



PUBLIC NOTICE

**U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT**

BUILDING STRONG®

APPLICATION FOR PERMIT

Public Notice/Application No.: SPL-2014-00600-MBT

Project: Rose Canyon Fisheries Sustainable Aquaculture Project

Comment Period: February 9, 2015 through March 12, 2015

Project Manager: Melanie Tymes; 760-602-4841; Melanie.B.Tymes@usace.army.mil

Applicant

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Location

The proposed project location is approximately 7.2 kilometers (4.5 statute miles) west of Mission Bay in San Diego, California; the center of which is at Latitude 32°44.469'N, Longitude 117°19.931'W. See attached map.

Activity

Rose Canyon Fisheries, Inc. (RCF) is a partnership between Hubbs-SeaWorld Research Institute (HSWRI), a 501(c)(3) research organization, and Cuna del Mar (CdM), a private equity fund dedicated to developing sustainable aquaculture. RCF intends to create a commercially viable, economically and environmentally sustainable aquaculture facility off the San Diego, CA coast..

The proposed project will annually produce 5,000 metric tons (MT) of yellowtail jack, white seabass and striped bass in sea cages that will be located 4.5 miles (7.2 kilometers) from the San Diego shoreline. Yellowtail jack has been chosen as the initial species as cultured juveniles are readily available from HSWRI hatcheries. The site will also be permitted for other local species which will be interchangeable with yellowtail jack when the project has become operational and depending on availability of juveniles and permit conditions. Production will be phased, beginning at 1,000 to 1,500 MT in the first production cycle in order to achieve operational efficiency and ensure environmental compatibility. Based on these data, the project will gradually expand to 5,000 MT annual production, which is expected by year eight. Initially, recently developed submersible cages will be deployed, but the farm will have the capacity to test new containment systems as they are developed over time. (See attached drawings for site location and proposed project engineering). For more information see page 3 of this notice.

The Corps is requesting any information available to address potential impacts associated with the proposed project

Interested parties are hereby notified that an application has been received for a Department of the Army (DA) permit for the activity described herein and shown on the attached drawings. We invite you to review today's public notice and provide views on the proposed work. By providing substantive, site-specific comments to the U.S. Army Corps of Engineers (Corps), Regulatory Division, you provide information that supports the Corps' decision-making process. All comments received during the comment period become part of the record and will be considered in the decision. This permit will be issued, issued with special conditions, or denied under Section 10 of the Rivers and Harbors Act. The activity proposes to anchor the floating fish cages to the sea floor on the outer continental shelf. Accordingly, the Corps decision whether to issue a permit will be limited to an evaluation of the impact of the proposed work on navigation, national security, and general public interest. Because of the nature and location of this project, the Corps does not have Clean Water Act Section 404 regulatory authority over the proposed activity. Comments should be mailed to:

U.S. Army Corps of Engineers, Los Angeles District
Regulatory Division, South Coast Branch
Attention: SPL-2014-00600-MBT
5900 La Place Court, Suite 100
Carlsbad, California 92008

Alternatively, comments can be sent electronically to: Melanie.B.Tymes@usace.army.mil

The mission of the Corps Regulatory Program under Section 10 of the Rivers and Harbors Act is to protect navigation and to ensure that activities regulated under Section 10 of the Rivers and Harbors Act of 1899 are not contrary to the public interest. The Corps evaluates permit applications for essentially all construction activities that occur in the Nation's waters, including wetlands. The Regulatory Program in the Los Angeles District is executed to protect aquatic resources by developing and implementing short- and long-term initiatives to improve regulatory products, processes, program transparency, and customer feedback considering current staffing levels and historical funding trends.

During the permit process, the Corps considers the views of other Federal, state and local agencies, interest groups, and the general public. The results of this careful public interest review are fair and equitable decisions that allow reasonable use of private property, infrastructure development, and growth of the economy, while offsetting the authorized impacts to the navigation and waters of the U.S. The permit review process serves to first avoid and then minimize adverse effects of projects on aquatic resources to the maximum practicable extent. Any remaining unavoidable adverse impacts to the aquatic environment are offset by compensatory mitigation requirements, which may include restoration, enhancement, establishment, and/or preservation of aquatic ecosystem system functions and services.

Evaluation Factors

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof. Factors that will be considered include conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water

supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people.

