



**CEQA and COASTAL DETERMINATIONS
and
NOTICE OF APPROVAL**

Project: Sunken Seaweed, LLC Seaweed Farm Demonstration Project
Location: Grape Street Pier, No. 1, San Diego, CA 92101
 Hog Island Oyster Company Hatchery located at 1 Bivalve Way, Samoa, CA
 95564
Parcel No.: Various
Project No.: 2022-109
Applicant: Torre Polizzi and Leslie Booher c/o Sunken Seaweed, LLC, 4652 Muir Ave, San
 Diego, CA, 92107
Date Approved: Nov 9, 2022

PROJECT DESCRIPTION

The proposed project is for Sunken Seaweed, LLC (Tenant) continued use of approximately 4,422 square feet (sq ft) of water area adjacent to Grape Street Pier No. 1 located in the city of San Diego, California. The area proposed for use is currently and is proposed to be used only and exclusively for the purpose of a shellfish and seaweed pilot farming system, and for no other purpose whatsoever without the prior written consent of the Executive Director of District in each instance. The Tenant would be responsible for compliance with all laws and regulations associated with the activities on or in connection with the above-described premises, and in all uses thereof, including those regulating stormwater and hazardous materials, as well as acquiring necessary permits from relevant resource agencies, such as the Army Corps of Engineers and the Regional Water Quality Control Board.

The current TUOP has total term of approximately three (3) years and seven (7) months, commencing April 2020 and ending October 2023. The TUOP may be terminated by the District or Tenant as a matter of right and without cause at any time upon providing thirty (30) days' notice in writing to the other party of such termination.

The purpose of the pilot project is to demonstrate the feasibility and water quality benefits of shellfish and seaweed aquaculture in San Diego Bay, by incorporating the water-purifying capacity of bivalves with the carbon-sequestering potential of seaweeds to create a climate-beneficial farming system. Recently, the Tenant incorporated shellfish to the pilot seaweed farming system by adding mussel longlines and baskets attached to the kelp lines. This included include up to eighty baskets, which are approximately twenty-five inches by ten inches by six inches, to house both seaweed and shellfish species and up to sixty mussel long-lines, which are fifteen feet in length. The majority of the baskets have one-inch mesh and are used to house seaweed species to protect them from predation. The baskets hang along the kelp lines and the mussel long-lines would hang perpendicular to the kelp lines. The pilot project would continue to require access to the floating dock alongside the pier for the transportation of project materials, and use of the nineteen top kelp lines of the existing submerged farm system. These lines float with the use of buoys and can sit at depths up to ten feet.

Consistent with existing operations, the project site would be visited approximately four days per week by vehicle or small boat. Operation and maintenance activities are proposed to include: diving, experimental harvesting (cutting and hauling seaweed and shellfish onto boat), SCUBA monitoring and biodiversity surveys, and epiphyte clearing and removal. The monitoring and biodiversity surveys would be conducted by the proposed project applicants, a SCUBA dive team, and when applicable for the surveys, a small-scale remotely operated underwater vehicle (ROV). Most of the diving, sampling, and maintenance can take place off of the floating dock, and diving from the small boat would only be needed for placement of anchors, moorings, buoys, and when lifting lines of kelp out for harvest. The

SCUBA monitoring and biodiversity surveys would occur less frequently and include fish recruitment surveys, invertebrate recruitment surveys, epiphyte surveys of the kelp lines, and collecting data for water quality, turbidity, and sea surface and bottom temperature. For one species of algae, sea lettuce, additional samples would be taken to be tested for carbohydrates, lipids, sugars, and other nutrient profile information. All seaweed and shellfish harvested from the system would be taken directly to an uplands marine lab, thus no land-based structures are required for this project.

Additional visual benthic surveys of the quantity, type and distribution of materials from the shellfish cultivation facilities (such as shellfish, shell material, fouling organisms, and aquaculture equipment) accumulating on the seafloor shall be conducted beneath the shellfish and seaweed farming system and shall be carried out on a quarterly basis throughout the duration of the pilot project. Surveys shall be carried out by an independent, third-party contractor and shall include randomly selected locations beneath the shellfish and seaweed farming system as well as two control sites to be selected based on their similarity to the project area in terms of sediment character and water depth.

