successful SSAP.
2. The choice of locations is very sensible, and the current design should allow for successful implementation.
3. A major highlight of this plan is the focus on non-consumptive products that opens multiple innovative opportunities and potential connections to national and international partnerships.
4. The definitive inclusion of workforce development opportunities and broader economic developments in the Blue Economy provides many people with a chance for collaboration. This area of the SSAP is particularly important for me as I am a

passionate and successful advocate for real-world, hands-on research and work opportunities for undergraduate students (and recent graduates too).

Specific Comments:

1. Activities off Imperial Beach have a lot of potential complications – already presented in the report – that will require planned, funded, and long-term collaborative research and educational partnerships. At a minimum, monitoring of several critical parameters around Imperial Beach per se and especially near the aquaculture facilities must be done regularly and must include partnerships with local universities and companies. The existing long-term program in Mission Bay and parts of San Diego done at the University of San Diego should be the model to use. It would provide workforce opportunities for students and increase the visibility of the Blue Economy leadership at the Port and in San Diego in general.
2. Similarly, the site off Zuniga Shoals will require comprehensive and well-planned monitoring of several ecological, geological, and chemical parameters. In particular, measurements and remediation of copper should be paramount since there are many marinas and military ships in the area. Collaboration with USD (and others) would ensure analysis of water quality and potential remediation of heavy metals and other pollutants, ensuring increased quality of species grown in those waters.
3. There should be a specific program to measure heavy metals and other potential toxic chemicals in the seaweed, especially *Ulva*. Even if the seaweed is going to be used for non-consumptive uses, full chemical analysis needs to be part of the plan. Again, on-going researchers at USD and associated companies should become partners in this endeavor. There are many amazing local academic and startup companies that can elevate the SSAP program.
4. The SSAP plan can benefit greatly from a close association with TMA Blue Tech, StartBlue, and the University of San Diego (with a goal of undergraduate research participation) who are currently cooperating on creating a comprehensive workforce development program entirely focused on the Blue Economy.



Shellfish and Seaweed Aquaculture Program SSAP Second Discussion Draft Comments

Comments received during the public review period:

May 1, 2026 - June 15, 2026

Comments from Businesses & Tenants

Comments Regarding Discussion Draft 2 – Shellfish and Seaweed Aquaculture Program (SSAP)

From Frank Ursitti <frank@hmlanding.com>

Date Wed 6/3/2026 5:44 PM

To Shellfish and Seaweed Aquaculture Program <SSAP@portofsandiego.org>

Cc Sharon Cloward <sharon@sdworkingwaterfront.com>

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June 3, 2026

SSAP Second Draft Discussion

Staff

Port of San Diego

3165 Pacific Highway

San Diego, CA 92101

Dear reviewing staff members,

My name is Frank Ursitti, and I serve as President of H&M Landing, one of California's largest sportfishing facilities and a long-standing waterfront tenant of the Port of San Diego. H&M Landing supports a diverse fleet of commercial passenger fishing vessels, charter operators, recreational anglers, and marine businesses that collectively contribute significantly to the region's maritime economy.

I appreciate the opportunity to provide comments regarding the Port's Second Discussion Draft of the Shellfish and Seaweed Aquaculture Program (SSAP). While I recognize the growing interest in aquaculture and the potential environmental and economic benefits that may accompany carefully planned projects, I remain concerned that the current proposal does not adequately address the substantial impacts it may have on existing maritime users, public access, navigation, and the sportfishing industry.

Foremost among these concerns is the potential conflict with the Public Trust Doctrine. The waters identified for potential aquaculture development, particularly within Zuñiga Shoals and offshore Imperial Beach, have historically served as open and accessible public waterways utilized by recreational boaters, commercial operators, military users, and the sportfishing fleet. The Port's responsibility extends beyond fostering new industries; it includes preserving navigation, recreation, maritime commerce, and public access to navigable waters. The scale of the proposed aquaculture areas—up to 598 acres in Zuñiga Shoals and 152 acres offshore of Imperial Beach—raises legitimate concerns regarding the effective privatization of historically open public waters.

Of particular concern is the direct impact these proposed aquaculture areas may have on San Diego's live bait harvesting operations. The sportfishing industry depends heavily on bait haulers that operate within and adjacent to the waters identified in the SSAP. These vessels

require unrestricted access and maneuverability to locate and harvest live bait that supports passenger fishing vessels, charter operations, recreational anglers, and long-range fishing businesses throughout Southern California.