The Corps is soliciting comments from the public; Federal, state, and local agencies and officials; Indian tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act (NEPA). Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Preliminary Review of Selected Factors

EIS Determination- This public notice is being issued to determine potential impacts of the proposed project and whether an EA or an EIS will be prepared in accordance with the National Environmental Policy Act (NEPA) process. The resulting NEPA document will assess the impacts of various alternatives as set forth below and further identified during the permitting process.

Water Quality- The applicant is required to obtain a permit, under Section 402 of the Clean Water Act, from the Environmental Protection Agency (EPA). EPA will determine the level of NEPA compliance necessary for their permit action.

Coastal Zone Management- For those projects in or affecting the coastal zone, the Federal Coastal Zone Management Act requires that prior to issuing the Corps authorization for the project, the applicant must obtain concurrence from the California Coastal Commission that the project is consistent with the State's Coastal Zone Management Plan. The applicant has provided project materials to the California Coastal Commission for consistency review.

Essential Fish Habitat- Preliminary determinations indicate that the proposed activity would not interfere with essential fish habitat. Bottom-profiling surveys of the area surrounding the RCF-SAP site suggest that much of the immediate area consists of soft-bottom substrate, and that the nearest hard substrate features are located more than 1,600 m from the project site. Benthic assemblages on the coastal shelf off San Diego, where the RCF-SAP site is located, typically vary with sediment particle size and/or along depth gradients. Grain size generally decreases with increasing distance from shore, changing from medium sands to silts and clays, which in turn provide different habitat advantages to the various benthic species that inhabit them.

Cultural Resources- The latest version of the National Register of Historic Places has been consulted and this site is not listed. This review constitutes the extent of cultural resources investigations by the District Engineer, and he is otherwise unaware of the presence of such resources.

Endangered Species- Preliminary determinations indicate that the proposed activity would not affect federally-listed endangered or threatened species, or their critical habitat. Therefore, formal consultation under Section 7 of the Endangered Species Act does not appear to be required at this time.

Marine Mammal Protection Act - The applicant shall abide by the regulations set forth in the U.S. Marine Mammal Protection Act as well as document and report any interactions with wildlife, to the appropriate state and federal agencies.

Public Hearing- Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearing shall state with particularity the reasons for holding a public hearing.

Proposed Activity for Which a Permit is Required

Project Purpose- The project purpose is to establish and operate a commercial-scale fish farm off the San Diego, CA coast. The proposed project will apply a scaled or phased approach to develop a fish farm in the US Exclusive Economic Zone (EEZ) offshore of southern California to produce a maximum of 5,000 metric tons (MT) per year of yellowtail jack, white seabass or striped bass to be sold in the United States. The fish will be produced in sea cages that will be located 4.5 miles (7.2 kilometers) from the San Diego shoreline. Yellowtail jack has been chosen as the initial species as cultured juveniles are readily available from HSWRI hatcheries. The site will also be permitted for white seabass and striped bass which will be interchangeable with yellowtail jack when the project has become operational and depending on availability of juveniles and permit conditions. The project is phased to scale up incrementally with a steady state of production from approximately eight years and beyond. Initially the farm will be stocked to produce up to 1,000 to 1,500 MT of product at peak harvestable biomass. The farm will operate in this capacity while all aspects of production are closely monitored and documented. Demonstrating the efficacy of the venture at the initial scale of production will ensure that all the proper safeguards are in place before scaling up further. Initially, recently developed submersible cages will be deployed, but the farm will have the capacity to test new containment systems as they are developed over time.

Additional Project Information

Proposed Mitigation and Proposed Special Conditions – The proposed mitigation and special conditions may change as a result of comments received in response to this public notice or the applicant's response to those comments. In consideration of the above, the applicant's proposed mitigation sequence (avoidance/minimization/compensation), is summarized below.

Marine Water and Sediment Quality

Impact No. 1. Organic particulates discharged during aquaculture activities may locally degrade marine water quality.

Mitigation Measure. Conduct a receiving-water monitoring program capable of delineating the extent of the discharge plume emanating from the net pens.

Impact No. 2. Deposition of excess feed, fecal matter, and fish excretions may adversely impact seafloor sediments.

Mitigation Measure. Conduct a benthic impact assessment capable of detecting project-related changes to seafloor chemistry and benthic infaunal communities. If significant adverse effects on benthic quality are observed (as defined below), abatement measures will be instituted to reduce impacts to benthic sediments and communities.

