



# PUBLIC NOTICE

U.S. ARMY CORPS OF ENGINEERS  
LOS ANGELES DISTRICT

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## APPLICATION FOR PERMIT Avalon Ocean Farm (Aquaculture)

**Public Notice/Application No.:** SPL-2020-00039-TS

**Project:** Avalon Ocean Farm

**Comment Period:** March 23 through April 23, 2020

**Project Manager:** Theresa Stevens, PhD; (805) 585-2146; [theresa.stevens@usace.army.mil](mailto:theresa.stevens@usace.army.mil)

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### **Applicant**

Thomas Grimm  
Avalon Aquafarms, Inc.  
PO Box 2600  
Carlsbad, California 92008

### **Contact**

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Avalon Aquafarms, Inc.  
PO Box 2600  
Carlsbad, California 92008

### **Location**

The project is located approximately 3.3 miles offshore in federal waters in the Pacific Ocean on the San Pedro shelf near the city of Huntington Beach, Orange County, CA (at approximate latitude: 33.629323, longitude -118.066329). See map exhibit for additional coordinate information.

### **Activity**

To install anchors, submerged long-lines, surface and subsurface buoys, and growing media (grow ropes, lantern nets) within two approximately 1,000 acre subsurface areas (2,000 acres total) to grow shellfish and kelp species for the purpose of commercial aquaculture (see attached drawings). For more information see Additional Project Information section below.

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Interested parties are hereby notified an application has been received for a Department of the Army permit for the activity described herein and shown on the attached drawing(s). We invite you to review today's public notice and provide views on the proposed work. By providing substantive, site-specific comments to the 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. Comments should be mailed to:

DEPARTMENT OF THE ARMY  
LOS ANGELES DISTRICT, U.S. ARMY CORPS OF ENGINEERS  
REGULATORY DIVISION  
ATTN: Theresa Stevens, PhD  
60 SOUTH CALIFORNIA STREET, SUITE 201  
VENTURA, CALIFORNIA 93001-2598

Alternatively, comments can be sent electronically to: [theresa.stevens@usace.army.mil](mailto:theresa.stevens@usace.army.mil)

The mission of the U.S. Army Corps of Engineers Regulatory Program is to protect the Nation's aquatic resources, while allowing reasonable development through fair, flexible and balanced permit decisions. 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.

Corps permits are necessary for any work, including construction and dredging, in the Nation's navigable water and their tributary waters. The Corps balances the reasonably foreseeable benefits and detriments of proposed projects, and makes permit decisions that recognize the essential values of the Nation's aquatic ecosystems to the general public, as well as the property rights of private citizens who want to use their land. The Corps strives to make its permit decisions in a timely manner that minimizes impacts to the regulated public.

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 waters of the United States. 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. In addition, if the proposal would discharge dredged or fill material, the evaluation of the activity will include application of the EPA Guidelines (40 CFR Part 230) as required by Section 404 (b)(1) of the Clean Water Act.

The Corps of Engineers 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 of Engineers 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. 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**- A determination has not been made as to the requirement for an environmental impact statement (EIS) for the proposed structures.

**Water Quality**- Due to the project location in federal waters (more than three miles from the shoreline) the applicant is not required to obtain a section 401 water quality certification from the California Regional Water Quality Control Board.

**Coastal Zone Management**- The applicant shall certify the proposed activity would comply with and would be conducted in a manner consistent with the approved State Coastal Zone Management Program or obtain a waiver. 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 the project is consistent with the State's Coastal Zone Management Plan. The District Engineer hereby requests the California Coastal Commission's concurrence or non-concurrence.