Should bait harvesting become impaired due to aquaculture infrastructure, operational conflicts, or restricted access, the consequences would extend far beyond individual operators. Reduced bait availability can result in trip cancellations, lost passenger confidence, decreased revenues, and economic hardship for vessel crews, fuel suppliers, tackle retailers, marine service providers, and waterfront businesses. The current draft does not adequately demonstrate how large-scale aquaculture installations can coexist with this critical and long-established maritime activity.

Additionally, the economic analysis presented in the SSAP appears incomplete. While the document references potential future job creation and economic opportunity associated with aquaculture, it does not sufficiently evaluate the economic displacement that may occur within existing maritime industries. The sportfishing industry, recreational boating sector, and associated waterfront businesses already generate substantial economic activity, support thousands of jobs, and provide significant public recreational opportunities. Before advancing the program, the Port should fully quantify the potential impacts on these established industries and compare those impacts against the projected benefits of aquaculture development.

Navigation and public safety concerns likewise remain unresolved. Aquaculture infrastructure introduces mooring systems, marker buoys, surface equipment, subsurface lines, and operational buffers that can create hazards for recreational boaters, commercial passenger vessels, bait haulers, military traffic, and emergency response vessels. These concerns become particularly acute during nighttime operations, periods of reduced visibility, and adverse weather conditions. The waters under consideration are already heavily utilized, and additional infrastructure will inevitably increase navigational complexity and operational risk.

The proposal also raises concerns regarding the gradual industrialization of public waters. The areas identified within the SSAP are currently used for fishing, boating, wildlife viewing, training activities, and general recreation. Converting these open-water environments into managed aquaculture zones fundamentally alters the character of these public resources and may diminish recreational opportunities for the broader public. The Port has long recognized the importance of maintaining a vibrant working waterfront and ensuring public access to San Diego Bay and adjacent waters. Those priorities should remain paramount.

While proponents often highlight environmental benefits associated with shellfish and seaweed aquaculture, such benefits are not guaranteed and remain highly dependent upon site-specific conditions. Potential concerns including marine debris, gear loss, wildlife entanglement, habitat shading, sediment alteration, invasive species introduction, and conflicts with existing marine ecosystems warrant careful consideration. These potential impacts should be thoroughly evaluated before large-scale implementation occurs.

I would also note that San Diego's existing maritime industries were established long before aquaculture was contemplated within these waters. Commercial fishing, recreational fishing, charter operations, maritime tourism, military activity, and waterfront recreation collectively form an integral part of San Diego's cultural and economic identity. These longstanding users should not bear disproportionate burdens to accommodate an emerging industry whose long-term viability and compatibility remain uncertain.

Finally, I am concerned that the SSAP framework may establish a precedent for future expansion. While current proposals identify specific acreage and locations, history suggests that once use areas are established, pressure often follows for additional acreage, expanded buffers, and permanent conversion of what may initially be described as pilot projects. The long-

term cumulative impacts to public access and navigation deserve careful consideration before any program is adopted.

For these reasons, I respectfully urge the Port to pause advancement of the SSAP until comprehensive navigation studies, economic impact analyses, bait harvesting compatibility assessments, recreational access evaluations, and meaningful consultation with affected maritime stakeholders have been completed.

If aquaculture development is ultimately pursued, I encourage the Port to focus on smaller-scale pilot projects located outside critical navigation corridors, outside established bait harvesting grounds, and subject to strict performance reviews, sunset provisions, and explicit protections for public access and navigation.

The Port of San Diego has long championed a vibrant working waterfront and broad public access to navigable waters. Those values have contributed significantly to the success of San Diego's maritime economy and quality of life. Any future aquaculture program should be carefully structured to complement—not compromise—those longstanding public interests.

Thank you for your consideration of these comments and for your continued commitment to balancing environmental stewardship, maritime commerce, and public access within San Diego Bay and adjacent coastal waters.

