October 25, 2024

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

Submitted via email to SSAP@portofsandiego.org

Re: <u>San Diego Coastkeeper Comments – Discussion Draft Shellfish and Seaweed Aquaculture Program</u>

To Whom It May Concern,

On behalf of San Diego Coastkeeper (Coastkeeper), please accept the following comments regarding the discussion draft of the Port of San Diego's proposed Shellfish and Seaweed Aquaculture Program (SSAP). Coastkeeper works to protect and restore the waters of the San Diego region through water quality monitoring, advocacy, education, community engagement, and enforcement. Coastkeeper actively seeks agency implementation of federal, state, and local laws, regulations, and permits; regularly engages in the administrative review and public comment procedures for agency actions; and, where necessary, directly initiates enforcement actions on behalf of itself and its members.

As a preliminary matter, Coastkeeper appreciates the opportunity to comment on the discussion draft version of the SSAP, and the Port's solicitation of public input at this early stage of the process, well before a final version is proposed for adoption.

Coastkeeper acknowledges the potential that, when conducted intelligently, shellfish and seaweed aquaculture could provide economic, ecological, climate, education, and innovation benefits to the Port of San Diego and San Diego Bay. Coastkeeper has long been a proponent of such multi-benefit proposals and solutions, and supports the SSAP's commitment to "minimize environmental effects, seek co-benefits, and maximize sustainable production."[1] However, the details of each aquaculture project, including the specific locations, types, and intensities of operations, as well as cumulative impacts and the dynamic relationships among multiple aquaculture projects, must be carefully analyzed, and all potential impacts evaluated and avoided/fully mitigated.

Coastkeeper strongly supports the SSAP's exclusion of finfish aquaculture. Limiting the proposed SSAP's aquaculture activities to shellfish and seaweed avoids the devastating environmental and ecological impacts from finfish aquaculture, which are widely recognized. Shellfish and seaweed aquaculture pose substantially less risks.[2] That said, prior to fully

[1] Draft SSAP at 6.
[2] *See e.g.*, https://globalseafoods.com/blogs/news/the-environmental-impact-of-oyster-farming-acomprehensive-guide?srsltid=AfmBOoqmhXoN3teu7tPq3d28olExy9nMSWSDHRO_RQNPYYp1FoMr9Vm; https://www.fisheries.noaa.gov/feature-story/global-study-sheds-light-valuablebenefits-shellfish-and-seaweed-aquaculture.

committing to establish a long-term aquaculture program within and adjacent to San Diego Bay, a host of potential risks and benefits must still be fully addressed. Coastkeeper recommends that any Programmatic Environmental Impact Report (PEIR) for the SSAP address potential impacts on water quality/circulation, sediments, plant and animal species, increased disease/invasive species potential, ecological/ecosystem processes, and implications for impact on recreational activities, as described in part herein.

Shellfish aquaculture cultivation and harvesting can still pose significant environmental risks.[3] Interactions with other species (both native and non-native) must be fully studied and addressed.[4] As part of the SSAP, the Port must ensure that cultivated species operations do not impact native species, and should consider concurrent efforts to support wild shellfish populations.[5]

Coastkeeper strongly urges that the SSAP prioritize shellfish and seaweed species that are native to our marine region. The current draft explains that "[n]aturalized species are those that are not native to the area but have established, self-sustaining populations in California, and are not considered invasive species by CDFW."[6] However, simply because a species is not considered "invasive" does not mean it has no negative impacts. Non-native species cultivation in concentrated areas poses risks such as disease transmission, competition for resources with native species, and interbreeding with native species. As the California Coastal Commission has pointed out, shellfish aquaculture of the the Pacific oyster has resulted in persistent populations of Pacific oysters outside of cultivation on Catalina Island and from Los Angeles Harbor south to the Tijuana River Estuary, and that this poses risks to native marine species and the environment.[7] This is why many harvesters and aquaculture stakeholders are not in favor of non-native species being propagated in the Southern California Bight. As such, the SSAP should include a detailed analysis of effects associated with the presence and propagation of all non-native species, even "naturalized" species.

If the SSAP continues to consider non-native species, then it should specify when non-native species are appropriate. For example, the non-native Pacific Oyster was selected because it is larger than the native Olympia oysters, and therefore more popular and economically attractive as it can be sold for human consumption. However, two of the three potential sites/locations (Imperial Beach and the Former A-8 Anchorage) suffer from water and sediment quality pollution such that shellfish grown in these areas are not suitable for human consumption. As such, the SSAP should require that any oyster projects in the Imperial Beach or the A-8 Anchorage locations must cultivate Olympia oysters, and likewise prohibit the Pacific oyster projects in these areas.

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[3] https://www.fisheriesjournal.com/archives/2016/vol4issue3/PartA/4-2-105.pdf.
[4] https://www.nps.gov/pore/learn/photosmultimedia/upload/multimedia_pcslc_natlab_olympiaoyster_transcript_100129.pdf.
[5] ., https://the-ethos.co/eating-oysters-environmental-benefits/.
[6] Draft SSAP at 63.
[7] California Coastal Commission, *Coastal Development Permit Application Guidance* (July 2020), https://documents.coastal.ca.gov/assets/cdp/Draft-CDP-Application-Guidance-Aquaculture-and-Marine-Restoration.pdf.