**Essential Fish Habitat**- The Corps of Engineers preliminary determination indicates the proposed activity may adversely affect EFH. Pursuant to Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), the Los Angeles District will initiate EFH consultation for the proposed project under separate cover. However, for the purpose of this public notice and to comply with the Magnuson-Stevens Fishery Conservation and Management Act (MSA), pursuant to 50 CFR 600.920(e)(3), I am providing, enclosing, or otherwise identifying the following information:

1. Description of the proposed action: see project description on pages 4-5 below of this public notice.
2. On-site inspection information: see baseline information on page 4 of this public notice.
3. Analysis of the potential adverse effects on EFH: The proposed project has the potential to adversely affect EFH as well as managed fishery species identified in the Coastal Pelagic, Pacific Groundfish and Highly Migratory Species Fishery Management Plans. Construction of the project would introduce structures, noise and ongoing disturbances (once operational) into the benthic and pelagic marine environments. The proposed project has the potential to create shell debris that would drop to the sea floor and potentially accumulate over time. Accumulations of shell debris has the potential to reduce dissolved oxygen on the sea floor and affect burrowing and other bottom-dwelling marine species. The proposed lines/structures have the potential to attract non-native organisms or invasive species, such as tunicates and other encrusting species. The proposed project has the potential to attract pelagic fish which may feed on the kelp or shellfish; this is not considered an adverse impact.
4. Proposed minimization, conservation, or mitigation measures: None.
5. Conclusions regarding effects of the proposed project on EFH: Therefore, it is my initial determination the proposed activity may adversely affect **but would not** have a substantial adverse impact on EFH or federally managed fisheries in California waters. My final determination relative to project impacts and the need for mitigation measures is subject to review by and consultation with the National Marine Fisheries Services (NMFS).

**Endangered Species-** Preliminary determinations indicate the proposed activity may affect but is not likely to adversely affect federally-listed endangered or threatened species, or their critical habitat including federally-listed marine mammals, and the endangered green sea turtle (*Chelonia mydas*). Therefore, consultation with the NMFS under Section 7 of the Endangered Species Act appears to be required at this time and will occur under separate cover.

**Marine Mammals-** Preliminary determinations indicate the proposed activity may affect federally-protected marine mammal species, including seals, sea lions, whales, and dolphins. Therefore, consultation with NMFS under the Marine Mammal Protection Act appears to be required at this time and will occur under separate cover.

**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.

**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**

**Basic Project Purpose-** The basic project purpose comprises the fundamental, essential, or irreducible purpose of the proposed project, and is used by the Corps to determine whether the applicant's project is water dependent (i.e., requires access or proximity to or siting within the special aquatic site to fulfill its basic purpose). Establishment of the basic project purpose is necessary only when the proposed activity would discharge dredged or fill material into a special aquatic site (e.g., wetlands, pool and riffle complex, mudflats, coral reefs). Because no fills are proposed within special aquatic sites, identification of the basic project purpose is not necessary. However, for the purpose of disclosure, the basic project purpose is aquaculture.

**Overall Project Purpose-** The overall project purpose serves as the basis for the Corps' 404(b)(1) alternatives analysis and is determined by further defining the basic project purpose in a manner that more specifically describes the applicant's goals for the project, and which allows a reasonable range of alternatives to be analyzed. The project does not propose any discharge of dredged or fill material, therefore section 404 of the Clean Water Act is not applicable. However, for the purpose of disclosure, the overall project purpose is aquaculture.

### **Additional Project Information**

**Baseline information-** The project sites are located in approximately 90-130-foot-deep water and would be constructed over sandy soft-bottom habitat which appears to lack naturally occurring reefs, kelp beds, eelgrass, seagrass, or other habitat areas of particular concern. Currently, there is an existing approximately 100 acre commercial shellfish growing plot on the San Pedro shelf near the proposed project locations.

The project site does not appear to conflict with national security (e.g., offshore military uses or training areas), commercial shipping lanes, oil and gas leases, or marine protected areas. Additional information on commercial fisheries operating in the project area is requested from the public.

Project description- The applicant proposes to construct two 1,000 acre plots (total area proposed 2,000 acres) consisting of multiple submerged long-lines on which shellfish and kelp would be grown. The location and orientation of each 1,000 acre plot is shown in the attached exhibits. There would be 10 100-acre sub-plots within each 1,000 acre plot area.