Respectfully,

Frank Ursitti
President
H&M Landing
2803 Emerson Street
San Diego, CA 92106



Shellfish and Seaweed Aquaculture Program SSAP Second Discussion Draft Comments

Comments received during the public review period:

May 1, 2026 - June 15, 2026

Comments from Individuals

Comment on Second Discussion Draft of the proposed Shellfish and Seaweed Aquaculture Program (SSAP)

From dwood8@cox.net <dwood8@cox.net>

Date Wed 5/6/2026 12:40 PM

To Shellfish and Seaweed Aquaculture Program <SSAP@portofsandiego.org>

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I support the Port's current efforts to germinate and support new Shellfish and Seaweed Aquaculture (SSA) in and

around San Diego Bay. The bay and coast once held one of the largest populations of Abalone on the California

coast. I would like to see the Port's existing SSA Program expanded to include new initiatives to reintroduce and

grow various breeds of Abalone in and around the bay as part of your ongoing SSAP efforts.

Because of overfishing, Abalone are now rare along our stretch of the California coast, and it is hard to find

Abalone on the menus of local seafood restaurants. When we can find it, it is very expensive. High prices for

Abalone makes the growth of them very profitable, far more profitable than the shellfish currently being

Grown in the existing SSAP. I believe that adding Abalone to the list of shellfish supported by your program

Would substantially improve the cost benefit of your SSAP efforts.

Don Wood

619-463-9035

Dwood8@cox.net

ssap second draft comments

From John Adriany <jadriany@icloud.com>

Date Mon 6/15/2026 12:54 PM

To Shellfish and Seaweed Aquaculture Program <SSAP@portofsandiego.org>

Cc John Adriany <john.adriany@yahoo.com>; John Laun <jlaun@earthlink.net>; Sharon Cloward <sharon@sdworkingwaterfront.com>; Jeff Johnson <sailing@sdyc.org>; Alli Bell <allison.catelyn@gmail.com>

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Thank you for the opportunity to comment on a Shellfish and Seaweed Aquaculture Program, second discussion draft dated May 1, 2026.

The proposed project is of deep personal interest to me because it touches upon lifelong professional and recreational activities: I have developed and hosted shellfish studies in San Diego Bay for over four years, consulted as an environmental chemist bay water quality for 35 years, and a life-long recreational boater and sailed, fished and scuba dove local waters. I feel that my perspectives have value toward a sound decision.

I support marine aquaculture, and have supported the Carlsbad Aquafarm that closed in 2024 after 70 years , I also support the White Seabass Growout Program with a site in Shelter Island ay Southwestern Yacht Club.

I have deep reservations about the SSAP as proposed: firstly the project is huge in scale at nearly 600 acres under current plans it exceeds size the native kelp bed at Point Loma, one of the largest in the state, estimated at 466 acres (RNKSC), it is located in shallow waters about 30 feet deep which lack volume and capacity to absorb and dilute impacts from operations, while native beds are in 100 feet of water in areas of greater current flow. The impact of highly dense aquaculture operations of this scale are without precedence. A comparison of scale of this operation shows that it is more than three times the acreage of aquaculture bottom leases state-wide, and ten times the size of the average operation, with. Carlsbad Aquafarm five acres in size.

I suggest that off-shore waters are better, and safer sites. National Marine Fisheries Services in a Programmatic Environmental Impact Statement (PEIS) identifying Aquaculture Opportunity Areas in Southern California (AOC) that can be used as guidance.

I am troubled that potential risk is not balanced with potential benefit, topics include:

1) The project as proposed would assign exclusive use to a huge parcel of coastal waters, three time the acreage under current use. The California Fish and Wildlife reports that 185 acres of marine aquaculture are currently used state-wide. The proposed acreage off Zuniga Jetty of the SSAP is 50% larger than the existing Point. Loma Kelp Bed. Risk exists from both the size of the project and the intensity of the proposed operation.

2) Potential environmental impacts are not identified in the discussion draft provided. The following areas of concern include:

- Escape of cultured organisms and subsequent genetic, disease transmission, and competition effects, including past and present impacts and ecosystem-level impacts;
- Impacts associated with a potential increase in disease vectors;
- Impacts of predator control activities and devices on nontargeted species;
- Pathway for aquatic nuisance species;
- Impacts of cultured species on protected and sensitive species;
- Water quality concerns, including pollution and eutrophication from aquaculture operations;
- Disturbance impacts to birds, mammals, and other wildlife from aquaculture activities;
- Impacts to the ecological carrying capacity;
- Modification of local water circulation patterns and current speeds from aquaculture infrastructure;
- Marine debris resulting from aquaculture gear loss;
- Physical impacts from aquaculture activities and infrastructure on the seafloor and substrate affecting biological resources, such as sensitive marine habitats and species;
- Ecosystem and public health impacts related to the use of fish meal and fish oils and aquaculture discharges into the water;
- Hazardous materials concerns related to the use of chemicals;
- Impacts to coastal aesthetic values;
- Conflict with existing uses and navigation, including fishing grounds, recreation areas.