If, during monitoring, the visible accumulation of a significant amount of oyster or mussel shell material, fouling organisms, cultivation equipment, or other project-related debris is observed, the Tenant shall adapt its operations and/or redesign the project to avoid recurrence of these changes, and to mitigate any additional impacts to marine resources that may have occurred. Such project changes shall include the removal of accumulated materials and/or modifications to the management and use of shellfish baskets. For the purposes of this condition, a “significant amount of oyster shell material, fouling organisms, or other project-related debris” shall comprise any accumulation in excess of a handful of scattered occurrences, such as the formation of piles or layers of debris.

The Tenant shall not intentionally dispose of or release any equipment or waste, including lines, buoys, baskets, and other equipment, or living or dead shellfish, shells, or non-native fouling organisms into the marine environment. If invasive fouling organisms are present on the cultivation equipment, all maintenance cleaning operations of the equipment, including its buoys, ropes, lines, cables, and anchors, shall be carried out onshore and in a contained manner sufficient to capture all dislodged biological materials. All non-native fouling organisms and biological materials from non-native organisms removed during these cleaning operations shall be collected and disposed at an appropriate upland facility. No discharge of untreated wash water or non-native fouling materials shall occur during maintenance cleaning operations. All onshore shellfish and equipment cleaning and processing operations shall be carried out in a manner that prevents the discharge of untreated water and biological materials into the marine environment.

All seaweed and shellfish species proposed to be grown as part of the project are native or naturalized to southern California. The seaweed species grown in the top layer of kelp lines may include: Sea lettuce (*Ulva spp.*), Ogo (*Gracilaria pacifica*), Nori (*Porphyra spp.*), Dead Man’s Fingers (*Codium fragile*), Methane Reducer (*Asparagopsis taxiformis*) and Sea grapes (*Botryocladia pseudodichotoma*). The species grown in the bottom layer of kelp lines may include Giant kelp (*Macrocystis pyrifera*), Oar weed (*Laminaria forlowii*), and Elk kelp (*Pelagophycus porra*). The shellfish species may include Mediterranean Mussel (*Mytilus edulis* species complex), Pacific oyster (*Crassostrea gigas*; the Tenant will only use existing Pacific oysters residing on habitat near the farm installation), Olympia Oyster (*Ostrea lurida*), and California Mussel (*Mytilus californianus*).

Furthermore, the project would not have over-water coverage and no eelgrass resources are known to occur within the project area. Therefore, the proposed project would not result in any significant impacts to biological resources.

Marine Debris Reduction and Management. The Tenant shall carry out operations consistent with the following marine debris reduction and management practices:

- A. **Storm Damage and Debris.** As soon as safely and reasonably possible following storm or severe wind or weather events, the Tenant shall patrol its shellfish and seaweed farming system for escaped or damaged aquaculture equipment. All equipment that cannot be repaired and placed back into service shall be properly recycled or disposed of at an appropriate onshore facility. In addition, the Tenant shall retrieve or repair any escaped or damaged aquaculture equipment that it encounters while conducting routine daily and/or monthly maintenance activities associated with the pilot project. If the escaped gear cannot be repaired and replaced, it shall be properly recycled or disposed of on land.
- B. **Gear Marking and Replacement.** The Tenant shall mark all shellfish baskets and floats in an easily identifiable manner with identification information including its company name. Markings shall be securely attached and robust enough to remain attached and legible after an extended period in the marine environment (e.g. heat transfer, hot stamp, etching, etc.). Existing floats currently in use shall be marked or replaced with marked versions when replanted and all unmarked gear shall be replaced in this way. In the event that shellfish culture gear or equipment becomes displaced or dislodged from the shellfish and seaweed farming system, it shall be the Tenant's responsibility to retrieve the material from the shoreline, open water, eelgrass beds, mudflat, or submerged bottom with minimal damage to the resources affected. Once located, such material shall be removed as soon as feasible and properly disposed of, recycled, or returned to use.
- C. **Cleanup Events.** The Tenant shall participate in a minimum of four cleanup events on Port tidelands per year and conduct quarterly check-ins with Zephyr Marine Debris Removal to determine whether any discoveries of gear from the pilot study have occurred. If persistent discoveries of certain gear types are made, the Tenant shall evaluate (and if feasible, implement use of) alternative gear types or practices that would reduce these consistent sources of debris.
- D. **Ongoing Operations.** The Tenant shall not leave or temporarily store tools, loose gear, or construction materials on its leased tidelands or surrounding areas. All aquaculture gear installed on and in use in active cultivation sites shall be kept neat and secure and maintained in functional condition. The Tenant shall carry out regular bed inspections and maintenance activities to help ensure that broken, collapsed, fallen, or buried gear is fixed or removed in a timely manner.
- E. **Bed Cleaning at Harvest.** The Tenant shall carry out a thorough inspection to locate and remove loose, abandoned or out of use equipment, tools, and accumulations of oysters from the surrounding substrate. Oyster shell shall not be intentionally placed or deposited within the lease outside of cultivation gear, and oysters or oyster shell accidentally spilled during cultivation or harvest shall be immediately collected and removed.
- F. **Excessive Gear Loss or Maintenance Failures.** If the Tenant is found to be responsible for consistently extensive loss of aquaculture equipment into the marine environment or is consistently failing to maintain its equipment in an intact and serviceable condition, the Tenant shall modify its cultivation equipment and/or operational practices to minimize equipment loss and mitigate impacts to affected habitat.

The proposed project would also include a pilot project for the Tenant to demonstrate commercial

feasibility of seaweed tumble culture in Humboldt County, California. In addition, Sunken Seaweed would maintain experimental research for ecosystem services and commercialization opportunities of seaweeds and shellfish at their existing ocean farm lease in San Diego Bay. Sunken Seaweed would construct and utilize a land-based site as a macroalgae tumble culture facility at the Hog Island Oyster Company Hatchery. During this pilot project, Sunken Seaweed would vegetatively culture and harvest a variety of native macroalgae species, primarily Dulse (*Palmaria mollis*) & Sea Lettuce (*Ulva lactuca*), and sell as a culinary product.

The pilot project would be carried out over the course of one year in a 2,000 square foot total area. Seaweed culture would occur within the designated culture tanks at the operation site. Sunken Seaweed would install 20 total 1,200-gallon culture tanks (6.5 feet high by 6 feet wide with a 30-degree cone bottom made of plastic). Once the fresh seaweed is harvested from the culture tanks, it would then go to a shipping container (40 feet long by 8 feet wide) which would be used as the fresh macroalgal processing facility. This fresh macroalgal processing facility would include a UV filtered sterilized seawater system and a sink where the harvested seaweed would be rinsed and stored in cold water before it gets prepared for packing and shipping.

This pilot project would allow establishment of operations, proof of concept, and validation that seaweed operations in Humboldt Bay could support viable new aquaculture business lines. After the initial pilot phase efforts to scale operations could take place.

Due to its nature and limited scope, construction of the proposed project would generate a minor amount of vehicle trips and would require limited use of equipment. Therefore, impacts related to air quality, greenhouse gas emissions, and transportation and traffic are not anticipated to occur. Furthermore, the Tenant would be responsible for complying with all applicable federal, state, and local laws regarding construction demolition debris, hazards and hazardous materials, and stormwater.

The following categorical determinations are based on the project submittal and all project information known to the District as of the date of this determination.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

CATEGORICAL DETERMINATION

Categorical Exemptions: SG §15301, Class 1/Section 3.a: Existing Facilities; SG §15303, Class 3/Section 3.c: New Construction or Conversion of Small Structures; SG §15304, Class 4/Section 3.d: Minor Alterations to Land; and SG §15306, Class 6/Section 3.f: Information Collection

3.a. Existing Facilities (SG § 15301) (Class 1): Includes operation, repair, maintenance, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of use beyond that previously existing.