Thirty-five long-lines would be installed in each 100-acre sub-plot; therefore 350 long-lines would be installed in each 1,000 acre plot, and a total of 700 long-lines is proposed for the entire project. Each long-line would consist of a 210-meter-long backbone (growing area), and a 75-meter-long diagonal anchor line extending to a helical screw anchor. Each end of a long-line would be anchored by a single helical screw anchor which would be drilled into the seafloor. Each screw anchor would be approximately 11.5-feet-long and disturb an approximately 0.1-square-meter area of the seafloor during installation. Each screw anchor would be installed with GIS/GPS navigation to ensure adequate spacing between each long-line. Each backbone portion of a long-line would be held approximately 20 feet below the water surface by a series of small sub-surface ball buoys. At the surface, each long-line would be marked with a series of larger surface barrel-type buoys to hold up the backbone. Growing lines would be looped over each backbone, and lantern nets would be secured to the backbone by detachable gear. Nothing would be grown from the diagonal anchor lines. Each long-line would be approximately 30 meters from the next adjacent line in a sub-plot. Each sub-plot would be approximately 25 meters from the next sub-plot. There would be a 10-meter buffer between each screw anchor and the edge of a sub-plot. The applicant indicates construction/installation activities on each 1,000 acre plot would take 45 days to complete, for a total of 90 days of construction activity. However, the applicant proposes to only install the second 1,000 acre plot after agency approval and demonstration of success with the first 1,000 acre plot.

The applicant proposes to grow the following native shellfish and algal species: California mussels (*Mytilus californianus*), giant purple-hinged rock scallop (*Crassadoma gigantean*), Pacific calico scallop (*Argopecten ventricosus*), red ogo (*Gracilaria pacifica*) and dulse (*Palmaria mollis*). These species would be grown on the backbone (algae), grow ropes (mussels, calico scallops), or suspended lantern nets (rock scallops). The applicant proposes to obtain shellfish spat and algal spores from the Carlsbad Aquafarm (a CDFW-certified grower and source); if additional sources are needed the applicant proposes to obtain spat and spores only from other CDFW-certified sources.

For navigation safety, the site would be marked on the surface by U.S. Coast Guard approved private aids to navigation (PATON). The Corps would require each 1,000-acre plot is mapped by NOAA Fisheries on its marine charts.

Shellfish and kelp products would be harvested at the project site using a specialized boat and returned to the Port of Los Angeles (Alta Sea, Berths 57-60, 2456 Signal Street, San Pedro, CA) for additional processing, packaging, and distribution.

The applicant will be required to develop and implement the following: a maintenance, monitoring and training plan, a debris management plan, a spill prevention and control plan, a gear marking and recovery plan, an invasive species monitoring plan, a marine species entanglement response plan, a structural failure preparedness and response plan, and a decommissioning plan.

The applicant has indicated engineered drawings would be prepared and submitted at a later date. To this end, the Corps will require an analysis of the structural integrity of the proposed design over a range of ocean conditions on the San Pedro shelf.

Proposed Mitigation– No compensatory mitigation has been proposed by the applicant. Mitigation may be required as a result of comments received in response to this public notice, the applicant's response to those comments, and/or the need for the project to comply with the Corps regulatory program.

**Proposed Special Conditions**

Special conditions will likely be required as a result of comments received in response to this public notice, the applicant's response to those comments, and/or the need for the project to comply with the Corps regulatory program.

For additional information please call Theresa Stevens, PhD of my staff at (805) 585-2146 or via e-mail at [theresa.stevens@usace.army.mil](mailto:theresa.stevens@usace.army.mil). This public notice is issued by the Chief, Regulatory Division.

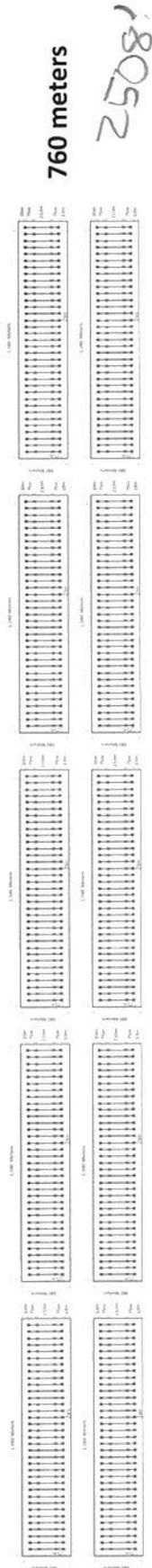


*Regulatory Program Goals:*

- 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.