3) Potential market benefits of the proposed shellfish and seaweed crops are minor or nonexistent.

- The market for harvested seaweed cannot be projected because no operating commercial seaweed aquaculture farms operate in the state of California.
- Potential benefits of shellfish culture for pet food is an untested market.

Thank you for the opportunity to comment,

John Adriany,
Principal Scientist

Expression of Support - June 15, 2026

SAN DIEGO'S SHELLFISH AND SEAWEED AQUACULTURE PROGRAM (SSAP)

Via email to: SSAP@portofsandiego.org

I commend the Port of San Diego on creating a compelling program that establishes a path forward for expanding a sustainable shellfish and seaweed aquaculture industry. It is excited to see the possibilities of this industry bringing nature-based solutions to address critical environmental challenges along with increasing the diversification and resilience of the regional marine-based economy. Not only is this type of industry an excellent opportunity to leverage the deep marine science and innovation present in San Diego, but it will also signal that this region is preparing for a world, already recognized in many other countries, where sustainable seafood and crucial ocean ecosystem systems requires the science and practice of aquaculture.

The plan for the San Diego Shellfish and Seaweed Aquaculture Program is thorough and comprehensive and appears to be an excellent starting point. While any plan will need to be adjusted as learnings occur, importantly, the leadership and staff of the Port of San Diego demonstrate that they are more than capable of engaging with public and private stakeholders, defining improvements, and making the appropriate investments.

Home to CP Kelco, San Diego once led the world in sustainable kelp harvesting and large-scale algin production for use in hundreds of food, consumer, and industrial products globally. While many factors may prevent that scale of operation immediately outside of and in San Diego Bay, the vision presented in the SSAP is no less impressive. This vision advances complementary marine uses in a complex and changing economic and marine environment.

I am a native San Diegan, resident in District 3, and founding sponsor and advisory member of StartBlue Ocean Enterprise Accelerator, and an established impact investor in the global seaweed/aquaculture sectors. It can be said that the tides are changing with the increase in shellfish and seaweed aquaculture across the United States, albeit slowly. Long established in Asia and elsewhere, targeted aquaculture investments have helped different regions with their priorities whether those are addressing excessive nutrients, providing complementary habitats and biodiversity hotspots, establishing low-impact and essential food production, creating more resilient and diversified economies, and more.

The SSAP represents a solid beginning upon which more regional efforts may thrive.

Sincerely,



Mary Ann Beyster

Managing Director; Beyster Foundation for Enterprise Development / Azulito Fund
maryann@beysterventures.com

public comment

From Simona Augyte <saugyte@ucsd.edu>

Date Mon 6/15/2026 3:27 PM

To Shellfish and Seaweed Aquaculture Program <SSAP@portofsandiego.org>

Cc Renee Angwin <rangwin@portofsandiego.org>; Paula Sylvia <psylvia@portofsandiego.org>; Shauna Oh <shaunaoh@ucsd.edu>; Luke Gardner <lgardner@ucsd.edu>

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Dear Port of San Diego,

After reviewing the second discussion draft of the Seaweed and Shellfish Aquaculture Program, I am truly impressed by the enormous amount of work that has been put into these efforts. The draft is well written and covers many important topics relevant to move Aquaculture forward in San Diego.

My only comments pertain to the seaweed species list for potential cultivation. Specifically, the Sugar kelp, *Saccharina latissima* is not a species commonly found in San Diego or southern California, and I would suggest removing it from your list. Instead, you may consider adding the southern Sea Palm, *Eisenia arborea*, to your list as it shows warm water tolerance and has already been cultivated in Baja.

Also, there has been a taxonomic name change for Pacific Dulse and it is now called *Devaleraea mollis*.

Best wishes on these efforts and please let us know how we can best support,
Simona

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Simona Augyte [oh-gee-teh], PhD
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