AND/OR

3.c. New Construction or Conversion of Small Structures (SG § 15303) (Class 3): Includes construction of limited numbers of new, small facilities or structures; installation of small new equipment and facilities in small structures; and conversion of existing small structures from one use to another with minor modifications to the exterior of the structure.

AND/OR

3.d. Minor Alterations to Land (SG § 15304) (Class 4): Includes minor alterations in the condition of land, water and/or vegetation not involving removal of mature, scenic trees.

AND/OR

- 3.f. Information Collection (SG § 15306) (Class 6): Includes basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to environmental resources. These may be for information gathering purposes, or as part of a study leading to an action which has not yet been approved, adopted or funded.

The proposed project is determined to be Categorical Exempt pursuant to the CEQA Guidelines and the Sections of the District's *Guidelines for Compliance with CEQA* as identified above. These are appropriate for the proposed project because the pilot project involves operation of a small structure (a pilot project seaweed and shellfish farm) attached to an existing pier and operation of small structures within an existing shellfish hatchery, that would: involve negligible expansion of use beyond the existing uses at Grape Street Pier No. 1 and Hog Island Oyster Company; would collect data and information on environmental factors and conditions around the farm; and would not result in a serious or major disturbance to environmental resources. Further, there would be no dredging or fill impacts and the project would not cause any disturbance to sensitive species or habitat. The District has determined none of the six exceptions to the use of a categorical exemption apply to this project (CEQA Guidelines Section 15300.2) because the project is not located in an area that would impact an environmental resource of hazardous or critical concern, would not have cumulative impact of successive projects of the same type in the same place, would not have a significant effect on the environment due to unusual circumstances, is not within a highway officially designated as a state scenic highway, is not located on a site which is included on any list compiled pursuant to Section 65962.5 of the Government Code, and would not cause a substantial adverse change in the significance of a historical resource.

Pursuant to CEQA Guidelines Section 15062, a 35-day statute of limitations for this CEQA exemption shall apply from the date a Notice of Exemption is posted with the San Diego County Clerk, or a 180-day statute of limitations for this CEQA exemption shall apply if no Notice of Exemption is filed.

CALIFORNIA COASTAL ACT

PORT MASTER PLAN CONSISTENCY

Planning District: 3 - Centre City Embarcadero (Precise Plan Figure 11)

Water Use Designation: Specialized Berthing

The proposed project is located within the Coastal Development Permit (CDP) jurisdiction of the District and conforms to the certified Port Master Plan because it would support a marine commercial use, and utilizes a specialized waterside structure to satisfy the special requirements of marine projects, consistent with the existing certified Water use designation. The proposed project would not change the use of the site nor would it interrupt or expand the existing conforming uses of the site. change the use of the site nor would it interrupt or expand the existing conforming uses of the site.

CATEGORICAL DETERMINATION

For the portion of the pilot project located within San Diego Bay, the proposed project would continue an existing real estate agreement. The proposed project does not constitute "development" as defined in Section 30106 of the California Coastal Act, or "new development" pursuant to Section 1.a. of the District's Coastal Development Permit Regulations. Therefore, issuance of a Coastal Development Permit or categorical exclusion is not required.

For the portion of the proposed project located outside of the District's CDP jurisdiction, additional approvals may be required from other agencies.

CALIFORNIA PUBLIC TRUST DOCTRINE

The proposed project complies with Section 87.(a)(1) of the Port Act, which allows for the establishment, improvement, and conduct of a harbor, and for the construction, reconstruction, repair, maintenance, and operations of wharves, docks, piers, slips, quays, and all other works, buildings, facilities, utilities, structures, and appliances incidental, necessary, or convenient, for the promotion and accommodation of commerce and navigation. The Port Act was enacted by the California Legislature and is consistent with the Public Trust Doctrine. Consequently, the proposed project is consistent with the Public Trust Doctrine.

JOE STUYVESANT
President/CEO

Determination by:
Sureena Basra
Senior Planner
Planning

Signature: Sureena Basra
Date: Nov 9, 2022

Deputy General Counsel

Signature: Rebecca Harrington
Date: Nov 9, 2022