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**DEPARTMENT OF THE ARMY**  
**LOS ANGELES DISTRICT, U.S. ARMY CORPS OF ENGINEERS**  
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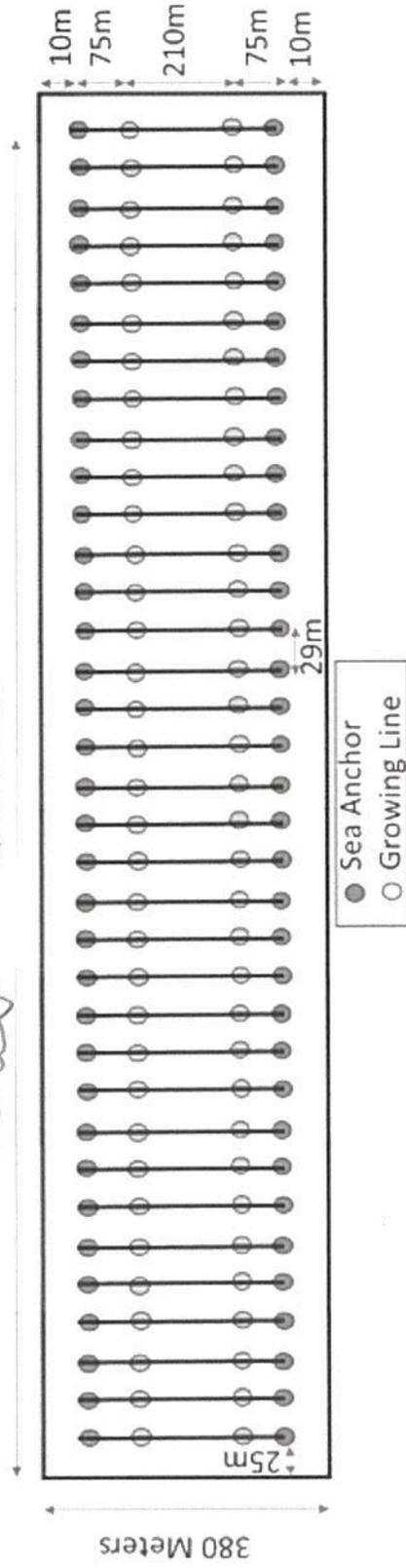
5,200 meters 17160'

**Figure Plot:** One Plot consisting of 10 Sub-plots. Approximately 5,200-meter by 760-meter Plot, totaling approximately 3,952,000 square meters (976 acres). The calculation includes 50-meter spacing around the sub-plot and in between longline rows.

98.8  
acres

100 Acre Sub-Plot 3432'

1,040 Meters



1254'