Mitigation Measure. Model the nutrient (both dissolved and particulate wastes) dispersion around the net pens.

Mitigation Measure. Identify and implement all practicable net pen management practices to reduce excess nutrient discharges to the marine environment.

Impact No. 3. Antibiotics and other therapeutic chemicals released into the marine environment may adversely affect water and sediment quality.

Mitigation Measure. Use of chemicals should be minimized by practicing preventive medicine, adopting biological controls, and adopting optimal/best aquaculture management practices.

Marine Biological Resources

Impact No. 1. Hard-bottom habitat, located within 1,600 m of project site and the fish pens, may potentially be impacted by the 3000kg anchors and associated anchor chains that will be used to moor the fish cage grids.

Mitigation Measure: Anchor contact with hard-bottom structures in the project area shall be avoided. If hard substrate is encountered, the mooring grids and anchors will be re-sited to avoid it. After initial installation of the fish pens, inspections shall be conducted on an annual basis and after major storms to verify that anchors have not migrated, or come into contact with hard-bottom structures. Anchors shall be repositioned if they contact or are in close proximity to hard-bottom features.

Impact No. 2. Wildlife may become entangled in the fish-pen nets.

Mitigation Measure: The applicant shall implement specific measures to minimize harmful interactions with wildlife (e.g., marine mammals, birds, fish and turtles). A specific goal is to avoid entanglement of marine birds, mammals, turtles, and predator fish species in the various nets that will be utilized at the RCF-SAP. As proposed by the applicant, the use of physical predator deterrence methods, such as anti-predator netting and locating the farm away from known seal and sea lion haul-out areas will be implemented. A description of the nets to be used and their placement are described in detail in section 2.3 of this report. The applicant shall consult further with the appropriate state and federal agencies regarding net mesh sizes that will be used for the fish pens, in order to minimize potential entanglement of marine wildlife. The applicant shall consider the recommendations for preventing harmful interactions with marine mammals issued by the Environmental Assessment Office, Government of Canada, as they apply to the current industry rules and regulations in the U.S. (e.g.-only physical deterrence methods, guarding, and proper storage of materials that may attract predators are allowed in the U.S. net pen aquaculture industry). The applicant shall abide by the regulations set forth in the U.S. Marine Mammal Protection Act as well as document and report any interactions with wildlife, to the appropriate state and federal agencies.

Impact No. 3. The deposition of uneaten fish food and fish feces on the seafloor may potentially alter the benthic community in the proposed project area.

Mitigation Measure: As required by the EPA as part of the NPDES permit process, a benthic monitoring program shall be initiated at the project site that is subject to review and approval by the EPA. The applicant has proposed a benthic monitoring program that includes monitoring of the health and community composition of benthic epi- and infaunal communities in addition to various physical and physiochemical measures. The proposed monitoring program incorporates adequate reference

sites and satisfies BACI criteria. Additional information regarding the design of the monitoring program is provided in Section 4.1, Marine Water Quality, Mitigation Measure No. 2.

Impact No. 4. Cultured fish may escape from containment, impacting the genetic integrity of wild populations.

Mitigation Measure: As part of the project's best management practices, the applicant will develop and implement a comprehensive loss-control plan. At minimum, the plan will include: equipment standards, equipment installation protocols, preventative maintenance plans, integrated predator deterrence plans, and a containment management system that includes documentation of management actions and external audits. Plans should allow for continuous improvement and revisions as more innovations in farming methods and technology become available.

Impact No. 5. The pathogens or diseases associated with the cultured species may be transferred to wild fish stocks or to the fish community residing in the project area.

Mitigation Measure: A comprehensive health management program consisting of the early detection of infectious agents, monitoring of environmental conditions, good husbandry practices, good nutrition, and disease control and eradication, as proposed by the applicant, shall be implemented (See Appendix III). Disease identification, control and reporting practices shall be conducted in accordance with applicable state or federal regulatory criteria (See Section 2.7). Under this plan, disease outbreaks will be minimized. When an outbreak does occur, it will be detected quickly and controlled as rapidly as possible.

Impact No. 6. Increased vessel traffic resulting from the proposed project may impact marine mammals and sea turtles.