On a related note, Coastkeeper concurs that shellfish production within the Bay and in Imperial Beach would, under current water and sediment quality conditions, preclude human consumption.[8] The SSAP explains these sites can be "utilized for non-consumptive uses, such as shellfish seed, fertilizers, bioplastics, or bioremediation."[9] However, given the types of pollutants at issue in San Diego Bay and in Imperial Beach, even these uses may not be safe. For example, San Diego Bay is heavily polluted with PCBs, a highly carcinogenic substance which tends to build up in living organism, both by uptake from the environment over time (bioaccumulation) and along the food chain (biomagnification). As such, if shellfish contaminated with PCBs are used as fertilizer, PCBs could still end up in food consumed by humans or by livestock (which could thereafter be consumed by humans). Pollutants associated with the transboundary sewage that has contaminated the waters in Imperial Beach are potentially worse. SDSU researchers recently identified 392 organic chemical compounds in transboundary sewage, 224 of which are regulated as pollutants, and 175 of which appear in the federal Toxic Substances Control Act.[10]

Coastkeeper is also concerned about the precise location of potential projects in the Imperial Beach designated location. The area identified in Figure 6 of the SSAP appears to extend all the way to the shoreline. Both Public Trust concerns and basic safety notions require a significant buffer between any projects and the shoreline to prevent conflicts between recreational use and aquaculture systems. Coastkeeper supports the 140-meter buffer away from the Imperial Beach pier. A similar buffer zone is needed away from the shoreline. Aquaculture projects too close to the shore risk interference and safety concerns for swimmers, surfers, boaters, shoreline fishing, etc. Although, tragically, Imperial Beach has been closed for the vast majority of days for several years now, nobody wants, nor expects this pollution crisis to remain indefinitely. If any community deserves to be able to enjoy unfettered access to the beach and ocean once water quality improves, it is Imperial Beach.

The SSAP presents a reasonable overview of how the Port would approach establishing its seaweed aquaculture operations, the species of interest, general environmental and operational concerns that would be evaluated, and likely areas for those operations in water and on land. Seaweed cultivation may pose fewer risks than shellfish cultivation,[11] but potential negative effects on ecosystem services[12] and competition with seagrasses, particularly sensitive, at-risk native eelgrass[13] and from harvesting[14] must be evaluated and impacts avoided or fully mitigated in the PEIR.

The SSAP must also fully consider the Port's duty to maintain the project areas and tidelands in the public trust. The State Lands Commission implements the public trust doctrine through its application of the Coastal Act, which sets forth guidelines for managing new

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[8] https://caseagrant.ucsd.edu/news/new-studymeasures-contaminant-levels-feral-san-diego-bay-oysters.
[9] Draft SSAP at 53.
[10] https://www.sdsu.edu/_files/tijuana-sewage-contamination-public-health-crisis-white-paper-021424.pdf.
[11] https://www.sciencedirect.com/science/article/abs/pii/S2211926422003381.
[12] https://www.sciencedirect.com/science/article/pii/S0025326X18303126.
[13] https://www.frontiersin.org/journals/climate/articles/10.3389/fclim.2023.1283305/full.
[14] https://www.mba.ac.uk/wp-content/uploads/2022/05/Wilding_et_al_2021_-NE_Seaweedaquaculture-and-mechanical-harvesting.pdf.

development within the District's jurisdiction. The core purpose of the public trust doctrine is to protect the public's right to use California's waterways for navigation, fishing, boating, natural habitat protection and other water-oriented activities. The Public Trust provides that tide and submerged lands and the beds of lakes, streams and other navigable waterways are to be held in trust by the State for the benefit of the people of California.[15] Notably, the U.S. Supreme Court has long held that of the most important public uses encompassed within the tidelands trust is the preservation of those lands in their natural state so that they may serve as ecological units for scientific study, as open space, and as environments which provide food and habitat for birds and marine life, and which favorably affect the scenery and climate of the area.[16] The recreational and ecological values at stake in the proposed project areas—public access to open waterways and preservation of natural marine habitats—are clearly among the purposes that public trust aims to protect.

Specific projects pursued under the SSAP could potentially augment these uses, or as described *supra*, could inhibit these use. For example, the potential conflict between recreational uses and aquaculture projects in Imperial Beach as described *supra*. Furthermore, simply because an area is suitable for aquaculture does not mean that area *should be used* for such purposes. The Port must keep in mind that private companies stand to profit from these aquaculture projects, which are necessarily exclusionary uses of public resources in an area the Port is bound to manage for the public's benefit. Therefore, the SSAP should set forth project selection criteria which requires assessment of potential impacts through the lens of the public trust doctrine.

To avoid and minimize potential impacts, the SSAP must also require that gear for projects have as small a surface footprint as possible. Safety should be of paramount importance and all necessary steps must be taken to ensure public safety. For example, grow lines for shellfish operations should be weighted and incapable of floating to the surface should they break free from any mooring systems. Buoys should be marked and lit in compliance with United States Coast Guard requirements for navigational safety buoys, and the locations should be made readily available to the maritime community via the Local Notice to Mariners and communicated to coastal and fishing communities in the Southern California Bight.

Coastkeeper thanks the Port of San Diego for preparing this draft SSAP and for considering these comments.

Respectfully,

Pat McD

Patrick McDonough
Senior Attorney

[15] Cal. State Lands Commission, Public Engagement, https://www.slc.ca.gov/public-engagement/.
[16] *See Marks v. Whitney*, 6 Cal. 3d 251, 259–60 (1971).