### Single Line Cross Section

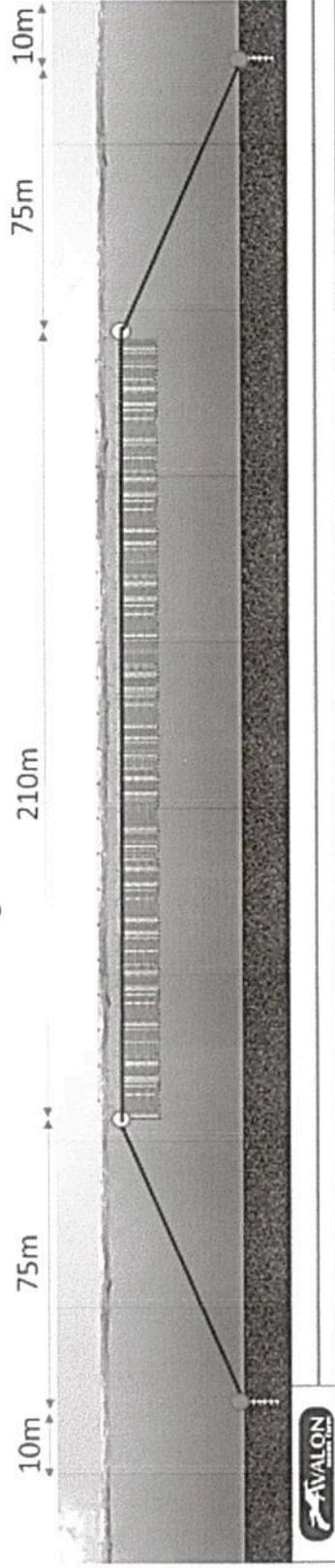
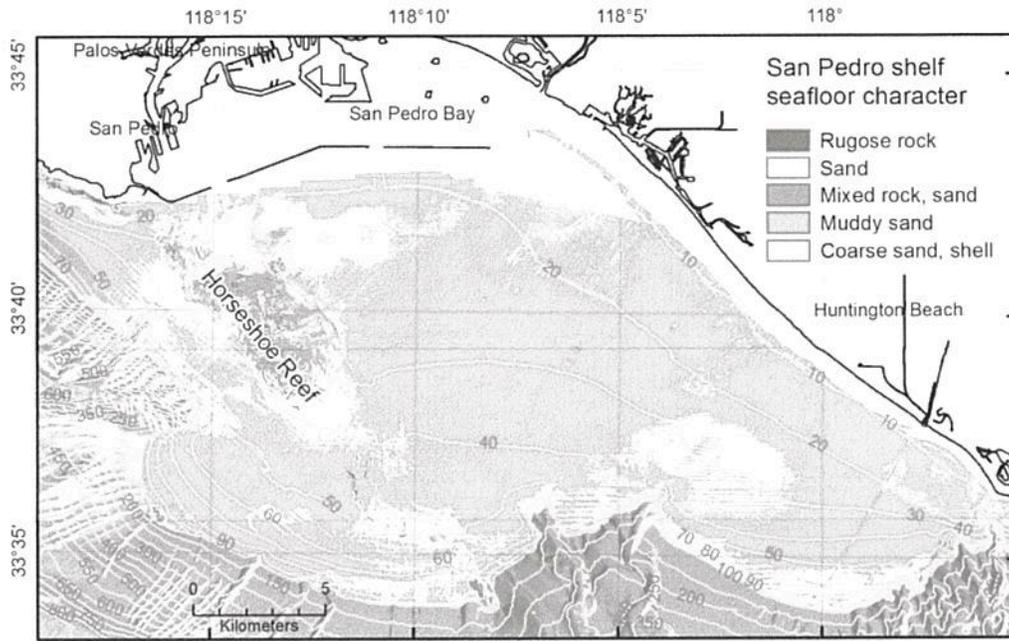


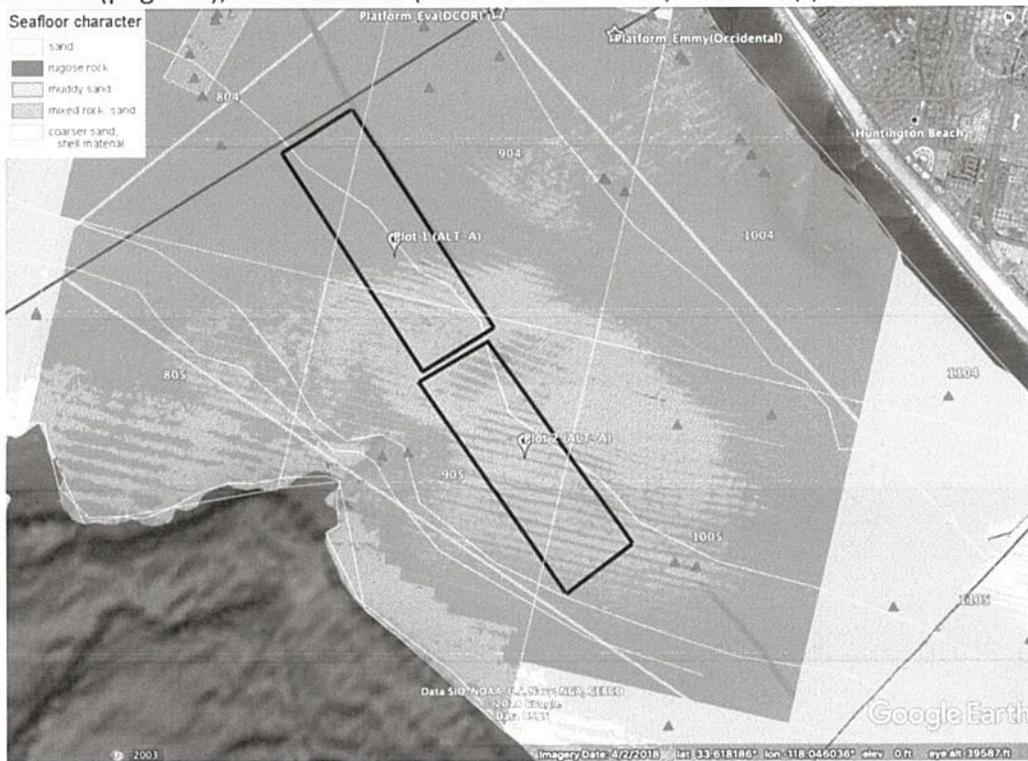
Figure SubPlot: Top-down view of one 100-acre Sub-plot with 35 longlines within.