Mitigation Measure: Vessel operators shall be trained to recognize and avoid marine mammals and turtles during their transits to and from the project site and during their operations at the project site. Once trained, vessel operators shall be re-trained on an annual basis. At a minimum, vessel operators shall implement the following procedures should marine mammals be encountered at sea.

- Support vessels shall make every effort to maintain a distance of >1,000 feet from sighted whales and other endangered or threatened marine mammals and sea turtles.
- Support vessels will not cross directly in front of migrating whales.
- When paralleling whales, support vessels will operate at a constant speed that is not faster than the whales' speed.
- Female whales will not be separated from their calves.
- Support vessels will not be used to herd or drive whales or other marine life.
- If a whale engages in evasive or defensive action, support vessels would drop back until the animal calms or moves out of the area.
- Collisions or with marine wildlife shall be reported promptly to the federal and State agencies listed below pursuant to each agency's reporting procedures.

National Marine Fisheries Service
Justin Viezbicke, Stranding Coordinator, Southwest Region
501 West Ocean Boulevard, Suite 4200
Long Beach, CA 90802-4213
Phone: (562) 980-3230
Justin.Viezbicke@noaa.gov

California Department of Fish and Wildlife
3883 Ruffin Road
San Diego, CA 92123
(858) 467-4201

California State Lands Commission
Environmental Planning and Management Division
100 Howe Avenue, Suite 100 South
Sacramento CA 95825-8202
(916) 574-1900

Commercial and Recreational Fishing

Impact No. 1. The proposed project would result in adverse impacts to commercial fishing operations in the San Diego area.

Mitigation Measure: To the maximum extent possible, the fish cages shall be placed in the smallest footprint possible without compromising water or sediment quality. This placement would minimize the area potentially lost to commercial fishing operations.

Mitigation Measure: The mitigation measure regarding Avoidance of hard-bottom structures, Marine Biological Resources, Section 4.1.2, also applies to this impact.

Impact No. 2. The proposed project would result in adverse impacts to recreational fishing activities in the San Diego area.

Mitigation Measure: The two mitigation measures for impacts to commercial fishing (above) would also apply to recreational fishing impacts. No additional mitigation measures are proposed.

Marine Traffic

Impact No. 1. Vessels that transit through or operate in the project area can accidentally run into the project fish pens.

Mitigation Measure: Vessel operators shall be notified of the project and its location. A project announcement should be posted in the Notice to Mariners (USCG publication). The U.S. Department of Commerce, NOAA, shall also be notified so navigational charts can be updated to show the location and extent of the fish pens. Additionally, the fish pens shall be marked with lights and radar reflectors mounted onto surface buoys in accordance with USCG regulations (72 COLREGS and all amendments), and as determined by the issuance of the USCG Aids to Navigation Permit.

Mitigation Measure: Notices that describe and illustrate the net pen locations and markings shall be posted at the Harbor Patrol or Harbor Masters offices at the two regional harbors (San Diego and Mission Bay).

Mitigation Measure: Monitors at the project site will contact vessels or boaters by marine radio if they approach too close to the net pens. Boaters should be notified by the monitors of potential conflicts and hazards.

Impact No. 2. The frequency of vessel collisions in the project area will increase due to the increase in traffic from the supply vessels that will be used to support the proposed project.

Mitigation Measure: The Mitigation Measures for Impact No. 1 apply.

Marine Cultural Resources

Impact No. 1. While the project anchors are not expected to extend to the location of any known seafloor feature, unknown seafloor features could still be encountered.

Mitigation Measure: During the installation of anchors, seafloor features shall be avoided by a minimum distance of 100 meters. At no time shall any seafloor feature be allowed to lie between an anchor and the cages where the anchor chain could damage a potentially significant cultural resource.

Mitigation Measure: Should a previously unknown shipwreck of potential cultural resource value be discovered within the project area, the proposed project anchoring scheme shall be modified to avoid the potential cultural resource.

For additional information please call Melanie Tymes of my staff at 760-602-4841 or via e-mail at Melanie.B.Tymes@usace.army.mil. This public notice is issued by the Chief, Regulatory Division.



Regulatory Program Goals:

- To provide strong protection of the nation's aquatic environment, including wetlands.
- To ensure the Corps provides the regulated public with fair and reasonable decisions.
- To enhance the efficiency of the Corps' administration of its regulatory program.

U.S. ARMY CORPS OF ENGINEERS

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