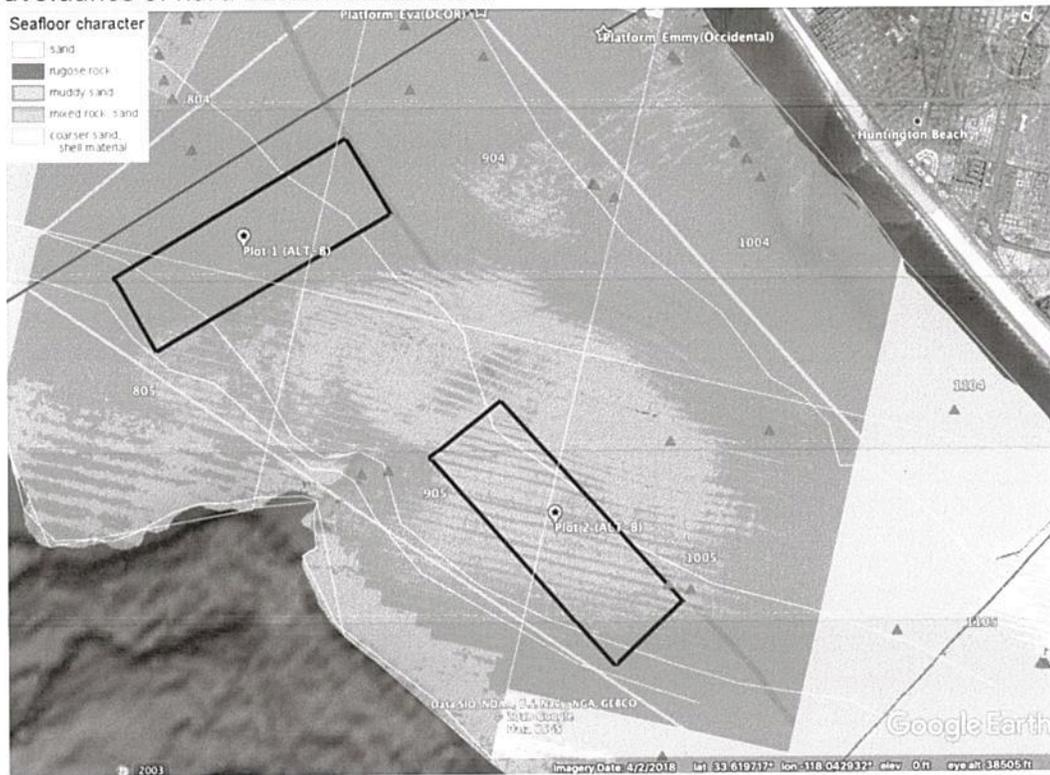
Figure: Project plots (Plot 1 & Plot 2) relative to two Restricted Areas and one Danger Zone (yellow polygons).



Fourth (page 14), Alternative A (Parallel Plots 1 & 2) were mapped:



Lastly (page 15), Alternative B (L-shaped Plots 1 & 2) were mapped for maximum avoidance of hard bottom substrates:



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